

# 100 Ideas for Active Learning





# 100 Ideas for Active Learning

*ACTIVE LEARNING NETWORK*

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What an amazing team effort. Please enjoy the book!



# Introduction

ISOBEL GOWERS; PAOLO OPRANDI; AND TAB BETTS

## What is this book?

This is a practical handbook which intends to inspire innovative teaching and provide support for readers seeking to apply active learning tools and strategies in a variety of teaching and learning contexts. Although many of the contributing authors work in higher education, this is not intended to be a traditional academic publication, but more of a practical reference book which could be used to inform the design of adult learning in any context (e.g. higher education, further education, work-based learning and development, etc), but also in other phases of education (e.g. secondary, primary, etc).

## Aim of the book

The aim of this book is to provide a resource for making active learning approaches to teaching, learning and assessment more prevalent in higher education. The chapters of this book emphasise the importance of active learning activities for creating deep and meaningful learning. This stems from the notion that effective learning happens in situated contexts, which combine physical, mental, emotional and social processes. The learning activities we expect our students to engage in should consider all those domains and use them to deepen learning further.

The chapters in this book express a passion for education and its potential to improve the lives of those involved in it. The ideas build from the premise that education can empower learners, allow

them to reach their potential despite their personal circumstances and can be “linked up with projects such as democracy, solidarity, inclusion, tolerance, social justice and peace” (Biesta & Säfström, 2011, p. 540). But the book also recognises that current models of education need to make radical changes to deliver this, starting with developing a curriculum that supports active approaches to learning. The chapters in this volume provide a plethora of ideas for educators wanting to take active learning approaches in their own teaching and learning practice.

This book represents the perspectives of many people from across the global learning community. In the following chapters, we share our experience of applying active learning to practical situations and offer ideas to educators to adapt these for their own contexts, whether they are teachers, lecturers, academic developers, learning technologists or education managers. We would like to see the ideas discussed, evaluated and applied throughout diverse international institutions and across disciplines. The intention of this publication is to make the ideas and approaches to active learning as easy as possible for educators to apply within their own contexts and in their own practices.

## How to use the book

This book is intended to be a choose-your-own-adventure. It functions as a reference resource, so there is no need to read it cover to cover, but feel free to go from start to finish if you prefer; the choice is yours. The intention is that you can dip in and out of the chapters to find an idea to meet your needs. For that reason, a structure of themes was developed to help you find chapters relevant to your specific requirements. However, as with so much of active learning, the ideas in this book do not fit neatly into sections or headings and often overlap or span a number of themes, so you might want to take a look at a few different sections of the book

when looking for ideas. One of the strengths of the book is that each idea is short and succinct, so they are quick and easy to read. Each chapter aims to provide inspiration for how the idea can be adapted for different contexts, but these are only suggestions and most of the ideas could be a spark or a starting point to generate new ideas for active learning in your own context.

It is also worth noting that this is a practical handbook, rather than a strictly academic publication. Authors have tried to provide relevant research to support their idea, but the ideas themselves may not have been subjected to rigorous testing or longitudinal studies of effectiveness. They are meant as tools to add to your teaching and learning tool box.

## What is active learning?

When describing active learning we tend to refer back to Chickering and Gamson (1987). Putting it succinctly, they claim,

Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves. (p. 3)

So how do we do it? Good practice active learning strategies aim to engage students in a series of activities which require them to produce observable evidence of their learning. Where possible, these individual, pair and group tasks aim to develop higher order thinking skills, emotional connection with content and tactile or physical engagement with the environment. Importantly, active learning is not a singular event. At its very least it requires the provision of a framework for understanding something, a problem task in which they could use that framework and an opportunity for

reflection on the process. In this way the tasks become memorable and meaningful experiences through which students can relate the knowledge to and have a personal connection with them.

So does it work? Assessing the efficacy of different teaching strategies is challenging, therefore much of the evidence for the effectiveness of active learning is theoretical or anecdotal. However, although with some limitations, there is a growing evidence base for the effectiveness of active learning (Deslauriers et al., 2019; Freeman et al., 2014) and in particular how active learning can narrow the attainment gap for underrepresented groups (Ballen et al., 2017; Theobald et al., 2020). These studies often use assessment outcomes as their quantifier but success of active learning goes beyond content material. Indeed when you dig deeper and look at specific types of active learning, for instance if you look at team based learning, improvements in the development of communication skills, interprofessional learning and self-directed learning have been documented (Alberti et al., 2021) as just one example of skills development. Some of these skills are not directly assessed on courses but provide important graduate competencies for future employment. You will find many of the ideas within this book are recommended because they enhance a range of skills and not just subject specific knowledge.

## What is the Active Learning Network?

The Active Learning Network is a global community for revolutionising learning. The network is a collaborative, community-led initiative for academics, educational developers, learning technologists and students, with satellite groups at universities around the world. It is a community that aims to provide a collaborative platform to share ideas, produce openly available resources, showcase active learning projects, pedagogic

scholarship/research and international discussions around active learning.

The network's approach is distinctive because it aims to challenge and disrupt existing paradigms in HE and operates in the spirit of sharing and open education. This provides an antidote to top-down, siloed approaches prevalent in HE and means that those involved in learning and teaching can benefit from reciprocal sharing of practice, rather than having to constantly reinvent the wheel and fight isolated struggles for change in their own institutions.

Since 2017, the network has grown from a small group at one university, to a large-scale network with 363 members, 30 satellite groups (including groups from the UK, Greece, Germany, Ireland, Romania, India, China, and Cambodia), a website with engagement from over 100 countries, 5 annual conferences with a combined 920 attendees, sponsorship from companies such as Sony, Sage, Talis and InteDashboard, the world's first Global Festival of Active Learning, with 1852 sign-ups, 20 online masterclasses with a combined 1053 attendees, multiple award-winning projects, such as The Padlet Project, which was published as an HEA Case Study (Garnham, Betts & Hole, 2018) and in the Compass Journal of Learning and Teaching (Garnham & Betts, 2018), three collaboratively-produced open access books, including this volume, *Disrupting Traditional Pedagogy: Active Learning in Practice* (Active Learning Network, 2019) and *Innovations in Active Learning in Higher Education* (Active Learning Network, 2020).

This sharing of scholarship and innovative learning practices has a huge impact, because all staff and students create bilateral communication channels between the wider network and their local networks where they pass the learning forward.

## Where did the idea from the book come from?

This book started, like many great books throughout history, in a festival moshpit.

In 2021, when the global pandemic had forced the cancellation of all face-to-face events, the Active Learning Network (ALN) wanted to bring a bit of joy and connection into what were very difficult times. Many people had had their holidays, parties, festivals and other celebrations cancelled, as well as facing an array of other challenges. In response to this, we wanted to provide an opportunity for the teaching and learning community to have fun and celebrate what makes inclusive, participatory, collaborative learning so great, whilst also demonstrating creative solutions for developing active learning practice.

To this end, we decided to create the world's first Online Global Festival of Active Learning. Rather than a traditional conference, we modelled the event on famous music festivals, such as Glastonbury Festival, with tents (instead of online meetings), fun collaborative activities (instead of conference presentations) and asynchronous crowdsourced resources (instead of the festival moshpit). The book was one of the resources which was created from these metaphorical 'moshpit' activities.

For something that turned out to be a very large-scale collaboration, the book started in a surprisingly spontaneous way. We set up a Google Document and invited people to share an idea for active learning in 100 words or less, which would later be developed into a chapter. Initially, it was just meant as a light-hearted opportunity to share practice. We thought that we might get 20-30 ideas, which would be a useful resource to share with colleagues. Much to our surprise, we ended up with over 100 chapters of 500-1000 words each and one of the most ambitious collaborative publishing projects that any of us had ever attempted.

## Structure of the book

The book is divided into six main themes: Theory and Curriculum Design; Inclusive Communities; Transferable Skills; Assessment and Feedback; Teaching Strategies; and Digitally Enhanced Learning.

The first theme, Theory and Curriculum Design, challenges us to radically redesign our curriculum to embed active learning deep within our disciplines and within our institutions. It includes overarching institutional, programme-based and modular strategies for active learning. Within the theme there are ideas about how you should approach active learning strategies and how it can, and has, been adopted at a large scale.

The second theme, Inclusive Communities, recognises the importance of active learning to ensure inclusivity in teaching and assessment. The theme explores ideas around developing inclusive practice, building communities, empowering learners, promoting wellbeing and developing peer learning. None of these ideas are mutually exclusive. Building a sense of community and trust in one's peers will enable students to learn from each other and feel supported both within and outside class.

The third theme, Transferable Skills, recognises the many elements of active learning that are transferable. Active learning often includes tasks that require the students to practise skills which we use outside of the educational setting and hence they are transferable to other contexts. Past experience tells us many students that graduate this year will end up doing a job that does not currently exist during their working lives. Even jobs that do exist now will look radically different in thirty years time. Therefore developing transferable skills can be more useful to students than the educational-based skills they are learning.

The fourth theme is Assessment and Feedback. For many teaching staff, there is deep frustration that students are strategic in their approach to assessment. Their focus is getting the best grade and they rarely consider the learning that is coming from assessment.

Active learning provides an opportunity to change this narrative through the use of active assessments that align our learning objectives for the students with their strategic endeavours to get better grades. This theme includes ideas to aid the introduction of active learning assessments.

The fifth theme is Teaching Strategies. Active learning is effective because it requires students to engage in thought processes, think about concepts in different contexts and be metacognitive with their own learning progress. If the right teaching strategies are used, active learning does not just introduce content knowledge but a wide range of skills preparing students to be resilient and persistent in their future careers. A wide range of active learning teaching strategy ideas are put forward here before focusing on playful learning strategies and co-creation.

The sixth and final theme is Digitally Enhanced Learning. Much of what we create and do is digital and many of our outputs manifest themselves in the digital rather than physical world. The chapters in this section introduce active learning tasks that specifically use digital technologies as an active environment for the collaborative production of knowledge.

## Dive in and start playing with the ideas

We hope that you have fun playing with the ideas in this book and find the process of engaging with it as useful as we have found the process of creating it. Feel free to dive in at any point which takes your interest or randomly select a chapter to begin your adventure. If any aspect of this book inspires new ideas or serves as a catalyst for positive changes to your practice, or if you would like to get involved in the network or set up and lead your own local satellite group, please get in touch by sending us an email to [activelearningnetwork@gmail.com](mailto:activelearningnetwork@gmail.com), contacting @ActiveLearnNTW



with the hashtag #activelearningnetwork on Twitter, or by visiting our website at [www.activelearningnetwork.com](http://www.activelearningnetwork.com).

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# Active Learning Manifesto

DR ANDREW MIDDLETON

## Universities as sites of agency

**We:**

- **Advocate** for an active curriculum as a place of inquiry and co-production
- **Create** experiences designed to accommodate the interests of each of our students
- **Thrive** in a culture of collaborative and scholarly enhancement
- **Inspire** our students and our teachers through our commitment to active pedagogies
- **Value** risks that must be taken and the trust that must be fostered for innovative thinking to excite us
- **Embrace** challenging times and uncertain futures to create a curriculum constructed around authentic learning challenges

## Academic agency: Inspired Academics

**I:**

- **Inspire, challenge, stretch and welcome** each of my students
- **Nurture** compassion, empathy, resilience, and emotional intelligence to ward against isolation and alienation
- **Situate** knowledge in an ethos of risk taking and innovation
- **Personalise** communal acts of learning by fostering curiosity, creativity and critical thinking
- **Imagine and design** situations in which knowledge is co-

created

- **Recognise** the value of each student as a contributor to the whole
- **Embody** authenticity by creating space for my students to negotiate, navigate, enact, and reflect on their learning
- **Design** a place for each of my students to discover their future

## Student agency: Students Become!

### Students

- **Become** your future self! Don't wait! Enact your learning!
- **Explore** your knowledge by actively developing your imagination and critical faculty
- **Contribute, co-operate and collaborate** to learn amongst peers to push your possibilities!
- **Open yourself** to opportunities by taking a lead and supporting others as you redefine your boundaries together
- **Make** discovery your mission by interrogating knowledge, experimenting to uncover and defend truth!
- **Embody** your learning! Connect your learning to the world around you

## Global agency: We believe learning comes from the heart

- **Harnessing** authentic challenges to stimulate our students
- **Engaging** our students as explorers and co-creators of knowledge
- **Activating** learning networks that connect people, ideas, and knowledge to real world problems, challenges and practices

- **Reflecting** together on successes and failures to co-create insight
- **Tackling** uncertain futures and solving global challenges

## Introduction

The Active Learning Manifesto comes from contributions made by over 300 participants at the 4<sup>th</sup> Active Learning Conference on 21st July 2021. Anglia Ruskin University hosted the online conference in association with the Active Learning Network. Themed around *All together – Active Inclusive Learning*, delegates had worked together during the day across a programme composed of 29 workshops and papers.

A selection of statements directly quoted from the original activity



Universities	Academics
<ul style="list-style-type: none"> <li>• Risk taking is essential for progress – support your staff in taking risks; if they fear blame, they will not innovate</li> <li>• Remember our purpose – providing a GOOD educational experience for our students</li> <li>• Trust your academics to innovate</li> <li>• welcome space for innovation</li> <li>• Don't just do what everyone else is doing. That's boring</li> <li>• Do not be afraid to re-invent assessment. Authentic assessment need not be difficult to mark</li> <li>• Look ahead to the needs of the future</li> <li>• Give your staff more time to explore more innovative teaching and learning approaches</li> <li>• Knowledge on how we learn is constantly changing so we need to constantly change how we teach</li> </ul>	<ul style="list-style-type: none"> <li>• Make it fun for you too</li> <li>• Learn from your students as much as they hope to learn from you</li> <li>• Find time to laugh</li> <li>• Be brave</li> <li>• Don't be afraid to try something new, even if it's something small</li> <li>• Active learning is not about lowering standards</li> <li>• listen to [student] voices</li> <li>• We need to treat staff and students as people – not just receptacles / delivery mechanisms for knowledge</li> <li>• Be brave and enable a community that allows for recovery from failure</li> <li>• Normalise failure and see it as a learning experience.</li> <li>• Active Learning Strategies are highly resilient, they are effective in face to face and virtual environments</li> </ul>

Students	The World!
<ul style="list-style-type: none"> <li>• The world is changing and traditional education does not work anymore. Are you ready to be part of the change? Are you ready to be creative, explore your passions and make the best of your educational experience?</li> <li>• Learning is a two way partnership which we want you to be part of!</li> <li>• We are what we do! Let us all learn by doing!</li> <li>• Learning isn't about being told things, it's about generating our own knowledge</li> <li>• Active learning will help you prepare for the future – these authentic learning tasks will give you the skills and mindset you need to make a positive contribution to the workplace (and the world?).</li> <li>• Collaborate and network</li> <li>• Remember to look at feedback/forward, and don't just focus on the mark</li> <li>• There is no better way to learn than getting active and applying your learning!</li> <li>• Be curious; be bold; be confident – explore</li> <li>• Don't be afraid to ask questions...</li> </ul>	<p>Good teaching is good teaching whether online or face to face and usually involves active learning!  Educating WORLD CHANGERS anywhere, anytime!  There is more to learning than lectures!  Online learning is still learning!  Universities (and other learning institutions) are open for business!  Tell (the) governments that good education makes good futures – stop cutting the investments</p>

# Methodology

The act of creating the Active Learning Manifesto brought members of the emerging global community of higher education academics and developers together through a 45-minute plenary co-writing challenge at the end of the conference day.

Following a brief introduction in which the concept of manifesto was introduced (Danchev, 2011), the author posed four questions:

1. Institutional change – what do we need to tell our managers
2. Academic innovation – what do we need to tell our academics?
3. Learning environment – what do we need to tell our students?
4. Global connections and scholarship of active learning – what do we need to tell the world?

Participants were asked to be bold and to create exclamatory responses to each of the four questions presented in a shared Google Doc. Participants created a single statement to each question and were asked to highlight responses which they felt to be particularly strong. The document remained accessible and live after the event to ensure participants could review and use the responses to inform their own practices immediately. Attribution to the participant contributors is included in the online document (<https://bit.ly/3J79tjn>).

The author promised to analyse the activity and present the co-created manifesto in a coherent form following the conference.

## Thematic Analysis

The manifesto has been produced using thematic analysis; a method for analysing qualitative data and which entails the search across a dataset to identify and report on repeated patterns. (Braun & Clarke, 2006)

Kiger & Vapio (2020) provide guidance on using thematic analysis and explain that it is an appropriate way to analyse thoughts expressed in content across a dataset. This results in the active construction of meaningful patterns from responses to a research question. Themes can be generated inductively or deductively. In constructing the manifesto, aided by the brevity and initial structure of the dataset, the author has followed Kiger and Vapio's recommended six steps of: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.

The manifesto form is intentionally used as an inherently biased "call to arms in the service of the revolution" (Danchev, 2011, p. 11) and its "paradigmatic orientations and assumptions" (Kiger & Vapio, 2020, p. 1) naturally affect the interpretations, their presentation, and their trustworthiness. Its purpose, ultimately, is to attract attention and engage. Its very form, therefore, reflects the spirit of active learning.

## In conclusion: Using the Active Learning Manifesto

The original provocation was to find out what we, as academics and developers committed to active learning, wanted to tell four key stakeholder groups. A fifth stakeholder group, the contributors to the manifesto, may be its primary beneficiaries: we learnt through its construction, we learnt about construction, and we have a socially moderated instrument for engaging other stakeholders.

It is hoped that the manifesto is useful to any stakeholder group as a basis for discussing teaching, learning, curriculum design, and the relationship of active learning to partners and publics in the world beyond education. The manifesto will be successful if it provides you with a starting point to stimulate discussion: Do you agree with

it? What is missing? What should be removed? How could it be improved? How else could its ideas be presented?

The first section considers the university as a site of agency. Here, ‘university’ may be understood as higher education in general, university leaders and managers in general, or your own university specifically, depending on your context.

In the second section, the notion of the ‘inspired academic’ suggests the ideas could be considered in PG Certs for Higher Education and staff development activities. It could be used by programme or course teams as the basis for developing a shared teaching and learning philosophy or at the outset of a curriculum review, for example.

Student Agency, the third section, is particularly exciting because it gives course and programme leaders a set of points to use with their students coming onto the course. In reading about active learning, it is common to see practitioners write about the need to challenge and develop their students’ expectations and create a common shared appreciation of the active learner-centred paradigm. It is hoped that these points frame useful induction activities and welcome packages.

Global Agency, the fourth section, helps to communicate to non-educators what happens in the contemporary university classroom and why developing capable, curious, creative and critical learners through immersion in authentic learning activities is in the interest of all of us.

The manifesto is playful! Each line of the respective calls is a mnemonic:

- universities must be ACTIVE
- academics must be INSPIRED
- students must BECOME!
- the world needs to know active learning comes from the HEART!

## Acknowledgements

I would like to thank all contributors, our colleagues, students and scholars, for inspiring us to develop the manifesto and providing the data from which it is derived.

I would particularly like to thank members of the Active Learning Network, which in recent years has become an inspiring and supportive force, modelling the principles of active learning in all that we do.

**Andrew Middleton, for the Active Learning Network, March 2022**

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# I THEORY AND CURRICULUM DESIGN



*Adonis blue butterfly*

*“Since there is no single set of abilities running throughout human nature, there is no single curriculum which all should undergo. Rather, schools should teach everything that anyone is interested in learning”*

**~ John Dewey**

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# Introduction to Theory and Curriculum Design

PAOLO OPRANDI; IKEDINACHI OGAMBA; AND DR ANDREW MIDDLETON

Within this theme, we discuss the radical redesign of teaching and learning for active learning.

Active learning should not be an add-on to a curriculum: for it to work well and not to be resisted by colleagues and students, it should be embedded deep into the curriculum design. Additionally, active learning is about providing opportunities to practise the application of knowledge (Pratt-Adams et al., 2020). In an active learning, curriculum knowledge is constructed, applied and evaluated through activity, which might include physical, mental and emotional acts of learning (Taylor et al., 2019). While the core aims tutors have for their students' learning does not need to change, it is likely that the aims will need to reflect the active learning tasks and some changes in emphasis will need to be made. Furthermore, learning activities and assessment are interwoven and aligned. If students have engaged in actively applying knowledge to their contexts then assessments need to reflect this new activity (Ruge et al., 2019).

Under this theme heading, we consider the institutional approaches to applying active learning across the campus in terms of decentralising knowledge production, welcoming the students' contributions to the discipline they are studying and changing the educational processes and physical spaces. We then move on to consider designing the curriculum for active learning at a modular level. Finally, we consider the particular challenges to curriculum design that the Covid-19 pandemic and lockdown presented and the active learning solutions that tutors came up with.

## Institutional Approaches

In universities across the UK there are an increasing number of institutional projects supporting active learning curricula (Pratt-Adams et al., 2020). Where approaches to teaching and assessment are introduced across the organisation the ease with which tutors can apply it to their teaching and the potential impact on student learning is much greater. The reason for this is manyfold. Physical spaces, such as classrooms, and organisational regulations, such as assessment processes and timetabling, can be designed for active learning, and cultural barriers posed by traditional teaching and assessment can be lowered. For example, expectations from colleagues, moderators and external examiners can be aligned to active learning curricula and the expectations students have for active engagement can be embedded on transition from school to HE.

In *Radically collaborative learning environments* Betts talks of radical changes to education that active learning curricula might involve. The importance of creating curricula using student-centred pedagogy is well understood, but Betts' vision is more radical. He talks of the need to decentralise education in terms of design, content, delivery, questioning and the construction of knowledge. His ideas include sharing responsibility for teaching and learning between student and teacher, and the co-creation of learning artefacts. He introduces terms such as re-constructive alignment and backward design (Emory, 2014), which includes ideas of aligning learning outcomes and teaching with student involvement and input, one or more times through the term.

Beggs' chapter illustrates the process that took place at Ulster University leading to the transition to a campus that supports active learning – including many of the change management strategies that this transition required. Replicating the need for teaching and learning to be inclusive, the move to an active learning campus incorporated inclusive design as a fundamental to the project,

building a community of practice with staff and students and a shared understanding of the project. Importantly the transition required a redesign of physical spaces and classrooms.

Going forward, if we want to change education for the better, the importance of thinking about active learning at an institutional level is paramount. In terms of student learning, the success of an active learning curriculum is much greater when it is supported at an institutional level. Betts introduces some radical redesign ideas, while Beggs suggests some practical steps to achieving this.

## Active Learning Curricula

Chickering and Gamson (1987) establish a well-cited set of principles for undergraduate teaching, however, frameworks have been used subsequently to explain how to create engaging teaching. The chapters in this section set out practical frameworks for use in either design workshops or for independent use. Design frameworks allow the active learning community to answer an essential challenging question for the promotion of active curricula: how can teachers transition their practice to the active learning paradigm to enhance or transform the ways they engage with their students? (Nicol & Draper, 2009)

Whether the academic is designing afresh or transitioning to active practice, Bel and Tomczak offer six facets which create a form of constructive alignment (Biggs & Tang, 2011) and enable the designer to build upon a learner's intrinsic motivations towards their development as constructors of knowledge. The tool encourages the academic to incorporate exploratory pedagogies that encourage learning by making safe mistakes, thereby recognising the importance of risk-taking in the active philosophy.

Curriculum design involves an interplay of designing both holistically and at the detailed level. It requires a thorough understanding of the rationale behind taking an active approach and

for making sound decisions about which methods should be used. The Be ACTIVE Framework formulated by Broderick, O’Leary et al. helps us to develop that understanding while providing a guided and supported approach, along with a useful accompanying infographic and linked video tutorials. The framework is intended to help all those who teach or who develop policy to make the commitment to active learning. The framework is equally theoretical, structured, and exploratory, and prompts thinking about how to design the situation holistically as much as it is about developing specific techniques.

Fox et al.’s focus is on Engaging and Empowering the Early Career Academic as active learning curriculum designers. Their aim has been to develop flexible approaches to curriculum design and delivery that focus on skills development through work-integrated learning; approaches that are experiential and which involve peers in project-based activities and as problem solvers. The models explored in this chapter are less determined by the systematic transmission of knowledge framed to meet a given set of learning outcomes and more focused on accommodating an ecology of self-determined learning.

Oprandi focuses on Curriculum Design that Welcomes Students into the Discipline and how theoretical frameworks can be used to counter feelings of disciplinary alienation. He provides a framework to help us develop ‘welcoming’ designs that promote inclusion and learner agency. This focuses our attention on the experiential nature of disciplinary knowledge: where it has come from, how theories can be interrogated and applied, and how students ‘come to know’ and learn to contest the knowledge they find. With this in mind, and using examples from Linguistics and Chemistry, Oprandi advises that students can be engaged in topics by asking them to apply disciplinary theoretical framings in application tasks before involving students in a discussion about the validity of the theory.

Schwittay discusses the use of scenario building to engage students in active learning (Lyon, 2016). The unique nature of this approach, as presented in this chapter, is that it promotes critical

analysis of various social, economic and ecological challenges, and on another hand facilitates the design of possible responses and solutions. This idea is useful for integrating education for sustainable development in curriculum design, teaching, and learning in the classroom. It will help in developing the learner who would be ready to problem-solve and tackle the global challenges of the modern world.

These chapters, and many others in this collection, reflect Barnett's (2009) idea of an education in which the student exists in a state of 'coming to know' and learning agency.

## Blended & Hybrid Curricula

Blended and hybrid curriculum design aims to meet the needs of various individual learners and group through a combination of synchronous and asynchronous activities online and/or face-to-face. These approaches have become more popular within higher education following changes to teaching and learning and design and delivery during the Covid-19 pandemic (Plews et al.; 2021; Zeivots & Shalavin, 2021). These chapters provide inspirations, ideas and models to empower academics and students to adopt and engage in active learning in a blended and hybrid teaching and learning context.

Stirling introduces the "sandwich model" which suggests a three-stage cycle for delivery flipped learning as opposed to the traditional two-stage flipped classroom. The model involves the "sandwiching" of asynchronous self-directed student learning between two staff-directed synchronous sessions of lectures and group discussion. It proposes a core principle for enhancing active learning, which is applicable in designing teaching and learning sessions in various disciplines as "two points of synchronous engagement between which self-directed learning is sandwiched".

Cullen and McCabe discuss the TREC model for designing,

delivering and engaging students in active learning in “live” online classes. They presented a 4-stage active learning journey involving Trigger, Review, Expectations/Evidence and Consolidation (TREC) adopted and implemented in Manchester Metropolitan University for online teaching and learning. The model does not only enhance active learning but also it helps learners to develop academic skills to analyse, evaluate and synthesise information, communication, problem-solving and other transferable skills.

Finally, Middleton presents the Unified Active Learning (UAL) framework for hybrid curriculum design and evaluation that uses a set of design principles. They developed four different high-level models (blended bubbles; location neutral; hives and observers; and connected co-creators) with which these principles could be applied to create accessible connected classroom and engaging students actively wherever the location or learning environment might be. The design principles allows for creativity in the design of teaching while at the same time following the basic principles that would ensure that active learning takes place.

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# 1A INSTITUTIONAL APPROACHES



# Radically collaborative learning environments

TAB BETTS

## What is the idea?

What would learning look like if we radically re-thought its structures and interpersonal dynamics? Education – and higher education in particular – has a long history of being hierarchical, elitist and didactic. What if we broke down these divisive hierarchies in an attempt to empower learners as true co-creators of the learning experience? This chapter will propose a number of strategies to facilitate radical collaboration in education.

## Why this idea?

In general, power in education is very centralised. There is a fear among many teachers that if you let go of authority, then chaos will result. However, Renn's (2020) articulation of Lithwick's (2012) theory suggests that chaos can promote radical inclusion, allowing us "to queer things, to take seriously Indigenous and decolonial worldviews, to burn it all down and start from scratch" (Renn, 2020, p. 928). Moreover, research into active learning shows that students benefit from being active participants (Deslauriers et al., 2019) and learn more when they are able to have agency in the design of their learning (Bovill, 2020).

## How could others implement this idea?

This chapter will suggest five methods for implementing radically collaborative environments: 1) decentralised design; 2) decentralised content; 3) decentralised delivery; 4) decentralised questioning; 5) decentralised construction of knowledge. These interventions should ideally be applied longer term across a module, as it will take time for staff and students to adapt to each strategy.

### *1) Re-constructive alignment (decentralised design)*

The concept of re-constructive alignment attempts to combine the notion of constructive alignment (Biggs, 1996; Ruge et al., 2019), where all learning and assessment is aligned to learning outcomes, with the idea of taking the community as the curriculum (Cormier, 2008), so the community regularly re-evaluates and radically redesigns the content and curriculum. Benefits of this approach include that it: 1) encourages authentic, up-to-date learning content; 2) mitigates bias; and 3) ensures that the perspectives of all stakeholders are better represented. At regular intervals (e.g. yearly), the community could come together to revise the four main elements of constructive alignment: intended learning outcomes (ILOs), assessments, activities and content. These evaluations could take inspiration from Brookfield's (1998, 2017) four critical lenses, where self-reflection, students, colleagues and the literature provide lenses through which to assess practice.

These opportunities could take a variety of forms, including:

- Workshops – stakeholders collaborate on tasks for re-evaluating and re-designing the learning experience
- Surveys – stakeholders anonymously provide feedback to inform the process
- Pitch meetings – stakeholders pitch their ideas for changes to



curriculum and decide on best options to take forward

- Focus groups – stakeholders are brought together to share perspectives on improving the learning experience
- Jamming sessions – stakeholders participate in open-ended idea generation and improvisation, in which ideas ‘riff’ and build upon each other

Given that constructive alignment proposes everything should be aligned to the intended learning outcomes (ILOs), it might be useful to follow a backward design sequence (see, for example, Emory, 2014), starting from re-evaluating ILOs (the goal), then assessments (how to gather evidence of achieving the goal), then activities (practise producing evidence of achieving the goal), then necessary content (knowledge needed in order to produce evidence). However, if implemented creatively, it may be possible to take a non-linear approach, letting members of the community decide which aspects they would like to focus on and then revise designs iteratively to ensure that each aspect still aligns.

## *2) Collaborative documents for course materials (decentralised content)*

Another useful way to encourage co-construction of the learning experience is to set up collaborative documents (e.g. via OneDrive or Google Drive) for key course documents, such as reading lists, course handbooks, session plans, slides, handouts and quizzes, then get students to suggest changes or additions to the existing material. You may wish to co-create critical thinking prompts, such as ‘How could we represent a more diverse group of authors/cultural contexts?’. You could also invite learners to evaluate and contribute to other aspects of learning content, such as videos, podcasts, infographics, web pages and other multimedia.

### *3) Students become the teacher (decentralised delivery)*

Peer teaching has numerous benefits for learning, particularly in relation to developing communication, collaboration and critical thinking skills (e.g. Goldschmid & Goldschmid, 1976; Jackson & Bruegmann, 2009; McKenna & French, 2011). One method is to divide your class into small groups (e.g. 3-5 students) and give each group sufficient preparation time to co-plan and co-teach a section of an upcoming lesson. During the lesson, the groups then take turns to teach their section of the lesson, with opportunities for the class to provide feedback on content and pedagogic approach. For a less extreme version of this, you could give students an overview of what you plan to cover in a module or in a particular session, then ask them to decide which ideas they want to spend more time on or focus on in more detail; this can also help students develop a crucial skill: the ability to evaluate and prioritise key information within limited time constraints.

### *4) Students question themselves, each other, the teacher and the literature (decentralised questioning)*

Explicitly teaching students how to question and prompting them to question each other can facilitate peer learning (Choi et al., 2005; King, 1990). Instructing learners in how to question the teacher and how to question the literature in constructive ways can promote critical thinking skills. Providing question prompts, such as Bloom's Taxonomy question stems (<https://bit.ly/peerquestioning>), and guidance, such as allowing appropriate thinking time for others to answer and requesting a delayed response, can help support learners in this process.

### *5) Co-construction of knowledge (decentralised construction of*

*knowledge)*

Collaborative engagement with subject content can remove barriers to learning and challenge learners to think in different ways (Chan & Pow, 2020; Talis, 2021; Zhu et al., 2020). This can be achieved by using tools such as Talis Elevate or Hypothesis to allow students to comment directly on a reading, video or slides. For open access texts, you could paste them into an online collaborative Word/Google doc and use the commenting feature. This allows students to add comments/questions to specific parts of the text. Others can read and respond, transforming reading into a dynamic, interactive co-construction of understanding.

## Transferability to different contexts

Radical collaboration could be effective in a range of contexts (prompts for Sciences and Humanities are shared below). Due to the non-standard approach, clearly communicating the rationale and building a shared culture through regular communication and online resources is crucial for success.

In Sciences – Could you involve students in the design/evaluation of practical lab sessions? Could they use XR or software simulations to propose/explore experiments which have never been done before?

In Humanities – Could you re-think your course to be a project in which students curate a museum/gallery exhibition? This could be shared via collaborative slides, Padlet/Mural/Miro boards, or a VR environment.

## Links to tools and resources

- OneDrive collaborative docs: <https://office.com> (work accounts) or <https://onedrive.com> (personal accounts)
- Google Drive collaborative docs: <https://drive.google.com>
- Padlet: <https://padlet.com/>
- Miro: <https://miro.com/>
- Mural: <https://start.mural.co>
- Talis Elevate: <https://talis.com/talis-elevate/>
- Hypothesis: <https://web.hypothes.is/>
- Bloom's Taxonomy Question Stems: <https://bit.ly/peerquestioning>
- You may wish to consult Alison Harvey's chapter, 'Scaffolding an event', in this book.

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# An institutional approach to active learning: lessons learned

RICHARD BEGGS

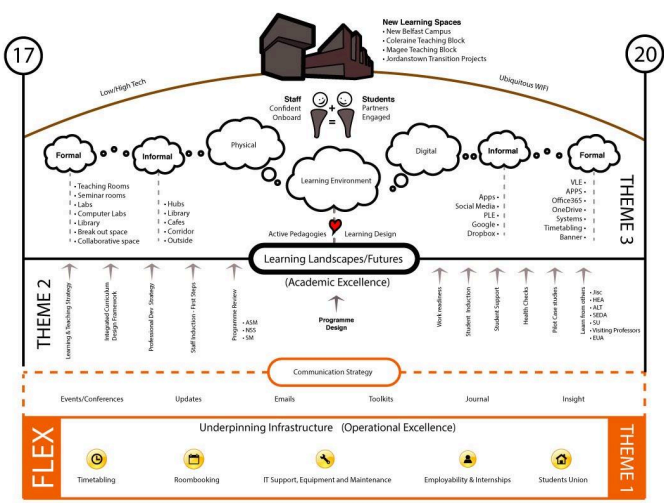


Figure 1. Ulster University Learning Environment Plan

## What is the idea?

Ulster University is approaching the end of the development of its new campus in the centre of Belfast which will provide state-of-the-art physical and digital learning and teaching environments (Ulster University, 2020). This has provided the institution and its students and staff with a fantastic opportunity to evaluate our learning and



teaching practices and to adopt a new approach across our physical and digital learning environments. An active and collaborative approach to learning and teaching has been adopted and has benefits to all students, removes gaps in student engagement, attendance, attainment and progression (Nottingham Trent University, 2019). This approach requires a significant amount of change in approaches to learning and teaching. Change is all about people, they are at the heart of change (Blake & Bush, 2009). In order to get staff and students on board with our learning and teaching aspirations the learning environment plan shown above in Figure 1 was created which puts people at the centre to provide a framework for strategic enhancement. This framework provided opportunities for staff to try something new, create staff/student collaborative partnerships, encourage active learning, learn from toolkits and training and to create safe spaces for both staff and students to experiment. This chapter will detail the approach and offer a lessons learned checklist for others who may be considering a similar approach.

## Why this idea?

An evaluation was carried out in 2015, by visiting professor Jos Boys from UCL (Boys, 2017). This Learning Landscapes report identified several opportunities as well as common themes: underpinning infrastructure; institutional culture; and, learning and teaching practices. Recommendations indicated that more active learning spaces were required, as well as investment in staff and buildings. The Learning Environment plan was then created to provide a framework to realise the opportunities and to align them to our strategic objectives. Flexibility in learning spaces is key to this plan and relies heavily on built pedagogy (Monahan, 2002). The aim was to provide staff with the skills, experience and support for the opening of the new Belfast campus in 2022 as well as enhancing

practice on the other two campuses in Coleraine and Derry/Londonderry. It was also key for our students to be involved and for their voices to be heard, along with opportunities for collaborative partnership. As a result, a number of projects were created to help achieve the learning environment plan. These were:

- Introduction of Staff Active Learning Champions – One per school
- Introduction of Student Learning Partners – Current students x30
- Apps for Active Learning – Development of several classroom enhancement technologies
- Refurbishment of 20 legacy teaching spaces to active/collaborative design
- Creation of the Learning Lab – A safe space for staff to experiment
- Sequencing Learning Activities Pilot – Evaluating teaching practice in active learning spaces (Formal/informal and physical/digital)

## How could others implement this idea?

Institutional change won't happen overnight. Ulster University's journey started back in 2015 and it is only now beginning to be realised, but it is still a work-in-progress. The Covid-19 pandemic did put a spanner in the works to a large extent as staff and students weren't able to be on campus to explore the physical learning environments. However, there is a silver lining in that flipped learning (Advance HE, 2017) may have been a positive by-product of the online pivot. This does however raise a question around ensuring accessibility and universal design for learning (CAST, 2018) which are potential future additions to the learning environment plan. In 2017 when designing the learning environment plan, I

identified the key objectives for this project that were aligned to our strategic plan (Ulster University, 2016) and the learning and teaching strategy (Hazlett, 2018). The key learning points from that exercise are listed below and available in a downloadable checklist (those in academic development roles may find it useful to formulate a plan for change):

1. Look at your context. What is active learning within your institution? What are the basics of active learning to get staff started? And how can you make your staff and students aware of these?
2. Identify the key operational objectives aligned to strategic priorities.
3. What is within your sphere of influence and where do you need buy in and support from others?
4. Who do you need to speak to, to make things happen? Start conversations with the Student Union, Timetabling, IT, Academic Development and Estates departments.
5. Set out your timeframe with key delivery times. Make sure they are realistic.
6. Start small. Scale up year on year.
7. How can I get people onboard? Remember it's all about people, so whether that is teaching staff, students or professional support staff we need people to enact change and become change agents. We wanted to reward students and staff for embracing active learning through:
  - Active learning Champions (One per school) to reward staff for taking risks. The CMALT carrot was used to entice them to take on the role. At time of print 20 academic colleagues are registered for CMALT and 2 have already achieved certification.
  - Student Learning Partners to reward students for partnership. Learning and teaching bursaries for 6 hours per week partnership activity.

- Pilot activity around using different Apps and spaces can give you an evidence base to demonstrate impact to senior management.
8. Some things will be out of your control. Go with the flow.
  9. Schedule CPD sessions to encourage learning design that incorporates active learning.
  10. Include active learning pedagogies in revalidation/review activity. Constructive alignment is at the core of our curriculum design principles.
  11. Try and get the default room layout to be of an active/collaborative nature, where tables are set out in groups rather than in rows.
  12. Reflect on lessons learned from the online pivot. What can be kept?

## Transferability to different contexts

Although this case study is within an HE context, the holistic approach is transferable to any sector. Simple things like adopting an active/collaborative approach to room layouts, with groupings rather than rows, can have a huge impact on the learning experience. In saying that, for a root and branch approach, there needs to be buy-in from senior management. Active learning needs to be embedded within institutional strategies and policies to help drive through the change at an operational level. This needs to be supplemented with a bottom-up approach, with student and staff champions acting as change agents.

## Links to tools and resources

- Learning environment plan and active learning resources
- Institutional approach to active learning: lessons learned checklist
- Student Learning Partners
- Staff Active Learning Champions
- The Learning Lab

View resources on Padlet: [https://padlet.com/rtg\\_beggs/u5adz7qzsfud4u95](https://padlet.com/rtg_beggs/u5adz7qzsfud4u95)

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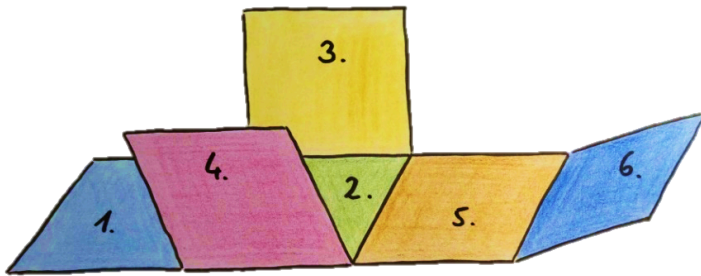


# 1B ACTIVE LEARNING CURRICULA



# Active learning about active-learning design with a ‘tool-to-think-with’

DR ÉRIC BEL AND JOHANNA TOMCZAK



What is the idea?

What would you do if, in the middle of a busy day, you arrived in a classroom, where a group of eager learners were waiting for you, and suddenly you discovered that there was a power cut? How would you react in relation to the digital technology-dependent learning session that you had thoroughly planned to facilitate on this occasion? Cancel this lesson, revert to talking to – or, worse, at

– your audience, ready for a passive learning experience, or do your best, and decide that, next time, you will plan learning differently?


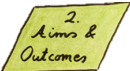
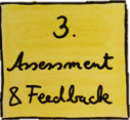
What follows is our contribution to prompting you, or those you support in enhancing their teaching, to review the way active-learning opportunities are planned, with the help of a simple, practical “tool to think with over a lifetime” (Papert, 1980, p. 76). At this stage, we should note that ‘active learning’, in our view, refers to any type of learning that will involve learners, therefore prompt them to engage in some form of activity; build upon learners’ intrinsic motivations, rather than extrinsic reasons, for learning; promote construction of knowledge and development of skills by, rather than transmission of information to, learners; allow, and encourage, them to explore and make mistakes; provide learners with comments on their progress.




We start from the premise that, in a time of crisis, when much of what we need in order to teach has broken down, there is nothing more useful than a good old, tested theoretical framework. This enables us to stop, reflect and, perhaps, go one or two steps back in our active-learning design practice, to anticipate what should remain, for example, if technology fails. We hope that you will be able to apply our printable easy-to-use ‘tool-to-think-with’ to designing active learning, to avoid some potential technological nightmare; or simply to remember why you used to enjoy learning and teaching so much before electronic devices became ubiquitous in education!

Our proposed tool-to-think-with emphasises the idea that, whether you plan to facilitate a single lesson, a series of connected learning sessions or a whole course, the best approach to adopt may well be to refrain from thinking about using the latest technological gimmicks. Indeed, instead, adopting a systematic approach to thinking about what is going to happen in the learning opportunities that you are designing should enable you to be as ready as possible for whatever crisis that is still to come, be it this power cut which was mentioned earlier, or any other types of critical incidents in your teaching practice.

This is how we would like to share with you our idea of a tool-to-think-with, for active-learning design, which is largely based on a well-rehearsed, but powerful, concept: What Biggs (1996) calls ‘constructive alignment’ (see also Young’s and Perović’s (2014) suggested activities that could be implemented in individual lessons). Our tool-to-think-with consists of two cubes: one with, on each side, one number from 1 to 6, along with the title of one of the six stages of our recommended active-learning design process (Cube 1); the other one with, on each side, more detailed information on each of these stages (Cube 2).

The following table provides more detail about each cube (please note that templates are attached to this text). For both cubes, the sides are listed in chronological order of these six main active-learning design stages.

Cube 1	Cube 2
	<p>We design learning for others and in a given context, which we need to be aware of:</p> <ul style="list-style-type: none"> <li>stakeholder requirements;</li> <li>learning level;</li> <li>learning group size;</li> <li>learner profile (for example: age, gender, educational and cultural background).</li> </ul>
	<p>Intended learning outcomes (ILOs) are at the heart of the active-learning design and audience:</p> <ul style="list-style-type: none"> <li>Aims: What we intend learners to learn.</li> <li>ILOs: Expressed in statements of what learners are expected to be able to do. The content of which should be meaningful, achievable and measurable.</li> </ul>
	<p>Once the intended learning outcomes (ILOs) have been clearly identified, the learning process can be assessed. The assessment should provide a measure of the level of anything important that would not be described in the learning-outcomes. It should be authentic; institutional guidelines.</p> <p>Moreover, a strategy for provision of constructive, useable and timely feedback is part of the learning process.</p>

	<p>This is the obvious element of learning design, which we tend to think about first. However, as we have started clarifying the way we intend to assess learners' achievement, we have started to think about what we need to teach. Meyer et al. (2006) call 'threshold concepts', a list of important topics that all learners must understand.</p>
	<p>Once the previous stages have been considered, it is possible to:</p> <ul style="list-style-type: none"> <li>identify the teaching methods that are best adapted for promoting the learning outcomes that could be essential;</li> <li>create appropriate scaffolding (Bruner et al., 1976) of learners' active learning; and</li> <li>include support mechanisms for learners in their individual and collaborative learning, eventually, towards their achieving the outcomes that are expected from the learning experience.</li> </ul>
	<p>How will we know that the learning experience that we are designing will achieve the intended outcomes? This is an early stage in the learning design process, to create regular evaluation points and to determine the most appropriate method of finding out:</p> <ul style="list-style-type: none"> <li>how learners feel about their learning;</li> <li>how they have progressed towards the achievement of the intended outcomes;</li> <li>whether the aims have been met;</li> <li>what we could do to improve this learning opportunity.</li> </ul>

## Why this idea?

As we, educators, often feel that we are asked to make changes just for the sake of changing, it is refreshing to be able to slow down, or even stop, and reconsider what really matters to us in our professional lives. In this day and age of digitally-heavy instruction, the tutor's worst nightmare may look like the failure of this very technology. However, it should not have to be this way; if only, when we plan learning opportunities, we could go back to the fundamentals of the tutor's facilitating role (see our interpretation of Laurillard's (2002) conversational model in Tomczak & Bel, 2021, p. 4).

We are likely to have had an overdose of digital technology imposed upon us, lately, for example, during the pandemic of the early 2020s. This technocratic approach has helped for a while, but we would like to suggest that our tool-to-think-with could be used to bring back to the forefront of our thinking about teaching, the powerful process of active-learning design described above.

## How could others implement this idea?

Well, our tool-to-think-with could form the active learning part of a workshop with teachers who are new to facilitating learning in higher education, for example postgraduate researchers. Workshop participants could be asked, first, to design, in pairs or small groups, a seminar based on a given topic and a digital presentation used in a related lecture. Then, they could be asked to explain their approach to designing this seminar. Their description of this process is likely to show that their focus is on content and deciding what to include on each slide of a digital presentation. At this stage of the workshop, the concept of constructive alignment, mentioned previously, could



be introduced, and more specifically the main stages of the active-learning design process described above.

As workshop participants are given the task to apply their new learning to designing the same seminar, they could be prompted to utilise our tool-to-think-with. Initially, participants could be asked to consider Cube 1 and explain, in chronological order, what each stage of the active-learning design process is about. If they are uncertain about any of the six stages referred to on Cube 1, then they could be prompted to use Cube 2 and find the matching recommendations. This visual, kinaesthetic, as well as collaborative, experience promotes, and helps workshop participants to memorise, a structured and anticipatory approach to thinking about learning sessions that they are going to facilitate.

This type of active learning about active-learning design, with our tool-to-think-with, has been shown to lead to a paradigm shift regarding what active learning is about and how it can be planned into any learning opportunities.

## Transferability to different contexts

As explained in this example, this tool-to-think-with can be used to help with planning individual learning sessions. However, the process of designing active learning is similar when planning modules or whole courses. Therefore, the tool-to-think-with can be used equally successfully, in those situations, with individuals or groups, to emphasise what, at the planning stage, really matters when designing active learning; especially when there might be a power cut!

## Links to tools and resources

See Appendix for templates.

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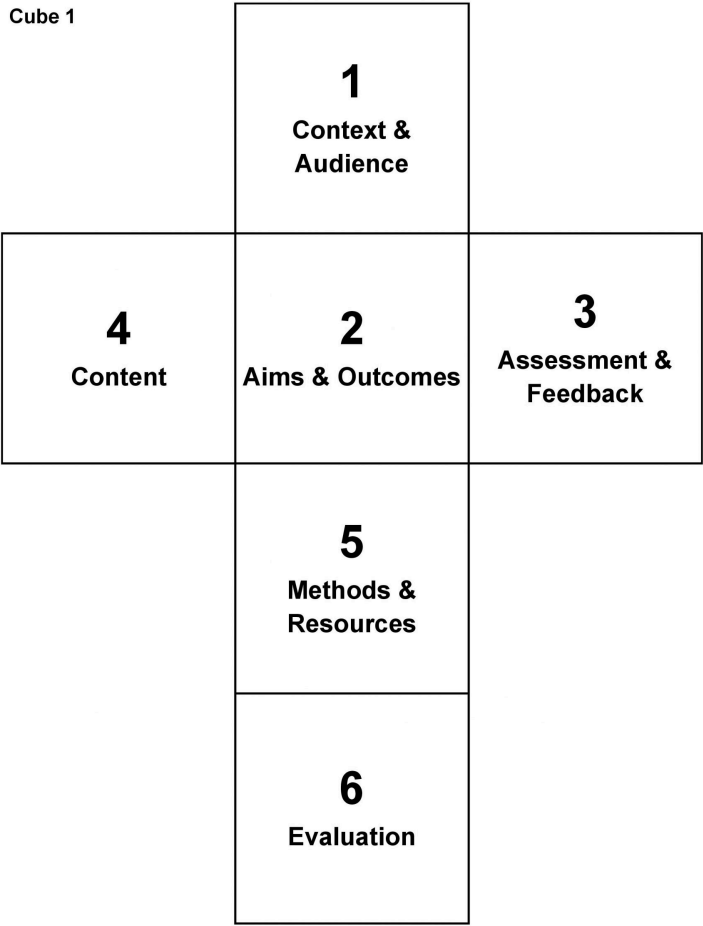
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## Appendix

### *Templates*

Cube 1



# Cube 2

	<p>We design learning for others and in a given context, which we need to be aware of. We should think of:</p> <ul style="list-style-type: none"> <li>- stakeholder requirements;</li> <li>- level;</li> <li>- learning group size;</li> <li>- learner profile (for example: age, gender, educational and cultural background, language, specific needs, motivation).</li> </ul>	
<p>This is the obvious element of learning design, which we tend to think about first. Our tool-to-think-with encourages us to leave it until after we have started clarifying the way we intend to assess learners' achievement of the intended learning outcomes. Then, through identifying threshold concepts, a list of important topics that learners should engage with can be drawn.</p>	<p>ILOs are at the heart of the active-learning design process, aligned to the aims, themselves aligned to the context and audience:</p> <ul style="list-style-type: none"> <li>- Aims: What we intend learners to learn.</li> <li>- ILOs: Expressed in statements of what learners are expected to be able to do once they have learnt what is described in the aims – the content of which should be meaningful, achievable and measurable.</li> </ul>	<p>Once the ILOs have been clearly identified, learners' achievements, in terms of knowledge, understanding or skills, can be assessed. The assessment should provide a measure of the level of achievement of all the ILOs, and it should not assess the achievement of anything important that would not be described in the ILOs. We should think of: validity; reliability; feasibility; timing; authenticity; institutional guidelines.</p> <p>Moreover, a strategy for provision of constructive, useable and timely feedback can be planned as an integral part of the active-learning design process.</p>
	<p>Once the previous stages have been considered, it is possible to:</p> <ul style="list-style-type: none"> <li>- identify the teaching methods that are best adapted for promoting active learning, and any essential resources.</li> <li>- create appropriate scaffolding of learners' active engagement with areas of learning highlighted in the ILOs;</li> <li>- include support mechanisms for learners in their individual and collaborative construction of knowledge and development of skills, and, eventually, towards their achieving the outcomes that are expected from their learning.</li> </ul> <p>How will we know that the learning experience that we are designing will have been effective? An appropriate strategy should be planned at an early stage in the learning design process, to create regular evaluation points in the overall learning opportunity in question. We should think of the most appropriate method of finding out:</p> <ul style="list-style-type: none"> <li>- how learners feel about their learning;</li> <li>- how they have progressed towards the achievement of the ILOs;</li> <li>- whether the aims have been met;</li> <li>- what we could do to improve this learning opportunity.</li> </ul>	

## About the Authors



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Formerly a chemist, then head of languages at Teesside University, Dr Éric Bel has been training teachers in various areas of education for more than twenty years. He is a technophile, but only when technology serves, not drives, learning and teaching.



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Johanna Tomczak is currently completing her PhD in Cognitive Neuroscience at the University of Leeds. Interested in pedagogy, she has been facilitating seminars for undergraduate students in Psychology since the start of her PhD.

# The Be ACTIVE Framework

THOMAS BRODERICK; DR EILEEN O'LEARY; LINDA O'SULLIVAN;  
AND PROFESSOR JIM O'MAHONY

## What is the idea?

The Be ACTIVE Framework is a theoretical, structured, exploratory framework that aims to guide and support, in a stepwise manner, all those who teach, in the planning, implementation, evaluation and improvement of active learning in their everyday teaching practice. It is built on the mnemonic 'Be ACTIVE', where each letter represents a step in the process to guide individuals implementing active learning.

**B:** Begin by reflecting on your current practice

**e:** Ethical consideration

**A:** Analyse your context & **Assess** possible Active Learning strategies

**C:** Choose an appropriate Active Learning strategy & Communicate the why, what and how with your students

**T:** Build Trust & Test the strategy with your class

**I:** Investigate, Innovate, Improve and Be Inclusive

**V:** Validate through feedback from students, self, & peers, and add Value by consulting the literature

**E:** Evaluate the Evidence, Enhance the process and Engage in further Active Learning

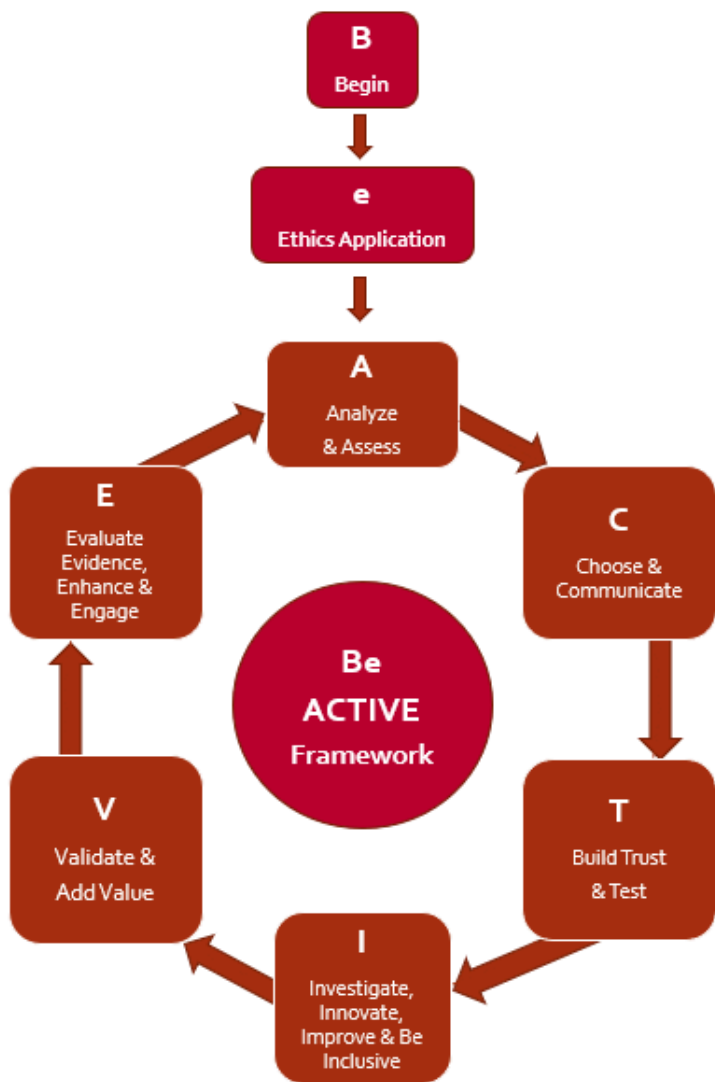


Figure 1. Be ACTIVE Framework

This framework is purposely designed in a cyclical manner, to



demonstrate that the process is a continuous development and improvement cycle. It is available as an interactive poster, where each step in the process has a corresponding short video tutorial outlining the relevant considerations and an activity sheet to record the user's ideas, thoughts, and evidence. The tutorials explore the how and why of each step in the cycle, highlight the advantages of Active Learning to users and provide a rationale that can be shared with students to encourage enthusiastic engagement in active learning. The activity sheets provide guiding questions to help users adapt the ideas to their own context, prompt thinking through these ideas and provide a means to record, research, discuss and improve their practice.

## Why this idea?

Active Learning has received considerable attention in recent years as educators continue to look for more effective ways of engaging students in different environments and contexts. However, shifting from the more traditional didactic transmission mode presents challenges for educators and their students. The 'Be ACTIVE' Framework has been developed to provide support and address some of these challenges. This framework gives the user the 'tips' and the 'how to' without the need to complete an entire course! It should also encourage their further engagement with the literature as their practice improves and their interest in Active learning grows.

## How could others implement this idea?

The 'Be ACTIVE Framework' can be used by individuals interested in implementing and evaluating new active learning approaches.

They simply follow each step on the mnemonic 'Be ACTIVE' as outlined below, i.e.:

1. Start with the 'B activity', where users are encouraged to 'self-reflect' on how they are currently teaching and what they can start to do differently in their context.
2. The 'e Activity' is aimed at those interested in the scholarship of teaching and learning and alerts such users to the importance of ethics and getting ethical approval prior to conducting educational research.
3. Watch the tutorial and complete the 'A activity', which encourages users to consider:
  - Why use active learning?
  - Where will teaching take place (face-to-face, online etc)?
  - What active learning strategy might work in this instance?
  - What is the goal of your active learning strategy?
4. Watch the tutorial and complete the 'C activity' which guides users on their choice of active learning strategy and considers communicating the why, what, and how of active learning with their students.
5. Watch the tutorial and complete the 'T activity', which prompts users to build a trusting relationship with students, so they feel safe and are willing to take risks, ask questions and share their thoughts and ideas
6. Watch the tutorial and complete the 'I activity', which encourages users to consider questions like:
  - Were their instructions clear?
  - Could their students follow them easily?
  - Did they over or underestimate the time for the activity and did this impact on students' level of engagement?
  - Did it work for them and their students?
  - What would they remove, change or add?

- What did they learn, how could they make the class more inclusive?
7. Watch the tutorial and complete the 'V activity' which leverages Brookfield's Four Lens model, to guide the user to source feedback from peers, self, students and the literature and examine how they can change their practice to add value as a result of feedback.
  8. Watch the tutorial and complete the 'E-activity', which prompts users to assess the impact of their initiative and how the learning experience could be improved further. It encourages the users to engage with students as partners in this process, the literature and others in their institution.

Links to the interactive poster, tutorials and activity sheets are included in 'Links to Tools and Resources'.

## Transferability to different contexts

The Be ACTIVE Framework is useful in all contexts where learning happens. It is not context based, the short video tutorials provide tips and the activity sheets provide 'guiding questions' that each user can respond to in the context of their own teaching. It is applicable to all disciplines, to individuals teaching at all levels, in all environments, face-to-face, online (synchronous or asynchronous), distance autonomous learners, etc. It is an approach, guided and supported with resources to help all those who teach, develop policy or design curriculum to embed Active Learning in their practice.

Even though what is outlined here shows how the Be ACTIVE Framework can guide individual practice, this framework can also be exploited at institutional level to foster best practice. It can guide new and structured conversations around the scholarship of

teaching and learning in relation to active learning and encourage uptake in pedagogical research.

Links to tools and resources

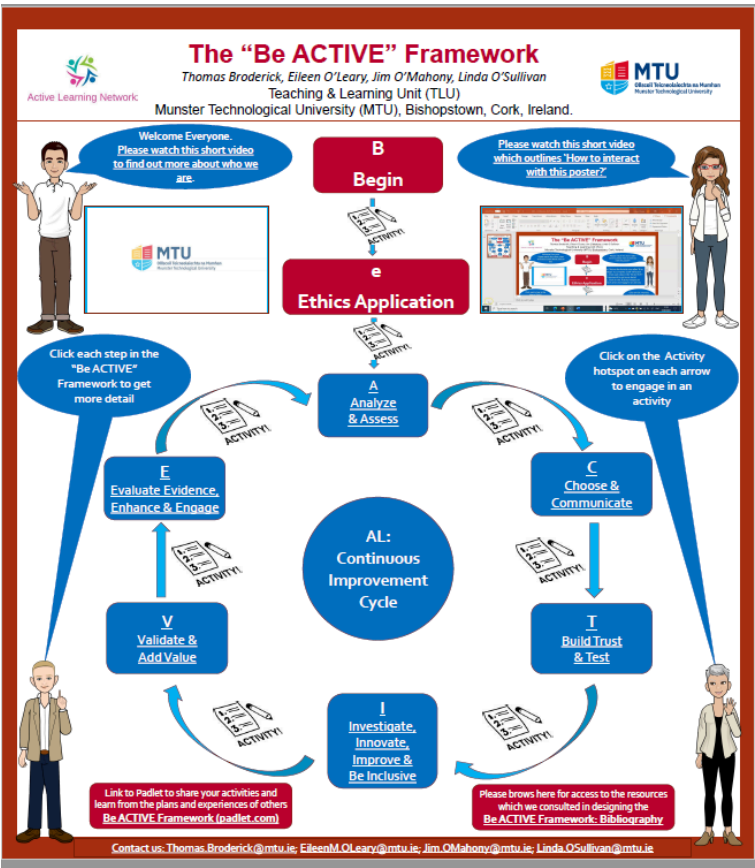


Figure 2. The Be ACTIVE Framework poster

The interactive, Be ACTIVE Framework Poster can be accessed by clicking on 'Be ACTIVE Framework' (<https://tlu.cit.ie/contentfiles/ALN%20-%20Conference%202021%20Poster%20Final.pdf>) or 'Be ACTIVE Framework Stepwise' (<https://view.genial.ly/620be0b7ab3f04001287d701>)

The resources associated with each phase of the Be ACTIVE Framework are also made available below:

**B:** Begin teaching

**Activity B:** Initial Self-Reflection

**References:** (Miller, 2010; Moon, 2004; Moon, 2006; Moon, n.d.-a, n.d.-b)

**e:** Ethical Consideration

**Activity e:** Consider Ethics Application

**A:** Analyse your context, Assess possible Active Learning strategies

**Overview Video:** Analyse and Assess



*One or more interactive elements has been excluded from this version of the text. You can view them online*

*here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=52#oembed-1>*

**Activity A:** Analyse and Assess

**References:** (Elsevier Author Services, n.d.; Honeycutt, n.d.; Moss, 2020; Open Courses, n.d.; The Active Learning Network, n.d.; The K. Patricia Cross Academy, n.d.)

**C:** Choose an appropriate Active Learning strategy & Communicate the why what and how with your students

**Overview Video:** Choose and Communicate



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### Activity C: Choose and Communicate

**References:** (Bunce et al., 2010; Chickering & Gamson, 1987; Christersson & Staaf, 2019; Felder & Brent, 2009; Halloun & Hestenes, 1985; Moss, 2020; O'Neill & McMahon, 2005; Revell & Wainwright, 2009)

**T:** Build Trust & Test the strategy with your class

**Overview Video:** Build Trust & Test



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### Activity T: Build Trust & Test

**References:** (Beyond Penguins and Polar Bears, n.d.; Hattie & Zierer, 2017; Tharayil et al., n.d.; Tofade et al., 2013)

**I:** Investigate, Innovate, Improve and Be Inclusive.

**Overview Video:** Investigate, Innovate, Improve and be Inclusive





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### **Activity I:** Investigate, Innovate, Improve and be Inclusive

**References:** (CAST, n.d.; Miller, 2010)

**V:** Validate through feedback from, student's, self, & peers, and add Value by consulting the literature

**Overview Video:** Validate & Add Value



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### **Activity V:** Validate & Add Value

**References:** (Brookfield, 2002; Mentimeter, n.d.; Miller, 2010; Poll Everywhere, n.d.)

**E.** Evaluate the Evidence, Enhance the process and Engage in further Active Learning

**Overview Video:** Evaluate evidence, Enhance & Engage



One or more interactive elements has been excluded

— from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=52#oembed-6>

**Activity E:** Evaluate evidence, Enhance & Engage

**References:** (The Active Learning Network, n.d.)

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Thomas Broderick is a Lecturer in the Department of Sport, Leisure and Childhood Studies and is also affiliated with the Teaching and Learning Unit (TLU) at Munster Technological University. Thomas has qualifications in Educational Leadership, Physical Education and Teaching and Learning in Higher Education. Thomas leads a TLU supported Learning Community on Active Learning looking to embed active learning practices across MTU. He has secured over €25,000 from the National Forum for the Enhancement of Teaching and Learning in Higher Education for various funded projects including supporting student wellbeing and implementing a framework for Universal Design for Learning (UDL) in MTU. He is a facilitator for the Digital Badge for Universal Design for the National Forum for the Enhancement for Teaching and Learning in Higher Education.



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Linda O'Sullivan holds an MSc in Statistics and works as an Academic Project Lead with the Teaching and Learning Unit (TLU) at MTU, Cork. Linda is responsible for developing, organising, curating and marketing in excess of 100 of the TLU's continuing professional development (CPD) workshops/seminars and liaises with external consultants and internal stakeholders to deliver programmes that enhance the essential skill sets of MTU staff and students. In 2019 and 2020, she coordinated the internal application/review processes for MTU's allocation of the National Forum for the Enhancement of Teaching and Learning in Higher Education's Strategic Alignment of Teaching and Learning Enhancement Fund providing access to €637,000 in funding to MTU staff and students. Prior to joining the TLU, Linda lectured for 15 years with the Department of Computer Science where she coordinated a number of class groups, taught modules from level 6-9, supervised projects to undergraduate and post-graduate level, mentored new colleagues, coordinated inter-departmental retention/engagement activities, liaised with external stakeholders in industry and successfully obtained funding for research. Linda has a strong industrial background having worked for two leading companies in the pharmaceutical and electronics sectors.



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Professor Jim O'Mahony holds a PhD in Microbiology and is a Senior Lecturer in the Department of Biological Sciences at MTU, Ireland. Jim was the founding director of the level 8 degree programme in Pharmaceutical Biotechnology which now hosts 90 final year students. In 2017 he took up a part-time secondment in T&L where he has overseen many initiatives aimed at promoting and supporting T&L initiatives including the establishment of over 30 Learning Communities. Jim also serves on many national advisory bodies including the National Forum for the Enhancement of Teaching and Learning and the National Academic Integrity Network.

# Engaging and empowering early-career academics: an active learning curriculum design for the APA/PGCLTHE

DR BIANCA FOX; DR SANDY COPE; ADAM TATE; AND VICKY BRECKIN

## What is the idea?

This short chapter describes the interlinked pedagogical principles used to rethink the curriculum design of the Academic Professional Apprenticeship (APA)/Postgraduate Certificate in Learning and Teaching in Higher Education (PGCLTHE) course at Nottingham Trent University (NTU). Active learning was a key tenet of the redesign of the course. The focus was on engaging course participants in experiential learning, peer problem solving, and project-based learning, both synchronously and asynchronously. This chapter is particularly useful for course teams who want to redesign a course creatively. The curriculum design principles explored in this chapter would apply mainly to thin modules longer than one semester or one academic year.

## Why this idea?

To inspire and enhance the teaching and learning practices of the students undertaking the APA/PGCLTHE course, active learning philosophies were embedded. In short, learners learn by doing, challenging, discussing, observing, and exploring different ways of teaching and learning in Higher Education. Adopting a teaching philosophy of active and participatory engagement, the general principles that guided the design and planning of the curriculum were as follows:

1. Chunking thin modules (year-long or longer) into smaller units of content that correspond to workplace activities and are directly mapped to the APA standard and UK Professional Standards Framework (UKPSF) dimensions of practice.

2. Scaffolded learning to support work-integrated learning opportunities and enable teaching of threshold concepts.

3. Reflection that improves and solidifies learning at the end of key teaching blocks coupled with tripartite meetings that track and capture learners' progress against the course Learning Outcomes, APA Knowledge, Skills, Values and Behaviours (KSVBs), and the UKPSF dimensions of practice.

4. Synchronous and asynchronous active collaborative learning and peer support.

5. Assessment for learning: Designing patchwork assessment that supports learners to gather evidence and build towards the end point assessment.

The intention was to move away from a lecture-dominated knowledge transmission model of learning focused primarily on meeting the learning outcomes to a more flexible approach to curriculum design and delivery, which focuses on skills development through work-integrated learning. The planning and delivery of the curriculum are focused on developing skills and competencies through activities in the workplace, supported by off the job training and useful formative activities.

Knowledge previously organised in modules is now planned and delivered in teaching blocks designed through a process of triangulation between course learning outcomes, the APA standard (KSVBs), and UKPSF dimensions of practice and work-integrated learning. A teaching block is a constructed sequence of learning mapped and triangulated (see Figure 1) to a particular key theme so that learning is sequenced for the learner to build multiple skills and discover how to apply them. Through the consideration of constructive alignment (Biggs & Tang, 2011) we determined the content included in each teaching block, the teaching blocks included in each module and how progress will be measured. According to Biggs (2003, p. 2) learners “construct meaning through relevant learning activities” which are focused on the end goal and the “desired learning outcomes”. However, unlike Biggs’ cohesive outcome-focused model, our curriculum model focuses on internalising learning outcomes and developing critical self-governing academics who understand the value and impact of their teaching and will continue to engage in CPD beyond the course.

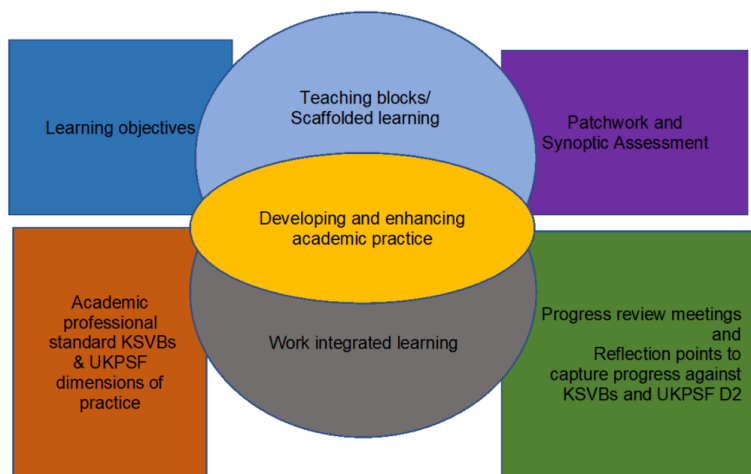


Figure 1. APA/PGCL THE work-integrated Learning Curriculum Model



Learning is scaffolded in each teaching block, allowing for logical progression from simplistic to more complex concepts, theories and ideas and enabling learners to transfer the knowledge and skills gained in each block to the workplace. Each session is mapped against the APA Standard and UKPSF dimensions of practice at D2, and learners are supported to apply the knowledge gained on the course in their own practice, with support from peers, workplace mentors and line managers. Key concepts and theories were selected using the threshold concept theory (Meyer & Land, 2003) coupled with the needs of the learners and employers. Threshold concepts are defined as “concepts that bind a subject together, being fundamental to ways of thinking and practicing in the discipline” (Land, Cousin, & Meyer 2005, p. 54). Through discussions with learners, line managers, mentors, and employers, we created a diverse and collaborative curriculum model that includes multiple perspectives, but more importantly helps to promote professional, social and ethical values and behaviours. This makes teaching on the APA/PGCLTHE learner-centred, inclusive, and contextualised within the workplace.

Our teaching blocks are designed not only to provide the learners with relevant learning experiences, but also to ensure that key concepts and theories can be confidently applied in their classroom with their own students. This approach is supported by an academic mentor and a workplace mentor within their School who assists the learner to complete the blocks through activities within their own School. Throughout the course, all learners are expected to participate in tripartite meetings, which are attended by the learner, a member of staff from the Academic Practice team and a Workplace Mentor from their school. These meetings take place 4x a year and, 6x in total throughout the full duration of the course. The purpose of these meetings is to monitor progress towards the End Point Assessment, to further support learners to make links to the KSVBs and achieve the learning outcomes of the course. The tripartite meetings are also an opportunity to review, feedback and reflect on all aspects of the learning journey. In the context of active

collaborative learning, these meetings help to widen the learning community, by supporting students to translate their learning to the workplace and to recognise and identify new opportunities to further develop the KSVBs and apply threshold concepts within their roles. These meetings are also an excellent way of linking to other support channels – for instance other peers on the course, previous course participants, other colleagues who have particular areas of expertise, working groups, forums etc. Action planning is key to a successful tripartite meeting. This is a collaborative process, where targets are agreed, set and reviewed in future meetings, installing a sense of accountability and ensuring important information discussed in meetings is not lost. The value of tripartite meetings increases over time as learners progress, however positive outcomes of these meetings rely on all parties being engaged and invested in the process.

Lastly, the new redesigned course offers opportunities for both patchwork and synoptic assessment to enable knowledge transfer and support learners to make connections between modules, and to understand the relevance and application of the content taught. Patchwork assessment was designed for each module that feeds into the overarching synoptic end point assessment. The rationale behind this assessment strategy is two-fold: first, to assess work against the learning outcomes, the APA Standard and UKPSF and second, to allow learners to undertake experiential learning through formative work-based learning assessment techniques, which form the basis of an authentic assessment experience.

## How could others implement this idea?

Any course with long, thin modules could be redesigned using our proposed curriculum design principles.

1. Start by working with your team on identifying threshold concepts.

2. Chunk long thin modules into smaller units of content that enable learners to explore and apply threshold concepts whilst at the same time meet the learning outcomes of the module. (Remember that chunks should ideally be between 5-8 sessions).

3. Consider how to scaffold learning to support learners to apply what they learn on the course either in practical sessions that simulate real-world pressures and deadlines or in the workplace (e.g. Work placement modules). Incorporate active learning strategies and formative authentic assessment opportunities.

4. Embed reflection in your course. Think of key points in your students' learning journey when they should pause and reflect on their progress and on what they want to achieve next.

5. Assign students to peer support groups from the start of your course and design synchronous and asynchronous active learning activities to encourage them to work in peer support groups.

6. Use assessment for learning principles. Design patchwork assessment to support your students to work towards completing the summative assessment.

## Transferability to different contexts

This idea is relevant to all course leaders and module leaders that have to design and deliver year-long or longer modules. The idea would be particularly useful for those designing and delivering courses that need to meet a number of professional frameworks, such as Academic Practice courses.

## Links to tools and resources

Academic

Professional

Apprenticeship

Standard:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/academic-professional/>

UK Professional Standards Framework: <https://www.advance-he.ac.uk/guidance/teaching-and-learning/ukpsf>

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## Image Attributions

Figure 1. APA/PGCL THE work-integrated Learning Curriculum Model by Bianca Fox, Sandy Cope, Adam Tate and Vicky Breckin is used under CC-BY 4.0 Licence

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# Curriculum design that welcomes students into the discipline

PAOLO OPRANDI

In this short chapter I introduce three principles for an inclusive (or ‘welcoming’) curriculum design, none of which are completely new and all three often come together. The central tenet of the chapter is that a curriculum can act as a barrier to students entering the discipline. By this I mean students who are enthusiastic about the discipline when choosing their degree subject, can start to feel like the curriculum is foreign to them and completing the curriculum tasks, readings and assessments only increases their alienation (Oprandi, 2014). However, teaching and assessment methods can be employed that can help a curriculum welcome all students into the discipline, whatever their background, and can help develop a sense of belonging. In the first part I say what the principles are, in the second part I make a case for why they are important and I conclude by suggesting some steps and examples.

## What are the methods?

The methods are the following:

1. To set learning objectives that require the students to become familiar with the *frameworks and methods* employed to come to know what we do on each given topic.
2. To provide opportunities to use frameworks and methods to *know parts of the topic for themselves through practice*. This can

be done individually or in groups.

3. To provide opportunities for the students to *interrogate the conceptual frameworks and methods* which have shaped a topic and provide a space for them to build upon them.

## Why are these principles important?

Knowledge is in a constant state of constant flux; it is usually highly context-dependent, often contested, and often changes, grows and develops. Furthermore, the frameworks and methods by which we come to know are entrenched in history and culture. While this in itself is inevitable, the space in which the frameworks and methods have developed are increasingly contested. For example, the decolonising the curriculum movement challenges the validity of traditional curricula that are increasingly recognised to be created from western, white, middle-class and male and in a word, “colonised” point of view (Arday et al., 2021). Teaching methods one and two seek to provide a modest remedy to this by firstly acknowledging the history and cultural contexts in which the conceptual frameworks and methods emerged and, secondly providing a space for them to be used in practice, questioned, contested and, if necessary, refuted.

Like many writing (and reading) this book, I understand that most of us learn best by doing and by applying knowledge to a personal context. The benefits of active learning approaches are many and well documented by renowned educationalists such as Dewey (1938) as far back as the early 1900s and, favourites of mine, Chickering and Gamson (1987). I therefore suggest that curriculum design needs to provide opportunities for students to apply these theoretical frameworks for themselves through practice. Problem-based learning is one teaching approach that can be used to embed Principle three; wherein “the starting point for learning is a problem or challenge which defines the scope of learning” (Boud, 1988 p. 87).



It seeks to provide the students with the opportunity to understand how the topic has developed, learn how they can contribute to it and have the opportunity to critique the frameworks used.

## How can you implement the principles in your teaching?

How can this be done? I suggest the following three part approach to preparing a session:

1. Create **learning objectives** that require students to be familiar with the conceptual frameworks and/or methods which underpin the topic, to be able to apply the frameworks for themselves and be able to offer a critique of the frameworks
2. Create an group **application task** which requires the students to apply the conceptual framework and/or method to understand something for themselves
3. Create a concluding activity which requires students to **discuss the cultural history and the limitations** of the framework and, if appropriate, propose alternatives.

### *Example 1: Linguistics*

In a linguistics class an objective is set to understand how the meaning of words change over time and in different contexts. The tutor presents the conceptual frameworks

that have been used to understand a word's meaning, such as spelling variations, dialects, registers, jargon, slang, and so on. A group task might be set to apply these frameworks to understand particular words and report back their findings to the whole cohort. The session might be concluded by discussing the usefulness and limitations of the frameworks as well as suggestions for alternative ways of understanding words (Oprandi & Murphy, 2019).

### *Example 2: Chemistry*

In a chemistry class the objective is set to analyse water quality and pollutants in a river, its effect on the river wildlife, the cause of the pollutants and ways to mitigate the risk of pollutants on the wildlife. See, for example, this PBL activity on the Royal Society of Chemistry website (Belt et al., 2002). In the class the tutor presents methods for analysing water quality, methods of identifying the cause of the pollutants and methods for measuring the effects of pollutants. A group task is set for the students to act as investigating officers, apply the

methods introduced, return data on water quality, quantify the effect on river wildlife, suggest causes and propose remedies to river pollution. The group feed backs their findings to the cohort. The session is concluded by discussing the cultural history, usefulness and limitations of the methods applied for tasks such as this.

## Conclusion

This short chapter offers a curriculum design that seeks to provide students with conceptual frameworks and methods that they can use to come to know new things. It includes providing the students with the opportunity to critically engage with those frameworks and methods so they can build upon them. The curriculum design is intended to lower the barriers that can prevent students from entering the discipline and instead invites students to come to know in their own way, welcoming all students into the discipline, whatever their background.

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Dr Paolo Oprandi is a Doctor in Education with an academic background which at different times has spanned the sciences, humanities and social sciences. He has worked in the area of learning technologies for 20 years and is currently a Senior Learning

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# Designing back from the future: building scenarios to engage students with global challenges

PROFESSOR ANKE SCHWITTAY

How can we move students from critically analysing contemporary challenges – for example urban inequality and unsustainability – to also imagining possible responses to them? In this chapter, which draws on my book *Creative Universities: Reimagining Education for Global Challenges and Alternative Futures* (Schwittay, 2021), I show how introducing students to design thinking and methods, including scenario building, is an active learning approach that combines critique and creativity in university classrooms. While design methods can be applied in any course that deals with social, economic or ecological challenges, the activity described here is based on a series of exercises I undertake with students in a third-year specialist module on Urban Futures and is informed by my long-term collaboration with design-educator Paul Braund (Braund & Schwittay, 2006).

I also draw on Anne-Marie Willis' exercise 'Designing back from the future,' where she defines scenarios as projections of likely futures that open them up for reflection, including on the actions necessary to achieve them (Willis, 2014). I use positive and proactive scenarios that ask students to imagine preferred futures and to pose 'how might we' and 'what if' questions to make ideas concrete. Willis argues that scenarios need to be set in a specific place and long-enough time horizon and be based on in-depth research to stop them from being fantasies or wishful thinking. Ideally students undertake this research prior to the scenario

building activity, but if that is not possible, even giving them basic information and laptop access to conduct on-the-spot research can help provide the necessary realistic context.

The activity works well with student groups of around 5 or 6 members each; if there are more than 5 such groups, several facilitators would ensure that all groups get the necessary attention. This chapter is structured around five suggested steps for how to plan and implement scenario building exercises in class: providing clear structures and inspiring materials, starting with what is familiar to students, asking questions, ensuring that students move from writing to building and debriefing.

## 1) Provide structure and materials

Even though this might seem counter-intuitive, it is important to give students clear guidelines and structured activity outlines for more open-ended learning activities such as scenario building (Lyon, 2011). From my own experience, students are often not familiar with creative classroom work, can be resistant to it because of ‘I can’t draw’-type reservations, might feel vulnerable outside of their comfort zones or prefer passive knowledge accumulation to exploratory learning (James & Brookfield, 2014). Explaining the objectives of creative classroom activities and how they work, in clear and empathetic ways, puts students at ease and helps to ensure effective learning. In addition, having a room with movable tables and chairs and providing easy-to-manipulate working materials, such as pipe cleaners, Play-Doh, building blocks or natural materials, enhance a sense of playfulness that can alleviate anxieties, engage the senses and allow creativity to flow more freely.

When I have carried out this activity with students, their excitement upon entering a well-prepared room was always palpable, with students often starting to play with the materials they found on the tables, twisting pipe cleaners into whimsical shapes

and commenting how the smell of Play-Doh often brought back childhood memories. An inviting set-up therefore shows students that they are allowed and expected to engage in active and creative learning.

## 2) Start with what students know

Making room for students' own experiential knowledge introduces additional perspectives, decentres classroom authority and gives student a sense of ownership in their learning. In universities with an urban campus, this could engage the surrounding city (in the case of Sussex University, it's Brighton where most students live after their first year). Otherwise, if the group collectively decides on a location, recommend that they pick a place that at least one group member knows well. Finding creative ways to bring in students' experiences can help to get them ready for the activity – in my class students keep a personal Brighton diary for a week where they chronicle their journeys, activities and interactions prior to the scenario building activity. I also challenge students to move away from writing, by producing maps, taking pictures, building artefacts, recording short videos or spoken word pieces. These diary exercises resonate with students who often comment how they come much more aware of their lives in Brighton and can see their experiences as active learning opportunities.

## 3) Pose questions to guide students' visioning process

The actual scenario exercise starts with students articulating their preferred future scenarios. If the activity is of sufficient length – I suggest at least 3 hours – and students have enough background



knowledge, they can collectively negotiate their own vision, in the process learning that there are often more than one idea of what constitutes a preferred future. Guiding questions are important to facilitate that visioning process, such as:

- What do we want future urban spaces in [Brighton] to look like?
- How might we get there?
- What new structures, laws, behaviours, institutions etc would we need to create?
- Who will participate in the process and who might be excluded or negatively impacted?

If the activity is shorter, a pre-defined scenario can get students going faster; in my class I suggest the vision of 'Brighton in 2050 will be a self-sustaining, hospitable and generous city.' These visions are jumping off points from which students work back to the present and imagine what would need to happen to achieve them.

#### 4) Make sure students build

Sometimes students get stuck on writing, which is how they usually express their thoughts at university, so it might be necessary to remind them throughout the activity that they are expected to draw and to build. It is a good idea for the educator/facilitator to visit each group and to be prepared to get stuck in – without taking over, which can be challenging. Having materials available on each table, together with photos and visual prompts, also helps to reinforce the expectation that students will produce a built scenario at the end of the activity (Halse, 2013). I always explain to students that the process is just as, or even more, important than the final product. Such prompts can also help when students get stuck on details or find it difficult 'to make things up.'

## 5) Make time for sharing and debriefing

Sharing their creations gives students an opportunity to explain their work and take pride in it. Collective debriefs are important to draw out the learning from the activity.

I have conducted this teaching activity several times in different contexts and received much valuable student feedback, which focused not only on this being a more memorable and joyful way of learning together with their peers, but, in addition, students ‘learned about a new way to think (not just words),’ which speaks directly to the active learning component of this activity. Similarly, comments such as ‘I realised that there are a hundred ways to work’ show how students are opening up their perceptions of what learning entails and how it can be enacted in the classroom.

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# 1C BLENDED AND HYBRID CURRICULA



# The sandwich model: a supportive framework for blended learning

FIONA STIRLING



## What is the idea?

This chapter introduces a supportive framework for blended learning titled 'the sandwich model', developed during the delivery of a module for a counselling course. In this approach lecture topics were delivered over two week periods. In week one there was a synchronous lecture where the topic was introduced. Students did not need to prepare anything in advance of this. After this initial introductory session students had one week to engage with the self-directed asynchronous materials and activities that had been

provided, which included readings and recorded videos with further information. In week two there were synchronous small group discussions facilitated by staff to consolidate the learning. The 'sandwich' in the name therefore comes from the sandwiching of self-directed learning between two variations of staff-directed sessions. Students reported increased confidence and satisfaction with their learning during application of this model.

## Why this idea?

When teaching was driven online due to the COVID-19 pandemic many higher education classrooms were 'flipped' and 'blended' by necessity rather than design. Emerging research indicates the student experience of this was mixed (Boronyak, 2021), with perceptions of a higher workload and feelings of boredom, anxiety, and frustration (Aristovnik et al., 2020). Lai (2021) therefore recommends further thought and discussion on best practice for online learning to improve student interaction and collaboration.

Bates et al. (2017) highlight there is no single model for 'flipping' a classroom, only that instruction involves pre-recorded elements over which the learner has control of pace, while synchronous class time is utilised for engaging in collaborative learning and advancing concepts. The self-pacing is what can be of concern to educators due to assumptions that less motivated students will struggle, however it is exactly such an attitude which may be "perpetuating an anti-autonomous attitude for the student" (Bates et al. 2017, p. 7).

Mahalli et al. (2019) suggest the strengths of the flipped classroom model are making students ready to learn in class, and building curiosity for learning. I propose that starting the learning cycle with face-to-face engagement, with no requirement for preparation, urges the same curiosity and sets students ready to learn in a self-directed way online. Shifting from an expectation of 'pre-class' to 'mid-class' engagement also appears to diminish students



perception of an increased workload as it transitions into the realm of homework rather than pre-work.

Jung et al. (2021) propose the key to a successful flipped classroom is engaging student agency to actively participate in learning, which requires self-regulation. Creating a structure which supports development of self-regulation can aid students in successful engagement. The expectation of students to engage with self-directed materials between two face-to-face staff supported points appears to offer a 'scaffold' for self-regulation. I take the term 'scaffold' from narrative therapy, which attempts to create opportunity for discovery rather than lead clients to specific understandings or ideas. Ramey et al. (2010) explain that the narrative scaffolding approach draws on Vygotsky's theory of learning, specifically the 'zone of proximal development' in which the gap between what is known, and what is possible to know, is bridged through social collaboration. To achieve this requires a breakdown of manageable tasks, "which are structured at first but allow for the gradual progression from collaborative to independent performance" (Ramey et al, 2010, p. 77). The sandwich model permits such progression.

An example in action:

1. Week one synchronous lecture (the foundation bread): Students are introduced broadly to the concept of discourse by the lecturer.
2. Self-directed engagement (the sandwich filling): Students are provided with 'core' materials to review independently before the next weeks lecture, including a reading about discourse and mental health, and a TED talk on mental health conversations in the media. There are signposts to further optional materials for those who choose to deepen their learning.
3. Week two synchronous tutorial (the consolidation bread): With support from the lecturer in the form of discussion prompts, students explore scenes from film and TV together, applying their knowledge from the self-directed learning to examine

potential social impact and develop understanding of the concept in action.

## How could others implement this idea?

This approach may best be considered as a rotation model, of which Staker and Horn (2012) suggest the flipped classroom is a subset. The rotation model sees the student move through a three stage cycle of teacher led instruction, independent work/collaborative activity, and online learning, while the flipped classroom has two steps, an independent preparatory activity (e.g. reading or watching a lecture video), followed by face-to-face instruction in which students can put learning into action or explore topics in-depth. The sandwich model also borrows from elements of Just-in-Time-Teaching, where the ‘feedback loop’ created by lecturers dynamically responding to students completion of pre-set tasks allows the delivery of learning to be responsive to the level of class understanding (Marrs & Novak, 2004). The initial exploratory face-to-face lecture in the sandwich model allows the lecturer to gauge initial knowledge and understanding, and direct the subsequent small group discussions accordingly. Setting the ‘lead’ or dominant mode of engagement (Neumeier, 2005) in this model as face-to-face and synchronous replicates the familiar, ‘traditional’ learning students are used to, while the mode of self-directed online learning being paced over two weeks maintains the “opportunity for the student to build confidence in their education based on their ability to be responsible and autonomous for the information/learning they are seeking” (Bates et al. 2017, p. 7). ‘Sandwiching’ is also a familiar concept to students in itself, in line with the traditional lecture – reading – seminar structure of engagement.

The core principle is simply to provide two points of synchronous engagement between which self-directed learning is sandwiched,

a framework which a variety of disciplines can utilise in their own way.

## Transferability to different contexts

As highlighted initially, there is no single way to 'flip' learning, and many interpretations are likely to have emerged through accelerated experimentations since 2020. This brief outline of the sandwich model will hopefully allow educators in other disciplines to take it forward for application with their own learners, either with the same pattern, or adapting it to suit their own needs. For example, according to the topic or discipline the length assigned between synchronous staff-led delivery points could be extended beyond two weeks to allow additional time for self-directed learning, or perhaps the second synchronous point of engagement could be peer led. As stated, the core principle is simply to provide two points of synchronous engagement between which self-directed learning is sandwiched.

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# Active learning journeys: the TREC model

DR ROD CULLEN AND ORLAGH MCCABE

## What is the idea?

TREC (Cullen & McCabe, 2021) is a model that was originally developed to help academics in higher education working in any subject discipline, with limited experience of fully online teaching, to design, develop and deliver engaging active learning in “live” online classes. The model has been popular and subsequently adopted for teaching in a range of contexts at all levels.

The model was envisaged as a process that would take students through a structured, four stage active learning journey (see Figure 1).

TREC is a teaching method that embodies an active learning approach, it is important to make this distinction as Armellini & Rodriguez (2021) identify “active learnings core elements are student activity and engagement in the learning process” (Armellini & Rodriguez, 2021, p. 3) both of which are explicit in a TREC journey.

**Trigger:** Students are presented with a task that requires them to think about, and articulate in some way, what they already know, understand, or believe about a topic, concept, or theme. We feel that an important aspect of the trigger activity is that it places value on the students’ initial knowledge, understanding and lived experiences and it is important that the tutor emphasizes this as part of the activity.

The primary purpose of the trigger is, however, to get the students to articulate a response. This might be as simple as answering a multiple-choice question or something more complex

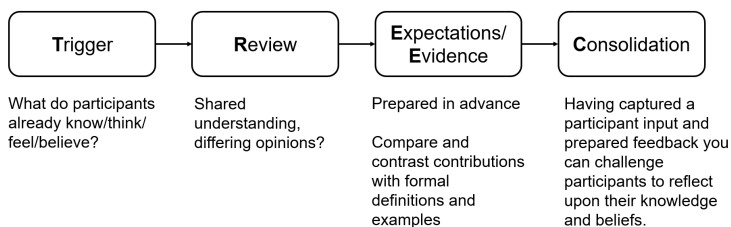
that involves writing down an answer or drawing a picture. The trigger can be completed individually or in small groups. The key thing is that the trigger moves ideas from inside the students head as a tangible output that can be shared with the tutor(s) and other students. For example, in a session introducing the concept of active learning we might ask the students to write down three characteristics of active learning.

**Review:** Once students have completed the trigger the responses can be shared back to the class as a whole and the contributions can be reviewed with the learners. This provides an opportunity to highlight and discuss common themes and differences in the class responses. This helps to develop shared understanding within the students and again the tutor has the opportunity to emphasize the value and relevance of the student contributions.

**Expectations/Evidence** Having reviewed the student responses/contributions the tutor can compare the outcomes with pre-prepared expectations and evidence sourced from wider research and literature. For example, where learners have been asked to share three characteristics of active learning, these can be compared and contrasted with characteristics found in formal definitions of active learning from published sources. In this respect there is an opportunity to build upon common themes, explore and re-examine misconceptions and test assumptions in existing sources. In this respect tutors can build confidence in students to challenge their own thinking but also that represented in published work.

**Consolidation** – Tutors can subsequently challenge learners to reflect more deeply upon their initial understandings. This may involve a follow-up task to consolidate deeper understanding. In the context of our active learning example, learners might be asked to share (in writing or orally) examples of effective active learning they have experienced as either a student or in their own teaching practice.

The TREC model active learning journey is summarised in Figure 1.



*Figure 1. The TREC Model*

## Why this idea?

The most significant aspect of the higher education sector's response to the COVID19 pandemic was a rapid shift to fully online teaching. For many academics this was a completely new and daunting prospect. Like most institutions, Manchester Metropolitan University initiated substantial staff development and training opportunities to support academic colleagues in their preparation for this significant change to their teaching practices.

In our staff development and training provision we wanted to provide a large number of colleagues, who were new to teaching online, with a simple learning design approach that would avoid the possibility for learners to disengage or become passive recipients of content in online sessions. Additionally, and of most importance, was the desire to inspire and empower colleagues to design and deliver an active and engaging curriculum. Therefore, the promotion of active learning strategies became an integral feature of the rationale for TREC.

The TREC model emerged from reflections on the session planning process and has become central in facilitating the design and delivery of active learning through which learners construct their own understandings and make meanings about particular events and experiences (Mikalayeva, 2016). In our experience the



TREC approach not only embodies this, but ultimately promotes understanding for learners, resulting in increased skills, particularly in terms of being in a position to analyse, evaluate and synthesise their ideas.

There are many benefits to active learning, for example, placing learners at the centre of their learning provides a level of autonomy that many will find empowering which in turn can increase confidence. In addition, developing key skills by engaging with interactive resources (such as case studies and problem-based learning) can contribute towards the development of useful transferable skills (Rands & Gansemer-Topf, 2017).

## How could others implement this idea?

The TREC model provides a framework for any academic practitioner to design active learning into their provision. In a staff development and training context we have found that it can be valuable in helping academics to review traditional presentation style delivery and look for opportunities to turn presentation content into activities. In this respect, we encourage academics to seek out aspects of lectures where they present data, lists, definitions, or aspects where opinions are split and to rework these as triggers and/or evidence within the TREC model.

For example, a traditional lecture might start by presenting students with a definition or range of definitions for a particular concept and then go on to explore this further. A TREC activity would start with a “trigger” that might ask learners (working individually or in small groups) to come up with their own definition of the concept based on what they already know. Students might share their own definitions in writing in a live online session via a chat tool or a collaborative digital whiteboard (we often use something like Padlet for this). When students’ have responded to the trigger the tutor can “review” the range of definitions the

students have contributed, exploring similarities and differences, and working towards a shared understanding. The tutor can then make comparisons between the student generated definitions and formal definitions, which we refer to as “Evidence” provided in the literature. Subsequently, having captured digitally (via chat or Padlet) the participant input we might challenge the students to consolidate their learning by refining their own initial definitions of the concept.

## Transferability to different contexts

The TREC model was originally conceived in the context of delivering “live” fully online sessions through tools like MS Teams, Zoom and Adobe Connect. However, it has broader applications than this. In relation to online learning the model could be extended beyond the confines of “live” teaching situations. In this respect the “trigger” could be brought forward to provide a pre-session activity, with instructions and submission via a Virtual Learning Environment (VLE) or collaborative platform such as MS Teams. Review and Evidence/Expectations stages would be undertaken in the live session. Furthermore, consolidation activities could be undertaken as independent or collaborative follow-up activities also via the VLE or collaborative platform. In this way we might imagine bridging between live sessions with follow-up and preparation activities as summarized in Figure 2.

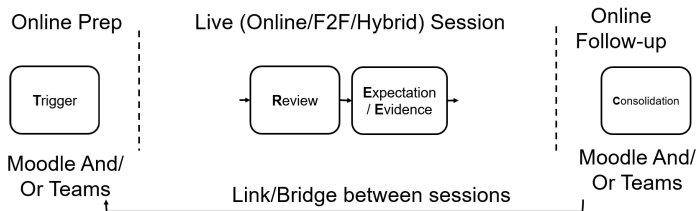


Figure 2. Extending TREC beyond live sessions

The successful uptake of staff choosing to embed the TREC model in their practice could be attributed to its simplicity, something which we feel has been attractive to colleagues who are often dealing with a number of competing priorities. In addition, the model provides versatility in the sense that it can be used in online, face to face and hybrid situations, and is useful in the planning and design of sessions at all levels.

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Figure 2. The extended TREC Model by Rod Cullen and Orlagh McCabe is used under CC-BY 4.0 Licence

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# Unified Active Learning: models for inclusive hybrid learning

DR ANDREW MIDDLETON

## What is the idea?

Anglia Ruskin University's Unified Active Learning (UAL) adoption framework was designed to inspire academics to think innovatively about incorporating active pedagogies.

UAL is a hybrid design model composed of a set of design principles, an evaluation framework, and four high-level models. Consequently, it reveals a multitude of possibilities for active, inclusive and collaborative learning. The four models are discussed here: blended bubbles; location neutral; hives and observers; and connected co-creators. Specific example pedagogies are outlined for each.

## Why this idea?

UAL was devised by the University's Active Inclusive & Collaborative Learning (AI&CL) task group in response to the 2020-21 pandemic to ensure all students, wherever they were co-located, could engage in learning together. The framework presents an accessible connected classroom approach intended to stimulate and support all students in uncertain times.

However, UAL was intended to be a sustainable framework. We

wanted sustainable design to avoid wasted energy and imagination, and avoiding the danger of ‘falling back’ (Bryant, 2021) to delivery-based teaching. In effect, we were aware that the need for change in response to a crisis should align to the hard-won commitment made the previous year by the academic community across the university when our Active Curriculum Framework was introduced (Middleton et al., 2021). Indeed, it became clear that an active learning strategy brought many advantages to the situation: our staff understood the rationale for designing a liberating student-centred learning experience. Changing tack would have sent a confusing message and undermined curriculum quality for years. The UAL framework signalled our positive intention to build upon what we had recently achieved, therefore.

## How could others implement this idea?

### **A design and evaluation framework**

UAL is a hybrid curriculum design framework structured around the following principles:

1. Active and collaborative engagement around stimulating content
2. Unified experience that involves all students learning together
3. A whole student experience that fosters belonging and becoming
4. Inclusive, diverse and socially balanced

The design principles allow academics to make design decisions based on the essential values underpinning active learning.

At ARU, our Canvas learning management system is widely used, however, staff have not consistently used it as a space in which to engage students through synchronous learning activities. Like other VLEs, it predominantly reflects an organisational, rather than

pedagogical, paradigm. Creating a rich, collaborative online learning experience was a new challenge for many staff. However, the pandemic forced many students into isolation and staff needed to be guided towards involving their students as members of productive and supportive learning communities. Uneven digital fluency in staff and students emerged and we were aware that feelings of technological inadequacy can obstruct creative people-centred design thinking.

The UAL Framework prompts academics to evaluate their hybrid practice and pinpoint areas for development. It does this by setting out three dimensions using a positive tone that suggests most academics will already understand the implicit values and, to some extent, see their practice in all of the dimensions.

The first dimension, labelled ‘Identity’, reflects the essential idea that being on a course should feel like being part of something. The other two dimensions extend this to reflect a course experience that is active, inclusive and collaborative by design. As academics reflect on and think about developing their practice, the framework proposes that the third dimension, ‘Commitment’, will increasingly reflect their norm.

The framework is presented as follows:

In their formal engagement, all of my students, however and wherever they access their learning, normally:

---

1. <b>Identity</b>	Learn alongside each other, being aware of each other and their common purpose, having a strong association with their course and feeling a strong sense of being part of something.
2. <b>Connection</b>	Learn through regular interactions in their connected class and through formative and summative group work in which they have a clear and equal role. They learn from their different perspectives, regularly working as supportive teams.
3. <b>Commitment</b>	Value each other, coming to refer to each other habitually in all that they do as co-producers of knowledge and co-creators of their learning experience.

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## Application models

With the principles in mind, development work proposed four overarching UAL models. They are reproduced here with some example activities to illustrate the model. In reality staff came up with their own responses, however.

### Location neutral model

Learner location need not be a factor that unduly affects the learning experience or outcomes: the session design or activity engages all students equally, whether they are on campus or online.

#### Examples:

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<b>Voting</b>	Polling of opinions or voting for decision-based learning is a common approach to involving students in thinking about topics. Being asked to make a decision can involve the application of knowledge or it can surface assumptions and questions that lead to further investigation.
<b>Co-writing</b>	Accessing, writing and editing a shared document (see Co-writing chapter)
<b>Chat-based games</b>	Using embedded apps such as polling, whiteboards and third-party tools.

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### Hives & Observers model

A core co-located classroom group has an active synchronous role ('hive' group). They are observed by students located remotely, either off campus or clustered in other rooms or sites.

Both the hive and observer groups have a valuable role in the same synchronous activity by being assigned different roles. Assigning roles or attitudes can underpin a range of interactive pedagogies. Example roles can include: 'players', 'operators', 'experimenters', 'performers', 'reviewers', 'monitors', 'directors', 'agitators', 'advocates', 'observers', 'commentators', 'reporters', 'coaches', 'scorers', 'game changers', etc. Roles can instil a degree of safety as students develop their voice and identity. Nevertheless, both the co-located and the dispersed online students learn in a mutually beneficial, interdependent relationship.

#### Examples:



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<b>Crowd in the Cloud</b>	Goldfish bowl conversational challenges are not new. Here, hive members undertake a task, e.g. discuss the pros and cons of a situation. Observers note and challenge key points.
<b>Puppet role play</b>	Establish a scenario and run it, inviting onlookers to 'fill in the blanks' to set parameters and define variables that affect outcomes or 'put words in the mouths' of in-class actors to enrich the scenario.
<b>Connected labs</b>	The approach gives the onlookers a degree of control over their running of classroom-based activities through the setting of variables and conditions. The idea of 'lab' can be broadly applied, being essentially the running of a process e.g. scientific experiments, role plays, discussions. The Observers take responsibility for recording and comparing outcomes, making notes, and providing feedback to the in-class participants.
<b>Home and away debates</b>	A lot can be learnt about teamwork by all students when one group can collaborate while the other students can't. For example, when used with care, the dynamics of a debate in which co-located students are pitched against dispersed students can be illuminating. Ground rules for each can be devised, e.g. online students can Google information, on campus 'hive' students can't and must draw what they know.

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### **Blended Bubbles group formation model**

Co-located students are partnered with dispersed student peers ('bubbles'). They work together both in real-time and asynchronously on problems, addressing scenarios, researching texts or 'Google Jockeying' (EDUCAUSE, 2006) data and images.

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<b>Triads</b>	Create problem or scenario-based learning challenges. Establish mixed groups of three made up of a: 'Co-ordinator' who has responsibility for chairing, keeping the group on task, and summarising the groupwork; 'Questioner' who seeks clarification, challenges assumptions, and asks "What if...?"; and 'Observer' who observes, records and writes up what the group did and found out. Consider which role works best online and whether you should rotate roles from time-to-time.
<b>Digital collaging</b>	Group members assemble a multiple media portfolio in response to a topic-based challenge. Each person in the group is given responsibility for researching the topic by searching for a specific media-type: numeric data, quotations, images, music, video, podcast, for example. After the allotted search time, students analyse the assets and compile an immersive media collage or digital story.
<b>Project-based learning</b>	Student team members have agreed (either assigned or negotiated) roles with clear responsibilities. To be successful, interdependencies between those roles need to be explicit along with co-working tasks. Within their teams, students can be advised to break down into pairs to support each other in tackling dimensions of the team project, with one student being online and the other on campus.
<b>Resource building using Google Jockeying and commentaries</b>	Online students can scout for relevant information and develop commentaries. On campus students can do the physical lifting! In the case of Nursing students, this was literally the case at ARU. Together, they can create video skills-based resources by capturing activities in Teams or Zoom and creating commentaries for them.

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## Connected Co-creators model

All participants are engaged as a community of co-creators taking part in research-led or inquiry-based learning. Any individual or group can be charged with researching a topic between sessions with the expectation that what they discover will be used in session either as the basis for their own learning (e.g. application of case studies) or as part of a programme of student mini-lectures or the co-construction of a wiki resource.

### Examples:

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<b>Co-writing</b>	Accessing, writing and editing a shared document. (see Co-writing chapter)
<b>Group digital poster or recipe book</b>	Each student group creates a structured presentation using PowerPoint. In the case of a recipe book, it backgrounds and presents a process useful to a relevant real-world practitioner. Optionally, the group's poster presentation or recipe is developed as a screencast (captured as a video presentation) in which all group members build upon the presented information together. Key to the task is the flow of the presentation; how each dimension relates to the slides that preceded it and how it then connects to what follows. This in-presentation connectivity ensures collaboration amongst group members is needed and ensures marks can be assigned for evidence of this flow.

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## Transferability to different contexts

The examples given above indicate some of the many possibilities that can be developed to engage students actively, together, wherever they are located. In this way, activity can take advantage of the apparent dislocation of students as they enact a connected classroom philosophy.

As a principle-based approach, the framework removes a sense of prescription and encourages creative thinking about how to adapt to specific curriculum contexts.

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## 2 INCLUSIVE COMMUNITIES



*Small blue butterflies*

*“Diversity: the art of thinking  
independently together”*

**~ Malcolm Forbes**

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# Introduction to Inclusive Communities

ISOBEL GOWERS AND MATT PARKMAN

There is increasing importance placed on developing inclusive communities within higher education institutions (Smith et al., 2020; Williams et al., 2020) for several reasons. Feeling part of a community and a sense of belonging aids both learning and retention. Through communities, peer learning develops, as well as a social network that allows students to support one another. Diversity within the student population, as well as a history of those from under-represented groups not achieving the same outcomes as others has been a driver to develop more inclusive communities. The chapters within this section provide a range of active learning ideas that will create and strengthen inclusive communities. There is a focus on supporting international students but the ideas provided will help improve the learning and sense of belonging of all students.

## Inclusive Practice

Zhuo Li looks at activities to encourage Chinese students to get involved in discussions. Empowering the students to get the most out of their learning by joining in verbal discussions whilst recognising that an expectation of their culture is for them to be reserved and quiet. The opposite take on this is provided by Spowart, who provides an idea at using discussions via writing rather than verbally to ensure that all students have a chance to participate, even if they are quiet and do not like to talk in class. It

is suggested that these silent discussions can work well in both face to face and online environments.

Of course many discussions that students have will require them to gain a consensus and Tzoumaka provides an idea where students need to gain consensus whilst maintaining mutual respect. She highlights the importance of this skill for team work and collaborative work and undoubtedly this is an important skill for the workplace. As well as the skills needed for collaborative work, scaffolding of student learning is important for allowing students to develop agency in their learning and this is the idea explored by Harvey. Agency can empower students to feel included. Students can often find active learning challenging and scaffolding is invaluable for allowing students to develop their own ideas, which often reflects their own experiences and culture rather than lecturers prescribing their ideas.

Moving away from just using activities that ensure students are included in the learning, Kyparissiadis goes beyond that and uses active learning to encourage empathy by challenging students to walk in the shoes of others. The example given is from advertising but this activity could be related to how we see individuals from our own and other disciplines. The activity can encourage empathy but also provides students with an awareness of inclusivity that will be invaluable as a graduate. Taking a different approach Hancock looks at using a problem based learning approach using student characters to help develop an understanding of support and guidance a student needs through transitions in their education. Although this example is focused on an educational setting, it could be amended to problems that occur in a variety of different settings.

## Building Communities

Wilson-Crane provides an idea to support international students building networks through interdisciplinary active learning. By



working together to apply knowledge and create some point of collaborative output allows the students to build a network with students across different subjects as well as between undergraduate and postgraduate students. This working together helps students to feel part of the wider university community.

Trivedy takes a different approach to developing a sense of community and that is using Microsoft Teams to develop a community of practice, social and collaborative space. This chapter provides details on how to scaffold the development of the community, to encourage students to share their successes, knowledge and also their challenges removing that sense of isolation.

In the idea from Trela and Rutschmann an activity using mind mapping to build a peer learning community highlights how important developing trust and building a community allows active learning to flourish. Rather than just expecting peers to be able to trust and support each other in their learning, this idea presents something that both encourages exploration of content knowledge but in parallel starts to build a community that will allow peer learning to develop effectively.

## Empowering Learners

Here, we will focus on the process of democratising the learning process. Ensuring that learners are involved in the learning process from end to end is a sure way to drive engagement.

Finn explores the idea of learners selecting their own paths to enlightenment, taking the flipped learning approach and empowering students to apply this to administrative aspects of education, such as curriculum unit selection. Finn further explores the interpersonal benefits of encouraging learners to take ownership of their learning journey, as well as highlighting the benefits to teaching teams.

Pedersen shares a practical approach, aiding in the development of a learners Zone of Proximal Development, encouraging learners to learn most actively, through the creation of their own materials. This section explores the benefits of creation, including increased confidence, self-efficacy, and resource banks within learner groups.

Steinberg focuses on a more pastoral approach, incorporating personal experiences into the learning experience. This idea explores the advantages of reflection, timeline production and critical evaluation of a learner's understanding and expectations on any given project. This section provides further application of a highly adaptable concept.

## Wellbeing, Humour and Mindfulness

This section focuses on wellbeing in both teacher and learner communities, achieved through mindfulness, preparedness techniques. There is further distinction on the role of humour and humility when facilitating active learning.

Johnston explores the role of fear and how this can be positively met with humour as a pedagogical tool, enabling learners to reflect positively on learning experiences, and innovatively relieve stress and anxiety often associated with presentation delivery.

Edwards-Smith considers the impact of mindfulness of active learning, demonstrating how embracing the moment can allow learners to develop their critical thinking skills, with open minds in safe environments. This section provides practical steps to facilitating mindfulness in learner environments, well supported with literature.

In summary, although this section on inclusive communities is built up of three parts, it is very hard to disentangle the content within. For example, peer learning occurs best when a community has developed with the participants trusting and respecting each

other. To develop a community you need to ensure that all participants are included. And finally learning will not happen if students are stressed. This means that the ideas from the chapters in this section not only provide some excellent stand alone ideas but can also be used as a mix and match to promote an exciting inclusive community.

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# 2A INCLUSIVE PRACTICE



# Using formative assessment to activate Chinese 'quiet students' in English learning

ZHUO LI

<sup>1</sup>What is the idea?

Attracted by the global marketplace, universities in western countries have been recruiting international students at an unprecedented speed, and Chinese students have made up the largest percentage compared to students of other nationalities. Many Chinese students are quiet and reserved in academic discussion, which can be a challenge for those teachers who are familiar with using participative teaching methods. This short chapter explores the use of formative assessments within a Chinese university context to activate quiet students.

Why this idea?

Before exploring effective ways to activate quiet students, it is necessary to know the factors that cause Chinese students' reservations to participate in class.

## 1. null

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*Students' willingness to communicate is closely affected by their country's culture.*

To many Chinese, the concept that “quiet is golden” serves as armour to protect them from troubles. Furthermore, because of the Confucian teaching tradition, many Chinese students are afraid to ask teachers questions because it is perceived as a challenge to the teachers' authority. They believe that remaining silent and occupied with taking notes in class is the best approach to being a good student.

*Language proficiency also hinders Chinese students' willingness to communicate.*

The second reason that Chinese students remain quiet in class is a lack of language proficiency.

Because they are scared to make mistakes, most Chinese students with inferior proficiency avoid losing face by staying mute. This is considerably worse in Western colleges where Chinese students are surrounded by fluent English speakers. They undergo both culture shock and teaching-culture shock, which further disincentives them from contributing.

*Many shy students are still motivated*

Apart from the two previously mentioned qualities, the third group of silent students are introverted. They keep quiet merely because they are too shy to participate. When this group of students' instrumental motivation is triggered, they can modify themselves actively in learning. They will, for example, open their mouths and raise their hands if they believe they would benefit from, say, a high grade for their active performances. As a result, a clear assessment



checklist requiring class involvement and interaction may assist drive individuals to participate in classroom learning.

*Formative evaluation can bring numerous benefits for breaking the quiet class phenomena.*

Meidasari (2015) states that the main reason for assessment is to “inform teaching and to promote and encourage learning—to promote optimal individual growth” (p. 228). With carefully considered assessment objectives, students have a clearer idea of what they are required to learn and what they need to improve. In turn, in-class assessments allow teachers to get data about the students’ performance so that they can adapt their teaching to meet their students’ needs. Topping (2009) gives a more specific perspective that peer assessment can improve students’ writing, and group work and can save teachers’ time. Sejdiu (2014) also demonstrated that “peer assessment is important in settings where there are many students to a single tutor” (p. 71).

In this chapter, I will use my English teaching in mainland China as a case.

## How could others implement this idea?

This practice was carried out in the module College English, which aims at improving university students’ English proficiency. Forms of formative assessments I employ are peer assessment (included 25% assessments from peer group assessors and 20% from inner group members), web-aided assessment (25%) and teacher assessment (emphasise in feedback, 30%).

## *Peer assessment*

**Students are divided into groups.** Putting them into friendship groups can encourage shy students to communicate.

Assignment tasks are delivered before class to guarantee students are well prepared. This step can release their anxiety and make sure they can understand what group members are talking about and allow them to respond quickly and properly.

Assignments are varied and might include article analysis, background information discussion, debate, interview, role-play, and so on.

**Peer assessment is introduced and its importance is explained to students before class.**

Though it has many gains, students (peer assessors) should be trained before giving an assessment. Topping (2009). provides some methods to this training. For example, “show them how to do”, “provide training, examples, and practice”, “and specify activities and timescale” (pp. 25-26). Practically, it takes around 15 minutes to train students. During the process of peer assessment, teachers act as an organiser to steer it in the right direction.

Peer assessment should cover speaking and writing. Usually, I will invite one student (randomly) to report their group’s assessment. The other group members need to hand in their own paper assessment individually.

**Content, creativity and cooperation should take priority over pronunciation.** Though students have the same academic background, their English proficiency is varied. The students who come from Chinese urban cities are better than those that come from rural areas. Some students have prepared very well before class, but fail to get a high score from peer assessment due to their strong accent which makes them hard to understand. This factor is the biggest reason to prevent students’ participation. For this reason, details in the checklist of peer assessment must emphasise content, creativity, and cooperation.

**Peer assessment checklist**  
**Peer group (25%)**

*Student A :*

*Assessor 1 : (in order to make the assessment reliable, only teacher can see assessor's name)*

---

Information points(40%)
Creativity(20%)
Fluency(20%)
Cooperation(20%)
Quick comment
Total score

---

*Table 1*

**Inner group (20%)**

*Student A :*

*Assessor 1 : (in order to make the assessment reliable, only the teacher can see the assessor's name)*

---

Contribution (50%)
Cooperation (50%)
Quick comment
Total score

---

Table 2

*Web-aided assessment*

Peer assessment aroused students' willingness to communicate, but it is time-consuming and subjective. There are many MOOC websites and apps that can complement and fulfil an overall and objective assessment. For examples WeLearn, Unipus, wechat group, Rainclassroom, and on. These websites and apps record students' performance in e-learning and communication, score on many specific items individually, give personal feedback and provide reliable data to teachers for follow-up instruction. It's extremely necessary for teachers to remind students that all performances are recorded by showing statistics in web-aid assessment, which can further increase students' involvement in active learning.

*Teachers' assessment*

Teachers' authority in my practice has decreased in comparison to traditional exam-based summative assessment. However, teachers' assessments continue to have the highest ratio among the three types of formative assessment, which can reassure students that they are active learning under strict supervision rather than solely self-study. Teachers should provide specific and supportive feedback regardless of the assessment. It can be a summary of the

student's performance, a guide to the next chapter of the student's study, or simply a correction to the student's understanding. With the changes mentioned above, formative assessment has proven to be beneficial to both my teaching and the students' active learning.

## Transferability to different contexts

Although this practice is commonly used in Chinese English-learning classrooms, it can be applied in almost any context with Chinese or introverted students. I would recommend teachers in stages:

### *Peer assessment*

Invite different students to represent their groups in the final assessment so that those with higher language proficiency do not dominate the speaking activity.

When students disagree, teachers can step in. Teachers can also intervene when students speak Chinese in class rather than English. Leaders of groups are crucial. They should be well-organised, friendly, helpful, and skilled at steering the conversation. Rubrics for assessments should prioritise content over pronunciation or intonation.

### *Feedback*

Language assistance should be provided by teachers. Teachers should speak standard English at a slow pace and correct students' sentence structure errors.

Teachers should offer emotional support to their students. Using

words such as “wonderful, creative thinking, perfect” can boost students’ confidence and encourage them to communicate.

## Links to tools and resources

- <https://welearn.sflep.com/>
- <http://gdut.benke.chaoxing.com>

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# Silence is golden: using silent discussions to promote inclusivity and critical thinking

DR LUCY SPOWART



## What is the idea?

Whether online or in the classroom, a discussion is typically thought of as being a verbal dialogue between two or more individuals. In a silent discussion all verbal communication is banned and written communication is deliberately privileged. Learners are asked to respond in writing to a particular question, statement or image, whilst maintaining complete silence. The facilitator specifies the time the silence needs to be maintained.



Whilst learners respond individually, as the number of responses increases, a dialogue develops. Where learners don't understand a comment or want more information, they are encouraged to convey this in writing.

## Why this idea?

Whilst active learning is known to promote deep learning (Exley & Dennick, 2009), many active learning approaches require students to engage in verbal discussions. Quieter, more introverted individuals can be marginalised in such activities as can students from countries where silence plays a significant cultural role (Frambach, Driessen, Beh & van der Vleuten, 2014; Lees, 2013). Worse still, silence can be associated with a deliberate lack of engagement, disobedience or conflict (Granger, 2004; Hanh, 2020). However, there may be a plethora of reasons underlying student silence including: insufficient time to digest information; a fear of making mistakes and being judged; language competence; demotivation; inappropriate teaching methods and a lack of confidence (Delima, 2012; Hanh, 2020).

Using silence as a pedagogical tool has a number of potential advantages:

- 1) Students can participate simultaneously thus promoting more democratic forms of interaction, preventing a situation where louder voices dominate;

- 2) Silent activities can promote inclusion by catering for different learner needs;

- 3) Anxieties frequently associated with contributing verbally may be reduced;

- 4) Individuals are encouraged to actively reflect BEFORE responding thus promoting critical reflection;

- 5) Emotive or contentious issues that may give rise to strong opinions are well suited to this activity;

6) Silent discussions are highly flexible being suited to both small and large class sizes. A class of up to 100 could undertake this activity by moving in small groups silently between discussion boards (Trust me, they can!).

## How could others implement this idea?

The discussion can be structured in different ways, depending on class size, and whether delivered online (e.g. using tools like a MiroBoard) or in a classroom using flipchart paper, whiteboards or writing walls. When working with large classes (~100) in big spaces such as lecture theatres, the teacher should prepare enough 'discussion boards' to keep group sizes manageable (< 8). This ensures that each individual has the space to contribute to the discussion.

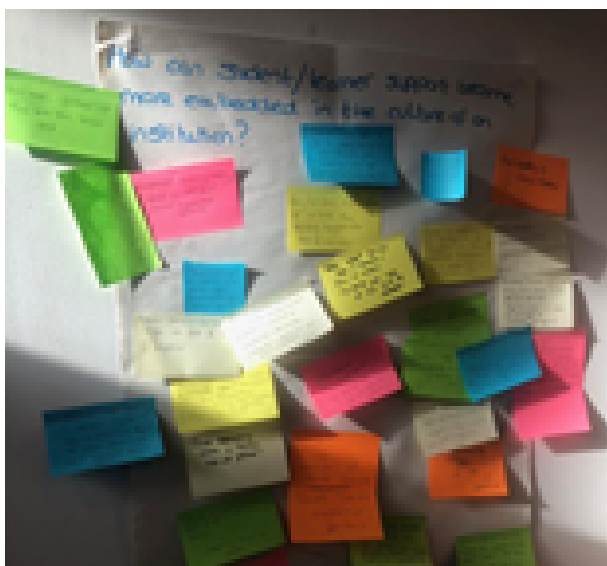
The activity typically has a number of steps:

1. Choose a topic to debate and discuss. This could be a question, as illustrated in the picture below, a statement, a problem or an image. Prepare your discussion board (or boards if you have several groups working simultaneously)

2. Establish the ground-rules – for the activity to work the silence must be maintained.

3. Allow time to think – Once each group is at their discussion board give time (typically 2 minutes but it depends on the complexity of the topic) to read/observe in silence, digest and think.

4. Respond and interact – Learners then respond by writing their thoughts or questions about the topic and sharing their thinking. This can be done by providing pens to write on white-boards/walls or by using post-it notes (as below). As more learners post their thoughts they should be encouraged to respond to each other with further written comments.



5. Reflect – The silence is broken and the teacher facilitates a whole class discussion. A skilful facilitator can draw together the key points and encourage further critical reflection on the content and the process. The intention is NOT to judge or assess individual contributions, but to draw together the key emerging themes and/or clarify any questions or misunderstandings. This final step could also involve an additional written reflective element.

## Transferability to different contexts

This activity can be adapted to a range of different disciplines and contexts. However, since the spoken word is frequently privileged, it is important to ensure that instructions are clear and that learners understand and 'buy-in to' the underpinning rationale. When using the activity for the first time it is advisable to start with small groups

and to work in silence for short lengths of time. Involving additional facilitators can help to maintain the silence and concentration required. As learners and facilitators become more accustomed to the activity, group size, and the length of time the silence is to be maintained, can increase. To suit different spaces, the discussion boards can be moved/shared between groups rather than the groups circulating.

To further promote inclusivity (catering for the needs of dyslexic students, for example) the topics/questions/images on the discussion boards could be shared in advance of the session adopting a flipped classroom approach (Al-Samarraie et al., 2020) to the task. Similarly, a MiroBoard may be made available for a designated period of time before and/or after the facilitated session.

## Links to tools and resources

- TeacherToolkit, the silent discussion:  
<https://www.teachertoolkit.co.uk/2017/04/23/silent-discussion/>
- MiroBoard: <https://miro.com/>

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To agree or not to agree?  
Working towards consensus  
under conditions of mutual  
respect

DR EUGENIA TZOUMAKA



*Figure 1: Group of people playing musical instruments*



## What is the idea?

Echoing the thoughts of Volk (2019) on the ways democratic engagement can be developed during academic studies, as well as the current trends in employability, this chapter presents an active learning idea that cultivates the ability of students to work towards consensus under conditions of mutual respect.

This exercise is ideal for, but not limited to courses where group work is moderately or heavily incorporated, i.e. a term group-project, or group participation in a simulation game.

The idea builds on the rationale of the traditional team-building scenarios, the purpose of which is to develop collaborative skills, but in the proposed activity the focus is on whether consensus has been reached and whether mutual respect has been maintained.

## Why this idea?

The present idea is linked with two important objectives that are beneficial for students: the acquisition of soft skills relevant to their employability, and the democratic skills. Such skills enhance students' ability to argue, debate and reach consensus in a mutually respectful manner that is characterised by care, community and trust (Lloyd, 2008).

A dominant view of employability is the one that focuses on the skills potential employees attain, with the “soft” skills, i.e. teamwork, communication, etc. becoming increasingly prioritised by both employers and university students (Andrews & Higson, 2008; Kyrrousi et al., 2022; Ritter et al., 2018). Moreover, universities are urged to cultivate “skills of political deliberation” that will allow current students and future citizens to at least understand the difference between democracy and authoritarianism or illiberalism and be able to preserve it (Volk, 2019).

For this chapter, respect and consensus are defined as follows. **Respect** denotes the treating of a person as equal “regardless of [their] social position, individual characteristics or achievements, or moral merit” (Dillon, 2018). In the classroom environment, mutual respect could translate as (a) the student body valuing all its members, (b) being considerate of their feelings, and thus (c) not making fun of any member (Patrick, Ryan, & Kaplan, 2007). Consensus, is one of the two alternatives for reaching an agreement, with the second being the compromise, namely consenting to a decision without actually agreeing or endorsing the outcome. **Consensus**, contrarily to compromise, “is a situation where the agents adopt the final outcome as their own position on the matter in question”, they internalise because of a fruitful argumentation (Martini, Sprenger, & Colyvan, 2013, p. 881).

## How could others implement this idea?

The idea under discussion was aimed at the students of a Level 5 validated course in Sports Marketing, the first assessment of which, bearing 60% of the final grade, includes a group project, namely a live-assessment marketing plan and a group presentation. The self-selected or else assigned team might comprise up to four students.

It is clear that working in groups, negotiating, communicating and reaching consensus for a good number of disagreements that arise, while simultaneously maintaining mutual respect has proved very challenging for students. The instructors rarely get a formal notification on those challenges, because the group work on the project is mostly not visible to them either; they mostly lack hard evidence regarding conflict and disrespect. They shall thus look for *ex ante* cues and be able to distinguish between group work challenges (the four stages of team creation) and indications of disrespect. Students might not explicitly “accuse each other” in discussions with their instructors, but they may (1) show lack of

intimacy or close relationships as a group, (2) approach the instructor individually, for questions and inquiries, (3) deliver poor quality work in formative assessments, and/ or (4) exhibit confusion regarding the guidelines, the roles within the team, etc. Those shall be interpreted with caution, still cannot be definitive cues.

The idea relies on creating opportunities for visible group work, employing a modified version of the classic survival game, which remains a seminal team building game, due to its simplicity and appeal. A workshop on the assessment is organised, in which the instructor briefly presents the assessment topic and guidelines, the group work requirements and the concepts of respect and consensus. Then the workshop concludes with the active learning activity described below:

The participants are split into groups of maximum four (4) members and each group is given a scenario, an imagined situation, where they are lost and they need to work as a team in order to survive (For more see the resources).

They are then given 15 to 25 minutes to (a) choose 5 out of 21 items within a list, or (b) list 12 items in order of importance for their team to survive (for more see the examples of scenarios). In any case, only the five top choices are scored.

The students need to first note down what they would decide if this was their individual decision, the items that they would select.

They then engage into a discussion with their peers, which shall conclude to the final group decision, and note the items that the group will select.

After the time expires, the instructor will ask the groups to present in-class explaining their final decision and the reasons why this was the best decision.

The students will then be provided the answer sheet, with the awarded points for each item. They will be given 5 minutes to award points to each team's top five choices according to the numbers and calculate their individual and group score. The lowest score wins (and survives).

Each individual will then be given up to two minutes to reflect

on the following: “Was the group score higher than their individual score and why?”

During this exercise the instructors need to go native, explore student aptitudes and attitudes and reflect on those after it is finished. The instructors shall use the activity as the departure point to introduce the students to the key concepts, i.e. consensus versus compromise. While discussing the outcome of the game students understand if they consented or compromised with the group decisions and are challenged to reflect on what they could do differently. What shall be also discussed is the concept of respect. Did they act respectfully while arguing? What was not respectful? How do we show respect?

## Transferability to different contexts

The current idea emphasises students’ ability to work towards consensus under conditions of mutual respect. To do so, a modified version of the classic survival game was employed within a Level 5 Sports Marketing course. This was the students’ first marketing course, which translates to very limited marketing knowledge and minimum experience in group work.

The idea can be applied within any disciplinary context that requires group work, because the scenario is not tied to a given scientific field. It may be useful both at the undergraduate and graduate level, because the group interaction differentiates the outcome. So even if the players know the rationale of the game, the questions posed will challenge them into different avenues. Finally, while face-to-face interaction is optimal, the activity could be exercised online, through break out rooms, but it is expected that in the latter mode part of the interaction might be missed out on by the instructor.

## Links to tools and resources

Examples of scenarios to be used as in-class exercises:

- Insight. (n.d.) *Lost at sea – A team building game*  
<https://insight.typepad.co.uk/insight/2009/02/lost-at-sea-a-team-building-game.html>
- Whiteman Air Force Base. (n.d.) *SURVIVAL A Simulation Game*  
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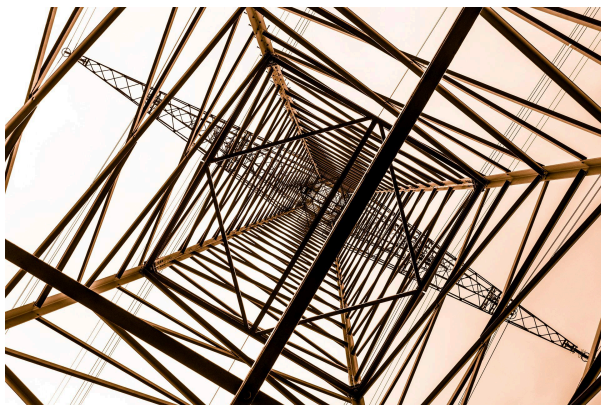
Her Ph.D. thesis on sports celebrity brands was awarded the international João Havelange Research Scholarship by the International Federation of Association Football (FIFA).

She is a member of the Center of Excellence in Food, Tourism & Leisure, with a research focus on sport marketing and sport tourism. Her research agenda also includes personal branding, consumer-based brand equity and social identification effects on consumer behavior.

She has published papers in international conferences, edited volumes and academic journals, such as the Journal of Marketing Communication and the International Journal of Sport Management & Marketing.

# Scaffolding an event

DR ALISON G. HARVEY



## What is the idea?

In scientific disciplines we often resort to practical labs or question sheets as the opportunities for students to apply knowledge. The idea outlined here aims to allow more creativity and decision making by applying the principles of ‘scaffolding’ to teaching in higher education (Wood et al., 1976). The activity involves providing students with an event or activity (relating to their course material) that they need to design and build. For example: Preparing a scientific article, planning a workshop or conference, planning a scientific experiment, planning a lesson, applying a professional framework to a project.

The facilitator provides layers of scaffolding to support the process, adding further layers as the students progress. However, it is the students who make the decisions, fill in the details and use



their own creative ideas and collaboration to apply their knowledge, and in doing so, identify gaps in understanding.

## Why this idea?

The fundamental benefits to using this idea for active learning are summed up in the concept that we are asking the facilitators to relinquish some control over the outcome of the learning activity.

Creativity breeds inspiration and motivation (Al-Zahrani, 2015; Nordstrom & Korpelainen, 2011). By allowing the students to take the project in a direction of their choice they begin to own the learning process.

Choices and freedom empower students to use their voice and to incorporate their own lived experiences into the learning process (hooks, 1994). It allows them to learn from one another. It also avoids teachers prescribing 'the way things are done'.

In addition, by giving the students some control of the 'steering wheel' they are more likely to notice gaps in their knowledge. Bloom's taxonomy talks about deeper level learning verbs such as design, create, choose (Kennedy, 2006; Krathwohl, 2002). In order to achieve these deeper levels of learning the students need to take some ownership of the process (Biggs & Tang, 2011a, 2011b; Spronken-Smith et al., 2012). The ultimate end point of the activity would be to ask the students to reflect on the outcomes of the various groups and to provide each other with feedback.

## How could others implement this idea?

### *Example implementation*

I have previously used this idea with students in groups of 3-4 where the 'event' to plan was: *An outreach activity to introduce 'Biomaterials' to the public.*

A short brief was provided outlining the key aspects that must be covered and level 1 scaffolding instructions were given.

Students had 1 hour to:

- Choose the specific area they will focus on
- Define a title for their activity
- Determine the audience and type of event (e.g. in school/ outreach festival)
- Outline the aims for themselves/the audience
- Brainstorm activity ideas

After 1 hour a feedback point is introduced. Students share their initial plan in 3-5 minutes with another group and give each other feedback.

Over the next hour, level 2 scaffolding involves:

- Considering feedback and making changes,
- Deciding on their activity
- Create timeline of jobs prior to event
- Create schedule for event
- Ask: Can other aspects from the unit be incorporated?

Another feedback point is used followed by the level 3 scaffolding:

- More details added to the timeline and schedule, including specific details of materials/ resources needed, delegation of jobs, external support etc.

In this instance the students submit their plans from each scaffold and responses to feedback as coursework.

### *Instructions for implementation*

The first step in implementing this idea is to think of an activity or event where an aspect of your course material could be used in a real-life situation.

Once the activity has been decided you will need to break the activity down into defined components that need to be chosen, designed, planned etc.

Next, separate these components out according to complexity and level of detail needed.

You can then create the scaffolding layers. Layer 1 will use the broadest and simplest components. Layer 2 asks for more detail and incorporates more components with less direction from the facilitator. It is up to you to decide how many layers and what time period this will cover: is this a one-hour activity? Or will it run through the course?

Between each scaffolding layer add in feedback checkpoints. These could involve peer feedback or feedback directly from the facilitator. A key question to ask the students at these points is 'could we take this plan and carry out this activity tomorrow?'. There is usually more detail needed!

Ideally at the end of the project the students will reflect on the outcomes of their work. Or maybe they can put it into practice.

### Transferability to different contexts

This idea can be easily transferred to different situations. The key is in identifying how the material that is being taught could be used, how students would apply what they have learnt to a real-life

situation in a way that requires them to understand the concepts and make decisions. Activities that involve some aspect of students sharing their knowledge through teaching are particularly useful.

The level of difficulty can be tailored depending on the level of student ability. By creating a more rigid scaffold we can guide lower-level students more. By reducing the number of questions and prescriptions in the scaffolding we allow the students to explore the ‘what if...?’ questions!

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# 'Put yourself in my shoes': an active learning exercise for the instruction of diversity

DR GEORGE KYPARISSIADIS



## What is the idea?

“Put yourself in my shoes” is an active learning exercise designed to help students appreciate the dimensions of diversity and the value of inclusive representation by adopting perspectives through the eyes of diverse audiences. The exercise takes students through the schema of identity, diversity, and representation on media, and asks them to consider the issue through the perspective of people that are underrepresented in contemporary texts, such as advertising.

In the context of formative assessment, students select an advertisement (print or video) that portrays social groups and models of different abilities, genders, ethnic identities, etc. They are then asked to put themselves in the shoes of the person being represented in the ad, and to write in the first person how they feel seeing themselves in an advertisement. The purpose of the exercise is to encourage students to develop empathy and appreciation for diversity and inclusion.

## Why this idea?

It has been shown that formative assessment can improve student learning in the classroom (Bubb et al., 2013). This exercise has been designed as an ungraded take-home assignment, that allows students to engage fully with the material and purpose of the exercise at their own pace. The exercise consists of a research component, role playing, and in-class discussions, around the students' contribution as well as contemporary perspectives on diversity.

The course material stems from the principles of the Cultivation Theory, which posits that the content we consume through media affects our perception of the world. Audiences develop impressions and biases for different social groups, based on the portrayal, or lack thereof, of these groups on media such as television, social media and outdoor advertising. The representation of diversity in media raises, therefore, ethical, legal and social considerations that can be assessed by appraising the situation and appreciating the value of inclusion and appropriate representation (Cluley, 2017, Mosharafa, 2015). The exercise encourages students to revisit their own preconceptions around specific identities, and to switch perspectives with them. Their outlook is then shared with their colleagues through an online blog as well as an in-class presentation of their experience. Students are encouraged to comment on each

other's contribution, allowing for the discovering of new identities, which may even be represented in class. This practice stimulates empathy, team spirit and a deeper understanding of the necessity for representation and inclusion.

## How could others implement this idea?

The exercise 'Put yourself in my shoes' was originally designed as a formative assessment in a course on Advertising Theories, but can be adapted for different Liberal Arts and Sciences courses. The implementation presented below regards the exercise in advertising.

### **Background Discussion**

As mentioned above, the exercise is based on the premise of Cultivation Theory, and the concepts of identity and appropriate representation. Lectures and discussion in the classroom take students through these notions, with a focus on advertising, and its contribution to the building of stereotypes around gender, age, abilities, ethnicities, sexual preference, among audiences for the past decades.

### **Homework**

Following the in-class discourse, students are given the instructions below:

#### *Blackboard Blog: Cultivation Theory*

As discussed in class, the majority of models in advertising tend to comply with the stereotypic white, able-bodied, young, heterosexual person. Men tend to be strong and independent, women tend to be useful in the house, and in need of protection. Your task is to find an advertisement that portrays models of appearance or behaviour that do not comply with the mainstream stereotype.

For this advertisement, answer in a couple of sentences the following questions:



- Why do you think this ad is important?
- Assume you are a member of the group represented in the ad. How do you feel seeing it? Write your statement in the first person.

Students are asked to submit their responses on a Blackboard blog, and are encouraged to review and comment upon the previous entries. Once the responses are up, each student shares in class the advertisement they have selected. The discussion that follows is key in ensuring that students benefit from the diverse perspectives and understand the significance and value of inclusion in advertising, as well as the larger societal context. The focus of the discussion should lie primarily on the learnings of the exercise. Indicative questions and areas for discussion can be:

- How do media contribute in the forming of our identities?
- What is the value of representation?
- What is the responsibility of media and communication organisations towards society?
- What role should regulatory bodies play in this process?

## Transferability to different contexts

The objective of the exercise is to help students appreciate the value of representation of different identities and voices, specifically through advertising. However, it can apply easily to other fields, such as music, art, literature, cinema or other commercial media content, depending on the course area and material.

A consideration for instructors is the fact that such reflective exercises may touch upon sensitive, or even vulnerable, aspects of identity that students may find too personal. The conducting of the exercise relies on empathy, which can be defined as “understanding another person’s experience by imagining oneself in that other

person's situation" (Baumeister & Vohs, 2007, p. 297-298) both on the part of the students, as well as the instructor. This notion should be introduced at the beginning of the session, to set the framework and the spirit in which individual contributions should be developed and viewed.

On the part of the instructor, empathy also indicates an effort to "deeply understand students' personal and social situations, to feel care and concern in response to students' positive and negative emotions, and to respond compassionately without losing the focus on student learning" (Meyers et al, 2019, p. 160). With this in mind, it is important to be alert for any potential discomfort among the students, and direct the conversation back to the main topic, using for example, the indicative questions listed above of the exercise is the appreciation of different identities and voices, through their representation in advertising. However, it can apply easily to other contexts, such as music, art, literature, cinema or commercial media content, depending on the course topic.

Regarding student acceptance, below are a couple of considerations:

Some students may see this exercise as an opportunity to bring their own identity to the forefront of the discourse, particularly if they belong in a socially mis- or under-represented group. I believe this should be encouraged, and also used as a prompt for further discussion in class.

In my experience, there were no incidents of students challenging the purpose or learning of this exercise, and refusing to contribute or cooperate. However, such resistance is likely and should be anticipated. My suggestion would be to define the aspects of diversity that will be discussed (e.g. gender, ethnicity, sexual preference, etc) depending on cultural codes and societal dogmas shared among students.

## Links to tools and resources

### Examples of advertisements addressing Diversity and Inclusion

- Procter & Gamble for Race: <https://us.pg.com/talkaboutbias>
- Nike for Gender ([https://youtu.be/AQ\\_XSHpIbZE](https://youtu.be/AQ_XSHpIbZE)), Health (<https://youtu.be/NSZCrZ0tij0>), Disability (<https://youtu.be/Z0fx8Ez8kMk>)
- Maltesers for Disability: <https://www.campaignlive.co.uk/article/maltesers-unveils-winning-ads-channel-4s-superhumans-contest-paralympics/1407835>
- Secret Deodorant for Gender: <https://youtu.be/RqavgAV1rtY>

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# Student characters for a Problem-Based Learning (PBL) approach to university life

DR JESSICA CLARE HANCOCK



## What is the idea?

A Problem-Based Learning (PBL) approach to student journeys has been used for a module in an MA in Higher Education – the module examines student support. The participants on the module are allocated to groups and are given a particular ‘student’ with a profile indicating potential support needs (for example, being first in their family to attend higher education). The groups hear from their student throughout the course of the module, via ‘emails’ from the

student which are posted to group forums on the VLE. The emails reveal how the student is getting on with their course, and some of the problems that they experience. The groups meet to discuss these messages and how the student might be responded to, before sharing the student's update and their group's reply with the rest of the class. This activity could easily be used with students directly, to enable them to examine their own student journeys and transition points – this chapter will now explore how this might work in practice.

## Why this idea?

Transition is tricky for students (Austen et al., 2021; Collings et al., 2016; Denovan & Macaskill 2013), and it is more and more frequently recognised that factors that affect student success are myriad and do not always relate to direct problems with the subject material of their degree (Gurbuz et al., 2019; Jacklin & Le Riche, 2009; Kettell, 2020). This PBL exercise with an imaginary (but authentic) student enables the discussion of different issues that might be experienced by students at a distance (because they are talking about their character and not themselves), and allows students to arrive, through peer support (and the support of the lecturer in class), at some solutions to common issues. The small-group discussions prior to the session enable collaboration and research into solutions at students' own pace, and whole-class discussions provide valuable opportunities for peer learning and insight into a range of issues (Boud et al., 2013). The PBL approach also makes the issues align to learners' interests as they will be more receptive to insights from the lecturer having already grappled with their own responses to a problem (Schwartz & Bransford, 1998).

The longitudinal nature of the activity means that problems can be discussed at relevant points in the term, rather than transition activities taking place mainly at the beginning and students being

overwhelmed by all the different sources of help for particular issues. For example, the initial character issues could centre around starting university (perhaps what to do if the character is unfamiliar with UK education, has arrived late and missed some information, or how to become part of their course community if they are a parent or commuter student), and then later in the term the character could experience health issues, problems with completing assessments or financial difficulties. Through the use of authentic messages and problem descriptions, students might also become aware of effective ways in which they might seek help, through the recognition of gaps in information, or appreciate that there might be different perspectives other than their character's on a particular incident.

## How could others implement this idea?

This idea was successfully trialled on a module addressing student support which was part of an MA in Higher Education, so the content of the discussions had direct applicability to the learning outcomes and assessment. Participants reported that the PBL approach worked to engage them with the kinds of issues that different students might experience, and several commented that they became quite attached to 'their' student and looked forward to the next 'email' update to find out how they were getting on.

This approach of using PBL to examine student support issues would also work well directly with students. In this case, it could either form part of a core module, perhaps if students have a relevant module, such as one on personal development planning, or it could occur alongside subject material if the learning outcomes (and perhaps also the assessment) were adjusted to accommodate learning about student support needs, or transition issues as well as the disciplinary content. Alternatively, this activity could be run as

part of group personal tutoring sessions or similar which sit outside of programme content.

You would need to decide how many groups are needed (perhaps around 5 students per group) and then work out how many characters are required. If the cohort is large, it could be quite effective to give the same character to several groups – this would enable comparison of the different groups' responses to the same issues.

Each character requires a name, brief bio (such as background before joining the course, age, gender, ethnicity, class, nationality, any disability or neurodiversity, personality). They should be chosen to represent the diversity of students on the course. A collaboration with current students and/ or the Student Union would be ideal to ensure authenticity of the characters, their problems, and how these are expressed.

Emails from each character would need to be composed and sent out a week before time in class is allocated to discussions, to enable the group to meet and formulate their response. This could be done quite easily using the group function available on most VLEs, or using Teams channels for each group. Feedback on responses would be given during class discussions, which might involve inviting a relevant professional (such as someone from student support) into the class.

## Transferability to different contexts

This could be used for any course, and although it might be particularly beneficial as a transition activity for first year UG or taught masters students, it is something that could be returned to at key points throughout a degree course, during different modules, so perhaps looking at employability issues towards the end of the course. This could be a formative activity, or linked to a summative



assessment using a reflection on the character's issues, or the process of the activity.

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## 2B BUILDING COMMUNITY



# International Pathways students: applied Learning Weeks build networks

DR VICTORIA WILSON-CRANE



## What is the idea?

The academic year for pathways learners was divided up into short cycles of largely-teacher mediated formal learning with a strong emphasis on active learning, punctuated by compulsory weeks dedicated to applied learning where students are off their regular timetables learning in multi-disciplinary groups with greater autonomy to curate their own learning experiences.

## Why this idea?

In response to student feedback indicating a need to help students create networks beyond their courses, in Autumn 2019, Kaplan International Pathways introduced a new academic calendar. The company operates ten pathways to Higher Education colleges on or close to campuses of universities in the UK. 6,000 students each year successfully complete these programmes and progress to undergraduate and postgraduate degrees at a range of institutions, including those in the Russell Group.

Working with others and making good use of the contacts we have has never been more important (Adey, 2021, p. xvi), particularly during the global pandemic where in-person social contact has been restricted. Montgomery suggests that “international students form a strong international community that supports their learning.” (Montgomery, 2010, p. 67). It is helpful if students are scaffolded to build these networks during their time on their pathways course.

King and Scott (2014) note “research shows it is not sufficient to look to a boss, or a senior mentor or sponsor; you need to build a set of high-quality relationships to drive and sustain success.” (p. 6). The opportunities for relationship building and forming a global network is something that we know our international students prioritise so this is particularly important for students in our context but is relevant to learners in many other settings, too.

Formal learning at Kaplan International Pathways is now divided into five-week cycles. In between cycles there are themed Applied Learning Weeks.

These weeks are opportunities for students to focus on interdisciplinary topics, apply the learning from their modules and work with students from different courses and at different levels (pre-undergraduate and pre-postgraduate). They include elements of team-based learning, discovery-based learning and problem-solving, working with tutors who facilitate the learning and provide relevant support and guidance.

On the Monday of Applied Learning Weeks, students are introduced to their groups and the theme and objectives for the week and are required to organise their activities towards a common goal. Students are given a brief for each Applied Learning Week and activities are then student-led with Learning Advisors and other tutors available for support and guidance if needed. There are check-in points daily to ensure students are on-task but aside from those, students work remotely from the college on their projects.

Applied Learning Week outputs, such as presentations, models, objects, posters etc. are not summatively assessed but students gain peer and staff feedback on their efforts and write about their work in their assessed KapPACK e-Portfolio.

The themes for Applied Learning Weeks are:

- Celebrating Diversity
- Design Week
- Enterprise\*
- Environment and Sustainability\*
- Eye on Industry Week
- Kindness
- Local, National, Global\*
- Our Community, Our World\*
- Pathway to my Professional Life
- Research Week
- Transition to University

*\*compulsory weeks – all students must do a week on this theme, others are voluntary.*

Colleges choose which weeks will be the most appropriate for their students, and to take into account the availability of local resources or special events, supporting the themes. Annually, there has been an *Our Community, Our World Week* which is scheduled to run concurrently at all colleges, affording opportunities for cross-college activities.

For 2021-22, we have added some learning during Welcome Week on collaboration which is a theme of our Kindness Curriculum. We want to emphasise that collaboration is a skill that can be learned and students have the opportunity to put this skill into practice during Applied Learning Weeks in a low-stakes way.

## What have we learned?

Student engagement with Applied Learning Weeks has been very positive; occasionally small numbers of students have not chosen to engage with weeks in the early stages of their courses, citing lack of relevance and their desire to focus on their taught classes. However, on reflection and having heard about the positive experiences of their classmates, they have engaged later in the course and found the weeks useful. This is something we are comfortable with as it truly emphasises the student-led nature of these experiences.

Technology was an aid to learning, pre-pandemic. Technology for collaboration and communication has become a vital resource since Spring 2020, where students have experienced Applied Learning Weeks remote from the physical college buildings.

Although unforeseen, there are benefits of students studying remotely during the Covid-19 pandemic, that we might want to continue with e.g. students learning about group work in a remote scenario, mirroring potential future hybrid or remote work environments which are currently hotly debated (Partridge & Makortoff, 2021).

Next steps: we will try to measure the impact of Applied Learning Weeks on overall achievement on programmes by exploring attainment for students on the Kaplan Pathways Award and upon progression to the host university, as our perception is that this experience of active learning helps to cement and apply other learning students have across the programme and gives confidence about working in groups and teams, something we know students



can find challenging. It may be possible to work with university partners to gather data on students' progress and achievement in group-work assignments, for example.

## How could others implement this idea?

This idea could be used on other programmes or more widely in cross-institutional arrangements where students generally do not currently work in interdisciplinary teams. It takes some cross-departmental negotiation about how to use term-time most effectively. In large organisations, a useful start-point could be to start small (i.e. across two complementary disciplines) and work from there.

## Transferability to different contexts

This is relevant to anyone working with students where learning outcomes require and encourage self-direction and leadership and where students are encouraged to work beyond their usual peer groups, perhaps with students in different disciplines. Whilst we work exclusively with international students, this approach is relevant for many different types of adult learners.

## Links to tools and resources

There is some brief information about how Applied Learning Weeks are part of our Career Focus approach, in this blog: <https://www.kaplanpathways.com/about/news/career-focus-5-ways-to-improve-your-employability-while-studying->

abroad/. I would be happy to share materials etc. if anyone would like to discuss.

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Dr Victoria Wilson-Crane is the lead academic for Kaplan International Pathways and heads up the Centre for Learning Innovation and Quality. She brings over 25 years of experience and ensures Pathways meet the needs of international students in transition to UK Higher Education. She is passionate about learning for others and herself.

# MS Teams: illuminating a research community

KELLY TRIVEDY



*Figure 1. Image representing Online Community*

## What is the idea?

Research can be an isolated activity involving individualised processes (Wenger, 1998). Over time, there has been a welcoming of open and collaborative research between colleagues, students, and researchers. I wanted to inspire relationship building (Serrat, 2017) and rich, inclusive conversations by creating an MS Teams research space for my students.

This chapter provides insight into using MS Teams as part of a PGCE, postgraduate research module. The idea is rooted in building

communities of practice (Lave & Wenger, 1991) and strengthening bonds between a group of researchers working on individual projects.

Student research is a journey, not a destination. An MS Teams research community encourages students to share in the lightbulb moments, struggles, and the wins that research brings! This applies to undergraduate as well as post-graduate students.

Fruitful conversations around unfinished ideas, book recommendations, imagery of home life, honest pleas for support, and sharing of creative practice are among the topics that can enrich the student experience. Additionally, this helps to cultivate meaningful and engaging spaces which endorse active learning and knowledge collaboration to occur naturally in the online sphere.

Wenger (1998) discusses essential structural qualities for the operation of a community of practice:

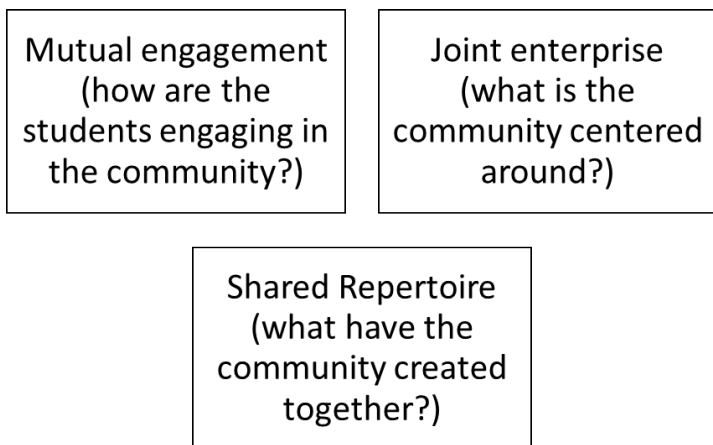


Figure 2. Wenger's Qualities of a CoP (adapted)

Using Wenger's three qualities, here are my adapted three steps to implementing this idea in practice:

- Pre-module warm-up
- Module familiarity
- On-going development

These points will be discussed in turn below with the idea of learning for research as a social activity at its core for first-time researchers such as undergraduate students working on a dissertation, MA students, and those new or returning to Higher Education (HE).

## Why this idea?

Following the constructivist stance allows students to create meaning from their own experiences (Girvan and Savage, 2010). Marrying this with Vygotsky's (1978) view and translating the importance of community can be transformative practice in HE, where student researchers connect existing knowledge with new knowledge in a shared space that is conducive to this development.

As the leader of a research module for an in-service PGCE programme for the post-compulsory education sector, I was conscious of my students' busy lives outside of their studies. Inspired by Wenger (1998), I sought to provide a space for them to share in their wins and talk openly about their challenges without fear of judgment. In their presentation of an 'ecology of interactive learning environments' Johnson (2014) discussed how shared online experiences scaffold individual interpretations. Coupled with Johnson's ideas, I was also fuelled by the awareness that interactivity online could motivate and stimulate learning (Keengwe et al., 2013).

The interactivity attracted me to use Teams with my students. It gave them a space in which they could explore and celebrate the following:

- The 'aha' moments and wins!

- The ‘uh oh’ moments and lows!
- The ‘found it’ moments with resources

*“I have enjoyed the interaction and community feeling that seems to naturally occur when everyone embraces Teams. In our group, the ability to post comments, images, links and ideas for everyone to see and respond to has been beneficial. I would recommend this tool to other teachers, especially as a way to foster an online learning community.”*

Figure 3. Student Feedback on the use of MS Teams

## How could others implement this idea?

The following key steps are helpful for implementation:

### *Pre-module warm-up*

**Step 1:** Set up your MS Team – this is the practical and process-based element to get you started. Invite your students.

**Step 2:** Set up your channels – there may be specific channels that would work best for you. I followed the milestone research stages for mine: Literature Review, Methodology, Methods, Ethics, Findings/Discussion and Conclusion and Recommendations. I also had separate channels for the submission(s), ‘FAQs’, ‘Student Social Space’ and the ‘Ask the Tutor’.

**Step 3:** Introductions – this is where you bring your Team to life and help to strengthen relationships. Encourage students to talk about their initial research idea and post images/interests.

## *Module familiarity*

**Step 4:** Navigation guide – In any online space, direction is key. Having a tab that is named ‘Start here’ can help your students to know how the space will work and what is expected. Community guidelines for group expectations around language, behaviour, and mutual respect can also be helpful.

**Step 5:** Prompt posts – These are to remind students to complete tasks or just a friendly mid-week hello with deadline reminders helps. The key here is to support but not overwhelm. Have a routine for your posts so students know what to expect.

**Step 6:** Open spaces – The general channel can be helpful for this and can allow for a free-flow conversation. You may want to also set up a separate channel called ‘Student Social Space’ so they can talk to each other more generally on there without the educator being present.

## *Ongoing development*

**Step 7:** After the module has ended, encouraging posts for the next steps and what that will look like for the research to be disseminated.

**Step 8:** Alumni relations to invite students back to speak about their research in the next academic year of your programme.

Further top tips for success:

- Tag the channel name each time you post so it alerts the group
- Colour code and allow students to understand what each colour action represents
- Use directive language



## *Drawbacks and adjustments*

These are the areas I would alter, adapt and develop further:

- Consult with students from the outset on how they would like the MS Team to work. Discussion points may include:
  - Student-run channels
  - The type of information shared
  - Post frequency and how often they are expected to interact
- Consider the change and power in relations between students (Tummons, 2017) namely:
  - Recognition of unequal power structures in groups
  - Individual tasks with encouragement to share in the team to promote inclusivity

## Transferability to different contexts

After the success of this in the PGCE research module, I replicated it as part of a PGCAP programme. It worked equally well. It can be widened out to any module but particularly those which have a longer-term project involved or a hybrid style of delivery. It lends itself well to group-based projects too.

Great for:

- Doctoral/MA research programmes
- Teacher training programmes
- Research electives
- Science-based experiments
- Tech group research

## Links to tools and resources

- <https://www.youtube.com/c/MikeTholfsenMikeTholfsen>  
YouTube Channel
- <https://support.microsoft.com/en-us/teams>
- <https://techcommunity.microsoft.com/t5/microsoft-teams-blog/bg-p/MicrosoftTeamsBlog>
- <https://www.jisc.ac.uk/full-guide/digital-pedagogy-toolkit>
- <https://hybridpedagogy.org/>

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# Interactive mind map - creating bonds among new learners

DR MALGORZATA TRELA AND DR SOPHIE RUTSCHMANN

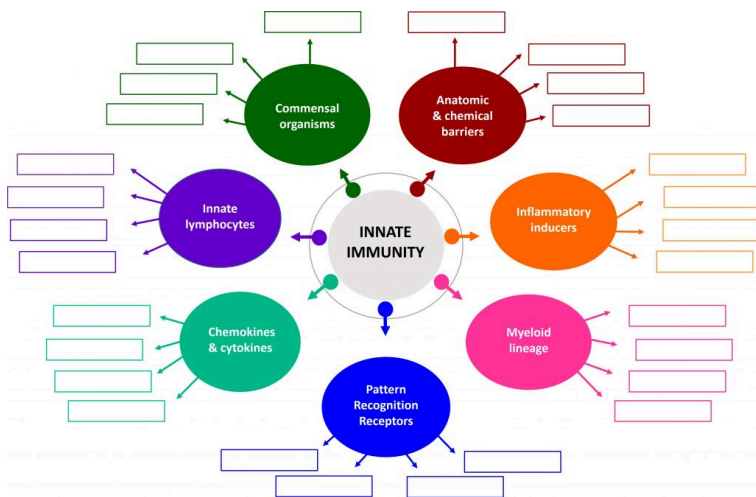


Figure 1. An example of a mind map introductory activity for MSc in Immunology at Imperial College London

## What is the idea?

Countless educational institutions welcome new students to their courses every year. Whether in a blended, face-to-face or hybrid learning approach, helping students get to know each other is a fundamental part of the induction programme because it

contributes to community building and the sense of belonging (Smith et al., 2021). Establishing initial connections between peers and their tutors can be achieved via a variety of bonding activities. More than an icebreaker activity, where students typically learn some personal information about each other, the interactive mind map that we devised offers students the opportunity to get to know their peers by applying their newly acquired knowledge collaboratively in a safe space. Growing together into a team of curious and open-minded individuals, through this activity, the students can challenge ideas between each other and begin to lay the groundwork favouring peer learning for the remainder of their course. Moreover, it provides opportunities for peer knowledge transfer, facilitates collaboration amongst students and stimulates cohort discussion upon receipt of academic feedback on this activity from their tutor or lecturer, whose supportive role is very much that of a 'guide on the side' (King, 1993). This encourages students to be proactive and to appreciate the importance of collaborative learning (Cedros Araujo & Gadanidis, 2020; Poellhuber et al., 2008).

## Why this idea?

It is quite apparent that students' attitudes have an impact on their learning journey. Therefore, developing rapport and bonds among peers from the start can help to generate a positive atmosphere and mutual respect which encourage their participation in activities (Scager et al., 2016). This is grounded in the formation of a social context and team identity, both of which are important for collaborative learning (Adel, 2011). Students' respect for, and recognition of the opinions of their tutors usually tends to be more apparent than that for their fellow classmates. The idea behind the interactive mind map has been developed with maximising bonding, the sense of fellowship and empathy at its centre. This field-specific

interactive task promotes student-led learning by fostering comfortable interaction among team members and presents the opportunity to discover their peers' ideas (which are often different to their own) by engaging in discussions (Zheng et al., 2020). In addition, through the visual organisation of information, a mind map enables learners to notice connections between various concepts and to appreciate the bigger picture within an area of interest (Davies, 2011; Rajapriya & Kumar, 2017; Wright, 2006). An example of a mind map is demonstrated in Figure 1.

## How could others implement this idea?

The following guidelines were written for our Masters in Immunology programme, at Imperial College London, consisting of around 35 students divided into small groups of 5-6. They have been developed for online teaching, with the help of online breakout spaces, and can easily be adapted to a face-to-face setting.

The students are provided with a pre-selected coursework book chapter or publication which explores introductory concepts in the subject of interest. Several sources of information can be provided, however, since this is an icebreaker type of activity, one source is preferred in our context. Each group of students is allocated a specific theme, originating from the published source, which constitutes a segment of a bigger concept. This concept is communicated in an interactive editable document (such as a file accessed via a web page link) depicting the structure of a mind map with the main concept specified at its centre and surrounded by the individual colour-coded theme components (as per the image above).

In their respective groups, students are instructed to read the assigned section from the coursebook/publication, discuss the provided material and agree on four key points which the section is trying to communicate. These key points, together with a brief

commentary summarising the importance of their theme, are listed by the student groups in the appropriate text boxes within the interactive mind map document. Students have 40 minutes to work in their teams to complete their section of the mind map. After the allocated time is up, students select a speaker (or a number of speakers) within their group who will briefly present the points that are included in their section to the rest of the class. Once all groups have completed their sections and presentations, a tutor provides feedback to the class. On completion of the task, a clear interdependence of all themes is demonstrated, and the developed mind map serves as a learning and revision material.

## Transferability to different contexts

The approach is easily transferable to any programme which welcomes a cohort of new students where there is a need to create bonding opportunities including undergraduate, postgraduate and doctoral courses. It requires very little preparation from the tutor who only needs to create a mind map template, select the matter of interest from a published source, identify the sub-themes and assign them to the student groups. The tutor facilitates this task by monitoring students' progress through active listening and can serve as an advisor if support is needed. Students are subsequently provided with feedback on their presentations during a synchronous session where they are able to reflect on the correlations between various elements of their mind map.

## Links to tools and resources

Free online mind mapping tool: MindMup  
(<https://www.mindmup.com/>)

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## Image attribution

Figure 1. Example of mind map activity by Malgorzata Trela is used under CC-BY 4.0 licence

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# 2C EMPOWERING LEARNERS



# Democratising teaching: student votes and module case studies

DR PETER FINN



## What is the idea?

Building on experience from two modules, this entry explores the process of allowing students to vote on module content. Though not applicable to all modules, or perhaps even all content on any module, this practice can, depending on the specifics of a module,

allow students a say in material covered. Such votes can be used to decide content for a single session or group of sessions. Reflecting pre-existing literature, quantitative data and qualitative comments from Module Evaluation Questionnaires suggest students value the ability to feed into the selection of teaching content, as well as an explicitly emancipatory framing.

## Why this idea?

Literature suggests that students and teachers who engage in shared decision making about what material is covered and how teaching is structured are more committed, with the added benefit that such shared decision making may also help develop interpersonal skills needed for navigating complex, and ever changing, social contexts (Lubicz-Nawrocka, 2018). Such engagement is often discussed with relation to terms such as co-creation and students as partners (Healey, Flint & Harrington, 2014). Building on a method utilised on two modules across numerous years, and the insight that the language used in shared decisions in teaching is important (Matthews, 2016), this chapter provides a toolkit to embed emancipatory political discourse and practice drawn from democratic processes into shared decision making processes aimed at allowing students to feed into module structure and content.

## How could others implement this idea?

This idea can be implemented in various ways, both high and low tech.

1. Firstly, a teaching team need to decide how much teaching

space on a module will be allocated to student votes: this could be anything from a single week to half a module or more. Different modules and teaching styles will suit different amounts. In the sample ballot below five weeks, occurring across six weeks, were allotted.

2. Secondly, the choices on offer need to be determined. Will students, for instance, be given a predetermined list to choose a selection from? Will they be able to suggest case studies to choose from (which, as shown below, I call Wild Cards)? If Wild Cards are allowed, will there be a limit to the number included (I would suggest considering some limits here, with predetermined constraints highlighted prior to voting)? How will you determine which Wild Cards are implemented?
3. Thirdly, the method used to allow students a choice in case study selection needs to be determined and communicated. Will you make a ballot sheet such as the one below, run a show of hands, leave the room and allow students to determine their own method of selection, or run an online poll?
4. You need to think about how you feed results back. Will you do so in class (whether online or in person), via a module announcement, or a mixture of the two? Do you just provide the results or allow time to discuss the results (I would advise doing so, especially if you end up with a mixture of pre-suggested topics and Wild Cards)?
5. Finally, you need to implement the chosen choices. Depending on the module this may involve some or all of the following; creating VLE pages: creating reading lists: generating lecture, seminar, and workshop materials: and developing assessment briefs.

### **A ballot used to select module material**

### TB1 Weeks 7-12 Human Wrongs Program Poll

- We have to select case studies for five weeks of the Human Wrongs portion of the module
- Below is a selection of potential case studies
- Put a cross next to up to five of these
- You may also put forward a Wild Card choice
- The selection of any or all Wild Card choices is not guaranteed
- At least the top 3 from the below list and up to two wild card suggestions will become part of our teaching schedule after enhancement week
- The results will be released in Week 4 at the latest (with in-class consultation, if needed, taking place in Week 3)

Put a cross against up to five of the below case studies:

Prisoners of Conscience  
Asylum and Refugees  
Privacy  
Self Determination  
The Environment (climate change)  
Torture  
Violations of Human Agency (includes case study on Apartheid and activity on modern day slavery)  
(Subverting?) Democracy and Elections

If you wish, suggest a Wild Card:

There is no single way to carry out the above method. The specifics will depend on your own teaching style, those you are teaching with, and the module you are teaching. It may, at first, seem intimidating, so you could allocate just a single week or case study on a module in the first instance, and then increase from there if you wish.



## Transferability to different contexts

There are clearly some modules or courses where this method would not be appropriate. Those that are heavily prescribed content wise, perhaps by a professional or government body, for instance, are likely not a good fit. However, beyond such restrictions, there are many opportunities for using this method.

This method was developed in the context of modules on human rights, politics, and international relations. However, it is likely to be of use in modules that use case studies to explore themes with broader applicability.

Beyond just feeding into the structure and focus of teaching and developing a shared stake in a module, this method can also help a teaching team get a feel for the interests of their students. Finally, adopting the language of democracy links in with pre-existing discourses that connect individuals to larger groups and society, and the benefits and responsibilities that arise from these connections.

## Links to tools and resources

Albert Hirschman Centre (2021) *What Keeps Democracy Alive?* Interview with Till van Rahden. <https://www.graduateinstitute.ch/communications/news/what-keeps-democracies-alive> – This podcast contains insights into different ways of thinking about democracy, helping us broaden our conceptions beyond visits to the ballot box (as important as those are!).

Healey, M. (2015) *Engaging Students As Partners and As Change Agents*. Keynote Speech at University of Derby's Learning and Teaching Conference. <https://www.youtube.com/>

watch?v=CyEPup5qbMU – Speech by a key UK advocate of think of students as partners.

The University Of Queensland Institute for Teaching and Learning Innovation (2021) *Students as Partners*. <https://itali.uq.edu.au/advancing-teaching/initiatives/students-partners> – This site has loads of great resources for thinking about how to bring students into decision making processes, as well links to relevant research.

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## Image Attribution

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# Boost learners' confidence

MARGARITA STEINBERG

Helping students with their confidence around learning, and helping them to learn about learning go hand-in-hand. Learners don't automatically recognise their successes, and helping them notice and celebrate every bit of progress can help them keep going (Kolb, 1984).

This chapter is developed from the online workshop on supporting learners' confidence which I delivered at the ALN Festival of Learning in April 2021. The session showcased, and let participants experience, some useful approaches to tackling topics around confidence with groups of learners in an online format. For a review of confidence-building methods, see Maclellan (2013).

## What is the idea?

'Challenges and Triumphs' Timeline is an activity often used in coaching. It provides a format for highlighting both successes and challenges a learner experiences over the lifespan of an endeavour or a project. Referring to participants' own personal experiences is highly persuasive in highlighting to them the successes they're already achieved (but may not have recognised or acknowledged). This then equips them with a convincing reason to feel confident about their future successes in tackling current and anticipated difficulties. This chapter suggests ways of adapting the 'Timeline' activity for use in educational settings.

The Timeline activity can also act as a diagnostic, where students identify upcoming challenges they're concerned about or feel ill-prepared for. The tutor can then choose to address common

concerns in a group setting, or support students individually as appropriate.

The activity is organised as follows:

### **1. Introduction**

Participants are introduced to the format of a timeline and the context (the project, the time-span etc.).

### **2. Production**

Participants each work on their own Timeline initially, marking in ~3 significant challenges, and ~3 significant successes over the specified timespan.

This activity can also be used to map participants' concerns about upcoming / future tasks, e.g. by using the instruction "Add in some challenges you anticipate".

### **3. Reflection**

Once participants have completed their individual timelines, they're invited to reflect on their own and/or discuss with peers (can be done in a write/pair/share format). Reflecting on what strengths and strategies the learners had drawn on to overcome previous challenges can also help them deal with future challenges more effectively.

## Why this idea?

Most universities not only want to produce skilled graduates in various fields but also help them learn how to learn so that they will be able to cope with future learning challenges of many kinds (Hoskins & Fredriksson, 2008). There are different ways to conceptualise "learning how to learn". A useful one is to think in terms of improving learners' self-regulated learning capability (Winne & Hadwin, 1998). The exercise described in this chapter is designed to help students better understand their learning by recalling past triumphs and challenges (Hadwin et al., 2019).

Supporting learners' confidence to participate is important in

online and face-to-face learning environments, and can be addressed directly. This activity can boost learners' confidence to participate and to have positive expectancy around their learning. "Allowing adults to reflect on their learning experiences has positive effects on their coping capacity and learning outcomes" (Lapina, 2018).

If applied to your own teaching, this activity can provide feedback on how learners are experiencing your module/course, and potentially highlight where additional attention may be warranted.

## How could others implement this idea?

The basic idea is both simple and highly adaptable. It can be applied to a range of different time periods, for example, planning for a project, the first five weeks of a module, the span of a higher education course to date, etc. The materials needed are simple: somewhere to draw a timeline and annotate it. The interactions are easy, they can be either face-to-face or remote.

In online sessions, probably the hardest aspect is around using break-out rooms format for the paired discussions. This is because a portion of students predictably go AWOL when a break-out session is announced. A solution that has worked well is to make participation in the break-out rooms optional, and to invite those who'd rather avoid it to either remain in the main area and interact with the tutor, or to take a comfort break and return for the plenary discussion.

In both face-to-face and online settings, participants sometimes put highly personal content onto their Timeline, which they may then find uncomfortable to discuss with a peer or in a plenary. So, the tutor needs to alert participants at the start to only record from their experience those aspects which they feel comfortable to share. Alternatively, participants could write freely, and opt to select

which elements they will discuss, without showing their Timeline to anyone directly.

If you're interested in prompting discussion of anticipated difficulties, the timeline can be adjusted to 'leave a bit of space for the future' when selecting where along the timeline to mark 'Today', and include the instruction "Add in some challenges you anticipate".

## Transferability to different contexts

The focus of the Timeline can be as broadly defined as 'your experiences in education' or as specific as 'your progress with a specific assignment'. The activity can be applied at all levels in education, from primary school to HE, and in the context of any subject whatsoever, so it's highly versatile. It can be applied to both past and future challenges and successes.

## Links to tools and resources

- Timeline – TEMPLATE (link opens to make a copy of a Google Doc)  
<https://docs.google.com/presentation/d/1Bp8g7m8hJywA39pBXDg-fp2k-5Eo2Rv81TYGExLZeOQ/copy>
- Timeline – WORKED EXAMPLE  
<https://docs.google.com/presentation/d/1VWTq7f54J9aOKDZuLrHw5WrSv0nBjtKZEK9H6KHHdbw/edit?usp=sharing>
- This Padlet Wall from an actual session with students reflects what learners wish for, in terms of confidence:  
<https://uofsussex.padlet.org/margarita/magicwand>

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# Handing over the key: students take ownership of the learning management system to create their own learning

MARCUS PEDERSEN



## What is the idea?

Over the last two decades learning management systems (LMS) have had thousands of tools developed to increase the interactive nature of online learning. One of these tools, H5P, is rapidly becoming

the gold standard for authoring interactive videos. H5P is a free program available on most large LMS'. H5P allows the user to create an interactive video. An interactive video allows for questions, prompts and links to be layered over a video. Therefore when the viewer is watching the video they interact with the learning material as opposed to passively watching a video.

I decided to empower both teachers and students to use this tool to create an interactive resource for masters' students studying ophthalmology at University College London.

## Why this idea?

Video can overcome barriers to understanding by allowing for increased repetition of an activity which helps with task processing (Meyer & Land, 2006). This effect of unbridled access allows for developing one's Zone of Proximal Development (ZPD). The ZPD is where a student can achieve a task with assistance from a peer or facilitator (Wertsch, 1984). There is less literature supporting the use of interactive video, so I set about collecting data from a group of twenty masters students.

Initially I taught the course instructor how to create an interactive video of evisceration surgery as students were not able to come into the hospital due to the ongoing global pandemic.

The student feedback from the initial interactive surgery video was overwhelmingly positive with a 95% increase in confidence and understanding of the topic. This positive response is most likely because 'Advanced preparation allows for engaging discussions around clinical applications and challenging topics, increased classroom efficiency, and a more thorough understanding of material as learning is both self-paced and focused' (Bordes et al., 2021, p. 33).

The increased participation may increase the confidence and understanding of the students. Prober and Khan (2013) further

support the idea of using video, for they believe by allowing students to learn in their own time (K1) you create a space where more learning can occur. These two aspects may have attributed to the incredible feedback from students.

The next step was to then give agency to the students so they could create their own interactive video (applying one of Diana Laurillard's six learning types 'production'). These videos would be used as formative assessment (instead of a PowerPoint presentation) and other students could use their peers' work to revise (peer-to-peer teaching). H5P interactive video is designed to be as accessible as possible therefore the online resources developed can be used by students with specific learning needs. Acosta et al. (2020) guided my choice for they support the idea that video can make learning more accessible.

I set about creating an isolated Moodle space where students were given tutor access so they could use H5P. The students were given access to the same instructional video I made for my colleague and then the students began to create their own interactive videos.

Hence, a new approach to use the learning management system whilst simultaneously developing resources for the virtual environment was created. There are now twenty interactive videos which, once vetted by the teacher, can be used for the next cohort and in the following years the number will increase.

These video resources can be viewed as many times as the student desires. Meyer and Land (2006) suggest this increased access to resources may increase self-efficacy. The ability to increase self-confidence is highlighted in the feedback.

*The final feedback showed:*

- 86% of students found that the process of developing their own video improved their confidence and understanding of topics. Watching their peers' videos also had the same effect
- 86% of students believe that interactive videos are more

effective than normal videos.

- Video has been proven to increase the confidence, understanding and self-efficacy of students. I believed that layering video using H5P would only develop this further. I may be on to something...

## How could others implement this idea?

1. It requires someone who can navigate a learning management system to create a space for the students so they have 'teacher' access
2. You need to create an instructional video on how to create an interactive video
3. You need a subject matter expert to create the initial video for students to interact with
4. Allow students to create their own interactive videos

This activity can be run at any time and can be expanded to other classes as it is not only useful for ophthalmology.

It took about 30 minutes to make the interactive video; I used Camtasia but any video editing software could be used. Teaching the course instructor took one meeting and then time to create the interactive video which is about one hour for every 10 minutes of interactive video. However, the amount of time decreases as one becomes more familiar with the software. Setting up the learning management system took about one hour.

## Transferability to different contexts

This idea is valid for anyone with access to a learning management system that has H5P. Video knows no boundaries. It has an added

benefit of showing things that cannot be viewed easily on online lectures.

1. Reach out to your learning technologist they can help with the tech side of things
2. Try software you are familiar with, it doesn't have to be the video editing software I used
3. Collect feedback
4. Let me know how it goes at [Marcus.pedersen@ucl.ac.uk](mailto:Marcus.pedersen@ucl.ac.uk)

## Links to tools and resources

- How to create an Interactive video on H5P (<https://h5p.org/interactive-video>)
- H5P Tutorial ([https://www.youtube.com/watch?v=SaN9KY\\_Idpk](https://www.youtube.com/watch?v=SaN9KY_Idpk))



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=125#oembed-1>*

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# 2D WELLBEING, HUMOUR AND MINDFULNESS



# Learning by mistake: the role of humour in active learning

WENDY JOHNSTON



## What is the idea?

Many students fear assessed skills presentations. Experiences of observing students undertaking such assessments and seeing the anxiety and stress they can create led me to explore the use of humour as a pedagogic tool and became the catalyst for the development of an innovative method of teaching and learning which is a departure from the norm. Humour creates positive learning environments which actively engages students, encourages reflection, improves retention, and helps relieve anxiety and stress for students. This chapter discusses how humour can be utilised as a powerful instructional tool enabling students to learn from their mistakes by observing what not to do!

## Why this idea?

Assessed skills demonstrations/presentations can be stressful for students, raising anxiety levels and making them prone to uncharacteristic errors. I have witnessed many of these and reflected on how analysis of the mistakes could provide useful reinforcement of the correct method of practice. From observing students undertaking assessed food demonstrations, seeing the mistakes that they made, the stress that it caused, and the detrimental impact poor performance had on student's grades, led me to identify alternative, more effective, teaching strategies.

The summative assessment for the Food and Media module (L5) requires students to deliver a live demonstration to showcase their developed recipe and complete all stages within a 15-minute time frame. Students must control what they are doing whilst effectively interacting with a live audience and ultimately produce an edible dish. Students struggled to present in front of their peers and tutors, and if they made a mistake, it impacted negatively on the remainder of their demonstration and their grades suffered. I therefore reflected on how effective positive analysis of the mistakes could provide useful reinforcement of the correct method of practice and if the use of humour could help break down barriers and create a more relaxed environment. I wanted to create a receptive learning environment which allowed students to feel comfortable when practising their demonstration skills, to reflect on, analyse and learn from their mistakes in a positive constructive way, to break down barriers to learning and to improve retention of information. Laughter is one of the most successful defences we have to combat problems, being an effective means of dealing with mistakes made by academics or students in a kind and considerate manner (Welker, 1977). Laughter also helps diffuse embarrassing situations for both students and lecturers within the classroom (Sudol, 1981).

Although many contend that teaching is a serious business and we

are not supposed to be entertainers (Berk, 1996), I actively chose to incorporate humour into teaching and learning and to harness it as a strong tool of communication (Kocak, 2018), to create an element of surprise and to make learning enjoyable and memorable. When appropriately used humour has the potential to humanise, illustrate, defuse, encourage, and reduce anxiety (Torock et al., 2010), and it can build trust, increase morale, decrease stress and boost approachability (Kocak, 2018); however, it must never cause offence.

## How could others implement this idea?

Prior to summative assessment, build in several formative feedback/feedforward sessions to build students' confidence. Use humour and role play in one session. Record all sessions for the Virtual Learning Environment (VLE) for students to refer to.

Week 1 – Demonstrate simple tasks showing relevant stages and explain how to set up the demonstration area.

Week 2 – Split into two sessions. For session 1, deliver a full demonstration showing in detail how to complete each demonstration stage. Give students a break and reset the demonstration area for a second demonstration. The tutor then needs to step outside their comfort zone and completely change character, (I become ‘Theresa Green’!) – this can require a leap of faith! Using the element of surprise, humour and an element of drama deliver the demonstration again, but this time incorporate all the previous mistakes that you have seen students make into your demonstration. For me this includes getting almost every step of the recipe wrong, not knowing how to use equipment, not involving students as an audience, eyeballing one person, poor verbal and non-verbal communication, poor food hygiene, wearing too much makeup/ jewellery, plus dirty kitchen whites! A plenary

session must then discuss each of the demonstrations and explain why humour and role play has been incorporated in the way that it has. It is important to reinforce that the session which used humour had been designed to show how **not** to deliver a demonstration. These two sessions are designed to teach students not only how to deliver a cookery demonstration correctly, but more importantly to teach them how not to deliver a demonstration. Using this method will enable students to see what mistakes and errors look like from an audience perspective and will ultimately help to break down barriers between students, peers, and lecturers. Although this method goes against traditional teaching methods, it works for my modules. A student states:

*“It was so unexpected; we saw Wendy as we had never seen her before and watched incredulously as she made every mistake possible. It was hilarious, but I learned so much. When undertaking my assessed demonstration, I remembered what **not** to do, which enabled me to complete my assessment successfully. It made learning so memorable, I will never forget it.”*

Week 3 – Continue to build a supportive learning environment. Task students with delivering a 5-minute demonstration e.g., scrambled egg to tutor and peers. Provide detailed feedback/feedforward.

Week 4- Students complete a full practice demonstration to their tutor and peers using previous feedback. Record. Provide further feedback/feedforward.

Week 5 – Individual tutorials with students to watch recordings

of demonstrations and provide constructive feedback/feedforward and support for summative assessment

Week 6 – Summative assessment

## Transferability to different contexts

Humour can be used as a pedagogic tool to effectively engage students in learning and skill development. The key principles are transferable across other disciplines particularly where there is an emphasis on skills acquisition including nursing, science, healthcare and Design Technology.

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## Image Attribution

Yellow painted eggs photo by Roman Odintsov via Pexels

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# Embracing mindfulness to facilitate active learning

AMY EDWARDS-SMITH

## What is the idea?

Mindfulness is often described as being present, an awareness achieved through curiosity, an open-minded approach, and embracing perspective. Such skills are beneficial for students to be active in their own learning. This chapter will explore the theoretical concept of mindful teaching and ultimately mindful learning with suggestions on how this can be implemented in teaching practice. By embracing mindfulness concepts, educators will promote a safe learning environment that fully encourages students to participate in active learning opportunities. Kisfalvi & Oliver (2015) explains that a safe space, one in which there is no judgement, mutual respect and trust, results in deeper learning as there is no fear, participation is encouraged, and students explore their own thoughts.

## Why this idea?

Mindfulness embraces the present moment without judgement and purpose; it is a conscious effort to focus on the now rather than the past or future (Ludwig & Kabat-Zimm, 2008). Epstein (2020) explains the opposite of mindfulness as being mindless or on 'autopilot'. Langer (2000) describes 'mindful learning' as a cognitive process with a sense of openness to experiences and possibilities. Her research shows that students' skills in problem solving and flexibility are increased and contrasts with 'mindless learning' which

is learning through repetition in a manner devoid of critical thinking or reflection. From a neurobiological perspective, practising mindfulness has been beneficial for metacognitive processes such as awareness and the ability to pay attention and emotional regulation. This occurs by enhancing the frontal lobe activity whilst disengaging primitive and stress responses (Tang et al., 2015).

## How could others implement this idea?

### *Create a safe learning environment*

For a learning environment to be effective, students need to feel safe (Caverzagie et al., 2019). Any concerns students hold about being judged, or indeed humiliated, will negatively affect their ability to learn due to stress hormones (Bynum & Haque, 2016). Mindful educators pay attention to their students in the moment and respond to promote trust and supportive relationships. Through observation of engagement and reflection in action (Schön, 1987), educators can be intuitive and responsive to students' needs. To create a safe space one needs to be reflexive to students needs through observation of contribution and body language, and modelling positive behaviour (Kisfalvi & Oliver, 2015)

### *Being ready to learn*

Students and educators are not immune to outside influences on their classroom experiences. Starting the lesson with a mindful exercise serves two purposes; it assists in displacing any emotional energy and prepares them to be fully present in their learning. Mindfulness activities that would be suitable include breathing

exercises (inhale for 4, hold for 4, and exhale for 8), tuning into our five senses, or scanning the body for sensations.

### *Embracing multiple perspectives*

Practising mindfulness involves taking perspective; analysing issues in a variety of different ways (Kabat-Zinn, 2013). Educators can foster this approach through questioning, encouraging students to differentiate between ‘fast thinking’ (recognising patterns) and ‘slow thinking’ (intention and analytical) (Hayes et al., 2017). One way to achieve this would be by asking ‘How do we know what we know?’ and playing Devil’s Advocate. Mindfulness encourages one to become aware of different possibilities and become flexible through embracing change (Anglin et al., 2008). Consider using language in the classroom to promote critical thinking, such as ‘could’ instead of ‘should’. Encourage curiosity by framing questions and activities that do not have a correct answer but encourage curiosity and discussion. Curiosity can be developed further by encouraging students to reflect on their own learning (Borrell-Carrió & Epstein, 2004).

### *Remember good teaching is about facilitating learning*

Mindfulness practice encourages one to be present in the moment without attaching value to any particular outcome. It can be relatively easy for teachers to forget that good teaching is not about transferring knowledge but rather the facilitation of learning (Slavich & Zimbardo, 2012). Lesson planning should be seen as a guide, not an outcome that needs to be adhered to, and good teachers are responsive to their students and focus on the learning process rather than the outcome. This flexibility encourages educators and students to consider new ways of accessing

information, ultimately developing critical thinking and problem-solving skills (Langer, 2000).

### *Be a role model*

Mindful teaching cannot occur without a mindful educator (Dobkin & Laliberte, 2014). As mentioned previously, mindfulness practice encompasses the notion of being present, being in ‘the here and now’ (Aldridge, 2015). Before you begin your class, make an intentional effort to centre yourself in the environment and acknowledge external influences. It is not expected that adopting a mindful approach will always be intuitive; indeed a great deal involves reflection and focus (Epstein, 2017). Mindful practitioners agree that a mindful approach will never become second nature and should be practised and prioritised. There are many apps, online courses, and videos that can help an educator practice personal mindfulness to become a role model for their students. Educators can be a role model in the classroom by asking non-threatening questions, sharing their own thoughts and acknowledging their own gaps in knowledge.

*Mindful teaching is something to be, rather than something to do.*

Although arguably an educator could introduce mindfulness as a taught session, perhaps during a study skills session, to truly achieve it one needs to assimilate the approach into their teaching philosophy consistently. To embed this into your pedagogy you could take a ‘no correct’ answer approach to facilitate curiosity, be flexible and recognise plans are not concrete to create a safe environment and use low pressure starter activities which allow transition from the outside world to the learning world.

## Transferability to different contexts

Mindfulness can be embraced by teachers of all disciplines who wish to develop their pedagogy. Much of the research is within the field of health and social care due to interest in staff burnout and compassionate practice. Still, the core principles of being present, curious and open-minded are fundamental in promoting active learning. Even for those disciplines where there often is a 'correct' answer, such as mathematics, a mindful approach can assist in building relationships with students and encourage students' reflection on their knowledge and experiences. The promotion of self-awareness for all students will positively influence developing skills for life-long learning and autonomy over their learning journey.

## Links to tools and resources

- Resources & Free Audio Practices – Oxford Mindfulness Centre: <https://www.oxfordmindfulness.org/learn-mindfulness/resources/>

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### 3 TRANSFERABLE SKILLS



*Long-tailed blue butterfly*

*“Education needs to be rethought. Education does not just happen in college, but it also happens in developing skills which will enable people to contribute to our society as a whole”*

**~ Peter Thiel**

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# Introduction to Transferable Skills

RICHARD BEGGS; TAB BETTS; AND MATT PARKMAN

Preparing students for the professional workplace, in addition to enabling them to develop discipline expertise, is becoming more and more important. These transferable skills are often seen as crucial factors that add to the individual's employability (Nägele & Stalder, 2017). The World Economic Forum (2020) published the predicted top 10 skills for employment in 2025, highlighting the skills needed to succeed as well as those in demand; these range from critical thinking, problem solving and analytical skills to active learning, learning strategies and resilience. This demand has led to the development of some toolkits to encourage the fostering of these so called 'soft' skills in students such as the eLene4Life (2020) Dynamic Toolkit. The chapters collected under this theme explore various transferable skills, partnerships with industry and practical guides and tips to implementing them.

## Academic Reading and Writing Skills

This section draws attention to the importance of active learning when considering more "academic" elements of teaching and learning. The use of active learning can enable learners to aid their engagement with activities such as reading, and essay/report writing.

Authors discuss ways in which these activities can become more interesting and engaging to learners, ultimately leading to positive outcomes. Suggestions include innovations such as Little's student writing retreats, transferring practice from academic development

workshops to undergraduate and postgraduate teaching, and Hancock's dissertation speed dating.

Garnham describes her approach that breaks down the process of report writing into a series of active learning activities. The benefits of co-writing are explored by Middleton, whilst Rutschmann details a student-led Journal club that encourages discussion and critical engagement.

To get students reading high-quality academic sources, Stevens shares his approach to getting students in groups to read and share understanding in passes incrementally challenging them to delve deeper. Taylor describes her “10 steps to success” guide to writing essays for students that utilises active learning approaches, while Stockton-Brown shows how inviting students to engage with their emotional responses to set topics resulted in active – and deep – learning.

The underlying premise of all of the contributions within this section is to increase interaction between learners, providing opportunity for reflection, and ensuring safe environments for learners to discuss and explore ideas that interest them, which may ultimately help them in their written work.

## Critical Thinking

Miri et al. (2007) state that students need to go beyond building their knowledge capacity to develop their higher-order thinking skills. This section of the book looks at ways in which learners can creatively engage with material in a critical manner, through the use of role-playing, research, and myth busting activities.

Hickey presents the idea of engaging learners through role-playing and visualisation of alternate viewpoints. The focus is on encouraging learners to move away from their “reflex” responses and perspectives and question scenarios through different

mindsets. Detailed information is included for how to adapt this activity to synchronous and asynchronous settings.

Parkman discusses the importance of research and verification of information when presented with statements out of context. Her chapter reviews the opportunity for learners to generate conversations which are in line with their interests, enhancement of interpersonal skills and formation of evidence-based opinions.

Salim encourages us to consider the importance of providing learners the opportunity to develop their ability to form and present arguments in an evidence-based manner through the use of “True or False”. This idea encourages active engagement in learners, with particular focus on substantiating responses regardless of support for the topic. Salim provides a comprehensive list of examples for transferring these skills to different contexts.

## Reflection

Reflection is often seen as a way to evolve and develop oneself to learn from our mistakes and do things differently next time. Zubizarreta (2009) emphasises how reflective thinking and judgment are effective stimuli to deep, lasting learning. This section explores how reflection activities and models that facilitate active learning can develop students as reflective practitioners.

Hancock puts forward the DUCK (Describe, Understand, Change, Keep, Share) model to aid students in understanding the stages of reflection. She provides practical tips on how to adopt this practice in the physical classroom or via digital means using a Miro board or Google drawings to create simple drag and drop activities.

From a slightly different perspective Mellon explores how to facilitate reflective practice through triadic reflective dialogue. Using the guided conversation approach to encourage reflection in a safe environment.

Rhodes discusses her practice of using strategically placed

‘Pause’ activities before, during and after to encourage reflection in her postgraduate module for staff new to teaching in Higher Education. Her overall aim of using this reflective approach is to encourage inclusive practice in her students.

In summary within this section, the reader will be offered a range of practical active learning approaches that encourage student reflection with step by step guidance and tips on adopting the practice outlined.

## Work, Employability and Partnerships

Barnett and Coate (2005) state that by acting out the practices of a discipline students become the author of their own actions. This section explores active learning from a workplace skills perspective. Although there is commonality in the skills authors are trying to engender within their students, there are a variety of approaches that the reader may find useful.

Heard-Laureote and Field share their approach to enhancing employability skills through a second-year module on the Politics and International Relations undergraduate programme. The practical assessments methods implemented encourage creative thinking, problem solving, strategic planning, team working and delegating skills.

Bringing the curriculum to life through collaborative partnership and authentic learning experiences is central to Johnston’s chapter. By embedding live collaborative briefs into the curriculum she discusses how this highlights real-world applications of knowledge and skills.

Pantrey-Mayer describes a Persona-based project where learners complete a brief in groups, developing problem solving, team working, resilience and many other professional skills.

The Diamond Nine active learning technique shared by Perkins helps students understand and engage with graduate attributes and

articulate them to future employees. Pinnick explores using role play to help students explore ideas of professionalism preparing them for work-based settings.

In summary this section offers a number of different practical approaches for developing professional and discipline skills in students with guidance on how to transfer to other areas.

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# 3A ACADEMIC READING AND WRITING SKILLS



# Student writing retreats: spaces to actively enable the production of academic work

DR CHRIS LITTLE



## What is the idea?

Structured writing retreats have become a staple of academic development provision across UK higher education, offering academics and research students a space to work productively, consolidate their identities as writers and build collaborative networks amongst peers (Casey et al., 2013; Moore, 2003; Murray

& Newton, 2009; Papen & Theriault, 2018; Swaggerty et al., 2011). However, as yet, they are rarely, if ever, offered to undergraduate and postgraduate-taught students.

This idea will explore provision I worked on from 2016-2021, while working at Keele University. Within the learning development team I worked in, I piloted writing retreats for undergraduate and postgraduate-taught students. We found them to provide an active and safe space for students to construct knowledge and make academic progress.

## Why this idea?

The learning development team had attempted to provide a range of provision to support undergraduate (UG) and postgraduate-taught (PGT) students with their dissertations. These students tended to be frequent users of the university's individual academic practice tuition service and the team wanted to find a way of connecting them and supporting them in a different way. Despite our best efforts, the various workshops and café drop ins we provided had virtually no engagement.

Structured writing retreats are often provided by central academic development units across the UK HE sector. They provide spaces for staff and research students to make progress towards substantive writing projects, whilst providing a space to network too. Writing retreats range in their format from single day on-campus retreats, to multi-day residential provision. The retreats break down a day of writing into a small number of writing blocks, with discussion amongst peers before and after these blocks where colleagues share goals for the session and review progress. Research around writing retreats has found many benefits to attending them, from improved productivity, efficiency and motivation, through to more complex consolidation of colleagues self-identification as 'writers' (Casey et al., 2013; Moore, 2003; Murray & Newton, 2009;

Papen & Theriault, 2018; Swaggerty et al., 2011). Despite writing retreats offering so much to staff and researchers, they are rarely, if ever, offered to UG and PGT students.

Fortuitously, I happened to attend a structured writing retreat provided for staff by the university's academic development team and found the experience to be eye opening and rewarding. In one day of structured writing time I was able to achieve my writing goals and network with colleagues from across the university, many of whom have remained friends to this day. Then I decided that students deserved to have these opportunities too and began providing them for undergraduate and PGT students.

In direct contrast to our previous variety of workshops and tuition, the writing retreats proved to be incredibly popular with students for a range of reasons. Students reported that they were able to produce far more written work than they normally would do, due to the environment of the retreat itself and the time constraints of the writing slots. Students also share their goals for each writing session with a peer in the room, not always someone they know, and discuss their progress against these goals after each writing slot. This positive accountability proves to be a great motivator for students, focussing their work. Finally, the writing retreats were found to be beneficial for students with additional learning needs. Retreats provide a calm, private and friendly environment to complete work, compared to the usual activity and noise levels of shared computer rooms that most universities have.

## How could others implement this idea?

Delivering a writing retreat is easy, whether that is within a formal curriculum (i.e. using a lecturer slot to provide a space for writing) or offering optional retreats for students on a sign-up basis. Once you have your audience it is all about facilitating discussion of goals amongst participants and silent writing time, followed by a recap.

- Stage 1 – Goal-setting (10-20 mins): Instruct participants to decide on some SMART goals for the first writing block and to share them with a peer. Encourage them to offer constructive feedback on whether the goals are achievable or measurable. Student participants often commented anecdotally that they found it helpful when I shared what I intended to achieve in the upcoming writing block and reported back on my own progress. Use this time for your own writing too.
- Stage 2 – Silent writing (60-90 mins): Inform participants of the duration of the writing block and enforce silent working with no food being consumed during the writing time. Give participants a warning when the session is 5 minutes from ending. Ensure that participants actually stop when the writing block is over.
- Stage 3 – Debrief (10-20 mins): Facilitate a discussion in pairs again of their progress against those targets before bringing together for a group plenary on how they found the process.

## Transferability to different contexts

This could be transferred to virtually any discipline which requires substantive written projects. Indeed, at Keele University, the success of student writing retreats led to them becoming timetabled and embedded parts of curriculum in Midwifery, Social Work, Physiotherapy and others.

## Links to tools and resources

Examples of the schedules of structured writing retreats can be found in several key writing retreat papers, but notably in the works of Murray (2008), Petrova and Coughlin (2012) and Tremblay-Wragg et al. (2021). I would wholeheartedly recommend attending one,



especially as many sector-wide bodies, such as AdvanceHE, now offer them for schemes like AdvanceHE Fellowships too.

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# Dissertation speed dating

DR JESSICA CLARE HANCOCK



## What is the idea?

Students find writing their dissertation intimidating, as it is an isolating process, and also often because they're not quite sure what the overall focus of their research is. This fun, sociable activity, which is like 'speed dating' for students who are writing dissertations or extended projects, allows them to develop a clear articulation of their central thesis, enabling them to gain confidence in their ideas.

Students are paired up, sit in a row of chairs facing each other, and the facilitator tells them to start. One of the pair begins and has two minutes to tell the other person about their idea for their

dissertation. The facilitator will signal the end of the two minutes (perhaps with a buzzer) and the other person will then be given two minutes to communicate the focus of their dissertation. After the end of these two minutes, one person from each of the pairs will move to a new pairing, and the process will be repeated.

## Why this idea?

Many students find writing their dissertation intimidating (Hill et al, 2011; Huang, 2007) – it is often the first time they have undertaken research, or produced such a long piece of writing. Two key issues within the dissertation period are 1) the difficulty in keeping research focused to a central idea (Anderson et al, 2006) and 2) the isolated nature of this work (Manathunga & Goozee, 2007) which is often carried out with limited contact with a supervisor, and no group classes enabling peer support. The benefits, of an active-learning, group-based approach, are combating some of the loneliness experienced during a dissertation period, as well as enabling students to move away from just solo writing, into verbal discussion which can result in a different approach to their work. Talking through their dissertation with others provides the vital opportunity to practice, learning through making mistakes in their summaries, in a much lower-stake environment than with their supervisor – it thus includes elements of ‘doing’, ‘making sense’ and ‘feedback’ which have been suggested by Race (2014) as crucial to learning.

To address the first problem, a repeated articulation of a student’s research idea within a time limit means that their ideas become more concrete and more coherent. Being asked to provide an overview of their research several times means that each student becomes more confident about its key focus, and can identify areas needing further exploration or increase their awareness of how to structure their ideas. Often students’ initial reactions to their first

few turns are that the time went really quickly, and they didn't manage to mention a particular aspect, or they realised that they had left out a main point after the buzzer went. As the activity continues, students are able to provide a more concise version of their idea, leaving out extraneous material and concentrating on the crux of the matter – perhaps their central question and crucial aspects of their methodology. This more polished verbal overview leads to clarity in their own minds, and having a clear sense of purpose about the overall focus transfers into their dissertation writing meaning that they are able to use the word count more efficiently.

The reactions from students to the activity are overwhelmingly positive. In particular, students get excited about connections between their research and others' projects – particularly in larger cohorts where they may not have realised that someone was using a similar approach or method, or examining a related issue. The connections that are established during the session are often followed up on, so that students have a range of peer support and an outlet for sharing their research progress; these associations counteract the possible experience of dissertation writing as a lonely pursuit.

## How could others implement this idea?

In its simplest form of face-to-face teaching, students sit in a row of chairs facing each other. When the time limit for both people is up, the people in one row move down one seat. Clear instructions are crucial at this point – an approach that works well is to tell everyone on one side to stand up, and then direct them to move one seat to the right, indicating the direction clearly and showing the person on the seat at the end that they need to walk back around to the far left chair in the row. Allowing for four or five changes of partner, the

activity would take around 30 minutes (with extra time for moving around the room).

In an online session, it would be very complicated to create breakout rooms that ensured a different pairing each time without long delays during the change of pairings. Instead, you could do random allocations of pairings. If pairings are repeated, it doesn't matter too much – it means that students have fewer opportunities to hear about others' research, but they still benefit from repeating their own project articulation. Students are also likely to find it useful if they are encouraged to reflect afterwards about how the other person in their pair changed their verbalisation of their ideas in a subsequent meeting.

In either setting, as a final exercise, to increase the opportunities for hearing about the research of all the cohort, some simple way of sharing their research ideas could be set up, such as a forum post of no more than 100 words which provides an overview of their dissertation. This would also provide a way to move from talking about their research to writing about it, in a less formal way than when they tackle a draft of their dissertation.

The activity works well at the beginning of a dissertation module, and it can also be useful to repeat it either part way through, or towards the end to maintain the focus on the dissertation's key ideas. It could be adapted to focus on specific elements – by asking students to just talk about either the key literature supporting their research, their methodology, or the highlights of their findings.

This strategy can be readily applied to a range of alternative scenarios. For example, you could ask students to each read a research article, and then use this speed-dating technique as a way for them to share the details of the research article with each other which would a) provide practice in their summarising skills and b) enable them to benefit from an overview of a range of research articles.

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# Making report writing 'active'

DR WENDY GARNHAM



## What is the idea?

This chapter will present the active report writing project that I have been using with students studying my foundation year module on Social Psychology. Report writing can often be seen as a “dry” and formulaic exercise. Making report writing more of an active endeavour, that empowers students to be more creative and innovative underlay this project.

## Why this idea?

When we ask students to conduct research and write a report on it, we tend to give them a question, give them instructions for how to

conduct the research, how to write it up etc.- it is all tutor led with very little option for students to show their creative potential or to tailor the report to their own interests. Moreover, in assessments of this nature, students often leave it until the last minute to complete it, meaning the mountain of meltdowns set in. This project enables students both to invest their own creativity into the assessment and also breaks the task down into manageable chunks across the term, with each chunk linked to a formative feedback opportunity. It allows students to learn by doing, encourages them to seek support and implement feedback to help them develop as independent learners.

## How could others implement this idea?

The active report writing method follows five key steps: Conversation in the café, Sling your hook. Down the Rabbit Hole, Playing Detective and Be a Rembrandt.

### *1. Conversation in the café – idea generation*

Students are initially introduced to the assignment brief: to conduct a content analysis. For the first step, students should select an area of the module syllabus that interests them and then generate as many different questions about that as they can think of. What questions do they have about that area? What do they think would think, it would be interesting to explore? They are encouraged to talk to friends and family, to share their ideas and to imagine a conversation in a cafe. If they were talking about the area of the syllabus that interests them, what questions might their friend raise? How would they respond and would they themselves have any question to raise for their friend in return? The emphasis is very much on generating ideas. Whether or not these are ideas that

they take forward for the final analysis doesn't matter at this stage. Towards the end of this stage, students individually document their flurry of ideas in a conversation collage which can be as creative as they like.

## *2. Sling your hook – hooking evidence to ideas*

Students look back at their collage and select one of the questions they generated to take forward for their content analysis. It must be a question that can be tested using content analysis. Their task is now to explore the literature to find out what is already known about the content of that question. What has already been done? Where are there gaps in our knowledge? The idea is that students aim to “hook” evidence onto their ideas. Students document their findings in an annotated bibliography table, showcasing their referencing skills on the left and making brief notes about what they are taking from the article/book to use in their research. Is there evidence that links to their ideas? If so, what is it? If not, will they take that idea forward or omit it?

## *3. Down the rabbit hole – formulating an introduction*

In Alice in Wonderland, one scene shows Alice falling down a rabbit hole, moving from a broad opening, to a narrow tunnel. This analogy is used to explain the next stage of the report writing process. How does this work? Having completed their annotated bibliography, students have to do something useful or constructive with what they found from the academic literature. This stage requires them to organise their findings to create a rationale or introduction to their content analysis. Why is their study needed, given what went before? How does it help to progress our understanding further? What gap will it fill? They should start with a broad introduction

to the area they are studying and narrow down to lead naturally into their own study. Students work together to look at examples in the literature that they found to give them a clearer idea of how it works. It is also useful to give students some random extracts from an introduction and ask them to order these so that the story moves from broad to specific in terms of the journey it takes the reader on. Following this chance to engage in active learning, students then individually try to work on their own introduction to their research. Their introduction should end with a clear and precise prediction about what they will find in their content analysis.

#### *4. Playing detective – analysing the evidence*

Stage 4 is all about conducting the content analysis. Just as a detective will look for evidence, students now do the same. Students collect together examples to analyse. What the examples will be will depend on what the student is investigating but they could be TV adverts, political speeches, lonely hearts advertisements, children's cartoons etc. They decide on a coding scheme to use to analyse the examples, i.e. what will they look for in the examples that will help them to answer their question? Often their exploration of previous research will give them some ideas here. They then analyse the examples they have collected to look for patterns or trends.

#### *5. Be a Rembrandt. – painting a picture of what the evidence suggests*

The final stage of the process is where the student “paints a picture” of what they did and what they found in the form of a research poster. They have already written the introduction or rationale but now they add to this by outlining the method (what examples they used, how they selected them, what coding scheme they used),

the results (a graph or a table to show any patterns or trends, or the lack of!) and a discussion (outlining what their interpretation of their results means in the context of existing research in this area). This can seem like an unsurmountable task at first but to help students understand what is required, we give them access to a Padlet wall which contains examples of research posters used by members of the School of Psychology. Students are encouraged to work together to look at these and comment on what they liked about particular posters, which ones stood out for them and why? This helps them to develop as critical thinkers as well as being able to see the task being modelled by established academics.

## Transferability to different contexts

Anyone who uses report writing as an assessment tool may be interested. Although we used this in psychology, it is not necessarily discipline dependent. It is possible to extend this further by holding virtual poster conferences where others, such as staff teaching on similar modules, can look at the posters as they would in a face to face conference and ask questions on these.

It is also possible, at each stage, to build in formative assessment opportunities. For example, at stage 1, peer assessment could be used to comment on things such as the range of ideas, the relevance to the topic area and the presentation. At stage 2, feedback could be given on referencing using a tick box method. At stage 3, students could be encouraged to self-assess using a checklist (which in turn can be created from a class discussion). Stage 5 lends itself nicely to a peer assessment exercise such as a virtual poster display.

## Links to tools and resources

A similar approach was used to make essay writing active: see chapter 1 of this publication: <https://www.fulcrum.org/concern/monographs/vm40xt05h>

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Dr Wendy Garnham is a Reader in Psychology at Sussex and the Director of Student Experience for the Central Foundation Year programmes. She is also a National Teaching Fellow. Her career has spanned teaching at all levels of the educational spectrum from reception through to postgraduate. Her interest in active learning is borne out of the experiences she has had with each of the groups and individuals she teaches. Wendy loves having fun in teaching and learning because she believes strongly this is how we learn best.

# Co-writing: pedagogies supporting co-operative thinking

DR ANDREW MIDDLETON

## Introduction

Writing-based collaborative activities can be used as a conversational space for learning. Ideas that exemplify this approach include students co-creating guidance documents to capture findings from inquiry-based learning, using Chat channels purposefully to resolve a problem, annotating digital artefacts collaboratively, creating glossaries, and running a 'book sprint' as an active and immersive writing retreat (Heller & Brinken, 2018).

This chapter considers approaches explored in a sharing practice workshop at the Global Festival of Active Learning 2021. The workshop itself used co-writing, epitomising co-operative networked authorship (Johnston, 2010; Middleton, 2018) – an idea with far reaching potential. Together we considered what we have done, the benefits of such generative pedagogies, the practical considerations, and what more we could do. We considered how writing can be equally quiet or furious social activities, and how our familiarity with the act of writing can be used to promote inclusion and the development of a supportive learning community.

This chapter summarises what was discussed and produced, and is aimed at academic innovators interested in designing inclusive active and collaborative methods for a hybrid learning context.

## What is co-writing?

Co-writing describes situations in which people access and edit the same document at the same time. This can be achieved using common software like Microsoft Word or Google Documents. The same approach can be taken with other file types including presentations, spreadsheets, and digital whiteboards. The use of wikis in education raises many of the same possibilities and questions, however, their use tends to be more fragmented as often different pages in a wiki building assignment are given to different individuals or groups, with sites being constructed from disassociated pages (Boulos et al., 2006; Su & Beaumont, 2010). As a result, the research and presentation of ideas through a student-generated wiki site can lack a sense of collective thinking and synthesis. In contrast, this chapter emphasises situations in which the student authors place their cursors in the same document because doing so demands interactivity and avoids the simpler trick of assembling disparate writings together in a disjointed fashion. Therefore, fundamental to co-writing is a commitment to co-creativity and the social co-construction of knowledge.

Such activities can happen synchronously, asynchronously, or multichronously. Multichronicity highlights how a document creates a learning space which can be accessed (like a room) at the same time or over time, on your own or with others. In this way, the shared document can be thought of as a familiar collaborative learning space in which ideas can be developed with others fluidly.

Engagement with such learning activities reveals something in general for active learning: without contradiction, immersive activities can be fast, loud and intense, but they can also be quiet, considered and personalised. The energetic co-creation of a product through synchronous activity leads to an extended, even persistent or latent value in the object being created. Therefore, co-writing activities should be designed with understanding of the immediate value of co-creation within the writing space and the



value associated with acts of preparation and later acts of using what has been produced: creating knowledge, articulating knowledge, applying knowledge.

Some examples of this include: the co-creation of group lab books for writing up experiments together; case-based research in which evidence is gathered and interrogated together; collaborative portfolios in which artefacts are first assembled before being elaborated upon through co-writing, and then presented or published.

A shift to co-writing as an academic exercise, from tasks which may have hitherto been assigned to individuals, implicitly expands the potential learning outcomes because, as with many active learning pedagogies, the task introduces a need to negotiate learning and give and receive intrinsic feedback within the act itself.

Co-writing activities are versatile and, given the options they provide around time, task, and learner location, co-writing is best approached as a space for learning rather than a specific academic writing method.

## Why is co-writing useful?

The value of co-writing is that it gives a writing task academic purpose and authenticity, removing it from a purely abstract academic domain. Authenticity, in this case, reflects the sense of common purpose in the task itself and the practical focus of such writing, for example, as an outcome of a collaborative activity or inquiry. Co-writing also has the advantages of it being a negotiated act.

As a learning space, the document can be used in many ways. For example, the teacher could set up documents beforehand to guide a group's thinking around co-creating an artefact, for example structuring the activity around a topic and subtopics, or related questions. Alternatively, the co-writers could be asked to begin

their task by negotiating a structure and methods that will work for them as a design for achieving their research goals. Either way, collaborators are involved in making decisions about how to research and how to write in a shared space, and it requires that they dive deep into the task to develop and agree their methods and bounds.

Writing, editing and agreeing what should be produced introduces collaborative processes that begin by considering possibilities in a structured way before converging around decisions that reflect the knowledge, interests and skills of all participants.

## How can co-writing be used?

In this section, I briefly introduce three co-writing assignments. I will then reflect on some of the issues that need to be considered when using such a collaborative space.

### 1. Producing guidance

I use this approach regularly as a community of enhancement approach to developing good academic practice. Academic participants have gone on to use it with their students.

The challenge of producing guidance requires the authors to have a thorough understanding of the process they are explaining. They need to define and understand their specific audience. This knowledge and sense of audience adds to the authenticity of the task: the authors must write with authority based upon their experience and research and the quality of the authors' engagement is shaped by the artefact having actual users in mind. Further, the task represents a common scenario that is likely to be encountered by the graduate later in their professional life. The formative

assessment is authentic too: a guidance document can be tested on, and by, its intended audience.

Setting out a process should be a straightforward matter for the co-authors. They will need to explain to each other what they did themselves. This creates a well-defined, goal-centred activity as they analyse and compare in detail their own experiences of the process.

Processes often benefit from annotated diagrams or photographs and adding these to a guidance document can extend its value to authors and readers alike. Processes, like recipes, tend to be brief and highly structured. In a large class, groups can build a collection of different but related process documents for their mutual benefit.

## 2. Glossaries, FAQs and encyclopaedias

Co-writing glossaries or frequently asked question documents (FAQs) is an authentic assessment where students are involved in project-based or research-informed learning activities. Such activities can be brief and focused on a specific activity, or extended to a unit of study, or even a whole course. Students have created whole online encyclopaedias this way, pulling together and presenting current disciplinary research, for example on Linguistics or Medical Science (Middleton, 2018). Such ambitious challenges can be highly motivating and acquire great kudos, and this can attract and be passed down to new students.

## 3. Co-writing as a research space

A shared document, more than a writing instrument, can be considered as an accessible space; a room in which dispersed participants can come together. Think about who you would like

to involve and how you would facilitate the meeting as a research activity, and the benefits of participating in the meeting to the subjects as co-authors.

Creating a barebones structure around a subset of headings or questions can help to focus the minds of those who 'join' the document. I recently ran a series of workshops about reflecting on innovation in the pandemic. I created two document 'spaces', one headed 'War Stories' and the other 'Pushing the Boundaries'. While both spaces were related, they were different enough to prompt and collate examples of resilient innovative practice and future thinking while the activity was founded on recognising that all participants had valuable experiences to share and build upon.

## Conclusion

In conclusion, I reflect on what we expect of writing in the academic domain and what the value is in the act of writing.

In co-writing, the addition of the social context is significant. The metaphoric notion of document as a familiar room is also important; it signals that process, negotiation and the affordances of the space should be appreciated, at least as much as the more usual idea of a document being an end in itself.

Writing has many purposes in academia and different conventions and styles come into play. This should be clear to students in such activities. In the case of co-writing activities, the writing style is likely to be determined by the needs and expectations of the intended audience. The students' tutor as assessor will not always be the primary audience, and this should be discussed and made clear.

Time for the students to prepare, write, and use or publish the knowledge in focus should be considered when approaching co-writing as a pedagogy. The academic should be clear about how such activities sit within the learning and in relation to other

contexts in which the writing may be used. In a book sprint co-writing activity, for example, the idea of a tangible book being held and used by ‘real world’ readers may be so motivating that it may inadvertently obscure the academic context and distort its academic purpose and assessment.

The co-writing space has proven to be a versatile student-centred active learning space during the 2020-22 pandemic. It has accommodated students in highly motivating authentic activities in many disciplines. A familiar space, academics have demonstrated their ingenuity in devising both short and long challenges that result in substantial resources for readers and authors alike and, as academics have come across the techniques, co-writing pedagogies have proliferated.

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# The new Journal Club: a student-led discussion

DR SOPHIE RUTSCHMANN AND DR MALGORZATA TRELA

## What is the idea?

Throughout their higher education, students are expected to develop their ability to engage critically with the forefront of their discipline. Inspired by the medical and scientific biomedical communities, Journal Clubs are authentic ways to learn about up-to-date developments in the field, learn from more experienced scientists and practice critical analysis skills (Golde, 2007; Lee et al., 2005). However, when used in the classroom, the traditional Journal Club format relying on the presentation of the paper by one or few individual(s) rarely leads to full engagement by the rest of the class (Hartlaub, 1999). Our Journal Club format puts the onus on students to chair small discussion groups, therefore placing the discursive and learning opportunities back at the heart of the session.

## Why this idea?

Journal Clubs are a great way to critically engage with the published literature and keep abreast with the forefront of fast-moving disciplines. When done within the scientific community, they require all to come to the session having read the article and prepared to ask questions, show scepticism, share knowledge and critically analyse claims made by the authors (Golde, 2007). However, in a classroom, Journal Clubs are often a sleek presentation by a group of students to an often passive audience

which might have read the paper and at best ask some clarifying questions. Tired of this approach which provided limited opportunities for critical engagement, the format of our Journal Club was revisited to make it entirely student-led and discursive.

## How could others implement this idea?

The following guidelines were written for our Masters programme of around 35 students divided in small groups of 5-6. They have been used both for campus and online teaching, with the help of online breakout spaces for the latter.

The Journal Club is chaired by one small group who chooses a published article they want to discuss with the rest of the class. The article should be relatively recent, on a relevant subject and ideally conceptually challenging, but not too much. Guidance on important aspects when choosing the article is provided to the chairing group (technical complexity, journal of origin, length, etc).

A week before their session, the chairing group circulates the article for all other students to read in their own time and answer the prompting questions below in preparation of the synchronous session. The chairing group can add some specific questions but the ones below provide a starting framework for critical engagement with the content of the article and the students' broader knowledge.

1. What is the paper about?
2. What are the three main claims?
3. Do you think the authors convincingly demonstrate their claims?
4. What and why, in your opinion, is the most important figure of the paper?
5. If any, what is the biggest technical/experimental issue?
6. If you were the lab conducting the study, what experiment would you do next?



During the synchronous Journal Club session, each chairing student joins one non-chairing small group to discuss the paper in depth. The chairing student first gives an informal 10 min overview of the paper to start the discussion. They subsequently ensure that the discussion is about the paper, progresses along the prompting questions, that all in the group are participating, and that the limitations of the paper are discussed in a critical manner. All groups are regularly visited by the academics overseeing the session to provide some insight from a more experienced point of view. The session finishes with a class-wide discussion of the points raised in the various groups.

## Transferability to different contexts

The approach is easily transferable to any programme which runs a Journal Club or to any data interpretation/paper critique session. It requires very little preparation for the tutor who only needs to read the paper prior to the session and contribute their critical thoughts during the synchronous event.

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# I'm (not) an academic ... get me out of here!

PAUL STEVENS

## What?

I'm (not) an academic ... get me out of here! is a reading workshop in development at Solent University Southampton. It is run primarily with second-year media production undergraduates (mostly 19- to 20-year-olds).

The workshop promotes high-quality academic reading through active learning. The problem is that students are not reading – research tells us 27 per cent of expectations is a high estimate – and they are *afraid* to engage with some of the reading university-level study requires. So, this workshop offers an active learning approach to getting students reading high-quality academic sources, understanding their structure, and helping them with comprehension, interpretation, paraphrasing, synthesis, but above all boosting their confidence.

## Why?

In academia, we see academic reading as purposeful and critical for our students, but we also understand it is challenging (Gorzycki et al., 2019). One obstacle is that students can believe they are better at it than they really are (Gorzycki et al. 2019). This 'Dunning-Kruger-esque' situation (Kruger & Dunning, 1999) can lead to an inflated sense of ability in some, combined with a fear of how challenging it will be in others.

So, the initial objective was to develop a classroom-based activity promoting and *scaffolding* high-quality academic reading through active learning (Ryan, 2006). The workshop addresses a specific problem we identified, i.e. students were not *reading* at the level they needed to in order to *write* at the level we required of them.

This workshop facilitates students reading high-quality academic sources, understanding their structure, helping them with comprehension, interpretation, paraphrasing, and synthesis. But above all, it boosts their confidence, as they realise over time that they *can* understand texts they previously thought they *could not*.

The key to achieving this is collaborative interrogation of what they are reading. What it purposely *does not* ask students to do is decipher a whole document on their own: they work on a section of the whole text, while classmates work on other parts.

The students end the workshop by pooling what they have discovered, so that each individual student ultimately arrives at an understanding of the whole text, without having read it all.

We now have both anecdotal and grade-based evidence that improving the quality of the texts students engage with also improves the quality of their subsequent academic writing, as they seek out higher-quality sources than perhaps they would have done, and apply what they read to their practical work, and synthesise it into formative and summative reflections on that work.

An example text that I have used for my second-year undergraduates can be found in the references, below.

The module's summative assessments were to:

- (a) create an audio-based experience via an app (a bit like a soundwalk); and
- (b), write a critical reflection about the process, including what informed it, what was learned, what went well, what went less well, what should be done differently on a future occasion, and why.

The workshops run three times per class in any given 12-week teaching period. How often you run it is up to you, as appropriate.

'Too long, didn't read' (tldr) version; the idea is to make challenging academic writing 'less scary'!

## How?

You will need:

(i) Sufficient **hard copies of a 'text'**. This choice is crucial: challenging, but not so challenging students will be discouraged. They also need to connect what the text is *about* with something their studies *require* of them (Ryan 2006 in Baier et al 2011). The 'text' does not have to be factual, or even written: the workshop has been successfully delivered using audio, video and photographic media as 'texts'.

(iii) **A whiteboard** (the bigger the better) divided up into however many sections you divide the text into (experience suggests four or five sections is more than enough).

(iv) er, there is no (iv): that is it!

Start by explaining not just *what* your students will do, but *why* they'll do it. Research suggests nearly 90 per cent of students believe they can get a C, and just over 31 per cent think they can get an A, without doing *any* reading at all (Baier et al., 2011), so they might not initially see the point! Dunning-Kruger again?

**First pass:** *individually or in groups*, students highlight what they immediately 'get', and ignore (for now) what they do not get. They orally report to the class what they have discovered, and add quotes/paraphrases/key points to their section of the whiteboard.

**Second pass:** *in groups*, the students identify what they 'sort of got' the first time around, but were not absolutely sure about. The groups 'drill down' and discuss this content to arrive at conclusions. Again, they report back to the class and add more content to the whiteboard.

**Third pass:** the students, *still in their groups*, tackle the most challenging passages to arrive at an understanding of content they 'think' could be relevant, but *still* do not quite 'get' ... yet! Again, they orally report back and add final content to the whiteboard.

It is important to stress to the students at all stages that it is far less important that they are 'right' and more important that they

'have a go' at decoding what the text is saying and be able to explain that in their own words.

**Plenary:** by the end the whiteboard should contain quotes/paraphrases, key concepts and explanations for each section of the text, which the students can photograph, and/or you as the teacher can capture the board's content for the students.

Our students are then encouraged to read the whole text in their own time, and write about it informally in course blogs (which they must keep, and use in assessments, across their degree). You could devise similar subsequent activities as self-directed study and/or via follow-up in-class activities.

## Conclusion

Researchers suggest 'developing innovative techniques to ensure students are reading their assignments on a regular basis' (Baier et al., 2011). Whether this is such a technique, modesty forbids: but it would be interesting to hear how you get on with it, especially if you adapt the undergraduate workshop for your college, sixth-form, secondary, primary, or even infant school!

And speaking of adapting, during the 2020-21 pandemic we teamed up with Talis Elevate (<https://talis.com/talis-elevate/>) and have ported the workshop to online delivery via Microsoft Teams and its channels/breakout rooms. Using Talis Elevate this way, students are able to access a digital version of a text uploaded by a lecturer, annotate it both individually (and anonymously if they choose) and as part of a group. They can also discuss and debate in the channels/breakout rooms.

Good luck with the workshop! Please check out the video below if you want to find out more.

## Resources/links



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=614#oembed-1>

Video: <https://vimeo.com/444892212>

Example text:

Indans, R., Hauthal E, & Burghardt, D. (2018). Towards an audio-locative mobile application for immersive storytelling, *Journal of Cartography and Geographic Information*, 69, 41-50. <https://doi.org/10.1007/s42489-019-00007-1>

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## About the Author



Paul Stevens  
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Before becoming a university lecturer, Paul worked in the creative industries for more than 25 years: as a newspaper reporter, sub-editor and later a radio presenter. He mainly teaches audio production, including radio, podcasting and sound design. Paul is researching podcasting and immersive audio for a possible PhD proposal.

# Active essay writing: ten steps to success!

DR HEATHER TAYLOR

## What is the idea?

This chapter presents one approach to using the Active Essay Writing Programme (Taylor et al., 2019); an innovative approach we devised at the University of Sussex to support students in planning, preparing, and presenting original, insightful, and well-presented essays.

## Why this idea?

From our experience, most students arrive at university with little-to-no understanding of how to approach essay assignments. If left unchecked, this can lead to them feeling overwhelmed and, in-turn, submitting incoherent and uninspired essays that do not accurately reflect their true potential. The Active Essay Writing Programme was designed to address these issues and make the task of completing essays more manageable and enjoyable for students.

## How could others implement this idea?

To guide your students through this ten-step programme, you will need to create an example essay question that you can collaboratively answer with them. This will provide them with the

opportunity to develop and subsequently apply the acquired skills to their own essay assignments.

## Step 1: Deconstruct the essay question

The first issue students sometimes face when approaching essay assignments is not fully understanding the question. This can result in them writing (potentially good) essays on completely the wrong topic! The first step is to therefore deconstruct the example essay question with your students, breaking it down into its component parts to ensure understanding and overcome any confusion.

## Step 2: Generate ideas

Students are often under the misconception that before they can answer an essay question, they must read everything ever written on the topic. Their attempts to do this creates more confusion than it solves and, in turn, can result in submissions that are largely incoherent regurgitation of academic texts. Instead, we encourage our students to ‘think first’ to help them develop a focused strategy for identifying relevant literature to support their essays. To demonstrate this, ask your students to generate ideas, arguments and counterarguments that might help to answer the example essay question and add these to a mind map.

## Step 3: Find evidence

After developing their own mind maps, students will need to see if evidence exists to support their ideas. To demonstrate this process,

select some ideas from the example mind map and search for relevant reliable evidence. If no evidence exists for certain ideas, important learning has still taken place; we know that these ideas are unsupported and should therefore not make it into an essay, and, in doing so, greater insight into the topic has been acquired.

## Step 4: Critically evaluate the evidence

The type, style, and depth of critical evaluation will differ by discipline and your students' level of study. In consideration of this, critically evaluate some of the sources identified for the example essay with your students to model the skills involved. While revisiting these sources, also be sure to take more detailed notes as these will be used at the next step.

## Step 5: Get organised

Another stumbling block for our students lies in their assumption that there is one correct way to organise an essay. We alternatively encourage them to organise their essays based on their own narrative. To illustrate this, separate (either on paper or digitally) the ideas, summaries of evidence, and critical evaluations generated for the example essay and ask your students to organise this information in a way that makes sense to them. No two students will present the information in the same exact order, illustrating that multiple presentations can be 'correct'.

## Step 6: Flesh out the essay outline

The end-product of Step 5 is an essay outline, and so the natural next step is to develop paragraphs. The key here is to ensure that students are not wasting words through unconcise writing and/or inclusion of unnecessary detail, while still providing the reader with sufficient context for understanding the points being made. At this stage, it is also good idea to encourage students to cite and reference their sources as they go. Work on a couple of paragraphs with your students and/or provide them with examples of pre-made poorly written paragraphs and ask them to identify issues and edit accordingly.

## Step 7: Introduce the essay

Unlike the main body of the essay, when illustrating how to format an informative introduction paragraph, we encourage our students to adhere to the following three rules:

1. Set the scene by introducing the context and importance of the essay.
2. Signpost the reader to the key points that will be considered.
3. State the overall argument/ answer to the essay question so that the reader is made aware of this right from the start

Work collaboratively with your students to create an introduction paragraph for your example essay.

## Step 8: Conclude the essay

Our main suggestion here is for students to go beyond simply

summarising to synthesising the content of their essay. Using the example, encourage your students to take a step back and consider the essay in its entirety before working together to connect the main points and develop a take-home message for the reader.

## Step 9: Check citations and references

As we encouraged students to cite and reference as they went along, the formatting of these may not be 100% correct. To ensure that your students understand how to format correctly, provide them with a guide and ask them to either apply it to specific sources used in your example essay or correct errors in pre-made examples.

## Step 10: Proof-read

By this point students will have spent a great deal of effort planning, preparing, and presenting their essay – wouldn't it be a shame if the reader could not understand it? To illustrate this, provide them with the example essay (or a select few paragraphs) full of typos, spelling mistakes and grammatical errors for them to correct, so that they can see first-hand the difference between an unchecked first draft versus a carefully proof-read and edited submission.

## Reference

Taylor, H., Garnham, W.A. & Ormerod, T. (2019). Active essay writing: Encouraging independent research through conversation. In T. Betts, W. A. Garnham, & P. Oprandi (Eds.) *Disrupting traditional*

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<https://doi.org/10.20919/9780995786240>

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After several years working as a Doctoral Tutor, Dr Heather Taylor was appointed in 2019 as a Teaching-Focused Lecturer in Psychology at the University of Sussex. Since then, Heather has convened two Foundation Year Psychology modules and taught on other Undergraduate Psychology modules. Within her role, Heather has focused heavily on developing her students' academic skills via active-learning approaches and has been appointed the Head of Attainment for the School of Psychology.

# Padlet poetry: student poetry and art reflections as critical legal learning

DR MELANIE STOCKTON-BROWN

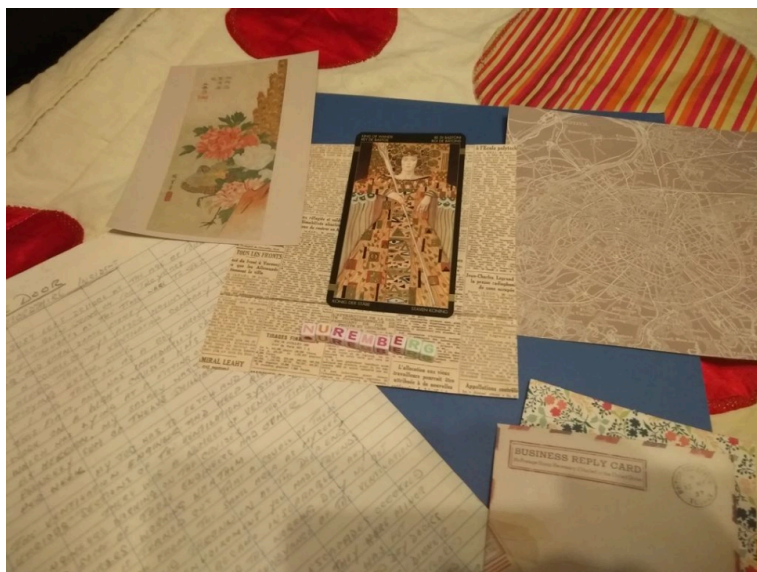


Figure 1. Screenshot of my own collage piece made to inspire students

## What is the idea?

Pedagogy within teaching has historically focused on knowledge retention, as opposed to reflecting emotionally on the content.



Encouraging students to reflect on complex theories whatever the discipline addresses this pedagogical gap. This might be through creative expressions including poetry, songs, artwork, and creative writing.

We trialled this teaching approach on a Law degree. Students each created a response in a medium of their choice to legal content delivered via lecture. Sharing these responses on Padlet created an archive, and allowed students to comment on each other's work, building connections. Students who have been part of these online workshops fed back how enjoyable they found them, and how much deeper they now understand the content.

## Why this idea?

Deep learning is achieved when students can understand the relationship between ideas, concepts and theories and bring them together as a whole, to understand the issue being examined (Fry et al., 2009). Therefore, the pedagogy behind this task was the concept of learning through action and experience, which combines action learning (learning through doing) and experiential learning (Skinner, 2010). Combined, this approach leads to active and deep learning, with learning situated in a social and legal context. Learners were encouraged to reflect on their own experiences, opinions, questions, and areas that interested them in the topic (the international criminal trials following World War 2), to then generate a creative response to the legal topics.

This approach is highly beneficial to facilitating active learning, as it cultivates self-directed learning, through approaching students as learning partners, and encouraging them to do the same. This idea is rooted in the concept that students can be scholars, change agents and teachers, and that the historical hierarchy of student and lecturer as distinct is not productive to learning (Healey et al, 2015).

Open conversation and critical discussion flowed in the session

with much more ease in comparison to other teaching sessions, and engaged students who often remain silent. In creating their individual responses, the students were actively and consciously engaging with the content, as well as actively reflecting on what they have learned, and the commentary they have engaged with. Students could then reflect on the creative responses others had created, looking for the views they shared, and views that they challenged.



Figure 2. Screenshot of part of the completed Padlet – showing student poems, drawings, collages and articles

## How could others implement this idea?

The session utilised a Padlet board, which can be set up for free. It is a great resource for granting access to students, as sharing the URL link will allow them to access the board and interact with it.

There are a number of different templates that can be used, including a timeline template and a template in which users can comment on a central image, as well as a board similar to a notice board.

The board allows students to upload content (such as images, music, text, hyperlinks, etc.), as well as to comment on the posts of others. You can choose to allow students to post anonymously, or you can disable that. I disabled the name function in the session, to increase their confidence in posting comments, which seemed to work well.

Clear instruction prior to the session was key, and I ensured the students had at least one week to make their creative responses and upload them. I also included links to sources for inspiration, including a variety of content to appeal to the diverse range of students.

Crucially, providing a starting-point or first creative work for the students will increase their confidence level to also share their responses. For that reason, I created my own response to the criminal trials, which was a poem accompanied by a visual collage, and uploaded that as I made the Padlet board visible to the students.

I also encouraged them to comment on each other's content as it was uploaded, and made sure I commented on each student's upload. This meant by the time we had the live session together, the students had seen each other's work and were keen to discuss it in more depth.

Have a list of 2 or 3 questions or prompts ready to guide the students, if they are not actively engaging at first.

Once the session is finished, share the URL in the VLE or via email with the students, so they can continue to access the resources (especially for revision). The content can be downloaded as a PDF, which is formatted well for sharing with students.

## Transferability to different contexts

This session could be utilised in any subject area, with both larger and smaller groups of students. It could enhance the pedagogical tools of law lecturers but is adaptable to any content. The emphasis

on transferring this approach to alternative content is context, and ensuring students are reminded of the importance of sensitivity to certain themes, and to the fact that their fellow students may have personal experience of these sensitive topics.

Similar tasks that can be considered are discussed in Chapters 5d (on haikus for learning) and in Chapter 6d (student-generated podcasts). These tasks encourage creativity and active learning through doing.

## Links to tools and resources

Padlet: <https://en-gb.padlet.com/>

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Figure 2. Student Poems Padlet Screenshot by Melanie Stockton-Brown is used under CC-BY 4.0 Licence

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Dr Melanie Stockton-Brown is a Senior Lecturer in Law at Bournemouth University. Her research specialises in copyright and intellectual property law, and human rights.

She combines traditional research and teaching practices with creative approaches, including film-making and zine making. She has FHEA status.



# 3B CRITICAL THINKING





# OPV: Other People's Views

ROBERT HICKEY AND SHAUN FERNS

## What is the idea?

Have students look at a topic/situation/scenario from Other People's Views (OPV) as a way to engage and learn. This is a role-playing activity, which can enable learners to look at a situation or scenario through a different lens or viewpoint. It provides learners the opportunity to look at things in a unique and different way. It encourages them to focus their thinking by being placed into a different mindset. It prevents them from producing a reflex response and stimulates the thought process. Based on one of Dr. Edward de Bono's (2006) thinking systems, 'The Power of Perception', this Active eLearning strategy has been adapted for use in managing a live/synchronous online classroom.

## Why this idea?

This exercise is based on a set of activities designed to help focus the mind (De Bono, 1993). Direct Attention Thinking Tools (DATT) can be used in any situation to elicit thoughts and ideas from a person or group of people on any subject or topic. There are 10 tools in all (Table 1), and the Other People's Views (OPV) is just one of these.

Direct Attention Thinking Tools	
C & S – Consequence & Sequel	PMI – Plus, Minus, Interest
RAD – Recognize, Analyze & Divide	CAF – Consider All Factors
OPV – Other People's Views	APC – Alternatives, Possibilities
FIP – First Important Priorities	KVI – Key Values Involved
AGO – Aims, Goals & Objectives	DOCA – Decisions, Outcomes

Table 1. List of 10 DATTT (de Bono, 1993)

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Potential benefits:

- Can be used for any subject/topic
- Can be implemented on an ad hoc basis if required
- Can be used online during a live class
- It can also be used asynchronously
- Stimulates lateral thinking
- Allows for collaboration/group work
- Keeps learners actively engaged

How could others implement this idea?

This approach could be used in every discipline. However, it

requires a bit of imagination, and with that there is no reason why this strategy cannot be utilised for any of your classes.

*Step 1: Select your topic and identify the stakeholders*

After choosing your topic, you need to decide who are the people that matter in this situation, e.g., client, supplier, supervisor, partner, children, boss, the public, maybe a variety of demographics. It depends on your actual topic, but the important thing is to identify all the major stakeholders (Figure 1).



*Figure 1. Sample set of stakeholders*

### *Step 2: Realise your scenario*

Based on your topic, select the learning outcomes for your lesson. Work backwards from the learning outcomes for this lesson to form your scenario. e.g., video production in digital media. Stakeholders would include the cameraperson, the editor, the sound person, the end user/viewer, the client, the employer etc. The scenario could include either a particular stage of the production process, or the planning or final cut of the piece being explored. Remember, the overall objective is to gain a more rounded understanding of your chosen topic, focusing on your students achieving the learning outcomes as agreed by you at the beginning of the activity. Set the scene for your scenario using images, diagrams, or photos to help participants visualise what part they will play during this exercise. Make sure to give all the relevant information that might be required, so each participant will be working and focusing on the same scenario. Remember, this is a creative/personalised and organic way of approaching a topic, so it can be subjective.

### *Step 3: Assign each student their role*

Depending on the number of stakeholders identified by you for your chosen scenario, and how many learners you have participating in this exercise, you will need to assign each of your learners a role as one of the stakeholders (Figure 2), e.g., if there are 20 students and five stakeholders identified, then you would randomly allocate four students to each stakeholder role (Table 2).



Figure 2. Stakeholders for landscape project

Stakeholder 1	Stakeholder 2	Stakeholder 3	Stakeholder 4
Student 1 2 3 4	Student 5 6 7 8	Student 9 10 11 12	Student 13 14 15 16

Table 2. Sample student stakeholder allocation table

#### Step 4: Explain what you want your learners to do

Give your students clear instructions for your activity. Describe/ set your scenario, as stated in Step 2. It is important that each participant has all the relevant information, so they focus on the same scenario.



Figure 3. Image of garden to be designed

To aid with this, an image may be helpful. For example, a scenario for designing and constructing a landscaping project was aided with Figure 3. This image was a stock image (royalty free) from within PowerPoint. Alternative image sources where you might find images to support your scenario include Unsplash ([unsplash.com](https://unsplash.com)) and Pixelbay ([pixabay.com](https://pixabay.com)).

**Directions:**

List the ten most important considerations for this project from your stakeholders' point of view (Table 3).

Consider All Factors (CAF) 10 most important considerations from your perspective	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Table 3. CAF 10 most important considerations from your stakeholder perspective

*Step 5: Think, Pair, Share*

Provide the learners a set period of time (recommend between five to ten minutes) to come up with their list. The list should be at least ten points minimum. Split the learners into break out rooms based on their stakeholder number, i.e. all learners assigned to stakeholder 1 should be put into the same group, etc. Ask each

group to consolidate their list of ten considerations into one collective list, allowing three minutes per group for this activity. After each group has consolidated their list, bring the groups back to the main discussion area and ask each group to call out or type in their top ten considerations for their assigned stakeholder. As each group presents their list, you should type them into a table on your shared screen for everyone to see (Table 4).

Designing and Constructing a Landscape Gardening Project			
1.Client	2.Main Supplier	3.Landscaper	4.End User
<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>9</div> <div>10</div>			

Table 4. Consider All Factors (CAF) 10 most important considerations from your stakeholder

### Step 6: Tying it all together

As each group presents their collective top ten list of considerations from their assigned stakeholders’ perspective, you, the subject matter expert, should use this opportunity to highlight the important areas covered and presented by each group, while also filling in any gaps or important points they may leave out. This offers a perfect opportunity for your students to co-construct or co-create the entire lesson’s content. This will allow a general, but detailed and comprehensive overview for the chosen topic/



scenario to be established. As students play a role in this process, everyone is kept busy and focused on the subject in question. It will be up to you to ensure that learning outcomes for this lesson are achieved as agreed at the planning stage of this exercise.

## Transferability to different contexts

This exercise can easily be implemented in a face-to-face situation within a classroom, or in an asynchronous setup on your Virtual Learning Environment (VLE). All you need is your imagination to come up with a situation or scenario. Examples may be generated from curriculum, policy documents, topical news stories. For example, Savelle (2019) highlights a Town Hall (alternative name of OPV) case study, which focuses on biotechnology and issues surrounding its implementation.

In addition, you should source an image to depict your idea. Scenario image sources include

1. PowerPoint stock images
2. Unsplash: [unsplash.com](https://unsplash.com)
3. Pixelbay [pixabay.com](https://pixabay.com)

The beauty of the OPV is that it encourages lateral thinking, and when combined with another of the DATT tools, the Consider All Factors (CAF), it encourages learners to focus on producing interesting and relevant points.

An OPV can also be implemented ad hoc. Poised simply as a question to a group of learners, to be answered individually or in small groups. Ultimately, something constructive should be done with the learners' replies, such as integrate them into a poster or write them up on the board to be discussed in more detail.

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## Image Attributions

Figure 1. Sample set of stakeholders: Royalty free Microsoft Office stock images

Figure 2. Stakeholders for landscape project: Royalty free Microsoft Office stock images

Figure 3. Image of garden to be designed: Royalty free Microsoft Office stock images

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Robert Hickey has been a Lecturer, School of Informatics & Engineering, Technological University Dublin since 2002. Associate Researcher in the Educational Informatics Lab (EILAB) at OntarioTechU, Canada. Corporate member of the Institute of Clerk of Works & Construction Inspectorate and Licentiate of City &

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Shaun Ferns has been a Senior Lecturer, School of Informatics & Engineering, Technological University Dublin since 2002. Associate Researcher in the Educational Informatics Lab (EILAB) at OntarioTechU, Canada. Currently exploring serious games for construction-related training, as well as the opportunities transmedia provides in improving user experience and engagement in cultural archive artifacts.

# Arguing to learn: challenging a viewpoint with mystery quotations

ELLIS PARKMAN



## What is the idea?

In a world less receptive to differing opinions, it is perhaps more important than ever to provide learners with a safe setting in which to learn how to argue effectively and professionally.

Mystery quotations allow learners to actively take charge of their learning during the research and verification stages. Moreover, students can pick aspects of the mystery quotes which resonate with them and shape their learning journey accordingly. This facilitates the opportunity for incidental learning (Kelly, 2012) to take place.

Mystery quotes can be run in a multitude of ways including with focus on research or soft skills. The activity ultimately allows learners to learn by doing (Gibbs, 1988), complementing the cyclical activities Gibbs discussed in his work. Through the use of mystery quotations learners are provided the opportunity to review a quote (analyse), form an argument, stance or viewpoint (action planning, feeling, evaluating, concluding) and finally report their findings or viewpoints back to the rest of the group of learners (describing, concluding).

While there are a number of ways one may wish to perform the mystery quotation activity, a common theme is withholding the origin of the quote, thus providing the 'mystery'. The purpose of withholding this information is to allow learners to research the subject, ideally without bias, and to seek out more opinions and information than they are presented with via the mystery quotation, providing an opportunity to use and showcase an array of skills. Information on how you can adapt the scenario for research or for soft skills focus is detailed below.

Mystery quotations also provide the opportunity for learners to interact with each other on a personal level; amplifying their soft skills. This can be explicitly facilitated in asking learners to provide feedback on the experience after the activity has been completed. Question prompts from the teacher can assist, such as: 'How difficult was it to professionally argue your point?', 'What did you enjoy / dislike during this process?', or 'What skills were you demonstrating as part of this process?'.

It is important to make sure quotes are direct and accurate, in-depth knowledge of the subject is not essential for learners, as this could be used as an activity to focus learners on new content as a flipped learning approach (Miedany, 2018).

## Why this idea?

Mystery quotations can easily be adapted for any topic area and can generate and move conversations somewhat authentically, in line with the interests of the learners engaging with the topic.

Not only does this provide the opportunity for learners to grapple with their subject matter in a more practical manner, it facilitates the enhancement of soft skills. Learners have the freedom to present information in a manner which suits them, rather than a manner prescribed to them.

Additionally, learners are provided the opportunity to discuss / argue in a safe environment, which can help their confidence, public speaking, and research skills – skills that may not be directly related to their subject matter but are important and transferable skills for the workplace, further education settings or even pastoral / personal matters.

## How could others implement this idea?

### *Mystery quotes for research*

In this method, a member of staff, or a designated individual from the class selects several quotes from a topic. Students are then encouraged to research the topic further, and to find supporting or contrasting information to present back to the class and are made aware that other students or groups will be able to question them on their research.

This method allows students to practice their research skills, providing an opportunity for students to weigh up the reliability of sources of information, prepare balanced (or unbalanced) arguments and justify their approaches. When performing this as a research-based task the importance is not so much on the stance

the students take, but the depth of information they can access, the way they present that back to their peers and the research approaches they take to access and verify information.

*Mystery quotes for soft skills*

When providing this activity to focus and practice soft skills, put students into groups and provide two mystery quotes. Have them provide arguments supporting each quote and justify these arguments / discuss these with the rest of the group and eventually back to the class.

In this scenario focus should also be placed on teaching students how to critique or question in a professional manner (you may wish to discuss topics such as leading questioning within this).

*Examples / ideas for quotes*

Topics covered can range greatly, but consider quotes which are thought provoking, emotive or controversial, and ideally well researched.

Examples of mystery quotes could include:

Topic	Example Quote
Global Warming	'Human activity isn't the only factor that affects the Earth's climate' (one group argue for, one against)
History / Politics / Economics: Communism	'Communism may help lessen the gap between poor and the rich' (one group focus on the positives of communism, one group on the negatives)

## Transferability to different contexts

This activity can be adapted for learners of different ages, or even for business purposes. The subject matter selected can be relevant to different courses, specialties, or business sectors. In order to engage different audiences, the primary focus will be on the content (the quotes) selected. You will also need to supply instructions tailored to the correct standard for learners of different ages or abilities, to ensure they fully understand the task.

The skills learned as part of this activity are applicable to real life decision making scenarios, allows learners how to argue effectively, diplomatically and safely, and allows learners to practice their communication skills.

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# Busting myths and misconceptions in learning using 'True or False?'

ZEENAR SALIM



## What is the idea?

'True or False' is an active learning activity whereby learners are actively engaged in supporting or refuting the statements and substantiating their responses with evidence. During this activity, learners restructure their ideas and develop evidence-based conceptions. Having sound knowledge, developed from

argumentation and presentation of evidence, helps learners gain expertise in a subject area.

## Why this idea?

Learners are not blank slates. They bring their ideas and conceptions to the instruction. Their conceptions stem from their prior lived experiences or instruction that they had undertaken in the past (Smith et al., 1994). Learners' conceptions play a useful role in shaping the learning and acquisition of expertise.

From a constructivist perspective, instruction either supports or modifies learners' existing conceptions. Continuous restructuring of the existing conceptions is a central condition for learning. The restructuring of learners' conceptions mirrors the scientific process, whereby conjectures are either supported or refuted, as further evidence is searched for, produced, or becomes available (Foroushani, 2019; Smith et. al, 1994; Trotskovsky et al., 2013).

## How could others implement this idea?

“True or False?” can be conducted asynchronously, by posting the statement and guidance on learning management systems. In this case, truth means a statement that is supported by the evidence in the literature, and false means the statement that is not supported by the evidence provided in the text. The purpose of the activity is to discuss content, reveal and resolve mis- and alternative-conceptions. The following section presents sample instructions for the asynchronous discussion.

Individually, students will:

- Write a statement (true or false) about the topic (less than 100

words). For example, eating excessive sugar can cause cancer.

- Select three statements written by peers or instructors. Identify whether the statement is true or false and convince others by providing evidence (100 – 150 words).
- Reply to your original post and argue for or against your peer's identification of true or false. Convince your peer by providing evidence (100 – 150 words).

Learners interact with each other to identify and resolve the commonly or uniquely held misconceptions around the topic. They choose the statement that they want to comment on. Say, there are 10 learners in the asynchronous discussion, there would be 10 statements on a topic. Each student will respond to three statements. Instructor(s) or a volunteer student summarises the learning by providing evidence-based explanations and feedback where they find unresolved misconceptions and/or alternate explanations. Where statements cannot be classified as true or false, but somewhere in between, the instructor provides clarification and/or summary to collate the responses. Also, instructors must posit the explanations supported by evidence when discussion leads to any conflicting ideas and/or evidence.

## Transferability to different contexts

The activity can be used in a variety of subject areas and can be implemented through asynchronous medium. Sample statements may include:

- Cancer is a contagious disease (Biology)
- More homework is equivalent to more learning (Education)
- Solopreneurs are their own bosses and are not answerable to anyone (Business studies)
- Humanist is the same as an atheist (Religious studies)

- Social workers are volunteers generally and are not paid well (Social work)
- Philosophy has no practical value (Philosophy)
- When an artist finds a gallery or studio, they can spend all their time in producing art (Arts)
- Earth is round (Physics)
- Temperature of a system always increases when heat transfers to the system, regardless of the flow of work (Engineering)
- Research is a linear process of identifying hypothesis, collecting evidence, and sharing results (Research studies)
- A variable can hold several values at the same time (Maths or Programming)

By providing such statements, faculty and learners can co-create the content, engage in constructing and reconstructing their arguments, and support their arguments with practical experience or scientific evidence. The activity provides an opportunity to develop and practice academic referencing as well.

The activity can be conducted online (synchronous or asynchronous) mode or in a face-to-face classroom setting. Particularly in an asynchronous environment, learners may have more time and can refer to learning resources (articles, readings, books, people, etc.) to think through the argument, find evidence and construct arguments, in comparison to online synchronous or face-to-face classroom. Best results are achieved when groups are limited to 7-10 people. It can be carried out through Google documents, Google Slides, Google Jamboard, Padlet wall, Flip-grid, Voice-thread, or written threaded discussions in any Learning Management System. Faculty and learners can choose the tool based on their comfort and expertise in using a learning tool.

## Links to tools and resources

The instructor may select the tools that suit the purpose of instruction. In case of confidential and/or private discussions, it is recommended to use the university's learning management system.

- Google Docs: <https://docs.google.com/document/u/0/>
- Google Slides <https://slides.google.com>
- Google Jamboard: <https://jamboard.google.com/>
- Padlet Wall: <https://padlet.com>
- Voice Thread: <https://voicethread.com/>
- Flip Grid: <https://info.flipgrid.com/>

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# 3C REFLECTION



# Matching reflections

DR JESSICA CLARE HANCOCK



## What is the idea?

Many students struggle with reflection, and paying attention to each of its components (James et al., 2014). This activity uses text matching to explore a reflective model – Hancock’s (2021) DUCKS model (Describe, Understand, Change, Keep, Share). Students are given the headings for each of the components of the DUCKS model, along with an example reflection which has been divided into five parts but in a jumbled order.

Students work in groups to match each of the five excerpts of the reflection with the correct part of the DUCKS model. In doing so, they gain understanding of the model; the activity enables them to identify, through use of the drag and drop examples, what is

involved in each element of reflection, so they can then use these stages in their own reflections. This activity could be done with headings and excerpts printed onto card, or online using Google Drawings (or an alternative such as Miro) and drag and drop text boxes.

## Why this idea?

Reflection has been recognised as a key element of all kinds of learning for many years (Kolb, 1984) and is directly mentioned in Universal Design for Learning as a key way of ensuring that Higher Education is inclusive of a diverse range of students (CAST, 2018). However, many students struggle with reflection (Lucas & Tan, 2013), particularly in terms of applying a reflective model to a particular situation. The matching activity enables exploration of the different stages of reflection.

I initially used examples which I thought would be fairly obvious in terms of identifying the stages of reflection, but have been surprised at the richness of the discussion and debates around the 'correct' stage for the excerpts. This demonstrates that the stages of reflection often overlap and are not straightforward, so valuable peer learning takes place during this activity undertaken as a group. The application of a reflective model in a particular situation makes the different aspects of reflection more concrete, and the different interpretations of which stage of reflection might connect to the given excerpt enables a deep appreciation of the aspects of the different stages of the DUCKS model.

The DUCKS model (Hancock, 2021) is particularly effective for this as it has distinct stages, which cover all aspects of the reflective process. This includes ones such as describing the event, understanding the event, and thinking about what might be changed in the future, which are common across many models (Gibb, 1988; Manouchehri, 2001). It also adds elements that are more

unique – the ‘keep’ stage which reinforces the idea that reflection is not all about the negative aspects of an event, or of doing something entirely different next time, but about what has gone well and should be retained, and also the ‘share’ stage which emphasises the usefulness of reflections which are communicated to others for a collective benefit.

## How could others implement this idea?

A simple application for a face-to-face session could involve giving each group of students a large sheet of paper with headings for each stage of the DUCKS model (Describe, Understand, Change, Keep, Share). Each group would then be given an example reflection, which has been divided into the relevant sections and printed out onto separate bits of card. The sections of the example would not be given in a specific order, so the group will need to work out which card matches with each of the headings. Depending on the complexity of the example, or the level of understanding of the students, I would give around 15 minutes to complete the matching. Each group could be given the same reflection, or they could be given different ones. If varied ones are used, these could be rotated around the groups.

An online version of this activity could use Google Drawings. The headings would be put at the top, and then the excerpts would be written within different text boxes. I find it is useful to use a different background colour for each text box to help distinguish them (although accessibility obviously has to be considered with the colour choice) and also to number them. Students can work in groups to drag and drop the text boxes to move them to the correct heading. To prevent the confusion of everyone in the group trying to move things at the same time, it works best to nominate one group member to do the moving, and the rest to direct where the text can

go. This could be done using any alternative that allows the easy drag and drop movement of text boxes, such as a Miro board.

The matching or drag and drop element of this activity could also be used with anything where students are matching an example to a specific model, or perhaps matching definitions to key terms.

## Useful tools

### *Example of a reflection using the DUCKS model*

Describe: None of my first year students are turning on their mics or cameras so I'm teaching to a series of initials and no one responds to my questions. I feel like I'm teaching into the void and it's quite isolating. I worry that no one is learning anything.

Understand: Maybe my students can't be bothered to take part. Or perhaps they don't know each other well enough yet to speak out loud and are worried about showing their home to everyone.

Change: I'll suggest that students can use different backgrounds to protect their privacy to some extent. I'll make use of the chat functions so students who don't want to use cameras or microphones can still participate.

Keep: I think the structure of my sessions works well, so I'm going to keep a focus on active learning and participation.

Share: I'm going to speak to the rest of the programme team about doing more community building so that students become more comfortable and familiar with each other.

This reflection used as a drag and drop Google drawing:

<https://docs.google.com/drawings/d/11FKKhNXiKrsVQVQeZvxjS16QzXVX0axU5jltODZWh24/edit>

## Links

Examples in Google Drawings:

- <https://tinyurl.com/ducksreflect1> or  
[https://docs.google.com/drawings/d/17IMf7fElV7Zf1YpgloVxC\\_oZVgedoCL1obV6uePDQ7o/edit](https://docs.google.com/drawings/d/17IMf7fElV7Zf1YpgloVxC_oZVgedoCL1obV6uePDQ7o/edit)
- <https://tinyurl.com/ducksreflect2> or  
<https://docs.google.com/drawings/d/11FKKhNXiKrsVQVQeZvxjS16QzXVX0axU5jltODZWWh24/edit>

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## Image Attributions

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# Using triadic reflective dialogue to support active learning

DR CONOR MELLON

## What is the idea?

This chapter outlines a process where learners can engage in a reflective dialogue to support active learning. Fink's (2003) holistic model of active learning is underpinned by three specific components: 1) experience, 2) reflective dialogue, and 3) information and ideas. Of these components perhaps reflective dialogue can often be the most challenging. The development of collaborative reflective talk can support active learning, as learners unpack learning experiences in a safe but critical way (Dewing, 2010).

## Why this idea?

Dialogic reflection – i.e., where discussion forms part of the reflective process – allows the learner to articulate their views, and then disrupt and reconceptualise their thinking (Brown & Sawyer, 2016). Through this type of dialogue, the learner demonstrates agency and ownership over their learning journey (Wen et al., 2015). It can be used at different points during the learning process in a topic, module, or programme. The most significant difficulty with this process involves the vulnerability that accompanies an open description of our own actions, thoughts, and feelings. This however

is part of the healthy scepticism that accompanies any reflective process, and signifies that the learner is continuing to learn, to make mistakes, to experience success, and to grow (Walker et al., 2013). Trust in our peers is, however, crucial. This sense of trust relates not only to a mutual understanding around care, safety, and support, as we pull apart our ideas and experiences, but also trust in that we can each expect an element of challenge in the dialogue (Timperley, 2015).

## How can others implement this idea?

The sequence below makes explicit use of Rushton's (2017) triadic model for effective questioning. His work focused on a triadic reflective process with experienced educators, where they explored their comfortability with different forms of reflective questioning. Here however this model is adapted to focus exclusively on reflection and uses a modified version of Fink's (2003) reflective questions on the learning process. While of course it is possible to engage in a reflective dialogue with a single individual or larger groups, the limiting to three participants here has the benefit of maintaining a safe but productive space for authentic reflection:

### 1. *Exploration and Experimentation*

As a first step, educators should explore the concepts of reflection and dialogue with learners. They should discuss the strengths and weaknesses of reflection, the available tools, and what dialogue offers. They should also introduce the main skills involved in the process, including 'curiosity and inquiry, quietude and active listening, suspending assumptions and expressing viewpoints' (Boluk et al., 2019, p. 26). Learners might practice some of these specific skills

e.g., participate in active listening, or use inquiring questioning to support narratives. The educator and learners can also agree on a form of charter, to support their engagement in reflective dialogue. For example, they might make a commitment to creating a safe reflective space, to active listening, to respecting multiple perspectives, or to accepting challenge. This charter can be revisited when needed.

## *2. Agreement and Refinement*

Following this preparatory phase, the learners engage in an initial reflective dialogue. They are given prior notice that they will engage in a dialogue about their learning journey in the topic, subject, module, etc. They should be given the questions that will support their discussion in advance:

- What am I learning? How would I describe my learning journey so far? How have I felt during this time?
- Of what value is this learning? What is it doing for me now? What will it do for me in the future?
- How did I learn best during this time? What was most comfortable? What was difficult?
- What else do I need to learn? What future actions can I take?

In keeping with object-based learning processes (Tam, 2015), and in order to stimulate dialogue, they may bring along an artefact that says something ‘key’ about their journey e.g., a sample of work, an image, a resource, an object, etc.

Each participant is given the same length of time e.g., 10 minutes, to engage in a discussion on their experience. Another participant acts as the facilitator, where they pose

the above questions, but they can also go further here, clarifying points, asking how they felt, or took particular actions. Eliciting the emotional impact of the learning experience is important as authentic reflection is anchored to feelings (Moon, 2013). The facilitator should also support the speaker through a resolution or toward future actions. The other participant in the discussion should keep a detailed record, noting down key responses and ideas. Over the course of the dialogue, the three learners each take up the role of narrator, facilitator, notetaker. By the end of the discussion there is a detailed record of the three interactions that they can all look back over and aid their overall reflection on the process. This record can also support any individual reflective writing, and it can contribute to a learning/reflective portfolio. It can even act as a stimulus for the next triadic reflective dialogue, where the group can revisit key points and check in on the planned actions.

At the close of this first dialogue the educator should facilitate a whole-group discussion around the experience and the learners' thoughts on areas of the process for further refinement or consolidation.

### *3. Implementation and Facilitation*

Based on this first experience, it is a good idea to revisit the preliminary charter and make agreed adjustments. Learners and educators can then proceed with implementing triadic reflective dialogues at mutually agreed points in the learning process. As above, it is always important to give the learners adequate notice that a reflective dialogue is due to take place.

#### 4. Reflection

The educator should continue to offer opportunities to revisit the overall process with the group intermittently, where they can reflect and adjust protocols.

### Transferability to different contexts

The above sequence is flexible and applicable to a range of settings. It is especially useful in senior secondary, and tertiary contexts, and has already been successfully applied in professional learning contexts (Rushton, 2017). Of course, reflection can prove challenging in disciplines where introspection and critical dialogue are not readily encouraged. For such disciplines, it is perhaps even more of an imperative to proceed incrementally when introducing reflective processes, and to avail of the type of structured sequence outlined in this article. The key is to ensure comfortability, and to avoid any tendency to engage in surface-level storytelling, or merely ‘propping’ up descriptive narratives with uncritical questioning (Timperley, 2015).

### Links to tools and resources

- <https://davidjvoelker.com/reflective-dialogue/>
- <https://www.teachingcouncil.ie/en/teacher-education/teachers-learning-cpd-/cosan-support-materials/reflecting-on-professional-learning/>

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# Do you dare to pause? Hearts and minds together: a contemplative approach to fostering effective inclusive academic practice

SARAH RHODES

## What is the idea?

This approach consists of a series of structured 'pauses' within an Inclusive Curriculum Design module on a PG Academic Practice course for students (staff new to teaching in higher education). The structured pauses in the pre, during and post module phases are designed for students to contemplate the anticipated, current and future impact of their learning journey towards more equitable and inclusive practises within their own teaching, learning and assessment approaches. The aim of this approach in our very fast paced ever changing landscape of Higher Education is to provide opportunities for staff to engage both their hearts and minds when designing inclusive curriculums for the future.

## Why this idea?

The value and importance of fostering inclusive practice in education, specifically higher education, is at the heart of Initial



Teacher Education provision (Coffield et al., 2008). However, the design of the curriculum often isolates inclusive learning and teaching as discrete sessions or modules (Forlin, 2010; Symeonidou, 2017) rather than as an integral thread and holistic approach throughout the course. Into baking? Think of inclusion like the 'sticky sugary syrup' continually found throughout a lemon drizzle cake! Therefore, a key area is to reframe inclusion in Initial Teacher Education learning and teaching within a social justice framework to engage both hearts (attitudes and behaviours) and minds (knowledge and skills).

John Dewey consistently criticised the segmentation of seemingly opposing themes into dualistic relationships. Dewey particularly loathed the mind/body dualism and advocated for treating the mind-body as an 'integral whole' (Boydston, 2008, p. 27). Based on this philosophy, Dewey proposed that experience (body) is key to learning (mind). Contemplative practises offer faculty, students, and staff tools for working productively with the mind and emotions. These tools can become an important aid to sustained reflection and capacity building. Students and staff are encouraged to engage in contemplative practice then step back and appraise for meaning and significance. In recent years, such practises have lost their explicit place in education in favour of reasoning and evidence especially during the recent pandemic (Jayman, 2020) that has focused mainly on problem solving and reactive approaches.

Rendon (2009) has researched more recently this debate that heart and spirit are becoming more absent from teaching. She makes a persuasive case for ending the segregation of heart and spirit from traditional teaching to sensing and thinking pedagogy: educating for wholeness, social justice, and liberation. Based on her research and experiences she argues that inner and outer, learning are connected, and that contemplative practises are imperative to ensure learners are engaged and associate deeper levels of meaning with course content. Inner learning encompasses emotion and reflection, while outer learning refers to intellect, reasoning, and

academic concepts; recognising the need to integrate these two learning approaches, rather than have them operate singularly.

In previous iterations of the Inclusive Curriculum Design module, student feedback has focused on wanting to ‘know’ how to respond to diverse student needs. Practically, this is possible with real life case studies and scenarios yet the skills, attitudes and attributes to respond to a range of needs (often complex) are far more challenging and less well developed in the student teachers enrolled on these courses. The opportunities for inner learning experiences (reflective practice, reflexivity in our curriculum) specifically related to inclusion, are needed more than ever in our continuously changing and diverse student cohorts (Ashwin et al., 2015; Sharma, 2010).

## How could others implement this idea?

### *Step 1*

The pre module pause requires students to visualise their own learning journey as a film narrative and position themselves as the viewer. Their contemplation forms part of a pre module task in the form of an autobiography (in a format of their choice; video, poster, artefact or written piece) whereby they critically reflect upon the how/why/what/where and when of this journey. Students are also invited to share aspects of their autobiography on a virtual discussion forum. This enables students to reflect and offer compassionate and supportive comments on others’ perspectives, lived experiences and learning journeys.

## *Step 2*

Secondly, during the module students engage in regular fortnightly 'pause' activities that promote contemplation throughout the five mandatory scheduled sessions. These include:

1. Consideration of how their own background, education and upbringing has influenced them as a learner and educator;
2. Mindfulness practices to promote mindful awareness of emotions in relation to inclusivity;
3. Small group tutorial 'safe and brave' spaces where they are encouraged to reflect on their current academic practice within a specific theme such as online learning, student transitions, large group teaching with peers and a SFHEA accredited tutor.

## *Step 3*

Thirdly, students complete a case study summative assessment asking them to contemplate their own academic practice in relation to inclusivity. The assessment invites students to critically reflect on their own academic practice (grounding these with underpinning theory and concepts) and apply inclusive curriculum design to their own setting within a chosen thematic area.

## *Step 4*

Finally, students that successfully complete the Inclusive Curriculum Design module are invited to record a brief 5-minute audio or video chat with the Module Leader about their inclusive practises since undertaking the module (approximately 6 months after completion). The recorded conversation is an opportunity for

graduating students to reflect and contemplate how the design of their sessions/courses/activities are more inclusive because of the module learning. Graduates consent to share these recorded conversations alongside their summative case study with the new student cohort for the following academic year. This activity is really powerful and promotes engagement and deeper levels of meaning with the flipped course content for the new students.

## Transferability to different contexts

Directly, this approach would be relevant to all teacher educator courses within Higher Education settings. Alongside this, a significant number of courses within the Education, Health and Social Sciences sectors would easily benefit from consideration of this approach within their curriculum offering. This approach would certainly have transferability to forward thinking institutions that place value on the social, emotional and spiritual development of graduates. Furthermore, there is also potential for cognitive transformation promoting attention, working memory, long-term memory, meaning to interconnections on the path to wisdom of contemplative practises (Bush, 2013) so the approach could be an attractive option to adapt for institutions with diverse student populations, specifically those having neurodiversity needs.

## Links to tools and resources

- Contemplative Pedagogy Network:  
<https://contemplativepedagogynetwork.com/>
- Interview with Laura Rendon on her new book *Sentipensante Pedagogy*: <https://youtu.be/9myr-glKZgE>



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=1290#oembed-1>

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## About the Author

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Sarah Rhodes teaches on a range of teacher educator courses: PGCE PCE and PG Cert Academic Practice. Key areas include inclusive curriculum design, SEND and aspects of designing online learning. Her scholarly activities focus on AT engagement and inclusive practices. Sarah is currently studying for a PG coaching and mentoring qualification.

# 3D WORK, EMPLOYABILITY AND PARTNERSHIP





# Using active learning techniques to facilitate employability and enterprise skills acquisition

PROFESSOR KAREN HEARD-LAURÉOTE AND DR MARK FIELD

## What is the idea?

This active learning strategy utilises the opportunities and challenges of embedding employability and enterprise skills within the curriculum in UK higher education undergraduate provision. By delivering skills acquisition through a standalone module, this strategy addresses the question as to how academics can ‘teach’ employability and enterprise.

To promote the acquisition of transferable employability and enterprise skills, we developed and introduced a second-year module ‘Politics and Policy in Action’ to the undergraduate Politics and International Relations curriculum. This thirteen-week module is designed as a continuously assessed simulation exercise which allows students to develop and then demonstrate key employability skills such as communication, problem-solving and decision-making. The learning and teaching strategy shifts away from the didactic approach towards more student-centred and student-directed learning (Bovill, 2020).

Throughout the module, students work in small, self-managed groups of four or five. They are required to apply discipline, knowledge, principles and concepts applicable to civil society and social mobilisation, to engage in the analysis of policy and the

development of an ensuing campaign or lobbying strategy to effectively influence policy. The taught element of the module is delivered by both academic staff and practitioners involved in local campaigns. The latter offer practical guidance on campaigning and provide feedback on both the groups' campaign proposals and on their final campaign launch.

In the delivery of the practical assessment outlined at module start, students are required to use creative thinking and problem-solving skills, strategic planning skills, teamwork and delegation skills and to be able to deliver a brief. These are all key, advanced employability skills that will stand students in good stead for their future careers by providing them with practical work-based examples to draw on in applications, assessment centres and interviews.

The module constitutes a step-change in the provision of employability within the Politics and International Relations curriculum. Rather than seeking to teach the skills associated with employability, students naturally acquire these skills through the selection, management and delivery of their own campaign. In its design, the module utilises assessment as a continuous and formatively driven exercise which includes team activities (summatively assessed through the group campaign proposal and the final group campaign launch) and a comprehensive individual activity (assessed through a detailed self-reflective journal with several formative submission points along the way).

Formal module feedback from the students has been positive, particularly in terms of the creation of their campaign. Importantly, however, the comments in the students' individual reflective journals frequently identified areas of generic skills that need further development. Within the wider department, the module is viewed as a model of good practice for the teaching of employability related content. At the institutional level, the module positively contributes to the metrics related to Graduate Outcomes data against which all higher education institutions are benchmarked against sector.

## Why this idea?

Whilst degree-level study has always had a role in facilitating the development of students' professional skills, this facet of an HE course is now a policy priority for the UK Government: one that poses a significant challenge for the delivery of non-vocational academic programmes across the HE sector.

The principle underpinning this chapter and the active learning strategy we present, is that self-managed activities coupled with peer-to-peer learning help to develop students' generic skills such as judgement, prioritisation, goal setting and confidence. By then inviting students to consider and discuss the obstacles, barriers, and successful strategies related to communication, problem solving, and critical thinking, their capacity for reflective learning is enhanced.

## How could others implement this idea?

- Divide students into groups of four/five. If a group is self-selecting, stress to students the importance of including a range of skills within the group.
- Ensure each student has a defined role within the group (e.g., leader; social media expert; networker; researcher).
- Provide exemplar campaigns. If possible, invite members of local campaigns to support students' learning and to provide practitioner guidance. Encourage these practitioners to help assess group campaign launches.
- Allow students space and time to brainstorm ideas for appropriate and deliverable local campaigns.
- Assessment one (which may be formative or low proportion summative): a group written campaign proposal (such as a shared document) to include compulsory project management

elements such as stakeholder analysis; PESTEL etc.

- Require students to identify strengths and weaknesses within their campaign proposal and within their group (e.g., through SWOT analysis).
- Support students as they develop their campaigns but continually stress the need for self-managed delivery and dealing with adversity (e.g., in addressing the 'free-rider' issue).
- Assessment two (summative). A group campaign launch. This could be, for example, a campaign film and/or a poster supported by a social media campaign. Launch should be in person and, if possible, audience and assessors should include campaign practitioners.
- Assessment three (summative). An individual reflective journal that identifies strengths and weaknesses of own and others' contributions to the campaign and an assessment of skills acquired and those that need further practice.

## Transferability to different contexts

Although producing a campaign lends itself neatly to a politics-related programme, for this case study this is simply a subject-appropriate vehicle for utilising and developing the key skills valued by employers. In practice, skills acquisition is a function of the autonomy and self-managed nature of the group activity, rather than the outcome of the group work. As such, this case study could be easily adapted for other disciplines.

For example, criminology students could work in small groups to identify and deliver a solution to an aspect of low-level community crime. Mechanical engineering students could participate in an industry sponsored group design sprint to resolve an identified mechanical problem and devise a workable and fully costed solution as part of a hackathon event. Fine Art students could organise and curate an exhibition of their collected works as part of a cooperative

– organising an exhibition of their work as a cooperative-style endeavour where commissions, space allocations and themes must be negotiated. Accountancy & Finance students could work together as a team of auditors, scrutinising the books of a real SME to ensure the accuracy of accounts and check for regulatory compliance. History students could work together in small groups to identify significant heritage features in a local area and use this as a basis to devise and develop an interactive mobile app-based map to orientate both visitors and interested local residents.

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Professor Karen Heard-Laureote is Professor and Head of Learning and Teaching at Solent University, responsible for leading the implementation of Solent's agendas for improving learning, teaching and assessment practices, course enhancement, academic development and curriculum development. Her research interests include active learning pedagogies and matrix leadership in cross-portfolio working.

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# Everyone's a winner: developing mutually beneficial partnerships

WENDY JOHNSTON



## What is the idea?

The curriculum and the experiences of the students within it can be brought to life through developing collaborative partnerships and embedding live industry briefs within the curriculum. Successful collaboration between Higher Education Institutions (HEIs), external partners and students provide authentic learning experiences, which develop students' capabilities and entrepreneurial skills, helping to prepare them for their transition out of university and into graduate employment. Collaboration with

industry and engagement in real-world problem-solving projects, such as live product development briefs, stimulates active learning and encourages students to be critical, creative entrepreneurs producing work that is not just for assessment purposes but can also be used externally to the university thus helping to develop graduate skills.

## Why this idea?

I wanted to bring the curriculum to life by embedding live collaborative briefs into the curriculum, creating authentic, active learning experiences and to ensure that live projects gained a prominence in students' lives, which was more than simply completing assignments and assessments. Working collaboratively can positively influence student learning, helping them to understand that their work is valued which in turn makes them feel valued.

Chickering and Gamson (1987) propose that students do not learn much just sitting in class listening to teachers, they must be actively engaged in learning, whilst Thomas and Busby (2003) suggest that engaging in real-world problem solving helps develop creativity, critical thinking and the development of graduate skills. However, to genuinely engage students in the creative process, the classroom environment has limitations.

Tailoring in real-life opportunities and highlighting real-world applications of knowledge and skills, helps harness student motivation and ensures students apply what they learn to real-world contexts enabling them to work within authentic settings. Collaborations and live briefs engage students, and enrich and enhance the student experience, academically and materially. Furthermore, they strengthen the links between HEI providers and industry, bridging the theory-practice gap, helping facilitate the delivery of a more effective curriculum. Live briefs provide



opportunities for students to learn from and with an external partner whilst experiencing working to an industry-led brief with realistic constraints. They help facilitate deep learning, enrich teaching and learning, inspire students to produce outstanding work and can increase employability. Working collaboratively with major food and equipment manufacturers students have developed and written recipes for company websites, developed innovative desserts for a high-end dessert manufacturer, developed and presented recipes for trade/food shows and developed chocolates which were included in tasting boxes for a British chocolate brand. A student states:

"Working with an external company on a live brief allows us to put what we have learned into practice. It gives me a sense of pride seeing my work used outside of university."

When developing live briefs, it is essential to ensure that they are not just contrived scenarios, but that they are carefully planned, collaborative, dynamic, industry-based live projects which have defined outcomes agreed between the university and the collaborative partner and clearly linked to assessment criteria. It is important to explore how collaborations can benefit all parties. With this in mind I aspired to develop authentic learning environments which linked students with external partners, and which crucially were beneficial to the students *and* external partners: a win-win situation. 'Building partnerships with industry is mutually beneficial to institutions and working professionals, it not only serves students well, but it helps to keep the curriculum relevant and current whilst for industry it is a chance to scout for new talent' (Hitchings, 2016, p. 625). Working with a collaborative partner encourages personal and professional development, equips students with world-of-work and entrepreneurial skills and helps equip them for graduate employment.

So in response to the question 'why?' I believe that 'combining the individual perspectives, resources and skills of the partners and the group creates something new and valuable together – a whole that

is greater than the sum of its individual parts' (Lasker et al, 2001, p. 184).

## How could others implement this idea?

'Trust and mutual interest are an important enabler to successful collaboration' (Nielsen & Cappelen, 2014, p. 338).

- If you are new to collaborative partnerships, identify external partners that you have contacts with whose work may link with your programme.
- Determine if the partner would be willing to work with you, your students and your institution and explain the benefits to them of working with a HEI.
- Use the assessment criteria and learning outcomes of the module and work with the external partner to identify a project area that would be mutually beneficial to the partner, the students and the HEI.
- Work in conjunction with the external provider to develop and write a live brief that meets the module learning outcomes, assessment criteria *and* the requirements of the external provider. Agree if equipment/resources needed for the live brief will be supplied by the external partner, or if there is additional cost.
- Agree the format of the module with the programme team and external examiner.
- Use the introductory session to highlight the benefits of working with an external partner to the students. Introduce the external provider to assist with the introduction and explanation of the live brief, and to allow them to meet the students.
- Actively involve the external partner in practical sessions and the module assessment session to create an authentic learning

environment.

- Communicate virtually with the external throughout the module and agree mechanisms for dealing with students' questions and answers.
- Build a visit to the external company into the module to add authenticity and enable students to connect with a wider range of professionals.
- Obtain permission from the students for their work to be used externally to the university.
- Obtain feedback from students/ external partners to inform future collaborations.
- Collaboration is more than just working together it a process of shared learning (Gassner et al, 1999).

## Transferability to different contexts

This approach has been used within the subject area of Food and Nutrition. However, the key principles for developing collaborative partnerships will be of interest to practitioners from other disciplines such as science, engineering, and technology.

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## Image Attributions

Brown puzzle pieces photo by Dmitry Demidov from Pexels

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Wendy Johnston is a Senior Lecturer at LJMU, a National Teaching Fellow and holds Senior Fellowship status with Advance HE. Wendy is committed to implementing innovative, active learning techniques, developing authentic learning environments through the development of external partnerships/ collaborations, and

continuously strives to make learning and teaching enjoyable and memorable.

# Personas: creating for ‘One’

LARNA PANTREY-MAYER

## What is the idea?

Borrowing from the marketing industry standards of pen portraits/ personas, in this active process, learners work together to create a final piece as part of a creative team – no individual owns the final piece, as everyone has worked to make it come to be. The process is very dependent on team working and clear communication skills. Learners develop their skills related to those of accepting and understanding other people's points of view as well as being able to balance conflicting priorities and opinions. A by-product of this project is the development of empathy and coping strategies for those who work with, and have, additional learning needs. Learners learn to amend their communication style to help others either understand their feedback or work out what they need.

An example of an active learning project which used this process, was a campaign designed and developed for a local youth festival. Having four learners working concurrently on four different ideas allowed for each learner to revise their ideas, as and when new information came forward. They were able to more effectively identify gaps in the design and feedback to one another e.g. forgetting pages on a website or the sizing of physical merchandise.

Within a Personas based project, learners learn all the steps in the completion of an audience driven creative brief, as well as: problem-solving, teamworking, resilience to feedback, analysis of critique, time management, empathy, mitigation strategies and they also focus on improving their written and verbal communication.

## Why this idea?

This idea came about after discussions with my learners, in which they voiced their concerns that an Awarding Body syllabus did not reflect current industry practice. They were worried that if they decided to pursue work-based education after completing the course, they would be at a disadvantage compared to young people who had taken up internships and apprenticeships rather than full time qualifications (Institute of Student Employers, 2021). As someone who had retrained from industry, I was aware there is merit to some of their concerns. Frequently my colleagues mentioned that new hires required additional training and targets set in order to understand industry specific terminology and processes. This was as well as encouragement to let go of their ideas and preconceptions in order to trust the creative team and its process.

It's my responsibility to develop an industry-forward pedagogy that focuses on evolving my learners' soft skills – specifically related to commercial awareness and team working.

From my own point of view, all too often creative learners struggle to create finished products for people that they do not relate to. For example, if a learner, who was particularly keen on music, was asked to create a poster about a sports event, they would design the poster in the style of a music event, and then pepper in references to sport. The result would be confusing and would expose their disinterest, or misunderstandings, in the central motif of the work (Weinstein et al., 2018). This situation would be exacerbated if the learner was asked to think outside of their lived experience, to think outside of their demographic. Most of the time the prospective audience for their work was someone within the same physical or cultural identity, i.e. the same gender, sex, age, race, intellectual or physical ability etc. In short, they struggled to make work for anyone but themselves.

At the beginning of a design project, a learner visualises what

their audience will look like. If they are given the freedom to decide this, they usually choose someone, or a group, they can relate to. However, when a learner is asked to make a profile for someone else, they become competitive. They want to challenge their peers to make work for someone they do not identify with. For a teacher this is a wonderfully serendipitous outcome, the group's final pieces begin to reflect more diverse points of view. The research is broader and the vocabulary of each learner becomes richer.

This way of working emulates a creative production line (Turnbull & Wheeler, 2015). The creative process encourages more voices to be raised and heard, the intention is to protect the original intended audience, not distort them to make the technical process easier or quicker. Each learner produces ideas for another person, they then release their work to be developed by someone else. When the feedback process begins, everyone in the team is invested, but no one has clear ownership – this means feedback can be received more objectively. Honest conversations are had between peers, especially in regards to the clarity of instructions they had received through the team.

## How could others implement this idea?

Arguably, there are five steps in the creative process: The Brief, The Research, The Ideation, The Review and The Creation. After the first five stages, in education, we add another stage – The Evaluation.

In this project, the lecturer's role is as a Project Director; they manage the resources and ensure each member of the team has passed the brief and work on to the next stage. To conduct this exercise, first divide your class into teams of 4, and either give their team a name, or allow them to name their creative team.



## *The Brief*

The teacher sets the creative brief, i.e. the need to advertise something to a new market. The teacher holds back from specifying an audience.

## *The Research*

Research, for a creative project, can be very broad. Often a teacher needs to specify the minimum expectation of what would be considered an adequate level of research, but also encourage learners to go beyond that with a list of suggested further tasks to make their output richer. For example:

Primary research: conducting questionnaires, observations, interviews, site visits etc.

Secondary research: evaluations of websites, animations, posters, analysis of articles, journals, books and documentaries, reflections on contemporary artists and designers supported by listening to podcasts, reading interviews, creating moodboards, etc.

Or a blend of both.

All of the teams are tasked with creating a persona/pen portrait of the product/advertising/promotion's ideal audience. Each learner can decide who the ideal audience will be. They do not work on this together. A marketing persona/pen portrait is a detailed description of an ideal audience member or buyer. The persona is a list of characteristics and interests laid out like a CV. The persona would include their demographics, such as age, race, and sex, and psychometrics, such as what they value and aspire to. The persona is accompanied by a moodboard for 'buying inclinations' etc. A moodboard is a visual collage of things the persona would be interested in, e.g. What would they buy? What brands do they own? What do they watch? What do they wear? What would they read?

Learner A's persona becomes Project #1

Learner B's persona is now Project #2,  
Learner C's persona is now Project #3  
and Learner D's Persona is now Project #4.

### *The Ideation pt.1*

For this stage, each team member passes their work on to the peer next in line:

Learner A now works on Project #4

Learner B now works on Project #1

Learner C now works on Project #2

Learner D now works on Project #3

Each learner is asked to fully develop the persona. They are asked to give the persona a narrative, an identity. For more developed projects and learners this may include User Journeys. A User Journey is a visual interpretation, similar to a storyboard, of how an audience interacts with the brand/product you are designing for. In some cases, user journeys can also be supported by Empathy Maps. An empathy map helps designers build a broader understanding of the 'why' behind an audiences' needs and wants. (Munro, 2020) The user journey will depict the individual's relationship with the brand/products used and advertising online and in the real world.

# WELCOME!!!

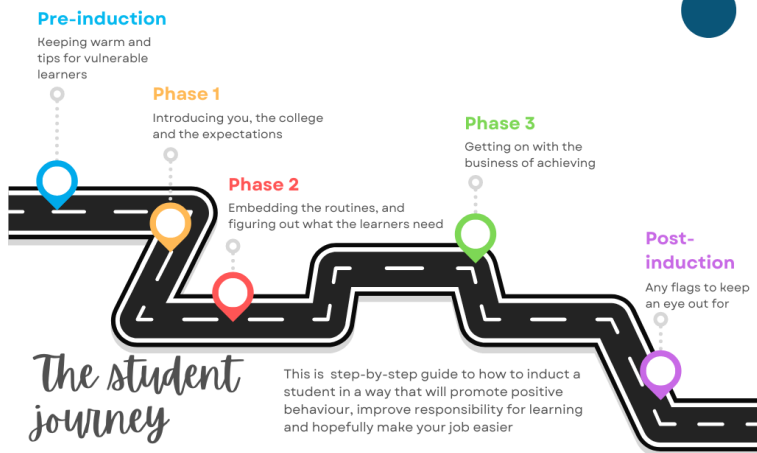


Figure 1. An example of a current state user journey map

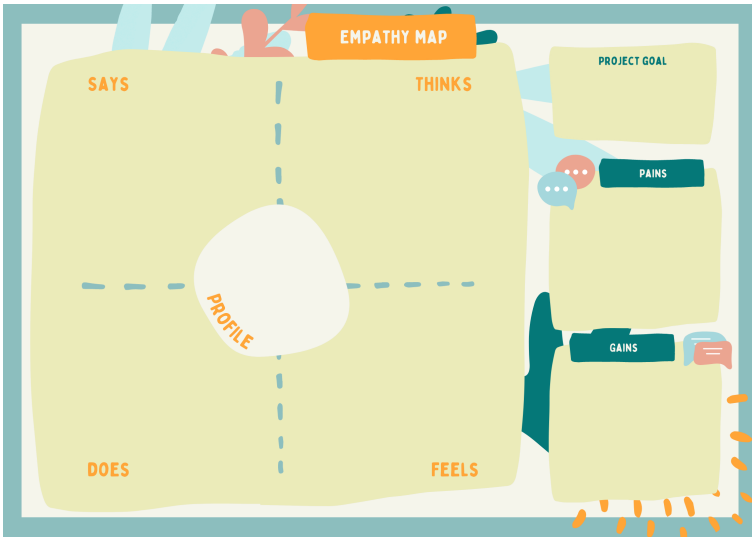


Figure 2. An example of an empathy map template

## *The Ideation pt.2*

For this stage, each team member passes their work on to the peer next in line:

Learner A now works on Project #3

Learner B now works on Project #4

Learner C now works on Project #1

Learner D now works on Project #2

Using the Research and Ideation pt 1 from their teammates they will begin to develop ideas on how to solve the creative brief for the 'character' who has been created. The character is the culmination of the persona and the user journey. The process of how to develop these ideas will depend on what the final outcome will be e.g. wireframes, sketches, scamps, schematics, storyboards (see visual examples below) etc. In general a creative will produce 3-5 different

creative solutions for a brief, and create a presentation to demonstrate these ideas.

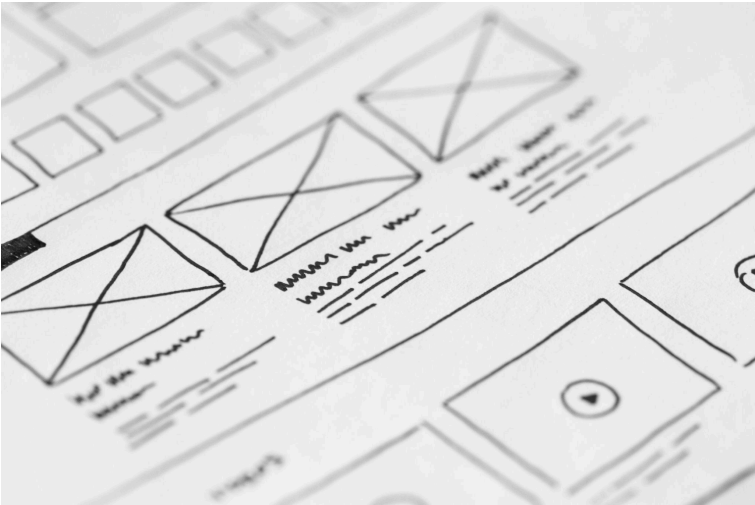


Figure 3. An example of ‘scamped’ wireframes. These are freestyle drawn plans for wireframes

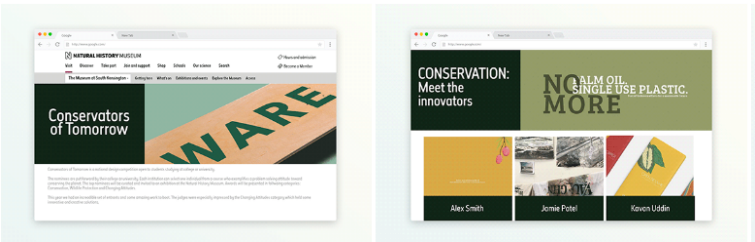


Figure 4. An example of a developed wireframe, created using Adobe software

## *The Review*

At the review each learner will present the Project they completed at the Ideation Pt 2 phase. The entire team will then conduct a round robin of idea presentations.

Learner A will present Project #3

Learner B will present Project #4

Learner C will present Project #1

Learner D will present Project #2

The presentation will be a discussion of how the learner has developed a final idea, in response to the Research and Ideation pt 1 that they were given.

As a group they will give feedback to each other, they will collate ideas, offer suggestions and identify issues to overcome. Each learner will take feedback notes on the project that they have presented. They will then pass this feedback on to the final team mate in their working group.

## *The Creation*

Using the feedback they have been given, each learner will complete and finalise the work they have been given.

Learner A will complete Project #2

Learner B will present Project #3

Learner C will present Project #4

Learner D will present Project #1

By this time every learner will have contributed to everyone's final piece. Each learner will then evaluate their final piece (the last project they have worked on) and the experience as a whole.

Please see the table to help visualise how the project is managed with a team of four learners. The numbers in the table correspond to the project number.

	Research	Ideation pt1	
Learner A	1	4	
Learner B	2	1	
Learner C	3	2	
Learner D	4	3	

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### Transferability to different contexts

The concept can be applied to any context where a project can be broken into discrete pieces – even essay writing, for example:

	Ideation	Creation	
Learner A	1	4	
Learner B	2	1	
Learner C	3	2	
Learner D	4	3	

---

*Ideation*

‘Learner develops a particular essay title, identifies a potential bibliography and produces an essay outline.’

The group would then review the work to date. Similarly to The Review, they present a proposal and then identify opportunities and issues within each other’s essay proposals.

#### *The Creation*

‘Learner completes the essay according to the plan and with the research provided.’

#### *Peer Review*

‘Learner proof reads and checks for inaccuracies or other issues.’

#### *Finalisation*

‘Learner actions the editorial amends identified at the Peer Review to ensure the essay is complete and meets requirements or is standardised

The idea is scalable, so could be used as a carousel-like starter activity, or an icebreaker. For these adaptations, the phases would need to have shorter and stricter time allotments.

## Links to tools and resources

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Larna Pantrey-Mayer is the Lead Practitioner for Plumpton College, currently programme managing and teaching the Level 3 and 4 qualification in Teacher Education. She also teaches on the PGCE and delivers various CPD programmes. She has two BAs in creative subjects, an MA in Critical Theory and is an HE Fellow.

# The 'Diamond Nine': encouraging student engagement with graduate attributes

DR JOY PERKINS

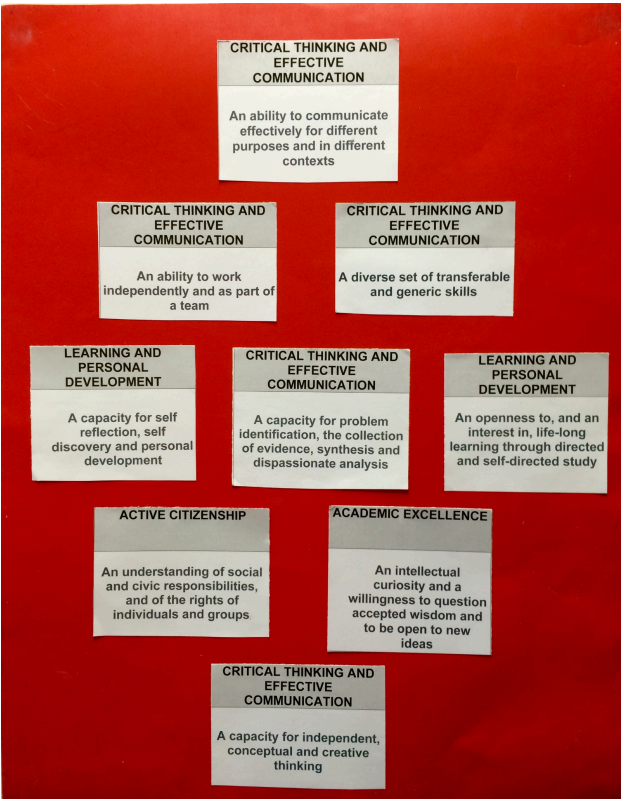


Figure 1. Image of a 'Diamond Nine' set of ranked cards.

## What is the idea?

Graduate attributes are designed to make explicit the wide-ranging competencies that students are developing, to prepare them for further study, employment, and life beyond university. However, despite their widespread implementation in UK universities, graduate attributes are often presented as high-level, generic statements, which require student translation at the academic subject level. To support students to understand their meaning and to engage with graduate attributes, the 'Diamond Nine' active learning technique can be used. The technique facilitates students to discuss, collaborate, and contextualise their understanding of graduate attributes, to help students start to develop them, during their time at University.

## Why this idea?

The 'Diamond Nine' technique is an established active learning approach, which involves students ranking and prioritising nine ideas, viewpoints, or pieces of information into what they consider highest to lowest importance (Times Educational Supplement, n.d.). In this case, the 'Diamond Nine' technique can help students to start discussing, interpreting, and ordering their own skills and attributes. Engaging students in this type of learning has many benefits, including motivating them to learn while also developing their higher order thinking skills (Vercellotti, 2018).

At the University of Aberdeen, there are 19 Aberdeen Graduate Attributes. Using the 'Diamond Nine' technique students can prioritise their top nine attributes into a diamond-shaped hierarchy (see image above). During this small group exercise, students are encouraged to reflect on their academic modules and their co-curricular learning. Discussing how and why they have prioritised

and ranked the final 'Diamond Nine' is a central feature of this active learning approach. An important part of the exercise is also facilitating students to provide examples of how they have developed these attributes in their curricular and co-curricular learning.

Given the competitive employment landscape, it is crucial that students can demonstrate in-demand skills such as problem-solving, critical-thinking, and self-management to employers to fully enhance their employability. In the current economic climate, simply stating they have a particular competency is not enough (World Economic Forum, 2020). This active learning approach encourages students to engage with graduate attributes, helping students to interpret them in their discipline and supporting students' articulation of these attributes to future employers or postgraduate recruiters. Interestingly and worthy of highlighting, is that Wong et al. (2021) in their graduate attribute mapping studies, also stress the importance of 'decoding' graduate attributes and helping students to understand their transferability in the workplace.

## How could others implement this idea?

Limited resources are required to introduce this activity. Students are given a set of graduate attribute cards; each card contains a specific graduate attribute. Alternatively, Post-it<sup>®</sup> notes can be used and the results displayed on an A1 piece of card. It takes about 10 minutes to explain the rationale for the activity and to distribute the resources. Interestingly, Nguyen et al. (2021) advocate the importance of providing students with the rationale for using specific learning methods, as a crucial component for sustained and active learning.

The exercise can be completed by students working in pairs, or in a small group of 3-4 students. Students are asked to form a

diamond arrangement, in which the top graduate attribute card in the diamond is most important. The second, third and fourth rows present the attributes with descending importance and the bottom attribute in the diamond is of least importance in the arrangement (see image above). Discussing ideas in pairs or a small group and agreeing on the top nine cards takes about 15 minutes. Each group should have a rapporteur to report back; sharing findings across groups can be useful to encourage graduate attribute discussion and debate. Typically, feedback to the wider class of approximately 20 students takes about 20 minutes. The session finishes with concluding remarks and next steps (10 minutes).

Overall, the activity takes approximately an hour. The exercise can be easily adapted across higher education institutions through universities preparing their own bespoke set of graduate attribute cards.

## Transferability to different contexts

The 'Diamond Nine' technique encourages student collaboration, negotiation, and evaluation skills, so it is highly transferable across academic disciplines and contexts. For example, the technique could be used in Geography to stimulate discussion and enable students to reach a consensus on significant environmental impact issues, or in Art History to elicit dialogue around the importance and meaning of visual objects.

This active learning technique can be used with undergraduate or postgraduate students. However, to help encourage in-depth graduate attribute discussion with other stakeholders, the activity would be suitable for use with employers from different employment sectors and organisational sizes, academic staff, and other employability professionals (Perkins & Pryor, 2016). The relative importance of each attribute can again be illustrated through arrangement into a diamond-shaped hierarchy with the

top line indicating the most important attribute for that particular stakeholder. Triangulating student findings against recent industry skills reports, or from data collected from employer contacts would add a different dimension to the exercise. Also, comparing the 'Diamond Nine' hierarchies of first year students and final year students may also yield surprises, debate, and different views regarding the relative importance of graduate attributes.

## Links to tools and resources

- University of Aberdeen Graduate Attributes: <https://www.abdn.ac.uk/graduateattributes/>
- TES Diamond Nine Template: <https://www.tes.com/teaching-resource/diamond-9-templates-11521827>

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## Image Attribution

Figure 1. Photo of a 'Diamond Nine' set of ranked cards by Joy Perkins is used under CC-BY 4.0 Licence

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# Using role play to explore professional situations for practice-based courses

SUE PINNICK



## What is the idea?

This chapter explores how practice-based courses in a professional environment, such as teaching, social work or medicine, can use role play to help students explore ideas of professionalism in different scenarios to prepare them for work-based settings.

Students will work collaboratively in groups, using exploratory dialogic talk in order to reach a consensus on a scenario that they will create from a range of situations. They will then produce two role plays where they reenact the scenario: the first representing

unprofessional behaviour; the second representing professional behaviour. The rest of the groups will have the opportunity to reflect on and ask questions of the scenario. All groups will reflect on the strengths and challenges of the activity itself.

## Why this idea?

Evans (2008) suggests that there are two types of teacher professionalism: the professionalism 'prescribed' by policies and national standards and the 'enacted' professionalism existing in teachers' practices, predominantly at a school level. Both school mentors and trainee teachers on initial teacher education (ITE) programmes have recognised that learning to be 'professional' can be a challenge for some trainee teachers (Pinnick, 2020). However, not only do trainee teachers need to provide evidence of 'prescribed' professionalism in order to meet the teacher standards (DfE, 2012), but, perhaps more importantly, they need to enact professionalism on a daily basis, in order to form relationships with both staff and students and adapt to the school community or 'habitus' (Bourdieu, 1990). In preparation for their induction into trainees' initial teaching placement, it is important to cover some of the challenges they may face in the first few weeks.

While, of course, it is always possible to explore professional dilemmas theoretically, since Dewey (1938), educators have identified the fundamental role of experiential, embodied learning in learning. In their U.S based meta-analysis of the effects of drama-based pedagogy on outcomes across the curriculum, Lee et al. (2015) highlighted the impact of drama as an embodied approach to learning. More recently, pioneering neuroscientific research suggests that when our bodies interact through drama, not only do we transport new experiences to the brain, but we deeply encode the information and transform it into knowledge (Damasio, 2021; Gallese & Wojciehowski, 2011; Immordino-Yang & Gotlieb, 2017).

Moreover, this activity includes the opportunity for students to use exploratory dialogic talk in order to reach a consensus. Interaction through talk ‘vitaly mediates the cognitive and cultural spaces between ...learner[s] ‘of any age...and what he or she has yet to know and understand’ (Alexander, 2020, p. 15).

## How could others implement this idea?

Put students into groups of approximately four, with a mix of gender, age and background if possible. Ideally, at this stage, they will know each other and be comfortable working in groups.

Give each group two different situations to discuss from the following options:

- In the classroom
- Around the school
- In meetings
- Observing a lesson
- Issues with other colleagues
- Social media
- After school social events with colleagues
- Personal social events where you may encounter pupils or colleagues

Give each group two sheets of A3 paper. Give them 30 seconds to bullet point examples of different scenarios that they may come across in their two different situations.

Groups then go and look at what other groups have come up with before revising their own list, e.g. In the classroom: using a mobile phone while teaching.

Groups decide on a final scenario to role play – they must show two versions: one demonstrating how they would behave

unprofessionally; one with the professional version (two to three minutes maximum per role play).

After each role play, ask others to ask questions and reflect on potential issues and solutions.

End with a final reflection asking the following questions: what did they learn individually through participating in the role play? What did they learn from watching the others? What did they learn about professionalism in schools? What were the benefits and challenges of the activity itself?

## Transferability to different contexts

The idea is relevant to all ITE educators but could also be adapted for any course where students participate in a professional practice work placement such as social work, medicine, business or management; engineering or creative industries. To adapt the activity, the lecturer just needs to alter the different situations to make them appropriate for their context.

## Links to tools and resources

- How to teach using role-playing – Carleton College
- Simulation and Role-play in Edwards School of Business – University of Saskatchewan
- Teaching Approaches Menu – Sheffield Hallam University

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## Image Attribution

Meeting of people round a table by 14995841 from Pixabay

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## 4 ASSESSMENT AND FEEDBACK



**Peacock butterfly**

*“Feedback is the breakfast of champions.”*

**~ Ken Blanchard**

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# Introduction to Assessment and Feedback Practices

DR CHRISTINA MAGKOUFOPOULOU; DR LESLIE SCHNEIDER; DR ALICE CHERESTES; AND DR ANDREW MIDDLETON

Assessment and Feedback are an integral part of the learning process and although we would have preferred not to make an explicit distinction within this section and the section of Teaching Strategies, the theory that underpins assessment and feedback is too valuable not to be given the right amount of attention within a book entitled 'Ideas for Active Learning'.

Student assessment and feedback are critical aspects of teaching and learning. In the context of active learning instructional strategies, the focus is on alternative tools like authentic assessment, formative assessment, and peer feedback. Such forms of assessment encourage the growth of student agency and initiative (Klemenčič, 2020) and when carefully designed, they can further promote higher-order thinking processes moving students up in Bloom's Taxonomy (Tabrizi & Rideout, 2017).

According to Biggs and Tang (2011), assessment needs to be considered in the early stages of planning any learning and teaching activities and it needs to be explicitly aligned to the Learning Outcomes of the course.

One of the biggest obstacles to the effective use of assessment is the lack of assessment literacy for both academics and students (Deeley & Bovill, 2017; Nicol, 2009; Smith et al. 2013). Hancock and East and Merrydew provide practical examples that can be used to facilitate the development of assessment literacy for both staff and students through active workshops where group work not only offers support for the cognitive dimension of learning, but also for the affective dimension (Järvenoja, & Järvelä, 2013). Harvey and Dodd address this issue and support academics' development of

assessment literacy through institutionally established communities of practice that explore authentic assessment.

Assessment literacy presupposes that the purpose of assessment and the marking criteria are clearly understood. One approach to achieve that is by co-creating assessments with students (Bovill, 2020). This would also give learners the opportunity to develop and express their learner actorhood (Klemenčič, 2020). To that end, the guidance provided by Walden and by Horrocks could be adapted for a wide range of contexts.

The formative assessment tasks included in this section, not only aim to support students' understanding of the topic but also to enhance students' collaboration skills through group crossword activities (Stockton-Brown) group storytelling activities (Surendran), and digital storytelling activities (Beggs). Group interaction exposes students to different views giving learners the chance to examine dense material from multiple perspectives (Cohen & Sampson, 2001; Mezirow, 1978). To that end, peer-feedback and formative peer assessment can further support the development of collaboration and communication skills as well as critical thinking skills (Topping, 1998; Strijbos & Wichmann, 2018). In their chapter, Cherestes and Schneider describe how Visual Classrooms, a collaborative learning platform, can be used along with carefully scaffolded activities, to enhance students' feedback literacy.

Although active learning is commonly associated with collaborative and cooperative work, individual active learning tasks and assessments are equally valuable for deeper learning as they encourage ownership of learning. Self-assessment (the ability to make judgements on students' own approach to task and quality of their work) and self-reflection can be seen as the most critical graduate attributes (Tangney, 2018). Farrow presents how these skills can be achieved through scenario based learning, whereas Saunders links self-reflection with summative assessment in his chapter on the 'Reflective Elevator Pitch'.

Student engagement is one of the approaches that academics

use to evaluate students' performance with some incorporating engagement and participation in summative assessment elements (Czekanski & Wolf, 2013). Two great examples are included in this section. Perlman-Dee introduces how a combination of low-stakes active engagement assessments that include active participation in class and completion of independent tasks can be used to enhance students' engagement and learning, whereas Vianya-Estopa incorporates active engagement with discussion forums in summative assessment. When it comes to summative assessment tasks, it is also important to maintain active forms of learning that aim to support the development of key skills students will need beyond the university, as shown with the presentation task introduced by Gowers.

In the last chapter of this section, Betts introduces story-based game learning, and presents through constructive alignment how assessment and peer- and self-reflection can be embedded in game-based learning where in addition to the course learning outcomes, the assessment aligns with the goals of the story's protagonist.

In summary, within this section the reader will be able to identify active learning strategies for enhancing staff and students' assessment and feedback literacy, strategies for creating 'active assessment' through the direct engagement of students in all assessment steps including the co-creation of assessment modes and assessment criteria; and strategies for developing and implementing authentic, and engaging assessments. These help students develop essential lifelong skills such as collaboration, communication, self-reflection and self-awareness.

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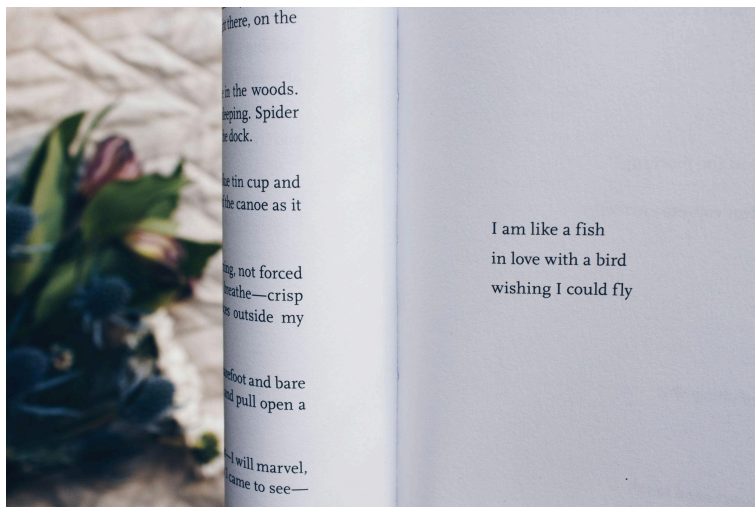


# 4A ASSESSMENT AND FEEDBACK PRACTICES



# Haikus for learning

DR JESSICA CLARE HANCOCK



## What is the idea?

Students are asked to do different kinds of writing at university, often with the assumption that they know how to write, for example, an essay or report, even though these kinds of writing vary greatly between disciplines and institutions. This activity asks students to produce haikus as a way into a discussion about producing different types of writing, including working to a word limit, and the elements that may help them develop literacies in different types of writing, such as scaffolding and examples. An extended version of this activity also involves students producing sonnets as an alternative to haiku.

## Why this idea?

Many students find writing for university assessments difficult for a myriad of reasons, not least because the purposes or kinds of writing expected are not explicitly analysed, but also because many assessment instructions and criteria remain unclear (Hancock, 2019). Despite great strides being made in an academic literacies approach (Lea & Street, 1998; Wingate, 2006), particularly in the gradual professionalisation of learning development (ALDinHE: <https://aldinhe.ac.uk/>), too often writing itself, as opposed to the content, is not addressed during teaching sessions which leaves students confused and frustrated.

This activity uses poetry. This is a form of writing not regularly used by most students, but one which is relatively easy to get to grips with in terms of the rules and expectations for particular poetic forms, such as haiku and sonnets. These kinds of poems also have the benefit of being fairly short so are something that can be composed during the course of a teaching session. Alternatively, this activity can be undertaken as a group task to be done between sessions, bringing the results to share and discuss with the whole class.

If used with teaching staff who are involved with assessing students, this activity is an effective way of enabling them to see writing from a student's perspective (for the lecturer or tutor, it often feels 'obvious' to them what might be required if they set their students a particular type of written task). If used with students, it can be a way into reflecting on the emotions and practicalities involved in tackling academic writing – but using a low stakes task that is not as difficult to discuss as a real example of a written assessment that they might have struggled with.

## How could others implement this idea?

I have used this for students on an MA course about learning and teaching in HE, as a starting point for reflection on their own support for the writing of their students. Participants work in groups to compose a haiku about a particular topic – such as ‘the university experience’. The haiku is intended to be a new kind of writing for them. At first this is the only instruction – after five minutes I provide some more information about haiku, and after another five I provide them with some examples. This enables them to appreciate the importance of scaffolding tasks and working with exemplars (Lavelle, 2009). Each group shares their haiku, and then we discuss their experiences. Participants are prompted to consider how these might relate to the emotions of students who are asked to write an ‘essay’ with an assumption made that they would know what this was – and how much more difficult it might be to gain information on what an ‘essay’ might be, as this differs considerably between disciplines, institutions, and countries, as opposed to a set format like a haiku. When I have also given groups the option of a sonnet (usually if it is a ‘between class’ activity), we also discuss the differences between these two formats, and how these might relate to assessments for their students – for example, the sonnet has more complex rules but a higher word count.

We discuss how participants might scaffold writing and assessment for their students, and explicit links are made to assessment examples they provide for their own students. The concept of providing examples occasionally proves controversial, with some concerned that it might encourage students to cheat by copying the example verbatim. If this happens, we explore ways in which this could be avoided (by designing it out of the assessment, perhaps through student creation of topics, or by using writing from a similar but non-identical assessment, perhaps from the WRASSE bank of HE writing examples in a variety of disciplines:

<https://wrasse.plymouth.ac.uk/>), but we also discuss the difficulty of being asked to produce something without an exemplar.

During one iteration of the task, several participants commented that it had been eye-opening to be put in the student position and that it would change their approach to assessment preparation. The activity involves group work so participants benefit from peer learning, which is important in writing development (Wagner, 2016), and can share their feelings about the task. Learners leave the session with a sense of how an academic-literacies approach has benefited them, and how it might assist their students.

## Transferability to different contexts

This could also be adapted to be used directly with students themselves – they would undertake the same composition activity, with varied instructions, and then would reflect on the value of utilising the different kinds of support made available to them, and also the emotions engendered by trying out a new form of writing, and what might help counter negative feelings. Participants of the activity often discuss the benefits of approaching this new type of writing in a group, so students could be encouraged to set up their own peer support to give feedback on their assessments during the course of their degree.

If used directly with students themselves, they could be asked to work in groups to compose a poem (haiku or sonnet) on the topic of their actual module assessment. They would then share these with the rest of the class, and discuss how they felt approaching writing about their subject in this particular format, and how this compares to their confidence in producing the actual module assessment (for example, an essay or report).

## Links to tools and resources

Writing for assignments e-library: <https://wrasse.plymouth.ac.uk/>

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## Image Attributions

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# Active assessment literacy

AIMEE MERRYDEW AND MATT EAST

## What is the idea?

A common challenge across the higher education (HE) sector relates to assessment, especially students' understanding of the specifics around assessed activity. Drawing on interdisciplinary case studies, this chapter explores the role of collaborative analysis and annotation practices in helping students to develop assessment literacies. In doing so, the chapter demonstrates that collaborative annotation can be a powerful tool for improving students' knowledge and understanding of assessment requirements, extending across past submission analysis, research proposals, and ethics submissions. Talis Elevate, a collaborative annotation tool, is the platform used to facilitate assessment literacy activities in this example, but the idea can be applied using various technologies.

## Why this idea?

Assessment literacy is critical for several reasons. Assessments are integral to HE since they are often used to assure academic and professional standards, measure whether learning outcomes have been achieved, and determine students' degree classifications (McConlogue, 2020). Assessments are also tools for learning that help students to identify their strengths and areas for development, promoting critical reflection that will serve them well during and beyond university (Carless & Boud, 2018; Sambell, McDowell, et al., 2012). Yet many students struggle to understand assessment criteria or why assessments matter for their learning beyond the attainment

of grades, creating dissatisfaction with assessments and causing frustration when expectations and desired outcomes are not achieved (Sambell, Brown, et al., 2017; Winstone & Boud, 2021). At the same time, educators might assume students understand assessment criteria and miss opportunities to embed assessment literacies into course design, impacting students who are unfamiliar with assessment activities, processes, and expectations.

Collaborative annotation offers many pedagogical potentials regarding academic skills development. Cohn (2020) addresses several educational opportunities that arise from collaborative digital reading and annotation activities, such as developing shared understandings of the syllabus via annotation. Chen et al. (2010) explored collaborative annotation tools to correct misunderstandings of assessment activity, create shared understandings of assessment criteria, and identify writing errors, demonstrating impact not only on students' assessment literacy but also general reading comprehension.

Despite these opportunities, the possibility for collaborative annotation to build assessment literacies is not widely researched. In what follows, we outline an activity with step-by-step instructions you can use to develop students' assessment literacies. The activity is intended to create meaningful learning experiences through which students are empowered to reach their full potential in assessments.

## How could others implement this idea?

**Step 1:** Introduce students to the assessment and discuss the criteria with them, ensuring opportunities for questions to identify and clarify any areas of uncertainty. Following constructive alignment principles, this type of activity works well early on in a module to allow students time to practise and apply what they learn to their own assessments (Biggs & Tang, 2011).

**Step 2:** Provide students with a variety of assessments, either ‘mock’ submissions or prior student submissions (with permissions) across grade boundaries for them to peer review, using a collaborative annotation tool such as Talis Elevate. These exemplars could illustrate good, satisfactory, and poor practice, but can also focus on other activities such as interpretation of writing styles, identifying plagiarism and collusion, or highlighting elements you feel will spark discussion and debate among the learning community. We recommend excluding grading from this process to ensure feedback is the core goal of the task and reduce the focus on grades (Barnes, 2018).

**Step 3:** Outline the collaborative peer review activity, including why it is beneficial for learning development, how long the task should take, who students will work with during the activity, and what tool they will use to complete it. You need to ensure students can access and use the collaborative annotation tool, which you can ascertain by providing a low- or no-stakes activity (e.g. instructing students to make one ungraded annotation on a source to familiarise them with the annotation tool itself). If collaborative annotation activities are new for students, it is equally important to frame the expected social discourse within such an educational domain (Cohn, 2021).

**Step 4:** Assign students into small groups and explain that you want them to work together to provide constructive feedback on the exemplars, using the assessment criteria to help them identify strengths and areas for development. Establish ground rules for respectful interaction, i.e. explain that when they disagree with a peer’s annotation, they should support their disagreement with critical rationale and evidence, before engaging in discussion. The aim is to come to a consensus, mimicking common peer review processes used in academia and workplace reviews.

This feedback should be added to the annotations at relevant points in the exemplars on the collaborative annotation tool so comments are visible to the wider group. Where consensus is

reached, it should be made explicit to the learning community to help them identify good practice to take forward in their own assessments. Encouraging criticality, whilst maintaining respect for the author and providing constructive feedback, is essential for developing students' assessment literacies in a supportive environment.

**Step 5:** Allocate time after the small group activity to discuss the annotations as a whole group. This discussion activity creates opportunities not only to talk through (mis)understandings about the assessment and peer review activity, but also encourages students to reflect on what they learnt in relation to their own academic practice. For example, you can encourage students to consider their own strengths and areas for development for them to address in preparation for their own assessment.

While 'active assessment literacy' can be adopted for synchronous, asynchronous, online, or in-situ modalities, we recommend a process of reflective review is undertaken in a synchronous space to allow for deeper discussion and collective synthesis.

## Transferability to different contexts

Challenges around assessment literacy are ubiquitous across disciplines and modes of study. The above collaborative annotation activity has proven useful for addressing these challenges across various HE contexts and assessment formats. For example, it has been used by students to peer review previous assignment submissions in English (Merrydew, 2022), ethics applications in Sport and Exercise Science (East, 2019), and research proposals in Social Sciences, demonstrating its transferability and usefulness as a tool for active assessment literacy development.

## Links to tools and resources

- Talis Elevate website: <https://talis.com/talis-elevate/>
- Talis Elevate blog: <https://talis.com/category/talis-elevate/>

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# ‘Operation authentic assessment redesign’: supporting active learning through peer-mentorship within a community of practice

DR JEN HARVEY AND DR DEREK DODD

## What is the idea?

Academic staff often lack the time, and the opportunities, to discuss their teaching and assessment practices with colleagues, and have reported a dearth of practical direction on embedding active learning strategies within their taught courses (Centre for Higher Education Research, Policy & Practice, 2019).

In 2021, Technological University (TU) Dublin staff initiated a twin-track structured approach to supporting lecturers to innovate and transform their assessment practices based on the principles of ‘authentic assessment’ and the design of active learning experiences where students engage in the practical application of knowledge, skills, and competencies in scenarios that replicate ‘real-world’ challenges or require the ‘performance of exemplary tasks’. The approach entailed the creation of a ‘scholars and supporters’ peer-mentorship scheme, underpinned by the support of a broader authentic assessment Community of Practice (CoP).



## Why this idea?

Research has shown that communities of practice (Wenger, 1998) can be a catalyst for learning within organisations and the engagement of often time-constrained academic staff with meaningful professional and academic development opportunities (Lantz-Andersson et al., 2018; Patton & Parker, 2017). Cognisant of the view that little is known about the effectiveness of ‘artificially created’ (Hara, 2009, p. 5) or ‘arranged’ (Palermo, 2017, p. 20) communities of practice, in 2021 an authentic assessment CoP was established with the aim of facilitating the exchange of practices and ideas between teaching staff interested in further developing an ‘authentic’ approach where students were more actively involved within assessment processes (Kearney & Perkins, 2014). Membership to the community and associated activities was open to all staff. Drawing upon community expertise, a series of weekly practice exchange workshops were organised over the duration of the initiative that aimed to build internal capacity and increase community membership.

To provide a more structured support for staff wishing to make a more substantial change to their assessment and feedback, a scholars and supporters’ scheme was also established, under which individual instructors (‘scholars’) and more experienced academic colleagues (‘supporters’) could apply for small bursaries to participate in a peer practice-exchange and mentorship programme. The redesign scholars and their projects were purposefully selected to provide a diverse and representative reflection of the university’s constituent disciplines. As a result, there was more of a likelihood that at least one of the redesigns would be of interest or relevant to any interested lecturer’s working practice. This also had the benefit of allowing us to group scholars together into disciplinary subgroups, each of which was mentored by a supporter with experience and expertise relevant to their projects.

The initiative sought to provide a range of different opportunities for university staff: academics could drop into CoP workshops of interest or access online resources, Scholars could develop their assessment practices in concrete ways, with input from academic mentors and the broader CoP, culminating in the development of case studies that would inform a set of institutional guidelines and best-practice recommendations for authentic assessment across the university, Supporters could extend their knowledge and experience by engaging with colleagues with a shared interest with different practices or from other disciplines.

This twin-track approach provided participants with a structured and programmatic footing for the sharing of knowledge and practice between community members. Supporters' who had direct responsibility for advising and mentoring each scholar, reported benefits from both giving and receiving feedback to specific projects and more broadly within an informal 'outer track' made up of CoP members. 'Scholars' gained access to two comparatively formal and informal peer knowledge and practice exchange 'tracks' within the CoP. They also became a kind of central 'core' within the comparatively informal CoP, modelling the process of embedding authentic assessment in their (re)designs and sharing their practice, experiences, and reflections in the form of workshop presentations, blog entries, and case studies that could provide a more lasting resource for our broader teaching and learning community.

Active learning outcomes reported within the project assessment redesigns, evidenced a shift towards the provision of authentic workplace-related opportunities for students. Examples cited included students responding to real project briefs, engaging with industry-based technology specialists or industry partners on collaborative projects that focussed on critical thinking and the development of metacognitive skills, obtaining and responding to oral and written feedback from different sources. Evidence of student learning was presented in (e)portfolios, vivas, work-based learning journals and employment reports. All scholars indicated

that they planned to continue to develop their redesign work in the following academic year

## How could others implement this idea?

Communities of practice can provide a supportive environment for fostering informal learning and the sharing of good practice amongst colleagues, while also allowing for differing levels of participation. Associated workshops or activities, help to encourage practice exchange and build a sense of CoP identity. While the addition of a 'scholars and supporters' component permits a more formal peer support and mentoring structure with the benefits of ensuring more tangible results in terms of changes in practice, while also providing an engaging and exemplary focal point for the broader community.

**Promote interactions and peer-exchange within the community:** We recommend providing a variety of mediums for peer engagement and the sharing of practice and knowledge, such as interactive workshops, 'masterclasses' with invited experts, and the asynchronous online sharing of ideas and resources among community members.

**Create active contact points and showcase participants' work:** To bridge the connection between the core peer-mentorship group and the broader CoP, this initiative promoted the work of scheme participants by convening 'meet the scholar' events in which instructors would provide a presentation on their planned assessment redesigns, followed by a discussion facilitated by their mentor 'supporter'. For CoP members who could not attend synchronous events, a 'meet the scholars' section was added to the scheme's website, in which each instructor was profiled, and their project detailed. From this page, visitors were then invited to 'follow the progress' of each scholar by engaging with their reflective blog.

**Develop a framework for practical guidance:** In addition to the

direct support of their mentors and peers, it can be helpful for the developers of a ‘scholars and supporters’ initiative to provide an initial conceptual model or framework to guide participants’ practical work. In this case, an ‘authentic assessment redesign framework’ with four core dimensions was created, not as a prescriptive, linear blueprint for developing authentic assessment but a set of common dimensions to be used as a general guide for assessment (re)design. Members of the scheme and broader CoP would be invited at various stages to contribute to the iteration of this framework, culminating in a set of recommendations.

**Adopt a goal-oriented active learning approach:** Align the work of participants with a set of agreed targets and goals to be achieved over a specific timeframe. In the case of this initiative, scholars were required to reflect at regular intervals on their progress via a blog and ultimately asked to furnish a case study outlining their project and its development.

## Transferability to different contexts

The model adopted here, of combining a formal and informal community of practice and a more structured ‘scholars and supporters’ scheme, could easily be adapted to any context where practitioners seek to come together to share and affect practice, deepen their knowledge and expertise, and build peer relationships with their colleagues. In this specific case, the CoP formed around the shared goal of promoting and developing ‘authentic assessment’ as an active learning strategy, but this approach would be equally applicable to any initiative with the aim of enhancing teaching and learning practices within an educational setting.

- The idea could be transferred to professional development contexts as well as project-based activities in postgraduate or undergraduate courses

- Industry or community partners could be involved as project supporters to enhance authenticity within the programme tasks
- Support for the establishment or creation of professional development related communities of practice can help build institutional capacity, and develop strategic expertise and specialist areas to inform professional practices

## Links to tools and resources

- Operation Authentic Assessment Transformation Mini-site:  
<https://tudublinimpact.wordpress.com/authentic-assessment-scholars-supporters-scheme/>
- Authentic Assessment in Irish Higher Education:  
<https://hub.teachingandlearning.ie/resource/authentic-assessment-in-irish-higher-education/>

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# Using the 'unessay' as active co-creation of marking criteria

DR VICTORIA GRACE WALDEN



## What is the idea?

The 'unessay' offers students flexibility and allows them to creatively respond to topics studied on a module. Rather than write an essay, students can decide what they will create: this could be a podcast, a model, a comic book, a board game, or a whole range of other responses including an essay if they wish. One of the hesitations teachers can have of the unessay is that it is too difficult to grade. The case study offered here is one potential solution to this issue: enabling students to co-create marking criteria for their unessays through a peer-review process.



Initially defined in a blog by O'Donnell (2012), the unessay follows the following format:

- you choose your own topic
- present it how you want
- and are then evaluated on how compelling and effective you are.

O'Donnell (2012) argues that whilst the essay form 'should be extremely free and flexible, (it) is instead often presented as a static and rule-bound monster that students must master in order not to lose marks' (no page nb, online). In response, Gal (2013) highlights how the unessay promotes metacognition by relegating essay form to the background and encouraging a focus on process (no page nb, online). Another positive about the unessay is that it resists Eurocentric ideas about knowledge presentation and is more inclusive for students with different learning needs, who may have a preference and strength for organising their thoughts in ways other than the essay.

## Why this idea?

The unessay is becoming increasingly popular amongst radical pedagogues, resisting the traditional essay form in favour of more inclusive assessment. This is illustrated by the numerous blogs that populate any Google search for 'unessay'. Whilst we might see the unessay as supporting models like Universal Design for Learning (<https://www.cast.org/impact/universal-design-for-learning-udl>) and decolonising agendas, its radical potential lies beyond such institutionalised policies. It moves away from the very idea of models or agendas, dismantling the power relations that Paolo Freire identified in the traditional 'banking approach' to education, in which students are seen as 'containers' to be filled by the

knowledgeable lecturer (Freire, 1970, p. 69-70). On a more practical, and perhaps less radical note, one of the top priorities of students today is maximising the employability potentials offered by their degree. Yet many university courses still assess primarily through essays, despite the fact it is not a form used in most jobs outside academia. The unessay allows students to develop portfolios that speak not only to their own identities, interests, and culture, but also their skills and future ambitions. It also gives students agency to make choices about how they learn and present their learning.

However, the unessay can induce anxiety in teachers regarding the equity of assessment. In discussions with colleagues, some were baffled by the way you could compare a board game to a podcast or performance in the grading criteria. My approach of co-creating marking criteria addresses this issue. Furthermore, it helps students engage actively with the learning outcomes of the module, mitigating against the comment: 'I don't know what is expected of me'. The addition of this co-creation process to the unessay assessment is inspired by Freire's 'problem-posed method', which he argues resists the banking approach in favour of recognising learning as a dialogue between 'teacher-students' and 'students-teachers' in which 'they become jointly responsible for a process in which all grow' (1970, p. 78).

## How could others implement this idea?

1. Set students an independent study task to create a draft proposal for their unessay project using a template. *The template is included as an appendix to this chapter.*
2. Students bring their proposal to class, and share their ideas with their peers, including the teacher. The idea here is not to develop the project itself (which can be done in earlier sessions), but to share project outlines to get a sense of the diversity of projects across the cohort.

3. As students present their proposals, the teacher acts as scribe, identifying the different types of projects in terms of topics and format. This could be collated on a Google Doc, Padlet or other collaborative working document. The aim here is to present all of the projects in one place, so students and teacher(s) can see the diversity.
4. In groups (self-selecting or teacher created), the students design potential marking criteria across a number of different topics and formats (projects are divided equally across working groups) checking each against the module learning outcomes. Each group will focus on a specific type of project, i.e. one group will look at podcasts, one traditional essays, another games, another artistic responses.
5. Students then move between groups, offering peer-review on the different marking criteria designed by each group. At this stage, students will have the opportunity to compare their own decisions on one format to another – that of a distinct group.
6. The class, as a whole, come to an agreement on comparative marking criteria across the different types of projects. These are recorded on the collaborative document, which is locked for editing at the point of approval. The marking criteria should have overall agreed headings, but the specifics of what this might look like in each format can be detailed below.
7. The document is used by students to inform their work and by the markers to assess.

Whilst you could use a traditional essay marking criteria as a framework from which to work, I would suggest avoiding this so as to truly decentralise 'the essay' from the experience and encourage students to think more creatively and freely. When we have compared work against the 'essay', i.e. by asking students what is comparative to a 2,000 written piece, many students have opted for the essay as the easy option (these were their words, not mine).

To truly create the type of dynamic promoted by critical pedagogues of community (hooks, 2003) and 'teacher-students' and 'students-teachers' (Freire 1970, p. 78), the teacher should always be conscious of stepping back from controlling the criteria design. They should listen to the different proposals and rationales students present, participate in the different group discussions as both an equal and someone with experience of assessing work, who can bring this particular subject position to bear on the conversations but without presenting 'correct' answers.

Returning to this co-created grading criteria as part of a reflection process after the release of feedback could further encourage students to not only think about think through the unessay experience, but think about assessment and feedback. Regrettably, on the module in which this was applied, the students get their feedback on assessments a few months after the module has finished so we do not have this opportunity.

## Transferability to different contexts

This activity is transferable between a range of contexts. It is designed to encourage students to engage with the marking criteria of their module actively and critically, regardless of subject specialism. It could as easily be performed in separate seminar groups or across the entire cohort in a lively lecture session, in which students could move between a wider variety of groups. Using collaborative documents like Google Docs or Padlet also enables it to be carried out online. In entirely remote or online distance learning contexts, tools such as Talis Elevate or forums could also be used, with each student adding their proposal to a separate Talis interactive or forum post where others can comment on it.

## Links to tools and resources

- Unessay Proposal Template: [https://docs.google.com/document/d/1nAHfwu9VH14\\_9Vv25tSRuwivCjbWIGmJHlyaZVTP7s/edit](https://docs.google.com/document/d/1nAHfwu9VH14_9Vv25tSRuwivCjbWIGmJHlyaZVTP7s/edit)
- Hayley Brazier and Heidi Kaufman 'Defining the Unessay': <https://dh.uoregon.edu/2018/04/02/defining-the-unessay/>
- Cordell's Unessay Assignment: <https://s18tot.ryancordell.org/assignments/unessay/>
- Marc Kissel's Website on ideas for unessay projects: <https://marckissel.netlify.app/post/on-the-unessay/>

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# Student-led peer marking criteria

DR JANET HORROCKS



Figure 1. Word Cloud

Learning by working with peers is a key to student learning. This may involve working cooperatively or collaboratively to address a problem and in this piece we refer to groups working collaboratively on a problem. Group working can present problems for students if some group members dominate the discussions and decision making or others in the group are seen as ‘freeriders’ and

take a back seat. The approach asks the group itself to develop a set of criteria for assessing peer contributions. For each criteria, students are asked to define what a contribution that would be awarded excellent would look like and then define what would lead to the award of a fail grade. The task actively engages students in thinking about how to work together as a group. Revisiting the criteria during the course of the module gives space for reflection on the way that the group is working.

## Why this idea?

Working as a collaborative group is seen as essential to many programmes of study (Riebe et al., 2016) but is not without its problems for both participating students and staff supporting students. The benefits of working in a group such as developing a learning community, developing self esteem, being actively involved in the learning process and developing an understanding of how groups work are supported by the literature (such as Dochy et al., (2003), Hammer Chiriac (2014), Laal & Ghodsi (2012), and Laurillard (2012). There are however, significant challenges to working in a group: dealing with the logistics of a group, dealing with different levels of motivation from group members and dealing with the additional demands of communication and discussion that working as a group entails (Davies, 2009; Forsell et al., 2021). These challenges can be addressed from two perspectives:

Engineering a situation in which students work together effectively and develop the skills for working in groups

Making sure any assessment mechanisms fairly rewards effort and intellectual input so that assessments with elements of group work are perceived as robust.

If the first is successful, then the second will be less problematic



as the group will be engaged and working together. The support and management of the group itself should thus be prominent in the mind of staff running exercises that rely on group work.

In some situations, learner groups may be already established; however, in other situations groups are formed de-novo. For a newly formed group of students, activities that develop trust and understanding are key to developing a fruitful working environment.

With this context in mind we wanted to support students' participation in a module where working collaboratively as a group was central to the design of the module. At the start of the module we asked the group to discuss the peer marking criteria that they would like to use at the end of the module to assess the contribution of different members of the group. The use of co-created grading criteria generates a set of criteria that will be understood by all students in the group (Meer & Chapman, 2015). The co-creation exercise was designed to prompt the students to interrogate their own ideas of good working practice and consider working practices as a group. The activity stimulated debate within the groups which allowed conversations to take place about issues that students might have around group work.

## How could others implement this idea?

For students to develop peer marking criteria, at least two 30 minute sessions need to be identified during the course of the activity. One of these sessions should be before the group activity has started (possibly during the initial orientation) and the other should be a point around halfway through their activity.

In the first session the students are asked to sit together in their groups (or put together in a breakout room if you are delivering the session online) with a large piece of paper (if working in person)

or an online whiteboard if working online (e.g. MS Whiteboard or Google Jamboard).

Students are invited to identify facets of behaviour and ways of working that are important for their group to work well together and could be included in a set of peer marking criteria. The students are encouraged to have a wide-ranging conversation at this stage. Once a set of criteria have been identified, the students are asked what they think these behaviours would look like from an 'excellent' member of the team and how behaviours would manifest by a 'poor' member of the team. The lecture/facilitator encourages the use of examples of what each type of behaviour would look like. If good communication is considered to be an important facet of behaviour, what is an example of good communication? Students submit a summary of the different criteria with examples of excellent and poor behaviour which is stored in an area accessible to all group members. Students most frequently chose criteria based around communication (communication, listening) and commitment (attendance, contribution, commitment, participation, reliability)

In the second session (halfway through the group work activity) each group is invited to revisit the criteria they have identified. This session is held as a discussion with the lecturer or facilitator and presents an opportunity to explore the way in which the group is operating. Do they need to add any criteria? Do they now think that some criteria are irrelevant?

In the final assessment of peer input the students are asked to consider each criteria and give a holistic grade to each of their peers. How this is used will depend on the assessment strategy for the module.

## Transferability to different contexts

This approach could be used in any situation where there is a peer grading element to group work. It is particularly useful where

groups are formed from mixed cohorts where expectations and norms of group working may differ.

## Links to tools and resources

WordClouds.co.uk: <https://www.wordclouds.co.uk/>

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Dr Janet Horrocks is a lecturer at Abertay University and divides her time between leading the Post Graduate Certificate in Academic Practice and lecturing in biomedical science. She has a long-standing commitment to promoting active learning and has introduced substantial elements of enquiry-based learning into the Biomedical Science programme at Abertay.

# Group crosswords as formative assessment tasks

DR MELANIE STOCKTON-BROWN

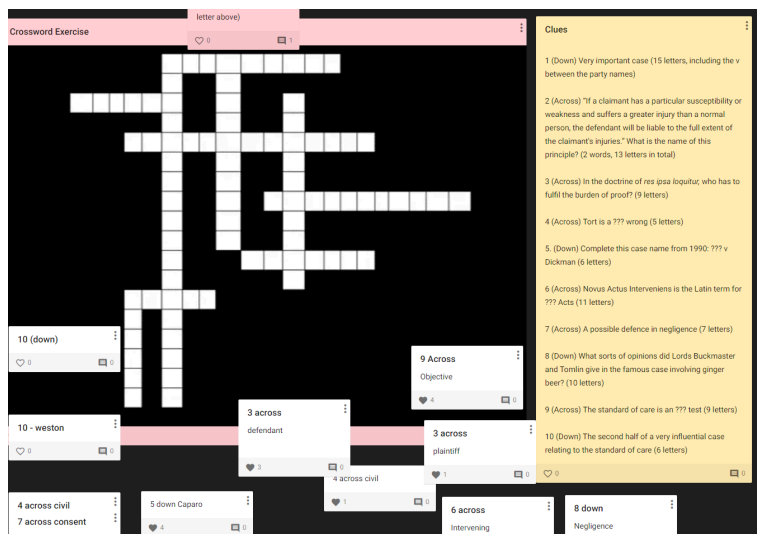


Figure 1. Screenshot of Padlet task

## What is the idea?

The Covid pandemic has seen an en masse shifting of learning to move online, which has created barriers and unexpected challenges, as well as some unforeseen positive aspects (such as recording of teaching sessions which enables closed captioning to be added to recordings).

Group learning in a larger cohort has been further complicated by online learning. Delivering formative assessment through a live

online group crossword task was developed, with considerable success. A crossword was created with the clues linking to key unit terms and knowledge, with a mixture of basic and high-level content. Students were able to add their comments/ answers online as a group in Padlet, together completing the crossword. This changes the student's learning from passive to active; and leads to increased engagement and participation, as well as noticeably higher application of the content in later unit assessments.

## Why this idea?

Meaningful formative assessment is crucial to enhancing students' active learning, and to their student experience. However, it can be difficult to engage students with formative assessment, either due to ongoing assessment/ grade anxiety, or due to feelings that the task is lesser, if not contributing to an overall grade. For this reason, I designed a task that was formative, in that the students (and me as the lecturer) could gauge their individual understanding of a topic, in a more informal and active way.

In doing so, I was drawing upon Lee's idea of enculturing assessment (Lee, 2012), through creating a task that assessed knowledge that was engaging, interesting, and did not add to assessment anxiety. It has been found that VLEs often enable more successful sharing of information and ideas between students, as well as between the lecturer and the students (Gannon-Leary & Fontainha, 2007). This virtual 'community' of learners was evident during this task, as the students worked together to solve the crossword. When a student posted the incorrect answer to one of the questions, I observed that other students would comment on this with an encouraging statement, such as 'I thought that too, but I think that the answer is X, as I remember in our lectures that...'. This demonstrates the active learning community that was being supported, which had not been present before.

The focus on learning through puzzle-based tasks such as crosswords has been found by Nirmal et al. (2020) to be very effective pedagogic tools for reviewing and reinforcing the concepts taught in previous sessions or in lectures. See Rustamov (2020) for a reflection of using crossword puzzles with mathematics teaching.

This session therefore worked well to facilitate active learning, as it combined a variety of different types of learning stimuli. Students feedback that they enjoyed ‘doing something, not just listening’. This led to a noticeable difference in their final summative assessment on the topic, as many of them had retained high levels of comprehension and contextual understanding of the topic.

## How could others implement this idea?

I chose 10 key items of content that we had previously covered together in class and were important for the students to understand. I chose to include some more simple questions, and some that are more challenging. I wrote short questions for each of these, framed in a way that had one specific answer – so these are not designed to be cryptic or open-ended questions.

Once I had these 10 written answers, I then wrote them in Excel and starting looking for letters that overlapped in the answers. I chose the longest answer to be written vertically, to create a ‘backbone’ on which to place the other answers. Finding vowels that words have in common was the easiest and quickest way I found to achieve this.

Once I had this order arranged, I then typed the words into a blank Excel page. Once completed, colour the cells with no letters in (which I did in black); and then remove the words, leaving blank/white squares. I screenshotted the page and saved it as image. The process of making the word search took about an hour to plan. Alternatively, online crossword generators can be easily found too.

I then used a Padlet board to share the crossword image with

the students, as background on the Padlet board. A Padlet board can be set up for free. It is a great resource for granting access to students, as sharing the URL link will allow them to access the board and interact with it. The board allows students to upload content (such as images, music, text, hyperlinks, etc.), as well as to comment on the posts of others. You can choose to allow students to post anonymously, or you can disable that. I disabled the name function in the session, to increase their confidence in posting comments, which seemed to work well

I put the students into groups in Zoom Breakout rooms, and asked them to work together to work out the answers to these 10 questions. Students were able to share their thoughts and answers on the Padlet board. Once they had the 10 answers, they could then begin placing them onto the word search outline to see if they were correct. Although this session was carried out live online, through Zoom, it could be done through another channel such as Microsoft Teams; and indeed, it could be completed asynchronously.

We came together as a class to share the answers and complete the word search.

## Transferability to different contexts

This session could be utilised in any subject area, with both larger and smaller groups of students. It could enhance the pedagogical tools of law lecturers but is adaptable to any content. The task can be adapted to be individual or group-work and can also be easily led as a face-to-face task, or online.

## Links to tools and resources

Padlet: <https://en-gb.padlet.com/>



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## Image Attributions

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She combines traditional research and teaching practices with creative approaches, including film-making and zine making. She has FHEA status.

# Using online comic strip generators to enhance the student experience in bioscience education

DR SHELINI SURENDRAN AND GEYAN SASHA SURENDRAN

## What is the idea?

The use of sequential illustrations to tell stories has been present since prehistoric humans painted series of pictures on caves to effectively transmit culture and values to their children (Hadzigeorgiou & Stefanich, 2000). In education, storytelling is a useful approach for learning, allowing kinaesthetic learners to remember the emotional connections associated with the story, reinforcing context-based learning (Hadzigeorgiou & Stefanich, 2000). Comic strips are examples of multimodal texts that combine both text and imagery for storytelling (Wijaya et al., 2021). Comics have the ability to concisely convey immediate visceral meanings that textbooks cannot.

From previous experience, efforts to teach cellular respiration using lecture-style formats have been relatively ineffective on student exam performance. We were inspired to incorporate a comic strip activity, where Bioscience students were expected to describe the process of cellular respiration using online comic strip generators. All students were first taught about the different stages of cellular respiration in a three-hour online lecture. The week after the lecture, the students attended a two-hour active learning class over a video conference, where they were expected to produce a comic

strip in teams, explaining cellular respiration. We asked our students to create a comic strip using illustrated scenes and dialogue matching their storyline, using online comic strip generators.

Students were encouraged to use speech bubbles and technical words related to the stages of cellular respiration within their storyline. Finally, students were told to write their comic strips in a creative way, for example the students could portray mitochondrion as a superhero such as 'Energy-cat' or any other fun character. The role of the teacher was to facilitate the creation of the stages of respiration. At the end of the activity, students were formatively assessed using a marking criteria (Table 1).

## Why this idea?

Comic strips have been used in the humanities and have been largely ignored in science education. For a long time, comic strips had been deemed as only suitable for children, as they do not contain lengthy prose. However, comic strips have the power to convey important scientific messages in a more interesting and comprehensible way for adults, compared to using a textbook or newspaper articles (Koutnikova, 2017). Comic strips are memorable learning aids, as they are usually organised in panels containing a single message (González-Espada, 2003; McCloud 1993).

Comic strip reading is an active process as the reader needs to fill the gaps between the juxtaposed panels, which contain a complex interplay of words and images (Rota & Izquierdo, 2003). Moreover, comic strips encompass elements of humour and fun, which may make it a useful pedagogic tool to engage students and motivate them to read scientific content in a fun way (Garner, 2006). We observed from this activity that using educational comics makes learning fun and memorable. Comic strips are able to integrate

cognitive processes associated with the psychomotor domain, due to the incorporation of auditory, kinaesthetic and visual learning methods (Wright & Sherman, 1999). Similar findings have been established that scientific comics enhance student interest and satisfaction in comparison to text-only books (Lin et al., 2015). One of the main advantages of implementing comic strips was that no previous artistic skills were required when using online comic strip generators. There was an obvious observed enhancement of the creative thinking, personal expression and communicative skills of our students (Lazarinis et al., 2015). Classroom management within this activity was minimal and many students were driven by its fun nature and worked outside classroom hours voluntarily.

Student feedback:

*'By presenting respiration as a story, it made [learning about] cellular respiration less intimidating.'* – Student A

*'I used to hate reading text-books saturated with text and barely any pictures. This comic book activity made me realise that I am more eager to read when presented with images and an interesting story line and made me really understand cellular respiration properly.'* – Student B

*'Comic strips are so fun, and add a twist of humour to the class. It's always the funniest moments and fun activities in life I remember, as opposed to the dull moments.'* – Student C

*'We enjoyed thinking about the process in a more creative way and thought that it was more interactive than a lecture. As we had creative freedom we could have a lot more fun with the concepts involved and found that it made us remember the topic a lot more. We also found that the experience felt a lot more relaxed than the usually assigned university work.'* – Student D

## How can others implement this idea?

1. Students can create a comic strip for revising a subject area

they have been taught in class. Alternatively, a comic strip can be created as a flipped learning method (Students view online lectures prior to the classroom activity, then spend time in class engaging in active learning).

2. Students can create a narrative storyline containing illustrations, individually or in small groups. You may choose to divide the class into small groups if the topic area is large. Using comic strips as a group activity, allows some students to have different team roles e.g. Idea generation, story writing and graphic designing. Students may also be given a list of essential keywords relating to their chosen topic as guidance.
3. Creating a comic strip is no different to planning a story. Students should plan their comic strip, so it contains a beginning, middle and end. Students should think about the types of characters and scenes they plan to use, to portray what happened in the story. It's important that the comic strip has a powerful ending and is packed with some action. It is recommended that students contain at least 20 panels within their comic strip, but this may vary depending on the complexity of the topic they plan to write about.
4. Students can be recommended to use comic strip generators such as 'Canva' or 'Pixton'. Students can start with a blank page or use pre-existing templates provided by the generator. Most comic strip generators have different themes (e.g. school, beach, city) and allow for customizable layouts (Number and type of comic strip panels). When it comes to designing, students can experiment with the different features available. Online comic strip generators often allow the addition of dialogue boxes, speech bubbles, custom artwork, colour schemes, typefaces, icons & stickers, customisable characters and illustrations. Tools like Canva allow for real time collaborative work, where multiple students can work on the same document at the same time online or in the classroom.
5. Students' comic strips must contain illustrations containing dialogue, they may use speech bubbles or dialogue boxes

provided in the comic strips. The size of the font can indicate whether characters are shouting or whispering, for example capitalised text indicates that a character is shouting. It is important that students double check their spelling and grammar.

6. Students must be as creative as possible and write their story in a comic-strip way. They could describe a scenario including a superhero, a teacher, or any fun character they can think of (See figure 1 as an example).

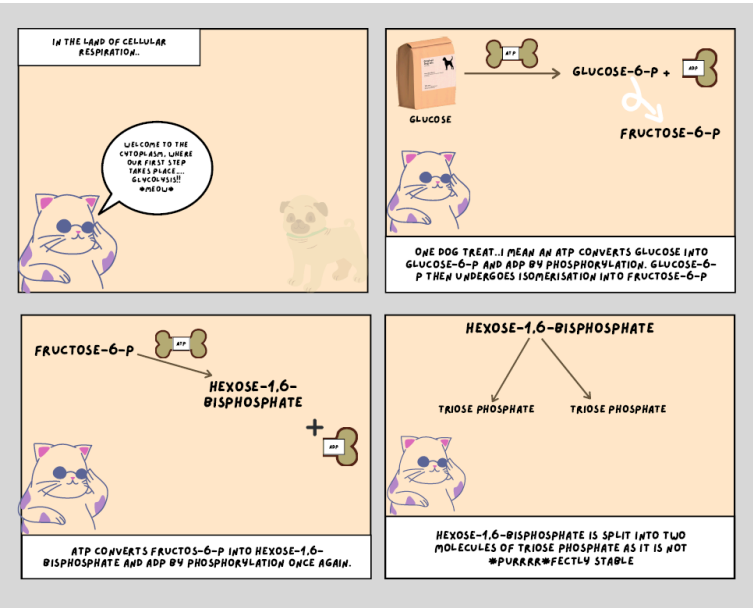


Figure 1. Example of a comic strip created by a student using Canva

## Transferability to different contexts

This comic strip activity can be adapted for any subject discipline.

Creation of comic strips can be helpful for icebreaker activities, revision and consolidating knowledge. We would suggest readers to:

- Have a clear marking scheme on what you're expecting from the comic strip. If you want to use this as a marked assignment, be clear on how many marks are awarded for the following: Theme, illustrated scenes, character & dialogue, spelling, grammar & punctuation; and creativity. (Table 1).

Practise making your own comic strips, so you can help students if needed.

**Table 1.**

Criterion	Description
Theme	All panels relate to the theme of Cellular respiration.
Illustrated scenes	Each panel of the comic strip contains appropriate landscape, character, detailed illustrations that help strengthen understanding of the scene. The comic strip is clear and easy to understand.
Character & Dialogue	The main characters of the comic strip are clear to the reader, and their actions are clear with setting the scene. The comic strip may include speech bubbles or labels, containing all relevant vocabulary words related to cellular respiration.
Spelling, grammar & punctuation	Spelling, grammar and punctuation are correct throughout.
Creativity	The comic strip doesn't simply regurgitate dry facts. Students exhibit originality, may include fun or humour or a novel way of explaining concepts within the panels and captions.
Total	



## Links to tools and resources

Useful resources for comic strip generation:

- <https://www.storyboardthat.com/storyboard-creator>
- <https://www.pixton.com/>
- <https://www.canva.com/>

Useful website links to learn more about online comic strip generators:

- <https://ideas.pixton.com/>
- <https://www.canva.com/create/comic-strips/>

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## Image Attribution

Figure 1. Example of a comic strip created by a student using Canva by Daria Danielewicz and Emil Nikadon is used under CC-BY 4.0 Licence

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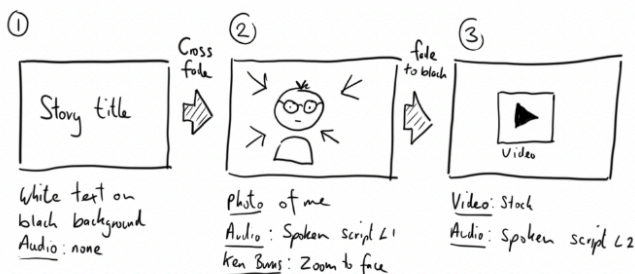
## Geyan Surendran

### THREE SPIRIT DRINKS

Geyan Surendran has a background in physiology and the pharmaceutical sciences. Geyan currently leads the research for the non-alcoholic 'functional' beverage company Beyond Alcohol in the UK and US. His current research focuses on ethnobotany and the use of physiologically active plants in commercial beverages. Previously, Geyan spent 5 years working in topical and transdermal pharmaceutical research, and has spent over 12 years as a distiller and non-alcoholic drinks formulator.

# Digital storytelling: encouraging active learning through collaborative team projects

RICHARD BEGGS



## What is the idea?

Storytelling isn't solely the domain of Hollywood blockbusters, it is something we all do daily and is central to human communication (University of Strathclyde, 2017), whether it is sharing our experiences with colleagues, family and friends or trying to make sense of things that have happened to us. As educators we are often trying to make our students more reflective/reflexive, to learn from their experiences and to do things differently the next time. Building digital capabilities of our students through assessments is also

something we are encouraged to do, however assessment load is often a barrier to adoption. This chapter explores how digital storytelling can not only enhance digital capabilities and encourage reflective practice of students, but through team projects provide an efficient and effective assessment strategy as well as facilitating active learning. Digital storytelling in this instance is based on the established process developed by the Center for Digital Storytelling (Lambert, 2022) and is a 2-3 minute video file (example in Resources Padlet) that brings together photographs, text and a voice narration to explain a concept or to reflect on experiences.

## How could others implement this idea?

Digital storytelling as an assessment method is easier than you would first think, students never cease to amaze and have fully embraced this method of assessment.

‘It was a really enjoyable module filled with a creative assessment element making it entertaining and interesting to create our digital story. Ability to get out our creative side.’ 2020-21 Undergraduate business student.

There are a lot of free software and resources available to get you started (links in the resources section), below is a list of the basic requirements of digital storytelling:

- **Script**– short 250 words (template in the resources section).
- **Storyboard** – simple text in boxes suffice (template in the resources section).
- **Recording audio** – most mobile phones come with a memo recorder.
- **Editing audio** – Audacity, a free and easy to use audio editor.
- **Sourcing photographs** – Creative Commons Search.
- **Digital story production** – Pulling it all together in a video file.

Mac users – iMovie, Windows users – Photo App, both are free apps and use a timeline for editing with features for added text. An alternative is Adobe Express (formerly Spark) Video, but this has a slightly different workflow, and you record the audio on each slide. Some students have used PowerPoint and a screen capture tool such as Panopto to create a basic digital story.

- **Acknowledgement** – Use the end credits to acknowledge any images that have been sourced under the Creative Commons license.

## Delivery guide (3-hour active learning session)

1. Start off by introducing your students to the process of storytelling, get them to work in pairs using an object in their pocket or bag and ask them to tell a short 2-minute story to one another about the object.
2. Then, cover some of the theory within your context. Talk about how storytelling fits into the module/course and the assessment.
3. As the human voice is key to the digital storytelling process (Lambert, 2010) it is a good time to get them to work in pairs telling stories. This time ask them to pick a photo from a Creative Commons search or print outs that triggers a 2-minute story from their past and tell it to one another in pairs.
4. Show some examples of what a digital story is, get them to critique them, what worked, what didn't work etc.
5. Now that they are all warmed up and in a chatty mood, it is time to identify the story they wish to tell. Putting them in their teams of around 5 or 6 students works well. Ask them to explore options using the script template below that is aligned to the learning outcomes. This part of the session can be 30 mins to an hour and it is an iterative process and should produce a draft script. The University of Strathclyde has a wonderful resource

around finding stories.

6. Depending on your timetable, you can break here or continue into introducing them to storyboarding. This is a basic form of storyboarding where they look at each line in the script they have written and explore what appears on the screen when that line is spoken. Using this methodology is an established process developed and refined by the Centre for Digital Storytelling and is used in Jisc's Digital Storytelling workshops (Thomson, 2020).
7. The final piece of the puzzle is showing your students how to acknowledge images curated from a Creative Commons Search. Now it's time for them to allocate team roles and to move onto the assessment.

## Assessment

Talk with your students, explain the benefits of teamwork such as active, experiential, and authentic learning (Davies, 2009). Discuss that employers are looking for team working skills in graduates (Magill, 2019) and that this module/course/session will enhance their digital capabilities and video production skills. Use a rubric to speed up the marking process and to let students see what good storytelling looks like. Rubrics also ensure consistency if there is more than one marker. Set clear guidance through an assessment brief and take time to go through this and the rubric with your students. There are clear roles within each team, such as: scriptwriting, storyboard production, audio recording and editing, sourcing imagery, video production and editing, creative commons acknowledgement. Let them assign the roles to match their skill sets. You don't have to reinvent the wheel, if there are online resources you can point your students to then do so, this will free you up to support them through tutorials and seminars. Offer choice of technology with free online tutorials readily available, students will often be aware of different and emerging technologies

that they can use (Example learning outcomes and rubric are in the resources section).

## Transferability to different contexts

Digital storytelling can work in any discipline or indeed at any level. It has been used with students at Ulster University in individual and team assessments in the Business, Communications and Computing Schools and in higher education practice programmes. It has also been used for civic outreach and for students with learning disabilities to hear the student voice. Other examples of use are in local government with Northern Ireland Assembly, Northern Ireland Fire Brigade, Police Service of Northern Ireland and with Northern Ireland Health and Social Care in partnership with Movember, Prostate UK and TruNorth. I would like to thank Chris Thomson from Jisc, who inspired me to embrace digital storytelling at a Jisc ConnectMore event back in 2015.

## Links to tools and resources

View resources on Padlet: [https://padlet.com/rtg\\_beggs/vwuuc2sv1gvjumam](https://padlet.com/rtg_beggs/vwuuc2sv1gvjumam)

- Script and Storyboard Template
- Example Digital Stories
- Example Learning Outcomes and Rubric
- Links to free software



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Richard works in the Centre for Higher Education Research and Practice (CHERP) and teaches on Ulster University's First Steps to Teaching and their Masters of Education (HE). He is the lead for the Learning Landscapes project in which active learning is at its core. He has worked in HE for 15 years and prior to joining CHERP worked in the University's Digital Learning department for 11 years. Richard is the chair of the ALT Active Learning Special Interest Group.

# A picture is worth a thousand words

DR ALICE CHERESTES AND DR LESLIE SCHNEIDER

## What is the idea?

Visual Classrooms, a Computer-Supported Collaborative Learning platform was used alongside carefully designed course-based activities to support active learning and peer-feedback in a university Organic Chemistry course. STEM disciplines such as Organic Chemistry benefit tremendously from strategies that make **‘thinking visible’**. The platform’s interactive collaboration features make it easy for students to engage with each other and create visual artifacts that make their thinking visible and enable peer feedback. This empowers students to independently assess their own and others’ progress, maximising learning and engagement. As well, instructors can easily identify students’ misconceptions. In an end-of-term survey, students confirmed that Visual Classrooms made it easier for them to actively demonstrate their understanding of course content.

## Why this idea?


This idea represents our initial effort to build metacognitive skills in a university level Organic Chemistry class. Many students study only to achieve a grade without actually thinking about their learning, fear of failure being their main motivator. Our main goal is to use a collaborative learning environment called Visual Classrooms along with peer feedback activities to teach students

metacognitive skills such as how to reflect on their thinking and build trust in each other's explanation without always having to rely on the expert opinion. Peer feedback activities and rubrics provided students the tools and scaffolding needed to make reflective judgements and develop strategies to focus on, improve, or review areas they needed to work on. In addition, the platform created a safe space for sharing learning, a space where students felt they were in charge of their learning while also building a sense of community and belonging.

This approach reflects the theoretical perspectives of active learning (Bonwell & Eison, 1991) and was guided by principles from Computer-Supported-Collaborative-Learning (CSCL). Active learning is an instructional method that actively engages students with the course material and each other through discussions, problem solving, case studies, and other methods. Formative peer assessment is a social endeavour and promotes the development of lifelong skills – critical thinking, communication, and collaboration (Strijbos & Wichmann, 2018; Topping, 1998). According to Hattie (2015, p. 79); 'when teachers see teaching and learning through the eyes of their students, and when students become their own teachers then outcomes and engagement are maximised.' CSCL complements this view with enhanced tools for managing learning and activities that both increase student content knowledge and foster work-life skills, such as collaborative problem-solving with shared understanding and decision-making (Scardamalia & Bereiter, 1994). Collaborative learning fosters flexibility whereby learners gain insight into their own thinking processes (Strijbos et al., 2004). As well, group interaction exposes students to different views giving learners the chance to examine dense material from multiple perspectives.




As well, Visual Classrooms' drawing tools make it easy for students to produce the kind of visual representations that are critical in a variety of disciplines. Visual representations (photos, drawings, etc) play an especially important role in all STEM disciplines. According to Wu and Shah (2004), chemistry is a visual science and



visualisations play a major role in communicating and understanding its concepts and processes. In biology models can describe or simplify complex phenomena and facilitate the communication of ideas and concepts (Svoboda & Passmore, 2013).


**Visual Classrooms**



Chapter 8 Assignment

Please see Homepage activity for detailed description of assignment criteria

**Question 1**



What is (are) the product(s) of the following reaction:

**Question 2**



What is the product (in addition to its enantiomer) of the following reaction?

**Question 3**


**Question 4**



**Question 5**



New Prompt

Figure 1. Assignment layout in Visual Classrooms


What is (are) the product(s) of the following reaction:




1) O<sub>3</sub>  
2) DMS

New Idea

**Student #1**




03/11/2021


1


**Student #2**

You are correct because you separated the double-bond from its center and attached one oxygen on each of the new ends of the two new double-bonds in your product. You also named them correctly.

**Student #2**




03/15/2021


1


**Student #3**

My aldehyde product is not correct because I missed drawing one more carbon there, sorry about that.

**Student #3**



03/16/2021


2

**Student #1**

Your answer is correct!

Figure 2. 'Prompt and New Idea' in Visual Classrooms with student responses and feedback shown below

## How could others implement this idea?

Peer feedback is an effective pedagogical strategy to teach students the metacognitive skills of critical thinking, giving and receiving feedback, and taking responsibility for their own learning. It can be implemented by instructors teaching any discipline. The key is creating feedback rubrics to support students as they construct their own useful formative feedback and develop a sense about what ‘good work’ looks like. The following workflow diagram outlines step-by-step instructions on how to implement:

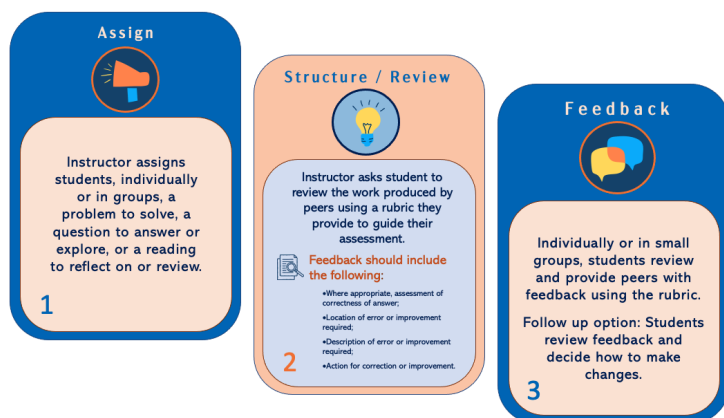


Figure 3. Pedagogical flow of Visual Classrooms assignments

In our case, students were given detailed instructions/rubrics to guide them in how to provide feedback. It focused on explaining their reasoning. In addition to solving the problems, students were asked to provide feedback to peers. Two types of feedback were requested: feedback in which they had to choose a correct answer and explain why it was correct and feedback in which they chose an incorrect answer and also explained why it was incorrect. In case an incorrect post was not found available, students were asked to

explain what type of modifications they would add to the answer/post to make it incorrect. Also students were encouraged to provide not only written feedback but also draw structures – which is a critical part of learning organic chemistry. Finally, moderators were utilised to review the feedback and flag issues that required instructor attention.

This approach can be used without technology but it is certainly easier and more effective to provide timely feedback as a formative assessment tool for both students and instructors.

**Create a Lewis structure which contains C, H and either N or O. Include either a double or triple bond.**

**Student 1**

12/24/2020

**Student 2**

This Lewis structure is correct because all atoms have an octet.

12/24/2020

**Correct Feedback**

**Student 2**

12/24/2020

**Student 3**

12/24/2020

**Student 1**

This Lewis structure is incorrect due to violation of the octet rule on the oxygen atom which has 10 electrons around it. To make it correct, a lone pair of electrons has to be removed from the oxygen.

12/24/2020

**Constructive Feedback**

**Student 3**

12/24/2020

**Student 1**

The provided Lewis structure is correct. It would be incorrect if a lone pair of electrons was added on the carbon atom. This change would give carbon 10 electrons; therefore, it would be in violation of octet.

12/24/2020

Figure 4. Example 'Assignment Question' with types of feedback differentiated using colour boxes

**Student #1**

Last Wednesday at 1:04 AM

1

**Student #2**

Your answer is partially correct.

a) There should be 5 lone pairs and I don't see the one around N if my eyes serves right.

b) sp<sup>2</sup> on C which have bond to 3 other atoms. You're partially correct.

c) Correct! there are 28 sigma bonds and 4 pi bonds.

Last Wednesday at 3:21 AM

**Student #1**

Oh right! Thank you for pointing that out.

**Student #2**

This looks correct except...

there are 28 sigma bonds vs 27, sigma bonds are all the single bonds and the first of the double and triple bonds.

Everything else looks correct!

There are 4 pi bonds

The lone pairs are correct since you made sure to fill the octets of N and O

Lastly, the hybridization looks correct as well, since you made sure all your atoms with steric number of 4 had an sp<sup>3</sup> hybridization and atoms with a steric number of 3 had sp<sup>2</sup> hybridization.

Peer visually points out errors

Figure 5. Students use both correct and constructive feedback

**Student #1**

02/11/2020

**Instructor**

Electrons move towards sp<sup>2</sup> hybridized carbon atoms.

please consider the red arrows and redraw the resonance structures.

02/11/2020

Instructor feedback on student post

Figure 6. Instructor uses feedback to directly and visually point out student error



## Transferability to different contexts

This approach is transferable to any content area with Visual Classrooms or without for both online and face-to-face instruction. It is especially beneficial for online learning where finding ways to help students remain engaged with both the content and each other becomes even more critical.

## Links to tools and resources

- <https://visualclassrooms.com>
- [demo.visualclassrooms.com](https://demo.visualclassrooms.com)

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# Scenario based learning: branching forms

SCOTT FARROW

## What is the idea?

Scenario-based learning (SBL) provides a learning environment where learners can confront authentic challenges similar to those they will experience as professionals' post-graduation. SBL provides realistic feedback as they progress through their learning journey. Using a digital form which provides a scenario that then has the ability to branch to another question or scenario based on the user input allows us to create digital, asynchronous scenarios which provide many benefits to learners and tutors. Relating learning in an authentic way to our own contexts provides us with a deeper learning experience (Wang et al., 2018) and also helps motivate learners to feel more connected to the content (Arnold, 2019; Farrow, 2019).

## Why this idea?

Branching scenarios are a similar concept to 'choose your own adventure' books. In branching scenarios, the narrative unfolds as the user makes a choice. They allow learners to practice real-life situations without the pressure of work-based learning, or relying on others to role play these situations. Being digital and asynchronous, they also provide the learner with the opportunity to learn on the job skills at their own pace, in a comfortable environment or revisit content (Beldarrain, 2006).

Real-life or on the job situations may be hard to come by, resource heavy or not suitable for placing students within work settings for some disciplines. Using scenario-based learning provides a safe space for instilling relevant behaviours in students.

Although planning the scenarios may be time consuming to start with, once planned they are really simple to upkeep, add or change questions and intervention points and roll-out to numerous students across different cohorts.

As a formative assessment tool, the forms give you valuable information on how students are thinking about a specific topic or subject and this allows you to revisit or adapt your teaching if required. Viewing the results page gives you the opportunity to see learner analytics on an individual level to see which concepts they are understanding, but also as a whole cohort or student group.

## How could others implement this idea?

When creating these scenarios for your own learners, think of situations which are realistic and relatable as these will provide the more engaging content. They work best with scenarios where there is an end goal but different ways to achieve the goal or not necessarily a perfect answer.

Once you have a subject and situation in mind, remember that the scenario relies heavily on the narrative which will take time to create. It is helpful to storyboard the narrative on paper – this will allow you to see the flow of the scenario as a whole, but also where you can input questions or require decisions from your learners.

Try to keep the scenarios relatively simple. Don't overload your students with lots of decisions and a lengthy narrative as you risk missing the point or behaviours you're trying to instil.

Steps for creating branching in Microsoft Forms:

1. Log in to Microsoft Forms and create a new Form

2. Click on 'add new' and choose a 'choice' question type
3. Input the question and the number of options you are giving to the learners
4. Before adding the branching, we need to add all of the questions and options, so repeat steps 2-3 for these (this is where a storyboard of the scenario helps. It is also helpful to use the 'sections' within forms to keep groups of questions together)
5. Once done inputting the questions and options, click the three dots on the bottom right of the first question and select 'add branching'
6. On this page for each option provided select the question you'd like that option to jump to. Repeat for each question.

It is helpful to learners if the question they jump to provides a little feedback or recap of the question they get to – this may be to explain why their decision has led to a more or less favourable path.

Although this example has been demonstrated within Microsoft Forms, you can also replicate this in Google Forms (see resource links below). Additionally, if you have access to content development software, you can create scenario-based learning by formatting buttons within the content to jump to different sections of the learning, although this may be more time consuming.

## Transferability to different contexts

Branching scenarios can be created to work in any given discipline as it is the narrative that provides the context and relatability to the subject. They work specifically well in subject such as health or customer services related disciplines where we're looking to instil certain behaviours, rather than teaching a specific skill or imparting knowledge. They also work best with scenarios where there isn't specifically a correct or incorrect answer, but where different options selected mean situations play out in different ways and

provide different consequences, such as taking extra time or using more resources to arrive at the same solution.

Branching forms can also be used away from scenarios to create personalised learning (McCusker, 2019). For example, subject review quizzes or formative assessments can be created using these tools, but where those who answer questions incorrectly can be given additional questions or directed down a different learning path to help them further understand concepts or those who answer all questions well can be stretched and challenged with additional materials or reading.

## Links to tools and resources

- Microsoft Forms: <https://forms.office.com/>
- Google Forms: <https://docs.google.com/forms/>
- Microsoft support – using branching logic in Microsoft Forms: <https://support.microsoft.com/en-us/office/use-branching-logic-in-microsoft-forms-16634fda-eddb-44da-856d-6a8213f0d8bb>
- Google support – show questions based on answers: Google Forms <https://support.google.com/docs/answer/141062?hl=en-GB>

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# The ‘Reflective Elevator Pitch’

DR SAMUEL SAUNDERS

## What is the idea?

A ‘Reflective Elevator Pitch’ is a short activity designed to act as either a formative or summative assessment, which requires students to consolidate a piece of work they have already completed and reformat it into a short, five-minute orally-delivered ‘pitch’ that summarises the work and identifies its key arguments, strengths, and discussion points. Rather than the traditional ‘elevator pitch’ that asks participants to think *ahead* to a new project that has potential but which has not yet been completed, a reflective elevator pitch asks participants to think about something they have *already done* and to reformat it into a new, easily digested dimension. This improves students’ understanding of the content, demonstrates (and enhances) their ability to *reconceptualise* it, and improves their capacity to reformat and deliver tailored material to specific audiences.

## Why this idea?

A particularly contentious issue in assessment in UK higher education, despite extensive study in scholarly literature, is the construction and use of feedback (Winstone & Carless, 2019, p. xii). Both staff and students often find this difficult: on one hand, staff frequently feel frustrated with the fact that they are putting a great deal of time, effort and energy into something that students often simply dismiss, while on the other, students often contend that the feedback they receive on their hard-completed work is unhelpful,

generic and irrelevant to future work (Henderson et al., 2019, p. 1237). Even within scholarly literature, there remains substantial disagreement regarding what actually constitutes 'best practice' in the feedback process; some feel that we should focus on the quality of feedback provided, others feel that we should focus on those involved in the process itself (namely staff and students), and still others feel that we should focus on the attributes that the feedback itself is designed to develop in the students (Henderson et al., 2019, p. 1237-1238).

However, since the early 2010s, discourse in academic literature has, at least, helpfully shifted towards a generally-accepted consensus that 'feedback' is an active process that can be 'actioned', rather than passively 'received', by students (Dawson et al, 2018, pp. 25-26). Both students and staff must therefore consciously engage with the feedback process if it is to truly make a positive difference: staff must provide students with feedback that both reflects on the completed work and links into a subsequent opportunity for its active re-use, so that students can demonstrate mastery of a concept, technique or idea post-feedback. Students, meanwhile, must engage with the feedback and actually account for it in their later work. A student-centred approach to feedback, such as that purported by David Carless and David Boud in 2018 in a study that explored students' feedback literacy, is correct: for feedback to make a positive difference to students' attainment, they must first understand and acknowledge the feedback they have received (Carless & Boud, 2018).

The largest issue even with student-centred feedback, however, remains the disconnection between staff and students throughout the feedback process. Staff often mark work and provide feedback to students in written comments, which students then collect (either physically or digitally) to absorb at their leisure. It is infrequent, bordering on rare, that staff and students will come face-to-face to discuss completed work, in a discursive forum that works through the comments or piece of work and allows understanding between the two parties to flow freely.

The 'reflective elevator pitch' is designed to alleviate this issue, by providing a forum for students to self-reflect on their work, allowing students to actively use their feedback in both constructing their pitch and delivering it, and giving students an opportunity to demonstrate exactly how they have taken their feedback into account to their tutors. It is, in essence, a route into the feedback/feedforward 'process' for students, encouraging them (or, if used as a mandatory assessment, *forcing* them) to reflect on their completed work and reconceptualise it using their feedback in an active process.

## How could others implement this idea?

The 'reflective elevator pitch' is a relatively easy exercise to set up:

Identify a module, course or discipline where students already complete a longer piece of work that has a number of different dimensions or questions that need to be answered. This could be, for example, an extended essay, a research project, or other long-form assignment that has a substantial weighting attached to it.

Place a 'reflective elevator pitch' activity onto the same course *after* the long-form assignment has already been completed. This can take the form of either a formative activity that takes place in lieu of a formal class, or a summative second assignment with a necessarily-lighter weighting (say, 30% vs. 70% for the original piece of work). The latter option of a summative assignment is more likely to encourage students' participation, but may have more administrative hurdles to overcome.

Ensure that the pitch is placed a sufficient distance from the first assignment: if it is placed too soon after it, students will not have had the time to properly engage with the feedback and rework the assignment into the pitch. Conversely, if it is placed too far, students may lose focus on the piece of work they are revisiting as they will simply have moved on.

Set up 10-minute appointments for students to attend, organised however you wish (alphabetically works well). 10-minute slots are optimal to allow for set-up and take-down time, particularly if students have presentations to share. See students one at a time, invite them to deliver their pitch, note the strengths and weaknesses on a pre-designed form, thank the student, and dismiss them.

It is good practice to have two members of staff on the 'panel' for the pitch: the module tutor (naturally), and an 'external' member of staff with whom the students are unfamiliar. This could take the form of the second marker for the exam, or any member of staff with sufficient distance from the course. This is to ensure that students will focus on reworking their ideas into a format that a 'lay-person' can understand.

Follow the pitch up with a mark/comments or other feedback format as you see fit. Do remember that this exercise is designed to constitute engagement with/active consolidation of feedback itself, and thus feedback at this stage can, and perhaps should, be necessarily limited.

## Transferability to different contexts

The assessment method is surprisingly relevant to most disciplinary contexts, as almost every discipline will include at least one longer piece of work where students have been required to think conceptually, answer complex questions and/or perform a piece of primary research – even if this is a dissertation at the final stage of a course. Perhaps the most helpful aspect of this exercise is that it is discipline-less, designed to allow students of any subject a chance to rethink something that they have completed and 'pitch' it to their examiner(s) in a digestible, understandable format.

However, there are also excellent uses for this exercise outside of teaching at HE – it can also be used for CPD exercises and

staff development activities, as a research-sharing exercise at conferences or symposia (should staff be organising or delivering material in this forum), as a recruitment exercise at assessment centres or interviews, as a progress-sharing activity for doctoral students or research-masters students, or even as a simple personal development exercise on an individual level. Indeed, when used introspectively in a personal context, rewriting a piece of work into a five-minute pitch can help break through mental barriers, and ensure that your material is easily-understood, concise and has an understandable argument.

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# Using Active Engagement Assessments (AEA) for active learning

PATRICIA PERLMAN-DEE



## What is the idea?

Traditional assessment for learning, provides information about student achievement at a certain point in time, but often has little effect on learning. However, assessment as learning develops and supports students' metacognitive skills, so thinking about thinking is crucial in helping students become lifelong learners (Dann, 2014).

Therefore, creating assessments using ‘active engagement assessments’ (AEA) creates an active and engaged learning process that caters much more for diversity amongst different student’s learning styles. This could be put in contrast to arguments that in-class participation needs to be carefully considered for different learning styles (Crosthwaite et al., 2015).

By making ongoing smaller exercises, activities, projects and role-plays to be summative assessments instead of formative assessment, students’ level of engagement and learning process is much more active learning.

## Why this idea?

In the teaching environment where words like ‘flipped classroom’, ‘hybrid teaching’ and ‘lifelong skills’ are constantly buzzing, many educators find themselves with common problems;

- to get the students to engage with the set material, both pre-read and ongoing;
- to get students to prepare for workshops and seminars; and
- the cramming and panic studying before the final exam.

These are not new problems, but they certainly have become more noticeable and created a larger impact on student learning over time.

The usage of AEA as summative assessment will make the majority of students engage with the material and therefore undertake an active form of learning. Students do not hesitate to engage because by doing the set task, this will contribute to their final grade. There is a reward for engaging with the material and to complete the set exercises. We have found that the reward approach works a lot better than a ‘penalty’. Students do not seem to be too bothered about being ‘found out’ of not having done a set exercise as there is



no immediate implication of this behaviour and at this stage – they still think they can ‘cram’ for the exam.

A number of surveys have been done by the author on students’ perception of their own learning, having completed AEA on specific courses. For example; A number of quizzes were compulsory on a specific course. Over 71% (20/28) of the students stated they would have been less likely to do the quiz if it didn’t impact their overall grade. What was even more telling was the fact that 95% of the students felt that making the quizzes part of their grade was useful for their overall learning, implying engagement fosters active learning.

## How could others implement this idea?

The author has used many types of summative engagement exercises in her courses. The academic literature (Gibbs & Simpson, 2004) discusses 11 conditions under which assessments support learning, where two are particularly relevant; Condition 2: ‘These tasks are engaged with by students, orienting them to allocate appropriate amounts of time and effort to the most important aspects of the course’ (p. 14) as well as Condition 3: ‘Tackling the assessed task engages students in productive learning activity of an appropriate kind’ (p. 14).

Therefore, the initial starting point to implement summative AEA is to make sure part of the overall grade is allocated to the active engagement assessment exercises. You may need to go through internal and external approval for this so make sure you factor in this time. Also be prepared to answer very specific questions on why you think it is appropriate to allocate marks for AEA as some institutions do find that it’s a bit of a ‘free ride’ without actually having had any experience from the benefits this can generate.

Depending on how much flexibility (and time) you have as an

educator, I would suggest allocating between 10-25% of the overall course grade to the engagement assessment.

The next step is to decide what type of AEA you think would be appropriate for your course or program. It is important to keep in mind the purpose of the AEA: assessment as learning. A main tip is to try to make sure the AEA is manageable for the educator/lecturer to handle.

The step that often takes the longest is the 'pre-set up'. This is where you think and act on your AEA; how you will structure them, how do you arrange for the marking, how do you set them up in the VLE to make sure they are counted towards the grade, how do you minimise the possibility for human error (ie for example transfer points, signatures etc.) when calculating the grades. You are likely to end up with quite a few 'columns' of grades, so it is important to get the set up right.

Looking at quizzes in particular, there are a few things to consider.

- Will the actual score on the quiz matter? From surveys done by the author, she found that 100% of the students agreed to the statement: 'because the actual score on the quiz was of less importance, they used the quizzes to learn and understand to some extent where they needed to study more'.
- How many times will you allow the students to take the quizzes? Initially, the author had set up for students to take the quizzes only once before 'submission date'. However, at every occasion that quizzes have been used as AEA, the educator/course leader has been asked if they could 're-open' the quizzes for further practice. Statistics on course evaluations shows that more than 50% of the students had retaken the quizzes at least once, others twice
- Will you require students to have completed certain reading/preparation before attempting the quizzes? This depends on how you would like to use the quizzes and what you have decided on the above. The author's study shows that 10% of

the students that attempted the quizzes had not looked before, 60% has looked over the material and 25% had studied extensively

In the below tables you will find two examples of types of AEA with different weightings allocated (25% and 15%) as a proportion of the overall course mark. The examples below have also suggested some possible AEA to include and their allocated mark.

<b>EXAMPLE</b>	
<b><i>25% EA - 25 possible marks</i></b>	
<b>Quizzes</b>	10 quizzes - worth 0.5 mark each - total 5 marks
<b>Workshop attendance</b>	4 workshops, each attendance 0.625 marks - total 2.5 marks
<b>Simulation exercise</b>	2 separate simulation exercises -1.25 mark each - total 2.5 marks
<b>Workshop exercise</b>	In pairs- complete a larger exercise (and be prepared to present and share) -6.25 marks
<b>Active participation exercises</b>	6 individual smaller exercises to be completed, uploaded and shared as 1.46 per exercise 8.75 marks in total

<b>EXAMPLE</b>	
<b>15% EA - 15 possible marks</b>	
<b>Quizzes</b>	8 quizzes - worth 0.375 mark each- total 3 marks
<b>Workshop attendance</b>	5 workshops, each attendance 0.6 marks- total 3 marks
<b>Simulation exercise</b>	3 separate simulation exercises - 1 mark each - total 3 marks
<b>Workshop exercise</b>	In pairs- complete a medium exercise (and be prepared to present and share) - 3 marks
<b>Peer review</b>	Submission of completed peer review sheet - 3 marks

## Transferability to different contexts

AEAs could be used in any education setting and for any subject. Each subject will have certain AEAs that will be more appropriate. However, using quizzes as AEA is highly applicable in all settings and can very easily be adapted. Workshop or seminar attendance is also highly transferable for any course that has synchronous learning. Active engagement exercises are all about breaking tasks down into smaller chunks and building up the learning. This supports the author's argument about engagement fosters active learning. This is good pedagogical practice and with using summative assessment, the engagement and learning is aligned with condition 3; from Gibbs and Simpson (2004): 'Tackling the assessed task engages students in productive learning activity of an appropriate kind' (p. 14).

## Links to tools and resources

The below links gives examples and show where to find some useful resources to get started with AEA.

- <https://www.dropbox.com/s/iuf2gwrluiyafvh/New%20Assessment%20Ideas%20vers%20130920.pdf?dl=0>
- <https://documents.manchester.ac.uk/display.aspx?DocID=29314>
- [https://help.blackboard.com/Learn/Administrator/SaaS/Tools\\_Management/Attendance](https://help.blackboard.com/Learn/Administrator/SaaS/Tools_Management/Attendance)
- <https://improvingteaching.co.uk/2018/04/22/step-by-step-using-behavioural-psychology-to-break-tasks-down/>

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## Image Attribution

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## About the Author



### Patricia Perlman-Dee

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[https://www.research.manchester.ac.uk/portal/en/researchers/patricia-perlmandee\(477bb4e8-0464-4cfa-adff-c74dc472fc86\).html](https://www.research.manchester.ac.uk/portal/en/researchers/patricia-perlmandee(477bb4e8-0464-4cfa-adff-c74dc472fc86).html)

Patricia Perlman-Dee is Senior Lecturer in Finance, Alliance Manchester Business School, University of Manchester.

She has extensive experience working in large financial corporations: Citigroup, JPMorgan, Nomura and Barclays in Manchester, London and New York.

Patricia has created and teaches a range of courses across UG, PG, MBA and ExecEd.

In 2021, 2020 and 2019, Patricia was awarded the Faculty of Humanities AMBS Outstanding Teaching award.

# Active Learning and the use of discussion forums as summative assessment for online teaching

DR MARTA VIANYA-ESTOPA



What is the idea?

The COVID-19 pandemic forced academics involved in clinical courses to quickly re-evaluate the content of face-to-face sessions. Due to the restrictions imposed by the pandemic, materials that can be learnt independently by learners should be explored outside of face-to-face sessions. This shift in learning has resulted in many

benefits that would continue to be used for online teaching. I will explore how properly designed online discussion forums can offer advantages and can be used to contribute to summative components of clinical modules. For example, students self-learning and researching specific questions can help others in the same class. I will also highlight what needs to be considered when setting up and managing discussion forums online.

## Why this idea?

This idea focuses on the use of online discussion forums to increase active learning in an optics base module. Clinical skills can be embedded in a variety of ways, depending on whether learning can occur independently by students or in collaboration with others. Bloxham and Boyd (2007) suggested that assessment activity in higher education is the main learning activity. In other words, students engage with materials when faced with assessment tasks. Those involved in the design, delivery and assessment of clinical courses might need to consider the value that non-traditional assessment tasks such as remote online discussion forums offer to their courses. Asynchronous online discussion forums promote reflection of learning and connect students (Benbunan-Fich & Hiltz, 1999) making them ideal to scaffold learning of clinical skills. In addition, they can also offer the following benefits:

- Promotes the development of written communication skills.
- Gives choice as part of the summative assignment. This in turn might improve students' learning and promote fair assessment of a diverse student population (Bloxham & Boyd, 2007)
- Allows the use of visual resources (videos, websites) for topics that students may find particularly uninteresting.
- Establishes a sense of community.
- Offers a variety of assessments to modules within a course.




- Helps monitor continuous engagement with the module (as contributions are time-limited).
- Helps address any misconceptions in a timely manner rather than at the end of a module (as opposed to students submitting a traditional assignment with no opportunity for formative feedback).

Despite these benefits, some may find online discussion forums difficult to run but recent research shows strategies to help mitigate these difficulties (Lima et al, 2019).

## How could others implement this idea?

This idea could be used in a range of contexts (not just clinical courses) as it allows flexibility and variety depending on the module requirements. For example, it can help assess students' prior knowledge before covering a topic in class or help create a repository of exam questions for revision purposes (if students are asked to create and discuss MCQ questions on specific topics). In addition, discussion forums help to keep students at the centre of their learning and create a sense of community offering an opportunity to engage with other students in the cohort. Most learning management systems will accommodate the use of online threads (e.g. Canvas, Blackboard, Moodle). Please see an example of a discussion thread showing how students are encouraged to engage with the topic (Figure 1). Students' feedback shows that they have fun engaging with others in this way.



**Trimester 2 weeks 5 and 6**

Dr Maria Vlayva-Estopa  
All sections

Published


Edit

14 Jan at 17:20

This fortnight your contributions will focus on how you triage patients with potential contact lens complications in your practice. Also reflect on the following whilst engaging with this thread:

- Can you see any constraints in your current protocols?
- Are you asking relevant questions?
- If you were educating a new member of staff what would be your top three priorities?

You can upload your triage sheet here if it helps with your discussion.

 Add your contributions to this thread. Remember that participation on this discussion thread is compulsory as part of this module. You will need to:




-  post **one comment** and **one reply** to someone else in the thread
-  This post will be close for contributions on **28th February 5pm**
-  Just a reminder than students are expected to abide to conventions of online behaviour, particularly by respecting others and be forgiving of other's peoples mistakes. Your contribution will also need to be unique (and can not be a repeat of someone else's contribution).

Figure 1. Example of a Discussion thread on Canvas

To implement this idea in your own context, follow the following steps:

1. Decide which aspects of your course will benefit from independent research by the students and select those that work best in the context of a discussion forum.
2. Plan a variety of questions for each discussion thread. For example, you can start with a scenario, followed by some questions suggesting students to contribute in a variety of ways (e.g. explore relevant literature, websites, videos).
3. Decide the frequency of discussion forums in your module (e.g. compulsory participation in discussion threads every fortnight). For asynchronous discussion forums you will also need to consider how long each discussion thread will be open for contributions and expectations from students (i.e. how many student contributions are required in terms of new posts and/or responses to previous posts).
4. Review whether the discussion forum aligns well with learning outcomes and other sessions in the module (i.e. does it align with content provided in previous lectures).

5. Set clear rules regarding participation (e.g. contributions need to be unique) and online netiquette (including respect to others and forgiving other's mistakes).
6. Decide who will monitor the discussion (and how often). For small class sizes, you may need to set time aside weekly to respond to contributions and for large cohorts you may need to assign this role to students.
7. Decide and share your marking scheme and weighting of contributions. An advantage of discussion forums is that it allows to mark contributions during the trimester. In addition, it will also help you identify students not engaging with your course early on.
8. Include a 'test' discussion thread – to allow students to familiarise themselves with the technology (e.g. uploading an image/video) and requirements.

## Links to tools and resources

You can find several online resources offering tips on how best to use discussion boards. Consider reviewing the following before you start:

- De Montfort University Leicester: <https://celt.our.dmu.ac.uk/blackboard/blackboard-how-do-i/blackboard-course-management/blackboard-ways-of-collaborating-2/create-a-discussion-board-forum/interactive-teaching-using-discussion-boards/>
- Advance HE: <https://www.advance-he.ac.uk/news-and-views/designing-learning-and-teaching-online-role-discussion-forums>
- Video – The art and science of discussion forums (Times Higher Education): [https://www.youtube.com/watch?v=Mc6\\_fYq41S8&t=193s](https://www.youtube.com/watch?v=Mc6_fYq41S8&t=193s)



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=1390#oembed-1>

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Figure 1. Screenshot – Example of a Discussion thread on Canvas by Marta Vianya-Estopa is used under CC-BY 4.0 Licence

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Dr Marta Vianya-Estopa teaches in various modules within Optometry and Ophthalmic Dispensing courses. Although her main research is in the area of contact lenses, she also has a strong interest in how best to integrate active learning when teaching optics related courses.

# Assessed presentations to a non-expert audience

ISOBEL GOWERS

## What is the idea?

When we talk about active learning it is also important to discuss how we are going to assess this learning. We want students to be able to go beyond regurgitating facts, we want students to develop communication skills they will need for work, so we need to think about what assessments we use to enable this to happen. In this idea, students had to take technical information and present it to a lay audience. It meant that the students needed to think deeply about the content to include the right amount of background and to keep technical jargon and academic speak to a minimum, whilst still correctly conveying the information in an engaging and informative manner.

## Why this idea?

Many of our graduates will work in multi-disciplinary teams and need to converse or write for a range of audiences with a varying level of knowledge. In my experience exams and academic essays do little to prepare students to do this, so I was looking for an alternative form of assessment. As Race (2014, p. 90) put it: 'There is often a considerable gap between what we get learners to do in our assessment and what they will need to be good at throughout their careers'.

Exams and essays often require students to communicate in an

academic style, not in a way they will need to communicate in their professional life. Through using these presentations to a lay audience I wanted to assess both the students' knowledge and application of the content but also their ability to communicate in a method appropriate to their future professional career. I also wanted to use authentic assessment as there is evidence that this increases both students' engagement with learning and their satisfaction, recently reviewed in Sokhanvar et al. (2021). There are a number of slightly differing definitions of authentic learning available in the literature but for me the definition of Gulikers et al., (2004 p. 69) sums it up nicely as: 'An assessment requiring students to use the same competencies, or combinations of knowledge, skills and attitudes that they need to apply in the criterion situation in professional life.'

I used this idea when teaching equine behaviour and veterinary physiotherapy students. In both cases they will need to work with both veterinary surgeons and other professionals as well as horse owners. Secondly, they will often be self-employed and need to be able to market themselves. Therefore, getting students to present technical information to a non-expert audience not only encouraged application of complex knowledge and critical thinking in selecting what detail needed to be presented but also provided a scenario that they might find themselves in once they have graduated.

One of the criticisms other academics have directed at me is that students do not have the opportunity to develop the assessment literacy skills they need if you keep changing the format of the assessment. I disagree because one of the first things I do when designing these types of assessment is to include the chance to engage with the assessment criteria and include lots of formative opportunities. The two methods of engaging students with the assessment criteria I most frequently use are getting students to mark three examples of students work against the assessment criteria and then having a discussion to see what marks were given

in line with the criteria. The second is getting students involved in writing the assessment criteria once they know what the task is.

I used two specific formative exercises. The first was following a taught session where they used the practical time with the horses to make a short video that presented the technical content from the session to a public audience, for example a video that could be used on their website or video channel (YouTube, Vimeo etc.). I provided them with some example videos from other specialists in their area. The students completed the videos in class and they were shared via the VLE where they had to provide peer feedback. The second was a journal club activity, where in small groups they had to present a recent academic paper to their fellow students, making sure that they presented all the technical information from the paper in a way that all their fellow students could understand. In both cases this gives students the opportunity to practice communicating in this alternative manner that is often unfamiliar to them and secondly it provides opportunity to get feedback from their peers as well as the tutor.

## How could others implement this idea?

Think of a scenario where your graduates might have to present technical information to a non-expert audience. This might be the public or other areas of a company or industry. It doesn't necessarily need to be a presentation; it could be an alternative form of writing such as a magazine article or technical bulletin if that is more appropriate to your discipline.

Think about what learning activities you could do in class that will help students learn the content alongside the skills they need to complete the assessment. This might include exercises to think about the language used to communicate to different audiences, I have previously had students compare language used in newspapers, magazines and journal articles. Another exercise that



can be used is students doing short in class presentations explaining a single complex and technical idea so that others can understand it. The students in the audience can provide peer feedback on whether they understood the content but also on how engaging the presenter was.

## Transferability to different contexts

This idea could be used in many different subject areas and at all levels (I have used at levels 5,6 and 7). It doesn't necessarily need to be a presentation, it could be an alternative form of writing such as a magazine article or technical bulletin or it could be a video, podcast or something similar if that is more appropriate to your discipline. The key behind the idea is that the students need to share complicated and maybe technical content in a way that is understandable to a non-expert audience. To be able to communicate well on the topic students have to have developed a good understanding of the topic and the depth and breadth of their research is evident in their delivery even though this is not received in a typical academic form.

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## About the Author



### Dr Isobel Gowers

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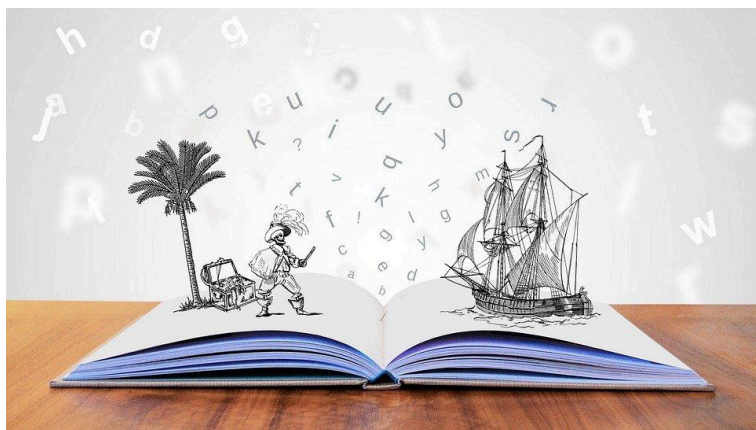
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Throughout Dr Isobel Gowers' teaching career, she has been interested in active learning. Initially using techniques such as problem based learning in her teaching but gradually increasing her repertoire of active learning methods. After 10 years as a lecturer Isobel shifted to educational management and currently works to promote active learning at ARU.

# Story Game-Based Learning

TAB BETTS



## What is the idea?

This chapter will introduce the idea of Story Game-Based Learning (SGBL). The approach starts from a fanciful question: What if academic courses were designed as story-based games? This leads on to a more serious educational question: Is it possible to improve the learning experience by using story and game elements as tools to enhance the course content and learning design? In trying to answer this second question, Malone and Lepper's theory of intrinsically motivating instruction (Malone, 1980, 1981; Malone & Lepper, 2021) suggested three components which should be incorporated to enhance learning design:

- A problem-solving challenge with an uncertain outcome, where

the challenge-skill balance is adjusted on an ongoing basis to meet the needs of your individual learners (challenge)

- An aesthetically pleasing sensory experience, using mystery and gradual revealing of knowledge to stimulate aesthetic and intellectual curiosity (curiosity)
- A shared narrative or problem-solving scenario within which the learning is contextualised (fantasy)

This chapter will explore how these elements can be incorporated into the key stages of the learning process using story-game design, assessment and activities.

## Why this idea?

There is a growing argument that stories and games are invaluable tools for motivating learners (e.g. Abbott, 2018; Squire et al., 2008; Williams et al., 1999; Zhang & Shang, 2015). With the success of video games to capture the imagination of society and the way in which visual storytelling platforms such as Netflix and YouTube have enthralled the public consciousness, these communicative modes clearly have something to teach us about engagement. In recent years, a wide range of research has emerged which supports the idea of game-based learning and storytelling in education (e.g. Abbott, 2018; Bitskinashvili, 2018; Malone & Lepper, 2021; Sidhu & Carter, 2021; Sidhu et al., 2021; Zhang & Shang, 2015).

## How could others implement this idea?

Games and storytelling can be incorporated into almost every stage of the learning process. You may wish to start by experimenting

with one or two of these, rather than trying to adopt them all in one go.

**Story-game design** – The principles of Story Game-Based Learning could be used to revise the overall design of the programme or module. This links closely to Malone and Lepper's (2021) ideas of challenge, curiosity and fantasy, but also constructive alignment (Biggs, 1996; Biggs & Tang, 2011) and scenario-based learning (e.g. Errington, 2005; Smith, Warnes & Vanhoestenbergh, 2018). The first step is to choose an immersive story setting – a scenario, a setting, a protagonist, a goal, obstacles to achieving that goal, etc – which can map onto the existing intended learning outcomes (ILOs), assessment tasks (ATs) and teaching activities. For example, if you are teaching a module on computational linguistics, you could use a story about a young PhD student (protagonist) who wants to uncover the truth about an incorrect ruling in a murder case, by using their skills in forensic linguistics to investigate a database of court case transcripts (goal), but they are working as a research assistant for a well-established professor who, for some unknown reason, is trying to cover up this case and divert the PhD student's efforts towards an unrelated research topic (obstacle). Learning design could be based on established models of storytelling, such as Joseph Campbell's *The Hero's Journey*, Maureen Murdock's *The Heroine's Journey* or Dan Harmon's *Story Circle* (see Figure 2 below).

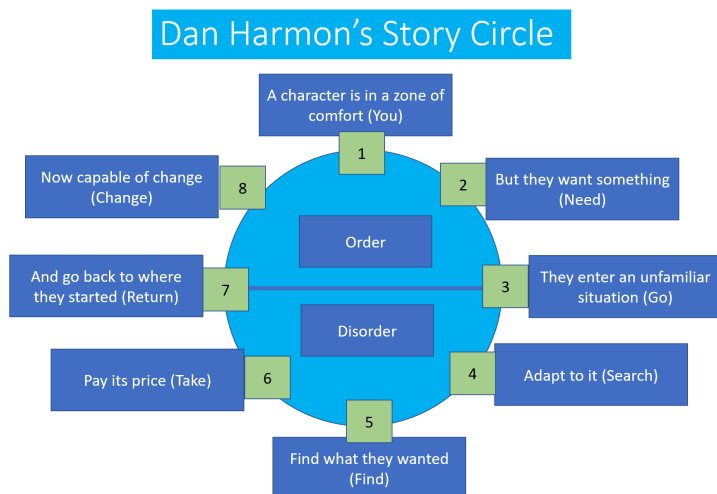


Figure 2: Dan Harmon's Story Structure Circle: 1 A character is in a zone of comfort (You); 2 But they want something (Need); 3 They enter an unfamiliar situation (Go); 4 Adapt to it (Search); 5 Find what they wanted (Find); 6 Pay its price (Take); 7 And go back to where they started (Return); 8 Now capable of change (Change).

**Story-game assessment** – In Story Game-Based Learning, the assessment of the programme or module should link to the ILOs and immersive story setting, so that the learner's goals are intentionally aligned with the goals of the protagonist. For example, in a film studies module about film noir, I created an assessment where learners acted as a detective to assemble a portfolio of evidence based on a murder case from the film they were studying. This evidence was discovered through exploring a choose-your-own-adventure webquest that I constructed and learners' own self-directed research. Assembling this evidence required them to achieve the learning outcomes along the way, whilst helping the protagonist to achieve their goal of solving the murder case.

**Story-game activities** – One key component of Story Game-Based Learning is small group activities (with 2-6 learners per

group) called story-games, in which learners engage in collaborative storytelling to explore scenarios and solve problems aligned to the ILOs and the topic they are studying. This draws on Malone and Lepper's (2021) ideas of fantasy, challenge and curiosity, but also the use of roleplay and drama in education, and mechanics from tabletop games, such as *The Ground Itself*, *Call of Cthulu* and *Dungeons & Dragons* (Abbott, 2018; Daniau, 2016; Lean et al., 2018; Sidhu & Carter, 2021; Sidhu et al., 2021). In these tasks, learners 'play' together for a fixed amount of time and take on different roles.

Learners start with a scenario based on a real-life situation related to the topic of study. One or more of the learners will take on the role of *Storyteller-Troublemaker*, while the remaining learners act as *Character-Problem-Solvers* who each control the actions of one of the characters in the story-game. The *Storyteller-Troublemaker*'s responsibility is to set the scene of the scenario and provide the other learners with a problem for their characters to solve, adding new problems each time the story evolves as a result of decisions the *Character-Problem-Solvers* have made. Maintaining the level of challenge is key. The *Storyteller-Troublemaker* controls this by responding to the actions of the *Character-Problem-Solvers* within the story world, adjusting the problem/challenge and level of difficulty in order to keep them engaged. Success or failure in tasks is decided by the *Storyteller-Troublemaker*, based on application of knowledge/skill (their assessment of the decisions and solutions suggested by the group), as well as elements of luck (e.g. dice, spinners, cards, random numbers generators, etc) introduced to randomise certain outcomes within the scenario, such the *Character-Problem-Solvers* trying to perform a particular action or take a risk within the story world.

After the story-game, the group engages in peer reflection and assessment, summarising their learning and identifying strengths and areas for development in their approach to the scenario (captured via an online survey or collaborative document). They then rejoin the whole class to share findings, either feeding back verbally or simultaneously writing their reflections in a shared

space (e.g. a Padlet wall, collaborative document or collaborative whiteboard). At this stage, learners can ask any unanswered questions which arose during the process, then make suggestions/predictions about how the scenario should evolve in the next episode of the story. Finally, the class reviews the extent to which the ILOs were achieved and summarises key takeaways.

## Transferability to different contexts

Story Game-Based Learning could be adapted to a variety of different disciplines and learning contexts. The key would be in choosing the right stories and scenarios, adjusting the level of challenge and tailoring aesthetic and intellectual curiosity to fit the needs of your individual learners. Because of this, it may be useful to begin by consulting the learners about what kind of stories and/or games would help them to understand and relate to the subject content.

## Links to tools and resources

- The Ground Itself: <https://everestpipkin.itch.io/the-ground-itself>
- Call of Cthulu: [https://en.wikipedia.org/wiki/Call\\_of\\_Cthulhu\\_\(role-playing\\_game\)](https://en.wikipedia.org/wiki/Call_of_Cthulhu_(role-playing_game))
- Dungeon's & Dragons: [https://en.wikipedia.org/wiki/Dungeons\\_%26\\_Dragons](https://en.wikipedia.org/wiki/Dungeons_%26_Dragons)
- Joseph Campbell's The Hero's Journey: <https://orias.berkeley.edu/resources-teachers/monomyth-heros-journey-project>
- Maureen Murdock's The Heroine's Journey: <https://libguides.gvsu.edu/c.php?g=948085&p=6857313>



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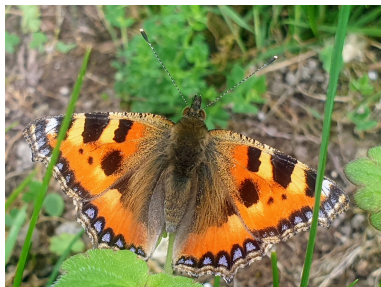
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# 5 TEACHING STRATEGIES



*Small tortoiseshell butterfly*

*“Education is not the filling of  
a pale but the lighting of a fire”*

**~ W.B. Yeats**

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# Introduction to teaching strategies

DR CHRISTINA MAGKOUFOPOULOU; DR ALICE CHERESTES; DR  
LESLIE SCHNEIDER; AND DR ANDREW MIDDLETON

Active learning as described by educational researchers is based on the fact that learning is an active process, and that different people learn in different ways. As suggested by Meyers and Jones (1993), students learn best when the learning process is achieved by doing and Kolb's (1984) learning style inventory also reassures that 'doing' plays a major role in the learning cycle. Active learning teaching techniques can provide students with greater responsibility for their own learning. The teacher assumes the role of a facilitator by creating an environment conducive for active learning. This approach fosters several attributes: flexibility, creativity, pro-activeness, appropriate decision-making, effective communication. When active learning teaching techniques are used, didactic sessions can be an effective tool to contextualise content, explain difficult concepts, and improve student learning from simply remembering to applying and analysing (Anderson et al., 2001). Active learning teaching techniques are effective because they require students to engage in thought processes that elicit their preconceptions, think about concepts in multiple contexts, define their learning goals, and be metacognitive with their own learning progress (Johnstone, 1997; National Research Council, 2000; National Research Council, 2012). Pedagogical approaches that foster active and collaborative learning can enhance student learning, attitudes, self-confidence and persistence in their educational paths (Dunkle & Yantz, 2021; Laursen et al., 2019).

In this section, we have collated chapters that address a variety of active learning strategies that can be used within the classroom and

beyond and we have identified three main themes: active learning strategies, playful learning strategies and learning strategies that are based on co-creation.

## Active Learning Strategies

The classroom needs to be perceived as inviting and conducive to learning from the first time the student enters it. To this extent Kirby describes the importance of using icebreakers to help students feel less anxious about voicing their opinion. Weekly ice breakers, at the beginning of class, help students engage with other fellow students which ultimately builds social support and student engagement. Using icebreakers on a regular basis also establishes a behavioural prompt that learning is starting.

Studies clearly indicate that engagement between students and instructors positively affects learning. Learning requires 'educational practices that engage students across disciplinary boundaries in learning experiences that tackle real problems, allow for application of course content to those problems, and lead to sustained intellectual growth and a heightened sense of personal responsibility' (Groccia & Hunter, 2012). To achieve these outcomes, a student must engage with the learning process on behavioural, affective, and cognitive levels. To engage at a behavioural level, the learner must have some degree of participation or effort, and be persistent in the learning process. At the affective level of engagement, the learner must have a level of interest in the experience that results in improved motivation and enjoyment, thus establishing a level of commitment. Lastly, the learner must engage on a cognitive level displaying a degree of mental activity, processing thoughts about the experience that should result in the ability to cognitively process the experience and establish linkages to previous experiences. Moran proposes a novel method of engaging students, a model adapted from career guidance and



counselling. The four step approach of clarifying, exploring, evaluating and action planning leads to a collaborative active learning structure.

Cooperative learning provides opportunities for problem solving, discussion, and consensus building in an educational environment. This is distinctly different from other types of group sessions in that it requires face-to-face interaction, individual accountability, group processing, and positive interdependence of team members (Summers & Svinicki, 2007). Collaboration refers to activities that are related to how the group is functioning in accomplishing a task. Within collaborative learning, the responsibility for learning shifts from the teacher to the group members (Bruffee, 1995). This provides an opportunity for the group members to regulate their collaboration process. Thus, in order to reach the learning goals all group members have the responsibility to participate in the collaboration process. In the context of team-based learning, Kyrrousi describes the successful implementation of group activities, applicable in any skills-building course. Bailey further explores the use of team-based learning with a focus on the behaviours achieved at the end of the learning module.

Active Learning Classrooms are learning spaces intentionally designed to promote student-centred, collaborative, and technology-enhanced instruction and learning (Beichner, 2014). These spaces have a few typical features such as round or curved tables (pods) with moveable seating that allow students to face each other and thus support small-group work. Magkoufopoulou invokes active learning strategies and outcomes with an emphasis on the role that the physical learning space affords.

Dale et al. describe the use of object-based learning as an active learning teaching technique. This method involves the active integration of objects into the learning environment and their role in the acquisition and dissemination of subject-specific and cross-disciplinary knowledge, observational, practical and other transferable skills.

Active Learning curriculum require students to approach their

studies in new ways. In John Robinson's chapter she introduces project management techniques that help students to engage effectively with the active learning tasks that they are set.

Those chapters provide a wealth of ideas on how to create a supportive learning environment, where collaboration can flourish through the use of the physical and online learning space and the use of artefacts and objects, among others.

## Playful Active Learning

Over the past decades, higher education has been highly focusing on metrics as a measure of success that results in high pressure both for academics and students. To counter this, over the last few years there has been a rise in gameful approaches in higher education that aim to enhance student engagement and satisfaction and alter the mind-set of students, where the importance of failure is recognised (Nørgård et al, 2017).

Within this section, we have included a selection of chapters that discuss how play and playfulness are an important part of active learning. They reflect the theoretical perspectives of active learning and distributed cognition and some were guided by principles from Computer Supported Collaborative Learning (CSCL) (Johnson et al, 2000). The contributions are aligned with Vygotsky's (1978) socio-cultural theory on human learning which describes learning as a social process that occurs during social interaction among individuals. The theoretical basis provided by social constructivism is strengthened by the theory of distributed cognition which Bell and Winn (2000) define as a person's individual cognitive acts plus the augmentation of other people, external devices, and cultural tools. In other words, cognition includes both the social and physical environments. The production of physical artefacts as in Lego constructions, puzzles, or paper fortune tellers present opportunities for learners to work collaboratively and provide

student work for class-wide viewing and discussion. CSCL complements this view, allowing for the design of environments and activities that both increase student content knowledge and foster work-life skills, such as collaborative problem-solving with shared understanding and decision-making (Means et al., 2013; Scardamalia & Bereiter, 1994). Group interaction exposes students to different views giving learners the chance to examine dense material from multiple perspectives. Collaborative learning fosters flexibility whereby learners gain insight into their own thinking processes (Strijbos et al., 2004).

The chapters discuss a wide variety of strategies for playful active learning that is fun, authentic, and interactive. Tasler's use of Fortune Cookies and Keshishi's use of fortune tellers help learners engage reflectively with their learning. Hack explains how she uses spinners to encourage active engagement and critical thinking in an informal game-like activity where students answer questions anonymously. Active learning using Legos as described by Fox is an innovative way to build group coherence, confidence and thinking skills through peer collaboration using physical objects. Similarly, through the use of cards customised with names and features of individual components of a cell, Smith finds that students in a large setting are encouraged to cooperate and learn together. All these strategies shift students' attention away from both computer screens and the instructor, making learning student-centred. This kind of play-based learning can increase engagement and understanding by encouraging risk-taking in a safe environment.

However, gameful learning approaches can also be applied within online systems as shown by the strategies introduced by Heywood, Walker, Jewitt, and Mystakidis. The educational escape room concept as described by Heywood and by Walker describes gamification through scaffolded problem-solving to build thinking skills through peer collaboration. Students work collaboratively toward a shared goal and develop teamwork, leadership, communication, and decision-making skills. Further, Jewitt and Mystakidis et al. explain how a 3D virtual world and role playing

can enable students to practice skills such as critical thinking, collaborative problem solving, and reflection. Finally Hancock shows how attempting to create a physical model of a concept – instead of simply repeating its definition, often learnt by heart – enables students to gain an in-depth appreciation of what the concept means. Physical models can be built using cheap materials, such as plasticine. Role-play and creativity build confidence and encourage participation among passive learners.

All of these chapters describe play-based approaches that encourage active learning via collaborative activities and co-construction of artefacts – both physical and virtual – mediated by language and other multi-media tools for communicating, explaining, reflecting, and discussing. Because they are fun and engaging, the activities illustrate a pedagogically rich way to foster collaboration among students so that they can learn new concepts and practice applying them with the support of a community of peers.

## Collaboration and Co-creation

Arguably, co-creation defines active learning itself: it positions the learner as the primary agent of their learning within a social constructivist context (Vygotsky, 1962). Here, we focus more closely on pedagogies of ‘making’ and the learner as ‘participant with agency’.

For Nerantzi and Matthews acts of making and designing at scale are experienced in a Global Culture Jam (GCJ) lasting five days. This immersive ‘jam’ event creates a space of common purpose for a diverse group of educators, students and non-academic partners. Their collaboration allowed them to explore the full complexity of topics such as community, sustainability, curriculum and creativity. A challenge for co-creation is how to empower participants; a challenge heightened here by the diversity and reach of those with

an interest in the aims of the event. The authors note the importance of integrating representatives of each stakeholder group in the planning. Stakeholder involvement in the event design is relatively clear, but it remains an important consideration for the teacher when applied in the context of curriculum design: is co-creative pedagogy dependent upon student participation in the pedagogic design or is it enough simply to design activities that offer participants space for self-direction and determination? The authors also highlight the need for a destination for co-created artefacts. In the GCJ, for example, the authors created the idea of a 'GCJ museum' in which to curate and showcase some of the work generated by participants during the week.

Donnelly and Sai also consider the curation of co-created artefacts as being significant in An Active Learning 'Co-Created Ideas' Collection. Students on their online PG Certificate in 'University Teaching' generate ideas during a one-hour session in response to a set of headings framed as questions. As in the previous chapter, ideation creates an inviting divergent and generative learning context in which participants can evaluate their experience for mutual benefit. In this way co-creative learning avoids getting bogged down in detail. Donnelly and Sai's case study reflects the way that co-creation and curation exemplify a Community of Practice ethos (Wenger & Traynor, 2015), and this is heightened by the sharing of practices and repertoires through the building of a collection of useful ideas. The intention of sustaining the collection is also highlighted by the author, demonstrating how acts of curation can be a motivational force by giving contributors a real sense of shaping the future, not only their present.

Rawe, in *Chemistry Is for Everyone – A Co-Created Website Showcasing the Work of First Year Undergraduate Chemistry Students*, addresses similar ideas about how to make acts of deep learning into a profound identity-building experience. She recognises how having an authentic audience becomes an important factor for her 44 students as co-creating curators. Their autonomy comes from the options she gives her students to select

a text and to decide on how they want to collaborate. Even at this early stage, Rawe is keen for her students to identify as chemists and to address their communications skills and self-efficacy by co-constructing a showcase for family and friends.

Cardoso uses the co-creation of Rubrics as active learning tools. While rubrics are usually provided by the academic and associated with assessment, this case study argues that the making of a rubric offers a way to engage students as collaborative learners. She argues peer learning increases motivation and promotes long-term learning while establishing a co-operative, rather than competitive, ethos. As an instructional strategy, this allows students to play to the strengths of their knowledge through their co-design of the assessment rubric with participation and contribution being rewarded. Student participation and cooperation is what Logotheti achieves through student-centred, collaborative learning activities that involve students presenting (already covered or new) course materials, and supporting each other in creating the most exhaustive presentation.

In summary, within this section we have collated a selection of inspiring and authentic ideas for engaging students with their learning and allowing students to assume a leading role in the design of their learning experiences. We hope that this section will inspire the reader to use more active learning strategies in their teaching, and create opportunities for co-creation with their learners.

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# 5A ACTIVE LEARNING STRATEGIES



# Using ice-breakers to encourage classroom confidence

DR JILL KIRBY

## What is the idea?

Many active learning techniques focus on students working together and discussing ideas in small groups. Yet many students, particularly in their first year at university, are extremely anxious about doing so, fearful of making mistakes and being judged by their peers. Instead of using an ice-breaker question once in the first week of term, this idea suggests tutors use one at the start of every session. Students are given a couple of minutes to chat in pairs about their responses to the question and then asked to share their answers with the rest of the group. This exercise works best in groups of 20 or less, where hearing all the responses is not too time-consuming.

## Why this idea?

Using regular ice-breaker questions at the start of every seminar helps students to get to know their fellow students more quickly and ensures that everyone in the class can say something without fear of being 'wrong.' This is important in getting students used to voicing their views publicly. Although many tutors use ice-breakers at the start of term to encourage students to get to know each

other, it is challenging for students to build good working relationships when they may only see a particular set of classmates in one group, once a week. This activity helps to reduce the time it takes for groups to cohere and contributes towards better social support amongst students which in turn fosters engagement (Xerri et al., 2018). Being able to contribute in a low-risk way in response to a question that is not related to the seminar topic, encourages anxious students as there is less risk of peer judgment, and this builds their confidence, making them more likely to participate in later discussions (Micari & Pazos, 2014). Students have a short conversation about a random question at the start of the session, which ensures that they engage with at least one other student and prepares them for the interaction required in seminar learning activities. Repeating this activity at the start of each seminar creates a behavioural prompt that learning activities are beginning and helps focus their attention whilst creating an upbeat mood for the session.

## How could others implement this idea?

In the first session, the tutor explains the purpose of the ice-breaker activity, making clear that its purpose is to help them get to know each other but also a chance to say something low-risk that won't be wrong. The tutor poses the question to the students (verbally and/or on a whiteboard or screen) and instructs them to spend two or three minutes talking with the person next to them about their responses. Then the tutor invites someone to volunteer to share their response, and once they have done so, asks the person they were chatting with to share theirs. Once students realise how the activity works, there are usually volunteers, and the tutor can then randomly ask students for their response or simply follow the order of seating. In cases where students are still extremely anxious about speaking in class, the tutor can agree that one person from

the pair can feedback both responses. Where this has occurred, the anxious student usually joins in after a couple of weeks and informal feedback from such students suggests that this approach is helpful in building up their classroom confidence. The actual ice-breaker questions can sometimes be broadly related to the topic i.e., in a history seminar, ‘if you could go back in time to one event, what would it be and why?’ or ‘which person living or dead would you most like to meet, and why?’ More often, they can simply be generic questions. Be wary of questions that might elicit unwanted disclosures (of criminal activity) or that highlight classroom inequalities (‘your best ever holiday’) or about topics that might be problematic e.g., avoid questions about food if you have students with eating disorders. Below are some sample questions:

1. Who is your favourite cartoon character?
2. What would your superpower be?
3. If you were an animal, what would you be?
4. Which film would you like to watch for the first time again?
5. If you could meet anyone who is no longer alive, who would you meet?
6. If you had to choose a karaoke song, what would it be?
7. Who is your favourite fictional character – film, TV, games, books?
8. Which fictional world would you like to live in (or visit)?
9. If you didn’t need to sleep, what would you do with the extra time?
10. What languages can you speak, or would you like to be able to speak?

## Transferability to different contexts

Using an ice-breaker at the start of every session works in a wide range of settings. I have used it mostly in weekly seminars and fortnightly workshops, in-person and online. One limitation is how

much time it takes to hear responses. In groups of 20 or less, the activity in its entirety can be done in about ten minutes, but with a larger group, this could be reduced by selecting to hear responses from only some of the group. If this is done, then it is useful to note whose response was heard so that different students can share their replies the following week. Hearing only from some students does reduce the benefit of getting all students to speak, but still helps build relationships and creates a positive group dynamic.

## Links to tools and resources

Innumerable lists of ice-breaker questions can be found using a Google search online.

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# The IAG approach to active learning

JAMES MORAN

## What is the idea?

Information, Advice and Guidance (IAG) services are distinct from teaching but share many common skills. These include communication, encouraging student participation and active listening. To facilitate active learning, it is possible to draw on an interview technique used in IAG settings which has been adapted from Egan's (1975; 2018) three stage interview model, and the work of Ali and Graham (1996).

## Why this idea?

Encouraging student engagement can be challenging in a range of learning environments such as in classrooms, labs or online. Participants can be reluctant to contribute to a learning activity, take part in question-and-answer sessions or engage in group discussions. One way to provide a framework to facilitate discussion, establish a learning contract with students and encourage active engagement with subject content is to draw on the model proposed by Egan (1975; 2018), and further developed by Ali and Graham (1996).

Egan (1975; 2018) identified three principal goals of helping people and translated these into a three-stage model which asks about: clients' problems and unused opportunities; solutions which can help them to achieve what they want; and action planning. Egan's

model and methodology requires the interviewer to make use of active listening skills and to make clear distinctions between repetition and empathetic learning (Riggall, 2016). However, a reframing of this model presented by Ali and Graham (1996) in *The Counselling Approach to Careers Guidance* provides a more accessible structure:

**Clarifying** – setting the scene; developing empathy; hearing the client's story; making an initial assessment [of needs]

**Exploring** – building the contract; exploring issues within the contract; encouraging the client to explore other options; re-examining the contract.

**Evaluating** – challenging inconsistencies; enabling the client to weigh up the pros and cons for each option; prioritising options with the client

**Action Planning** – helping the client to identify what needs to be done; encouraging the client to formulate an appropriate systematic plan of action; introducing the concept of referral, reviewing the contract (if necessary); ending the interview.

Though originally designed to support exploration of career and life choices, this model can be adapted for use within teaching. Using a facilitatory and discussion driven approach, a teacher can use the stages of Ali and Graham's model to encourage a collaborative active learning structure.

Adaptation of Ali and Graham's (1996) model:

**Clarifying:** Setting the expected outcomes for the session; establishing student expectations. (This makes it clear to the teacher what the students' are expecting to achieve from the session and ensures they have a voice in the direction it takes).

**Exploring:** Establishing a 'contract' of what is to be achieved, agreeing expected behaviours of engagement within the session, and developing and affirming the intended outcomes. (This helps to set realistic expectations of what can be achieved and also sets out the parameters of the teacher's role; it can also help to establish expected behaviours both between the students and teacher and between students themselves).

**Evaluating:** Talking through with the students where challenges/inconsistencies may arise in their answers; looking at ways in which learning can be enhanced and ensuring the right learning support is being received/ accessed.

**Action Planning:** Identifying where gaps in learning may exist; encouraging students to identify resources which help them; making a plan of action to achieve the overarching outcomes of the session and apply learning in future sessions.

## How could others implement this idea?

The student-centric nature of the model, along with the ability to repeat steps until an outcome has been achieved, echoes the core tenet of learner-centric pedagogy in active learning.

### Example 1:

*A lab class of 20 second year students have been divided into groups of 4 and asked to design an experiment.*

**Clarifying:** Ensure that each of the students are aware of what is expected from the task and what your role is (e.g. to assist in locating resources but not to provide the exact method).

**Exploring:** Seek mutual agreement with the students regarding behaviours expected in the lab and clarify the desired outcomes of the task (e.g. not only to complete the problem set, but to work collaboratively and develop their own method for completing the experiment).

**Evaluating:** Provide opportunities for the respective groups to give feedback to you and to each other about challenges they faced in developing or undertaking the experiment.

**Action Planning:** Identify actions from the evaluation stage and plan how these can be enacted in a future experiment.

### Example 2:

*A group of 15 first year students have been set some reading to do before a seminar; none are forthcoming in class with opinions or thoughts.*

**Clarifying:** Clearly outline the purpose of the exercise, its benefits and why it is useful. You could use an interactive learning method such as an electronic poll to ensure the task is understood.

**Exploring:** Adopt a facilitatory approach to determine how students would feel most comfortable engaging with the task; allow time for their contributions to inform how feedback from the task will be shared.

**Evaluating:** Utilise a discursive approach about both the nature of the task and the topic being discussed. What challenges were found both in the learning approach and within the reading?

**Action Planning:** What has been learnt about the topic from the reading? What has been learnt about how the activity itself can promote learning? Ask students to provide an example of how they will approach the task next time based on this experience.

## Transferability to different contexts

Egan's model is readily applicable to multiple teaching sessions and has already been adapted to several different contexts from careers guidance (Ali and Graham 1996); to social work (Riggall, 2016) and law (Brayne, 1998).

**Potential areas for use in teaching in higher educations include:**

- In person or online teaching sessions of 30 participants or less
- Lab practicals
- 1:1 Mentoring online or in person
- Personal tutoring sessions
- Dissertation or PhD supervisions

- Providing a structure for small group settings
- Discussing assessment feedback

## Links to tools and resources

- Resource from the University of Glasgow on Mentoring Using Egan's model: [https://www.gla.ac.uk/media/Media\\_414500\\_smxx.pdf](https://www.gla.ac.uk/media/Media_414500_smxx.pdf)
- Three Stage mentoring model from University of Sheffield: [https://www.sheffield.ac.uk/polopoly\\_fs/1.676576!/file/3stagemodelofthementoringprocess.docx](https://www.sheffield.ac.uk/polopoly_fs/1.676576!/file/3stagemodelofthementoringprocess.docx)

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# Developing student engagement and ownership through Team Based Learning in a large group setting

ALISON BAILEY

## What is the idea?

Covid-19 has led to learners missing out on education with online classes provided to a greater or lesser extent depending upon the school or college attended, resulting in a negative impact on their education through a loss of learning and general well-being (Stringer & Keys, 2021, p. 1). These concerns have been at the forefront of module convenors' minds in deciding how to teach and engage learners on large, first year, core online modules.

Enter Team Based Learning (TBL)! TBL is a powerful, active learning pedagogy. It engages learners, builds teamwork and collaboration, leading to a positive learning experience, employability skills and good module outcomes. TBL works very well in the classroom, but can it be just as successful and achieve all of the above online?

The following chapter explores the use of TBL in a large core Management module, delivered online, to Year 1 undergraduate (UG) learners.

## Why this idea?

TBL was first developed in the USA in 1979 by Larry Michaelsen, in response to a shift from small class teaching to large workshops (Sweet & Michaelsen, 2012, p. 5). TBL develops groups into empowered high-performing teams, fitting within Vygotsky's Social Constructivist pedagogy.

## How could others implement this idea?

This chapter explores TBL and its methods further, however it is useful to understand the module structure, as follows. Do learning outcomes reflect the module objectives? Which behaviours/skills do you want learners to achieve by the end of the module?

The module was structured in the following way:

Weeks 1-5: Learners are placed into permanent. Learners acquire and understand a considerable amount of information through pre-reading, lecture and workshop content.

Weeks 2-5: TBL Individual Readiness Assurance Tests (iRATs) and Team Readiness Assurance Tests (tRATS) occur at the start of each workshop, followed by a mini lecture (to clarify points) and a mini application exercise to reinforce concepts and theories. Evidence-based appeals are lodged by students for perceived misleading or incorrect questions/answers.

Week 6: Learners knowledge and understanding is tested via an online MCQ (40% weighting).

Weeks 7-9: Teams work on a large complex application activity – business simulation (60% weighting).

Weeks 10-11: Teams present a business plan from the business simulation (60% weighting).

## *The Teams*

Place learners in permanent teams in the first workshop to allow enough time for them to become high performing, self-managing teams. Why permanent teams? Trust is an important aspect that will improve decision making. Why diverse? Research has shown that diverse teams are more innovative and high performing than homogeneous teams (Lead Inclusively, 2021)



A simple, unbiased and transparent method to create teams: ask learners to line up across the classroom – those whose hometown is nearest to the university on the left; those whose hometown is furthest away from the university on the right. Learners need to organise themselves geographically. Group teams by number e.g. all 1's, all 2's. Adjust visually imbalanced teams, ie, too many international learners, too many females/males.

### *Weeks 1-6: The Process: iRATS, tRATS, Mini Application Activities*

Team Readiness Assurance Tests are multiple choice tests (ten questions), completed by students individually at the start of each workshop (iRAT's). The test is repeated and completed by teams (tRAT's), so team members can discuss/negotiate the 'best' answer before it is revealed by the lecturer.

Mini application exercises are specific problems completed by teams in the remainder of the workshop. Teams are required to report back simultaneously before the end of the workshop. This facilitates deep knowledge and team development.

## *Weeks 7-11 The Business Simulation*

Figure 1. 4S Framework

A Business Simulation was selected as the large complex application activity as it fits well within the TBL 4S Framework (Sibley, et al., 2014). All learners face the **Same, Significant Problem** which is complex and unique. However, learners have **Specific Choices** in how they run their business and the content they use in the presentation. Each week, the 'business rank' of each team was published meaning **Simultaneous Reporting** occurred.

Business Simulations are useful ways to give learners a realistic experience of the complexities in starting an enterprise. Teams set up the same global business. They assign key roles eg CEO etc and run the business in an ethical and sustainable way.

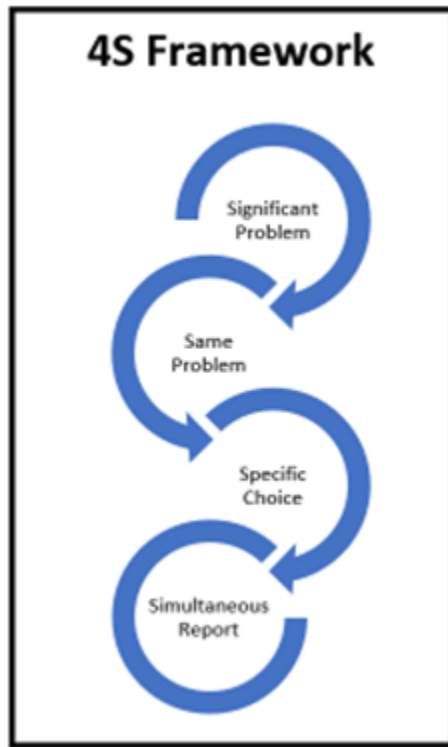


Figure 1. 4S Framework

One week represents one year's trading. Teams work on the simulation in workshops but need to work on it outside class time to complete each round; underlying the need for organised and high performing teams to be established, and why TBL activities in Weeks 1-6 are so useful in developing teams.

Business rank positions are published weekly, based on Total Market Performance using a balanced scorecard. The final assessment has three components: business plan presentation (30%), overall business rank (20%), team (peer) evaluation (2%) and Business Coach evaluation (8%).

In Weeks 7-11, class hierarchy is removed from the classroom (Spoto, 2014, p. 86; hooks, 1994, p16). Learners become empowered entrepreneurs; lecturers become facilitators – the Business Coach.

TBL and the Business Simulation proved successful, receiving positive feedback from students, not just about the learning experience, but about reducing anxiety as a result of the lockdown:

*‘One of the key aspects of TBL that I found most beneficial was being able to actually meet other learners on my course, in a time when this is not possible in person, and then discuss the topic as a group and learn from each other’.*

*‘I think it’s a great opportunity for foreign students to train their speaking and listening skills’.*

*‘Facing the challenge of engaging in a new method of learning made me challenge myself and as a result, I have improved my teamwork skills’.*

*‘Less stressful as you were able to share your ideas and work out problems together’.*

*‘In terms of reducing anxiety, it made me realise everyone was in the same situation’.*

## Transferability to different contexts

TBL is used in many disciplines, at different levels and in different contexts. The Team Based Learning Collaborative is a good place to go for information and support.

One final point – the following quote epitomises the benefits of TBL:

*‘The self can draw from the skills learned and shared in the team even after the team has gone. Teams go, individuals remain – and the team experience that formed their self will inform their*

future educational and business practice' (Betta, 2016).

Key Words: Team Based Learning, TBL, diversity, large group setting, business simulation, hierarchy

## Links to Tools and Resources

### Business Simulations:

- <https://edmundocom/en/business-simulations>
- <https://marketplace-simulations.com/>
- <https://simventure.co.uk>

### Team-Based Learning:

- <https://www.teambasedlearning.org/>
- <http://www.teambasedlearning.org/talk-to-the-experts/tbl-consultant-rebecca-mccarter/>

### Peer Observation:

- <https://teammatesv4.appspot.com/web/front/home>

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## Image Attributions

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Alison's interests are around inclusivity, engagement in the classroom and business simulations. Alison is also a Partnership Tutor and Researcher.

# Laying the foundations for groupwork

ANTIGONE KYROUSI

## What is the idea?

This short chapter discusses a group activity, designed to promote team cohesiveness and open-mindedness, in the context of a Business Research Methods undergraduate course. Students had to work in groups (of 3 or 4) for the duration of the course to produce a research report addressing an identified business problem, but many groups faced challenges due to the absence of a shared vision and teamwork skills. Similar problems were encountered in another course on Integrated Marketing Communications, where students worked on a lengthy group project. To address these issues, a formative hourly activity was implemented early on in the term. This activity works best with classes of 15-20 students and it can be implemented in most courses adopting a team-based active learning approach.

## Why this idea?

Team-based active learning is based on the cooperative learning pedagogy and produces numerous benefits for individual learners (Espey 2018). Permanent student groups (ie. groups that are formed for the duration of the course), unlike temporary ones require students to tackle interpersonal difficulties and to appreciate the benefits of groupwork (Michaelsen 1992). Team processing skills, one of the elements of cooperative learning, are conducive to

building a learning orientation, yet for students undertaking lengthy group assignments, team cohesiveness needs to be built from the onset (Laverie et al., 2008).

The activity, was implemented in 5 different small cohorts within two different undergraduate courses, in both of which students had to undertake a demanding group project. The activity was inspired by the need to address practical challenges encountered in class and by other activities discussed in Dawson (2016) and Parker and Goldrick-Jones (2011).

In the first part of this activity (role-play), students work individually drawing freely on their own experiences and understanding of teamwork; they receive a hypothetical scenario in which each student is assigned the role of a 'mentor' for a group of younger students who are supposedly embarking on a group project. Their task is to generate five tips/ pieces of advice they would give to these younger students to guide them in collaborating fairly and ethically. In most of the runs of this part of the activity, it was observed that students tended to generate tips mostly drawing on their (negative) past experiences (e.g. 'think carefully before choosing who to work with', 'be prepared to fight with friends').

In the second part, students work in their assigned groups. They are presented with a list of statements/ rules of groupwork (a list of statements generated by the instructor or derived from literature). Statements refer to a climate of respect, open-mindedness, resolution of conflicts (indicatively: 'All members will respect [other] team members' ideas and promote a positive working attitude', 'If a disagreement should arise, all group members will address the problem in a prompt manner via further email discussion or in a group meeting', 'Each team member will be available for discussion or if help is needed by others', 'The team will collectively negotiate expectations to keep the team and the project moving', 'Conflicts will be resolved in a respectful manner giving each team member an opportunity to voice their opinion' (Parker & Goldrick-Jones, 2011, p. 306-307). For this part, each group must discuss and select the three most important statements under the same hypothetical

scenario. The Instructor observes group discussions without intervening, keeping notes.

In the third part of the activity, groups cooperate to produce a commonly accepted 'group code' by negotiating the terms. The Instructor briefs students on the importance of establishing a common set of rules for their group project. This part requires students to incorporate at least one of the statements suggested by each member in the first part and the statements selected in the second part. Students can also insert other statements that are deemed necessary (for example: many groups of students added statements referring to time management and the need to respect internal deadlines agreed upon by the group).

In the last part of this activity, students reflect on their learnings in the form of a class discussion, and they are asked to reflect on their group decision-making processes. They are also encouraged to compare their individual 'solutions' to the problem in the first part with the group 'solutions' in the third part. The Instructor provides additional feedback, and each group finalises and signs the contract that will guide subsequent groupwork.

This activity has received positive comments from students; in the vast majority of cases, it was observed that individuals considered the group 'solution' to be more comprehensive and elaborate than the one they had initially produced, appreciating the merit of their peers' contributions. It is interesting to note that many students remarked that they liked the idea of agreeing on specific terms for group collaboration.

## How could others implement this idea?

Other instructors can supplement the second part of this activity with the introduction of a scoring system to streamline the groups' decision-making process, and/or insert an individual reflective component. In a modified version of this activity, students

completed individually a short anonymous questionnaire reflecting on their own contributions after the third part. For the last part of the activity, the Instructor can additionally provide tailored feedback for each group.

## Transferability to different contexts

This idea is flexible and adaptable to courses in different fields; it is suitable for skills-building courses. Class sizes need to be small to permit Instructor observation and class discussion in the last part. The activity could also be easily adapted for online courses.

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# Introducing contemporary controversial subjects through a carousel

DR CHRISTINA MAGKOUFOPOULOU



## What is the idea?

A carousel is an interactive approach to teaching and learning. By introducing a carousel in a session, you allow students to move around different stations where different activities can take place. Although this idea can find applications in many formats, I have used this idea to introduce contemporary controversial subjects

such as ethics and policies on genetic modification in a 2<sup>nd</sup> year undergraduate course.

## Why this idea?

A carousel is a fun way to allow students to experience different activities during a single session. The type of learning that takes place in such an active-learning method could vary significantly depending on the type of activities designed at each station.

However, a carousel activity, when designed effectively, will align with the main principles of active and experiential learning. Students are taking a central role in their learning, but learning becomes collaborative as student interactions are encouraged. Through this process students are supported to practice, develop and reflect on their skills such as critical thinking, collaboration and communication (Wurdinger & Carlson, 2010).

When this idea takes place in a physical space, it also allows students to move from one station to another, allowing them to take a break and refocus for the next activity. The importance of the structure of active learning spaces has been explored extensively in the literature and it shows how the physical space, where such activities will occur, needs to be carefully considered (Nicol et al., 2017).

## How could others implement this idea?

There are endless variations that could be used in a carousel, however there is a set of key considerations for designing stations and those are:

**The aims of the session.** Clearly defined aims are essential for further designing the activity. In this workshop, I wanted to raise



students' awareness of ethical issues around genetic modification, and to have the opportunity to discuss contemporary cases on genetic modification. This would further allow them to develop their skills in forming arguments and presenting their ideas to their peers.

**Topic of each station.** The selection of topics or mini-activities for each station need to be carefully considered, to avoid repetition and retain students' interest. To that end, I designed 4 stations to discuss genetic modification of different organisms (i.e. plants, animals, micro-organisms and humans).

**Number of students per station.** The number of stations and number of students in class are strongly interlinked. You wouldn't want to have a very small number of stations that end up being overcrowded, but neither a large number of stations, that will result in a very limited interactivity/discussion amongst peers. A recommended number of members per group is usually between 6-8.

**Level of interactivity at each station.** This is an important factor, as it allows you to estimate the duration spent for each session. In my session, I was supported by teaching assistants that were 'stationed' in each station. Their task was to provide the guidance for each station and facilitate the discussion by asking prompting questions. They were also very helpful with ensuring that discussions were always respectful.

**Duration of the session.** This is equally important to ensure that sufficient time is given for each group to work on each station.

## My approach

In this workshop, every station had three cases that reported news on genetic modification. When a group arrived at a station, the teaching assistant asked them to split into smaller groups. Each

sub-group would read the article and answer a set of questions which included questions such as:

- Who are the stakeholders and what are their values/concerns?
- What are the potential benefits and risks of these approaches?
- What are their ethical viewpoints?
- Are there any alternatives?
- What additional information do you need in order to make an informed decision, about whether it is an ethical application of genetic modification?

They were then asked to consider what their decision and the justification of their decision would be.

Following this step, each sub-group would briefly present their case and views to the other members of the group. A timer on the screen was used to also indicate when groups needed to rotate and move to the next station.

## Plenary

The session would end with a plenary where students could share their experience on the carousel. The discussion was led with questions such as: Which cases were more controversial for their group? What alternative views did they encounter that they were not aware of?

In my experience, those sessions were always successful and allowed students to not only explore and gain a more diverse understanding of ethical issues, but also see how their field of study is applied in the real world. At the same time, via active learning approaches, the students developed and practiced their skills in approaching and discussing contemporary controversial issues.

## Transferability to different contexts

Instead of asking students to evaluate case studies and share their views on controversial subjects, carousels can also be used for other activities in almost every discipline. Activities could be teacher-led, such as in my case where a prescriptive approach was given on what to be discussed, or could be more student-led, where a general task may be given to students and each group can choose how to approach the task (for instance, the creation of an artefact to demonstrate an idea). Carousels can be an excellent option for co-creation of outputs as well, where each group initiates an output (for instance, an answer to a question) and other groups add to that output once they reach that station.

Carousels could also be used in online teaching, although students will miss out on the important element of physically moving around the different stations, and the opportunity to take a short break and refocus.

Online collaborative activities could be mapped against the taxonomy of collaboration as introduced by Salmons (2019). The taxonomy of collaboration has three main components: collaborative processes (mindful reflection, review and dialogue), levels of collaboration (parallel, sequential or synergistic collaboration) and the trust continuum. By considering the taxonomy of collaboration in designing collaborative learning activities, we can offer students the opportunity to not only develop content knowledge but also to develop procedural skills in a digital-connected world (Lemon & Salmons, 2020).

In summary, carousel sessions can be applied in a wide range of contexts, both offline and online and can have great benefits for students' learning and experience.

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Carousel swing ride by Scott Webb on Pexels

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# Object-based learning: active learning through enquiry

DR VICKI DALE; DR NATHALIE TASLER; AND DR LOLA SÁNCHEZ-JÁUREGUI



*Figure 1. A Victorian forged Egyptian scarab beetle in the foreground, during an object-based learning 'ways of looking' learning activity in the Hunterian Museum teaching collections*

## What is the idea?

Object-Based Learning (OBL) is a well-established teaching method; Korda (2020), for example, documents how objects were used in 19<sup>th</sup> century school teaching in Europe. However, it is only relatively recently that its potential has been recognised in UK higher education, popularised by the work of Chatterjee et al. (2011). It

has been defined as ‘a mode of education which involves the active integration of objects into the learning environment’ (Chatterjee et al., 2016, p.1).

The University of Glasgow Hunterian Museum’s extensive collections lend themselves to enquiry-based learning across the disciplines. This gives us a unique opportunity to introduce OBL within our Postgraduate Certificate in Academic Practice (PGCAP), in our Creative Pedagogies for Active Learning course. In partnership with museum colleagues, this raises awareness of the potential for its use in learning and teaching in various degree subjects.

OBL supports active participation through aisthesis (Bleakley, 1999) and embodied learning (Chatterjee et al., 2016); the combining of the working with the head (cognitive dimension), the hands (psychomotor dimension), and the heart (affective dimension); thus, it is a powerful pedagogy for facilitating critical thinking and behaviour change.

This chapter defines OBL, and using examples from practice, illustrates how it may be used online and on campus, not only drawing upon specific collections, but also everyday objects that stimulate inquiry and active learning.

## Why this idea?

We are surrounded by objects. With its origins in ethnography, material culture is the study of objects and how they came into being and are used culturally (Willocks, 2016). While this preempts us to think about museum artefacts, and the ethics of their collection, display and potentially repatriation, OBL can be extended to any physical object that exists, human-made or natural. Scientific equipment, specimens (animal, vegetable, or mineral), works of art, historic manuscripts, all come under this category. However, everyday household or personal objects can also lend themselves

to learning; the use of such objects in art and design education for example has been shown to elicit a ‘wow’ response from students and facilitate analysis and critical reflection (Hardie, 2015). As well as subject knowledge, objects can facilitate transferable skills such as communication, team working, lateral thinking, and observational and drawing skills (Chatterjee, 2011).

## How could others implement this idea?

While objects for learning can be sourced from everyday life, you may wish to liaise with colleagues in institutional museums or special collection libraries to source materials of a historical, art-based, or scientific nature. Colleagues in museums and libraries play a valuable role in identifying and using objects for learning, not just in higher education but also with the wider public, including schools. It can be helpful if a repository has an online database to describe and contextualise the object before seeking to get access physically.

One particularly useful activity, to stimulate enquiry, is to ‘interview’ or ‘interrogate’ an object. At UofG, museum colleagues use a ‘ways of looking’ worksheet to really encourage learners to develop their powers of observation, and promote enquiry and curiosity. The worksheet is quite detailed; however, the salient prompts could be distilled as follows:

- Why did you choose this object; what does it mean to you personally?
- What does it look like? Describe its size, shape, colour, texture. Draw the object.
- Does it have an evocative smell? What happens when you handle the object and observe it from different viewpoints and distances?
- How was the object created? If human-made, when was it



made, and why?

- Who produced and/or owned the object before it came into the collection?
- What can it tell you about the context from which it was derived, and the thinking and values of society at that time?
- What is the relevance of the object to how we think about knowledge and values in society today?
- Learners should be encouraged to take their time conducting this initial enquiry. Value can be added by encouraging learners to 'present' the results of their enquiry to others, and to negotiate meaning from different perspectives. Ultimately, the object is a mediating artefact for discussion and knowledge production.

Objects can also be used to support a more student-centred approach to enquiry. For example, students could work collaboratively to select, investigate and present objects. Such an approach would allow students to focus on different aspects of the enquiry, in terms of combining their investigative efforts.

## Transferability to different contexts

While this guide suggests the use of OBL within a higher education context, academics may also wish to use objects in community outreach activities, perhaps with the general public or in the context of widening participation activities or summer schools. Objects are also multidisciplinary; the example illustrated below – 1700-1800 Queyu apron – could be examined from the perspective of textile and conservation, history, fashion, sociocultural anthropology, global history, material design, and would have its own object biography associating it historically with individual and communities.



Figure 2. Queyu Apron (GLAHM:E.193/1) from The Hunterian Museum

Alternative objects in the Hunterian museum that would lend themselves to OBL include those from scientific, geological, archaeological, ethnographic, and art collections. One of the objects is an ongoing science experiment – Lord Kelvin’s artificial glacier from the 19th century!

Not all institutions or learners have access to curated objects; however, this is an opportunity to think creatively about pedagogical investigation of everyday objects. In our own PGCAP course, we make reference to how something as simple as a bag of sweets can stimulate conversations about diet, dental health, design, marketing, production, distribution, recycling, etc.

While physical objects have a particular attraction, in terms of their tangibility and authenticity evoking an emotional response, virtual collections have the benefit of being more widely accessible and many museums and collections are increasingly making digitised resources available, which can be particularly helpful in the current pandemic circumstances.

## Links to tools and resources

- Monica Callaghan, former Head of Education at the Hunterian Museum Glasgow, discussing OBL: <https://www.youtube.com/watch?v=NCAsArIYO18>
- Teaching and Object-Based Learning: <https://www.ucl.ac.uk/culture/schools/teaching-object-based-learning>
- Object-Based Learning Overview – Dr Andrew Jamieson talking about OBL at Monash University: <https://vimeo.com/129634707>
- The Hunterian Museum. Learning resources: Resources for home learning: <https://www.gla.ac.uk/hunterian/learning/museumeducation/>
- The Hunterian Museum: Collections highlights: <https://www.gla.ac.uk/hunterian/collections/collectionshighlights/> [includes Kelvin's pitch glacier experiment]

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Figure 1. A Victorian forged Egyptian scarab beetle in the foreground, during an object-based learning ‘ways of looking’ learning activity in the Hunterian Museum teaching collections, by Vicki Dale, is used under CC BY 4.0 license.

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STEM fields. Museum collections and their value as instruments of knowledge connects her line of academic research with her curatorial practice.

# Can project management processes be used to structure active learning tasks?

DR RACHEL JOHN ROBINSON

## What is the idea?

This chapter proposes that project management processes can be used to structure active learning tasks in education. For this purpose, the chapter will explore how the five processes from the Project Management Body of Knowledge (PMBOK) standards could be used as a framework to plan active learning projects for students, regardless of whether they are in a face-to-face, online, blended, or hybrid learning environment.

## Why this idea?

There are five processes in the PMBOK standards: initiating, planning, executing, monitoring and closing. These are widely used in work-related projects and provide a logical structure which can also guide the use of active learning tasks in teaching. The five processes can deepen engagement in learning, by providing a necessary structure to tasks and an easy-to-follow sequence. Using this framework, the learners focus on one task at a time and this can help facilitate active participation and channel students' approach to innovation, enhancing the quality of the work they produce. In

the process, learners develop project management skills which will be directly applicable to almost any future career.

## How could others implement this idea?

Treating active learning tasks as a project requires that the tutors provide a clear structure for learners approaching the task. This is where the PMBOK standards from the Project Management Institute (PMI) come in handy. They state that there are five processes that are prevalent in almost every project:

1. **Initiating/ Defining outcome:** The first stage starts with learners defining the start of a new active learning project, including its objectives, scope and coverage, as well as metrics by which its success will be measured. For example, students of business could be asked to do a group research project to study a particular company. The goal of this could be to ascertain the impact that this company has had on the development of the market as a whole.
2. **Planning or setting up the stage:** In the second stage, learners create a project plan, including the objectives, how the objectives will be achieved, and a schedule with key milestones and deadlines to ensure the success of the project. Learners could produce this as a document and outline how they would measure the impact of their chosen company on the market – for example, through interviews, surveys or analysis of existing data (Young & Bruce, 2011).
3. **Executing Actions:** With the project plan in place, in the third stage, learners begin executing the actions outlined in the plan. For group work, it is important to ensure that each member of the group knows their role and responsibilities before starting. In the case of the business research project, at this stage learners may begin gathering data on their chosen



- company and how it has impacted the market (Muslihat, 2018).
4. **Monitoring and Controlling:** In the fourth stage, learners will monitor their progress and make adjustments to ensure that the active learning project can be completed on time. For example, once the data has been gathered, the students may discover some areas of difficulty in analysing the data. Members of the team would support each other to ensure that the project remains on track. If learners are collaborating remotely, it will be especially important for them to build in regular touchpoints to address issues which may arise (Dyer et al., 2018).
  5. **Closing:** In the final stage, students conclude all activities by reflecting on the lessons learnt and areas of development for the future. It may be helpful for students to evaluate the entire project using an anonymous student response system. This can ensure that each member of the group provides honest feedback on how to improve their work for future projects (Muir et al., 2020).

## Transferability to different contexts

This approach could easily be applied to any subject discipline, as long as it is possible for students to complete a project of some kind. The process works particularly well for group or pair work, but it could also be adapted for individual projects. In any context, it is important that learners are empowered to take responsibility for their role in all of the project management processes. So regardless of the subject discipline, the tasks need to be scaffolded with clear guidance on how to run a project and how to manage your time independently. Building motivation and capacity amongst those involved in the project will entail more participation and behavioural change for a positive learning environment. Active learning projects are most effective when they provide early warning of any

challenges that arise and adjustments are made sooner rather than later (Faris et al., 2014; ILO, 2015).

To support this process, active learning practitioners can encourage the use of project management tools such as MS Project, Smartsheet, Microsoft Planner, Trello, etc. Through this, the ideas captured can empower students by creating opportunities for them to reflect critically on their collaboration and identify ways to enhance their project and their learning experience as a whole. The links for some relevant tools can be found below.

## Links to tools and resources

- Smartsheet: <https://www.smartsheet.com/>
- Microsoft Tasks: <https://tasks.office.com/>
- Microsoft Project Management Software:  
<https://www.microsoft.com/en-gb/microsoft-365/project/project-management-software>
- Trello: <https://www.trello.com>

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# 5B PLAYFUL ACTIVE LEARNING



# Using fortune cookies to teach academic writing

DR NATHALIE TASLER



## What is the idea?

This creative idea documents the benefits of making and using felt fortune cookies within academic writing as an active learning experience. I used this activity to help learners engage more in depth with academic texts, in particular, how paragraphs and arguments are constructed and supported. It offers an embodied learning experience in that the learners collaborate, move about the room, and physically engage with the fortune cookie artefacts and within the classroom space itself. As Danish et al. (2020) explain:

‘We have found that collective embodiment where students must all coordinate their actions are particularly fruitful for exploring this kind of phenomena as their efforts to coordinate their motions help to make features of the aggregate more salient’ (p. 82)

## Why this idea?

The students I worked with as an effective learning adviser, had to learn reflective writing; contemplating their placement experiences. Based on students’ work and feedback one of the biggest problems they had was linking their experience to theory and research. Those writing issues sometimes placed the writing into the category ‘deliberations of a teenage-diary’. The students were not happy with their writing, and often expressed frustration that they sound corny, cheesy, and repetitive. Traditionally, students are expected to use the Gibbs reflective cycle (description, feeling, evaluation, analysis, conclusion, action plan); however, this just made the matter worse, as students often confuse evaluation and analysis. This model redefines those steps as follows. Analysis—as commonly defined—the establishing of ‘What is?’ should come before ‘evaluation’ the value-judgement of ‘What is?’. So besides the messy terminology, the six steps make the model very mechanistic and most students became stuck in the actualities of dealing with the model instead of focussing on their actual writing. While the exercise caused cognitive dissonance and a lot of debate amongst the students. It generated a barrage of questions we discussed in the second part of the session. The course evaluation showed that this was one of the favourite activities of the students.



## How could others implement this idea?

Create fortune cookies from four different coloured felt pieces (instructions in the URL below).

Print excerpts from exemplar student work (range of grades) and journal articles and cut into sentences

Place sentences into colour coded fortune cookies as follows:

The first colour is text from a just pass mark,

The second colour holds C grade writing,

The third colour contains writing from a very strong student paper,

And the fourth colour contains writing from a journal article.

The fortune cookies of each colour hold one to two sentences that make a full paragraph from one of the original texts.

The students pick a cookie each and then have to speak to their peers, moving about the room trying to identify the students with the appropriate other sentences.

Once they consider the paragraph to be complete they judge the quality of the writing.

While the fortune cookies are colour coded, do not tell the students what the code is. They have to find out during the exercise. This is a group-work activity aims to address the issue of linking reflection and theorising, in students' reflective writing assessments. This embodied experiential activity relates to some of the elements Nicol (2020) mentions in his work about internal feedback. It encourages the learners to compare, reflect, and create both as a group, and before this individually making a decision which group to join and if they are in the right group.

## Transferability to different contexts

This activity works incredibly well to help students experience text in a different way, and engage with writing more deeply. But it can work as a form of gamification in different contexts as well. For instance, if the students have to learn a complex system, with different parts, the fortune cookies could contain a mixture of images and text and the students could put these together on a whiteboard or poster into an infographic. There could be questions and answers in these and students have to find either the right question for their answer or if they have the question fortune cookie find the right answer(s) to their question. You could also ask your students to design content for these for an exam preparation session. There is an abundance of possibilities for utilising this activity. This is a generic activity that could be applied to a range of disciplines and contexts.

## Links to tools and resources

These are the instructions on how to make the fortune cookies I used: How to Make Felt Fortune Cookies – Curly Birds (typepad.com)

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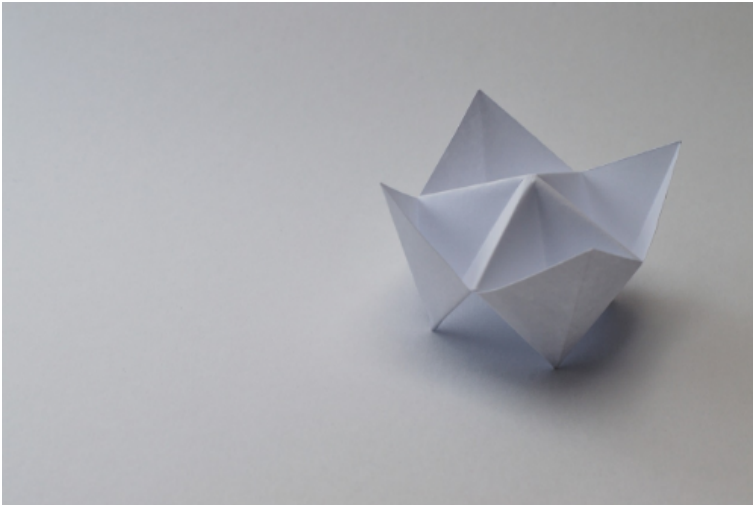
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# Worth a fortune: active learning through origami fortune tellers

NAYIRI KESHISHI



## What is the idea?

A paper fortune teller is a form of origami and was introduced to the English-speaking world in the book 'Fun with paper folding' (Murray & Rigney, 1928). Their use in children's education has been recorded since the 1950s, mostly as a game or role-play prop (Opie & Opie, 1959).

This idea will demonstrate how the device can aid active and

playful reflection within higher education, specifically for Foundation Year Psychology students.

## Why this idea?

Playful learning has increased in popularity and is often used as a mechanism for improving engagement and motivation (Rivera & Garden, 2021). The nature of play, with its core socially negotiated aspects, places itself within social constructivism, where knowledge develops as a result of social interaction and language use (Walsh, 2015). Though typically associated with children's education, it is a powerful method to integrate in the transformative learning process, where prior thoughts, knowledge or ideas are challenged. It allows students to practise, apply and fully understand key concepts; in this case reflective thinking and writing (Meyer & Land, 2006; Piaget, 1962).

Inspired by the use of origami fortune tellers as a module introduction or career development activity (Gillaspy, 2020), I incorporated them into a reflective thinking and writing class for Foundation Year Psychology students. As part of their module assessment, students were required to write a reflective journal discussing their personal and academic development. The purpose of the fortune tellers, and the accompanying game, was to support them in understanding the assessment marking criteria and applying it to various reflective writing examples.

The explicit playful elements of the game helped achieve a psychological acceptance of play, or 'lusory attitude' (Suits, 2005). As many of the students had encountered fortune tellers before, it also brought a sense of childhood nostalgia to the classroom. This feeling of excitement and human connection is an important part of encouraging a playful environment. This is vital for a learning space to appear as truly playful and for the activities to become meaningful (Nørgård et al., 2017).

## How could others implement this idea?

Divide students into pairs and give time for them to familiarise themselves with the marking criteria and to read the three reflective writing examples.

Share fortune teller templates (one per person) and give students instructions (written and visual) on how to fold/make it. Also share instructions on how to operate the device and how to play.

*Before* the class, parts of the fortune teller should be labelled with colours, numbers and questions that serve as player options (see Figure 1 as an example).

The person operating the fortune teller (player 1) should manipulate the device based on the choices of the other player (player 2). For example, if player 2 picks BLUE, player 1 would spell out the colour 'B-L-U-E' while working the fortune teller back and forth four times for each letter.

Then, player 2 needs to pick a number and player 1 works the device back and forth that many times. Player 2 should then choose another number and player 1 opens that flap to reveal/ ask one of the hidden questions.

The questions can either relate to the reflective writing examples or the student's own work. Using the same language as the marking criteria, possible questions could be:

- Are there reflections on personal/professional development, which show personal insight into the learning journey?
- Is there evidence of developing transferable skills?
- What grade would you give your chosen reflective writing example?

Encourage students to discuss their answers and general thoughts, using the marking criteria to justify any comments/ grades, where applicable.

When one round is complete, instruct students to swap player

roles. I would suggest 3-4 rounds per example, to ensure all reflective writing examples are discussed.

At the end of the activity, invite the class to share their thoughts and findings. Through discussion, most pairs should correctly identify which example is ‘adequate’, ‘good’ and ‘excellent’.

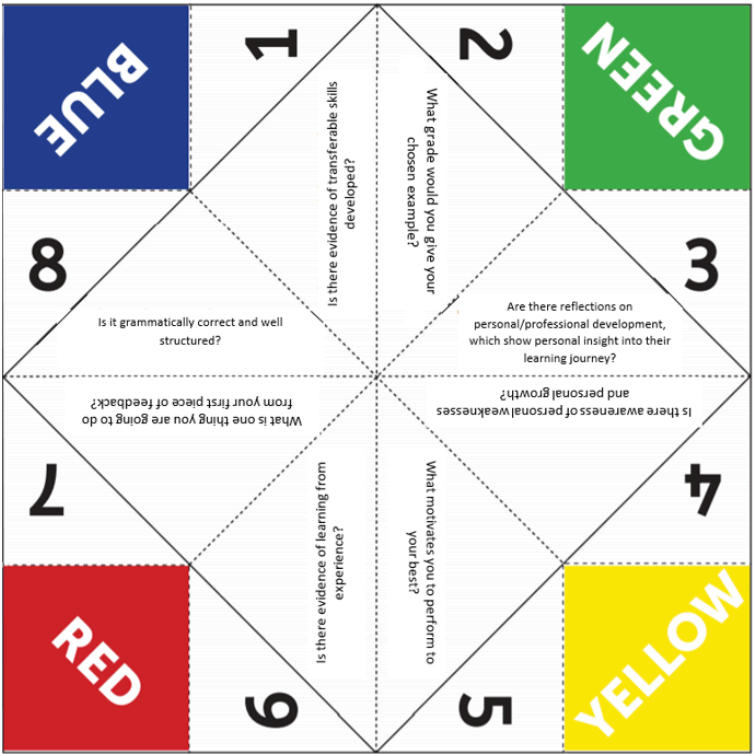


Figure 1. Fortune teller template used for reflective thinking activity

## Transferability to different contexts

This activity can be adapted for any context. I would suggest readers:

- Provide clear instructions (written and visual) on how to make the fortune teller and play, as not all students will be familiar with the process.
- Practise making their own fortune teller, so you can help students if needed.
- Save the fortune teller template so you can edit/change questions for other activities.
- Try having students make their own fortune teller. This could be helpful for icebreaker activities, revision and consolidating knowledge.

For an online alternative, students could work in pairs or small groups using an online spinner. See Chapter 5b (Ready, steady...evaluate: using an online spinner to enliven learning activities) for further details.

## Links to tools and resources

- <https://www.sensorytrust.org.uk/resources/activities/fortune-teller>

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# Ready, steady...evaluate: using an online spinner to enliven learning activities

SARAH HACK



What is the idea?

In many disciplines students are required to participate in regularly occurring tasks, the repetitive nature of which may in turn lead to dwindling and superficial engagement. One way to address this

is through ‘gamification’, defined as ‘the use of game attributes, outside the context of a game with the purpose of affecting learning’ (Rivera & Garden, 2021, p. 1000). Here gamification was introduced through the use of an online spinner which brought randomness to a familiar task, and a Padlet which enabled students to add contributions anonymously. The randomness contributed to the development of a sense of suspense in the activity, whilst the anonymity of contributions allowed all students to answer without worrying that their suggestions might be ‘wrong’. This is particularly important in a programme where students start with varying levels of prior knowledge, and supports inclusion by allowing those less familiar with key concepts the opportunity to apply their understanding ‘safely’.

In addition to outlining different ways a simple online spinner may be used to ‘gamify the mundane’ and therefore to re-engage students and aid active learning, this idea also describes how the online spinner may be used to encourage engagement across different learning environments (on-campus, online and hybrid) and how it may be adapted for use in a variety of contexts.

## Why this idea?

Although interestingly, empirical evidence regarding the impact of gamification on student motivation has been equivocal (Dichev & Dichevea, 2017), practitioners know from experience that introducing novel activities within a teaching session can be effective in encouraging task engagement (Rivera & Garden, 2021). This activity was developed to provide novelty, but also to support the development of critical thinking without the constraints that may arise when ideas have to be presented more formally. This informality, and that contributions are anonymous, may particularly support the engagement of less confident students (Barr, 2017; Draper & Brown, 2004).

## How could others implement this idea?

The activity described is one developed for use in a Foundation Year in Psychology workshop comprising approximately 20 students, although it was later repeated successfully with a group of 50 students. This was a 'hybrid' workshop, with some students attending in-person and others joining remotely via Zoom. Here I outline the steps taken to use an online spinner in conjunction with a Padlet to enliven a research evaluation exercise, a regularly occurring activity which as such, may lead to a more superficial engagement with familiarity breeding contempt!

For context, in this particular session we were discussing the use of intelligence tests for the selection of American army recruits during World War I (for a review see Gould, 1982). The focus of this activity was an evaluation of the intelligence tests and their use in allocating army recruits to different roles.

### *Activity step-by-step guide*

Requirements: (1) an online spinner and (2) a Padlet (see *Links to tools and resources* below).

#### *(i) Pre-session preparation:*

**Step 1:** I made an online spinner comprised of 6 evaluation issues and a catch-all 'Any other evaluation issue' category. (See image above.)

**Step 2:** I set up a Padlet for students to write their evaluation comments. I used the 'Shelf' format and created 7 columns, one for each of the evaluation categories on the online spinner. I allowed students to post anonymously to facilitate engagement

by those less confident in their understanding of the different evaluation issues.

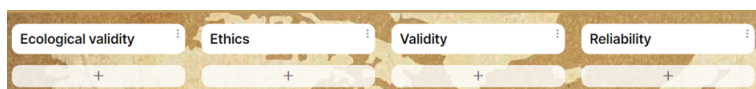


Figure 1. Padlet with evaluation issues as headings

**Tip:** Make sure the link to both the online spinner and the Padlet are easily accessible during the teaching session. Both links were on the slides I used in the workshop. The students will need the Padlet link, which I emailed to the group during the workshop, but the link may also be made available if slides are shared via the VLE pre-session.

## *(ii) In-session*

**Step 3:** The students accessed the Padlet and I explained that they should add evaluation comments focused on the issue selected by the spinner. The spinner was visible on the screen in the workshop and via the Zoom live-stream. For example, if the spinner selected 'Ethics', the students had to then respond by writing evaluation comments to do with the ethics of the intelligence testing programme.

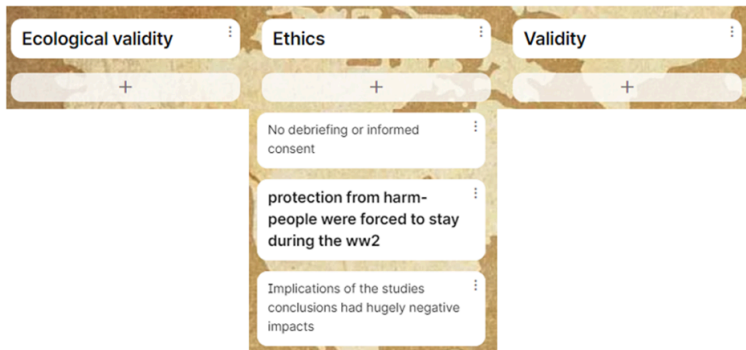


Figure 2. Padlet with student comments added to the evaluation category 'Ethics'

The student comments then formed the basis for further discussion of the issue.

**Step 4:** I used the option to remove 'Ethics' from the spinner, and spun the spinner again. The activity was repeated until all the evaluation issues had been addressed.

### *(iii) Post-session*

**Step 5:** Following the teaching session I added comments to the Padlet, pulling together issues raised in the posts and the subsequent class discussion. This is a good opportunity to synthesise ideas, but also to address any misunderstandings picked up here or through the workshop discussions.

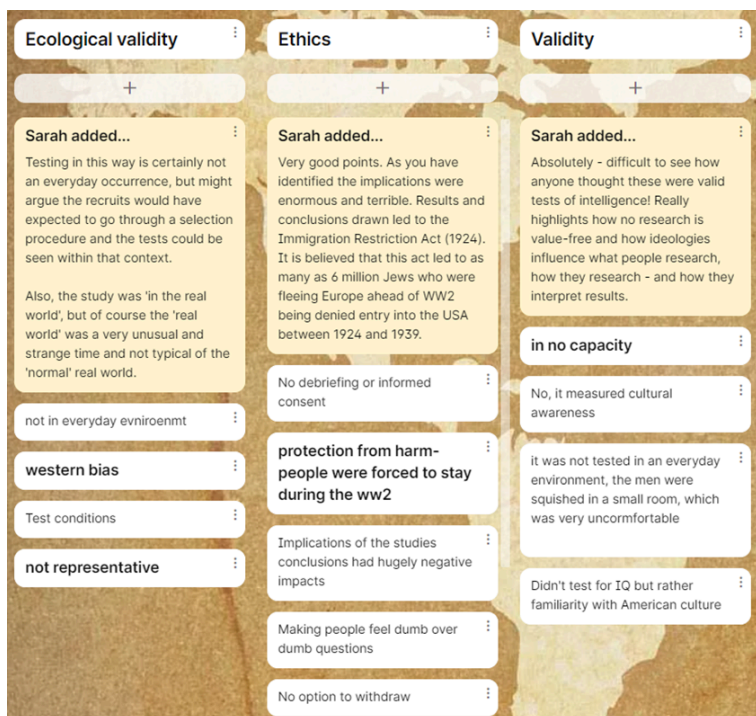


Figure 3. Padlet with examples of comments added post-workshop

**Step 6:** Although the students already had access to the Padlet link, I re-posted it on the VLE after the teaching session and 'locked' it so it could no longer be edited by the students. The Padlet is then a useful resource for post-session consolidation and follow-up activities. For example, producing a more formal, written critical evaluation of the research.

## Conclusion

Gamifying the evaluation activity had the desired effect of



enlivening this activity and engaging students in a hybrid learning environment. It would work equally effectively with entirely on-campus or fully-online workshops (see below). Repeated use will soon see the novelty wearing off, but a mixture of more typical evaluation activities with variations of the online spinner may help to maintain engagement with a regularly-occurring activity. (See *Links to tools and resources* section for possible alternatives to the online spinner.)

## Transferability to different contexts

- In situations where not everyone has access to a laptop or smartphone, students might work in 2s or 3s, with one member accessing the Padlet and the others contributing ideas.
- In an on-campus workshop, the online spinner may be combined with sheets of poster-sized paper placed around the room and students write their ideas on Post-It notes which are subsequently stuck to the relevant poster.
- Other applications for an online spinner or equivalent resource include quick-fire research design. For example, you might set up two spinners, one with possible research topics and the other with the broad research approaches 'quantitative', 'qualitative' and 'mixed methods'. Students might then work in small groups to propose research projects.
- Similarly, two online spinners may comprise two sets of variables and students have to propose possible research questions or research designs.

## Links to tools and resources

- Online spinners: Various online spinners may be found through

a simple online search. I used <https://wheelofnames.com/>

- Alternatives to an online spinner: Online variations include random cards, flip tiles, open the box. For example, see <https://wordwall.net/resource/94678/maths/wheel-spinner-1-5>. For an in-class paper-based alternative, students might work in pairs using a *fortune teller*. See Chapter 3 in this volume for further details.
- Padlet ([www.padlet.com](http://www.padlet.com)): Alternatives to a Padlet that would also work include a Wakelet or a Google Jamboard.

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# Serious play: active learning with Lego bricks

DR BIANCA FOX

## What is the idea?

This case study explores ways of using Lego play in teaching undergraduate students and shows evidence of the Lego play efficacy in helping first year students build relationships and participate in active learning activities.

## Why this idea?

Scholars believe that Lego is a ‘tool for thinking’ (Gauntlett, 2007) with great potential to link theory to practice and bridge the gap between thinking and doing in education (Cavaliero, 2015). Lego Serious Play is a teaching technique that has been around for more than a decade, and although primarily used in business, the notion of using Lego as a learning aid is one that has now started to make its way into academia as a method that can be applied in a variety of disciplines to make learning more engaging (Nerantzi & James, 2019). Despite this, using Lego play in teaching in higher education is still not considered a legit teaching method. Indeed, using Lego bricks in teaching in higher education is usually seen as a controversial method, carrying troublesome implications for lecturers and initial reluctance from students. However, what is often disregarded is the fact that Lego play can be used as an active learning technique and, if used right, supports students to understand difficult concepts in a stimulating and interactive way.

Based on ten workshops with undergraduate students, this short case study uses an adaptation of the Lego Serious Play methodology and aims to explore the advantages of using Lego play in teaching Media and Journalism highlighting some of the challenges that lecturers face when using Lego play as an active learning method to encourage student dialogue and develop problem solving and critical thinking skills.

Ten 1-hour long Lego workshops were organised with undergraduate students, two workshops each academic year over 5 years, from September 2015 until the start of the first COVID-19 lockdown in March 2020. Each academic year, the first Lego workshop would always be organised in the Induction week and aimed to:

- Familiarise students with their university course and get them thinking about what they want to achieve by the end of their first year of study.
- Encourage students to build meaningful relationships with their colleagues and test if these relationships are maintained over time.

A second workshop would be organised in the first teaching week and would normally aim to:

- Encourage students to work together collaboratively.
- Build a news story using the inverted pyramid story structure.
- Explore concepts like genre, format or audience.

This case study presents the results from the first cohort of undergraduate students that undertook Lego workshops every year in the induction week and in the first week of teaching.

Results obtained from observations and interviews with students show that the Lego workshops organised in the Induction week give students an opportunity to discuss their course and set objectives for the year. In addition, through collaboration with their peers,

students gained a better understanding of the skills they have to develop in order to have a successful career. For example, a group of students built a robot, explaining that today's journalists are not only required to write well, but also have good production skills (know how to use a camera, a smartphone, how to edit, how to present, how to disseminate their stories on social media, etc.).

The Lego models built in class were used as a basis for debate, problem solving or decision-making in other lectures. For example, in one of the Lego workshops students were asked to build a news story using the inverted pyramid story structure and therefore placing the most important information first. The Lego models used were discussed in subsequent news writing seminars.



*Figure 1. Students trying to write a news story using Lego bricks*

At the same time, another group of students were asked to build a journalistic programme using Lego bricks and explaining the genre, format and structure of that programme.



*Figure 2. Students using Lego bricks to explain different types of journalistic formats*

Working collaboratively, students reported to be able to understand the concept of genre and easily differentiate between genres and formats. They were also able to describe the target audience of their shows and their role in reporting a news story.

Results show that using Lego play creates a unique atmosphere in the class and enables students to articulate and share their ideas easier in a safe environment, contributing to long-term group cohesion. Students who usually would not engage in discussions were engaged and willing to discuss difficult concepts. The method offers a multisensory approach to visual thinking, creativity and engaging students in working collaboratively on a common project. Moreover, the use of Lego play can be an effective way of promoting and supporting social interaction between students.

## What do students think?

Students involved in the ten Lego workshops declared that the collaborative nature of these workshops enabled them to better understand and be able to explain difficult concepts that built their theoretical foundation and contributed to their success on that module and on the course. The memorable experience of these workshops translated these key concepts to students' long-term memory. In addition, they started friendships that lasted until their final year of study and beyond:

‘I think it is a great idea to use Lego at university because it is quite visual and helps you see what you are doing right and how theory is going to help you’ (First year student, September 2019).

However, while this is an ideal method for breaking the ice in the induction week and first week of teaching, it is not a method to be used in every seminar. In addition, Lego workshops can easily get out of hand if not guided by very clear objectives, tasks and deadlines for each task. The objectives should be set at the start of the workshop and students should be aware of what they are expected to achieve by the end of the workshop.

## How could others implement this idea?

Lego play has a great potential to bring students working together to achieve a common goal. Because it's also fun, students get to know each other in the process and build meaningful social relationships that help them cope with being away from family and friends, particularly in their first year of study. It is also an innovative way of getting students to interact with challenging intellectual concepts and media theories. The idea presented in this case study could be implemented by course leaders and lecturers



from any discipline. Here's a quick guide on how to lead Lego workshops with your students:

1. Consider using Lego bricks in the induction week to get students to work together and get to know each other. This will make students feel part of a community.
2. Always start your 1-hour long Lego workshop by explaining the aim and objectives of the workshop. Introduce any concepts that you would like students to use or deepen their understanding of in these workshops.
3. Set clear tasks and deadlines for each task.
4. Set up 2-3 Lego tasks and keep these tasks on the screen for the duration of the workshop. For example: 1. Discuss the structure of your TV programme, outlining its genre, format and structure. 2. Use Lego bricks to build your TV programme.
5. Use the Lego models produced by students as a basis for debate in subsequent seminars.
6. Don't overdo it! Try not to use Lego in every seminar or every week to avoid routine.

## Transferability to different contexts

In line with previous studies (e.g. Buckley, 2015 or Peaboy & Noyes, 2017), using Lego play in teaching in higher education creates a unique collaborative atmosphere in the class and enables students to articulate their ideas easier, enabling students to give meaning to difficult theoretical constructs and visualise their applicability. It is an innovative method to get undergraduate students to work in groups, get to know each other and work on common projects to realistic deadlines. While not always recommended as a method in higher education, it is an alternative way of getting students to interact with challenging intellectual concepts. Lego play can

be integrated in active learning activities at any level and in any discipline.

## Links to tools and resources

Further examples of how Lego can be used in HE can be found below.

- [https://www.celt.mmu.ac.uk/teaching/lego\\_sp.php](https://www.celt.mmu.ac.uk/teaching/lego_sp.php)
- <https://www.ucl.ac.uk/teaching-learning/case-studies/2019/dec/using-lego-teach-academic-writing-skills>
- <https://www.teaching-matters-blog.ed.ac.uk/learning-with-lego/>
- <https://excellence-in-education.co.uk/serious-play-how-lego-can-help-build-learning-communities-and-knowledge/>

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## Image Attributions

Figure 1. Students trying to write a news story using Lego bricks by Dr Bianca Foxis used under CC-BY 4.0 Licence

Figure 2. Students using Lego bricks to explain different types of journalistic formats, by Dr Bianca Fox is used under CC-BY 4.0 Licence

## About the Author



Dr Bianca Fox

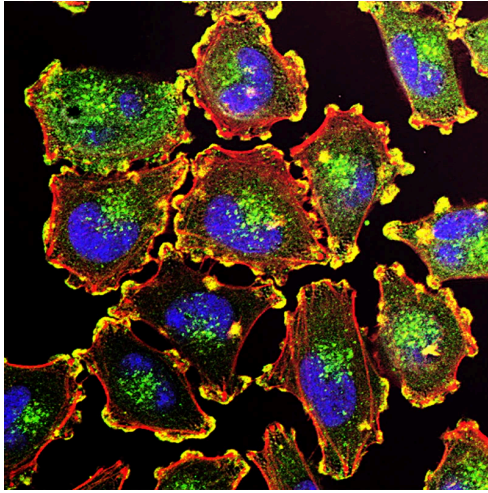
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# Large-scale team card games

DR LORRAINE SMITH



## What is the idea?

To encourage students to apply their understanding of cellular components within an active learning context, I have designed cards for an activity that works within large and small teaching spaces. The task involves students acquiring a complete set of cards, which accurately make up the components of something through swapping and negotiating. It requires students to think, problem solve, apply their learning and interact with others. I use several sets within sessions designed with different questions in mind: one set requires students to design a cell – different groups have different cellular components and need to discuss in their team, design and collaborate with others to make a realistic cell. Students are out of

their seats, talking, engaging, competing with each other. It is noisy, energetic and fun!

## Why this idea?

The challenge was to develop an active learning strategy that would meet the needs of a large number of students (e.g. > 100) within large teaching spaces, such as lecture theatres.

Biology has many challenging concepts and tricky terminology, and it has been demonstrated that active learning can support and develop understanding within this discipline better than didactic delivery of information (Armbruster et al., 2009). The use of play, and in particular the use of games, has also been demonstrated to be effective within active learning in HE (Nørgård et al., 2017). From experience I know that using games within small classes is productive in stimulating and engaging students, so why not in large classes? This led me to develop several games specifically for use within large spaces.

## How could others implement this idea?

This works well, building on students' understanding of a topic that would involve a synoptic or applied element to it. For example, students could learn about aspects of a business and the cards could show different elements of different businesses, where students must choose the business type and collect the cards appropriate to that. Here I have used elements of different cell structure, with students choosing which type of cell to build, and their task was to build a particular cell type through swapping cell components. See figure 2 for example cards.

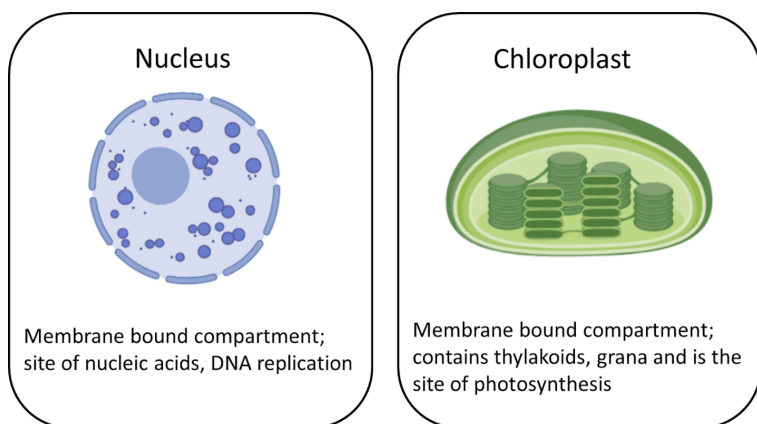


Figure 2. Cards created representing two different cellular components

Find images that represent the components that students will be choosing between. Here I included all features that were found within a variety of cell types, and students must choose the correct ones depending on which type of cell they are building.

Create each card with the name of the feature, an image of the structure and some descriptive information that should help students to recall where and why this feature is important.

Print the cards and sort into piles: eg a) features within all cells b) features shared between several cell types c) unique features within a particular cell type

Sort cards into packs for student groups: Packs should have between 6-8 cards. If groups decide to merge with another group they must submit ALL cards and will have penalties if they have duplicates or wrong components.

Set up the groups: in a lecture theatre: I assign students into groups of six, give them a moment to introduce themselves then hand out a pack of cards to each group.

Set the ground rules: choose a cell type to collect for; set a time limit for swapping (20 min was sufficient for this); set swapping rules (eg swap 3 times from other teams / swap from a bag like

scrabble); set a cell card limit per cell (*e.g.* 12 or 16 so that only two groups can merge).

Use Padlet or similar to gather information about the cell types – each group must submit details of their final card selection (all cards need to be submitted).

Go through each submission collectively and encourage students to explain why most would not be viable (*e.g.* animal component in a plant cell). Students rate the most realistic cell type and they are congratulated by everyone else.

## Transferability to different contexts

The main idea behind this game is to encourage students to apply their knowledge into a 'creation' game. The concept is to demonstrate which features are shared between most examples you are comparing and which features are unique to one type – this can be transferred to many disciplines. If you have a topic that you can create Venn diagrams from you can apply this game to it.

## Links to tools and resources

Padlet: <https://en-gb.padlet.com/>

## References

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## Image Attributions

Figure 1. Cells under a microscope by National Cancer Institute is used under Unsplash licence

Figure 2. Cards representing two different cellular components, created Using BioRender by Lorraine Smith, is used under CC-BY 4.0 license

## About the Author

Dr Lorraine Smith

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# Escape rooms: discovering clues, solving puzzles and working as a team

JAMIE HEYWOOD



## What is the idea?

An escape room is a game where players, working in a team, solve puzzles and complete short tasks. This is typically within a set time limit, with the overall aim to achieve a specific end goal – usually to ‘escape’!

Escape rooms can be set up in a physical environment, with

tangible objects, and a focus on exploring the environment and discovering clues. Clues can lead to puzzles; puzzles can lead to answers and answers can lead to further clues. After a series of these have been solved, teams can find a final code or answer, which can be used to complete the escape room (sometimes this is through unlocking a physical door).

The escape room idea is generally believed to be from the video game genre 'escape the room', where players find themselves in a locked room and are required to click on their surroundings, explore the environment, and find a way to escape. More advanced virtual escape rooms have since been created, using various programmes and platforms, with the ability to explore an online environment (Nicholson, 2015).

## Why this idea?

With well-designed, appropriately challenging escape rooms, players instantly become active participants and develop learning on many levels, working collaboratively towards a shared goal (Veldkamp, Daemen et al., 2020). Desirable skills and qualities such as teamwork, creativity, leadership, communication, decision making, and critical thinking can all be fostered and developed (Fotaris & Mastoras, 2019). Pedagogies such as Inquiry-Based Learning, Scenario-Based Learning, Teams-Based Learning, Games-Based Learning can all be embedded within this methodology to create an engaging, fun, and stimulating activity (Makri et al., 2021). Escape rooms are naturally versatile, with the ability for them to be contextualised to different subject areas and have varied levels of complexity to suit the time required to complete and the level of student. Students can also design their own escape rooms, which can then be completed by other groups afterwards to promote peer to peer learning, creativity, and innovation.

## How could others implement this idea?

So how can we create escape rooms? Similarly to curriculum design, the first step should be to establish what the overall intended learning outcome is, which provides a foundation and context to the puzzles and structure (Veldkamp, van de Grint et al., 2020). This may be a certain skill (e.g. communication, teamwork or decision-making) or a certain topic related to the curriculum. A series of puzzles, which link to each other, can then be designed. These can be in categories such as visual (e.g. examining images/surroundings to solve a puzzle), logic (e.g. using reasoning to identify a theme), physical (e.g. undoing a knot or searching an object), auditory (e.g. deciphering a sound), or combination (e.g. a mixture of these grouped together) (60OUT, 2019). Escape rooms can be set up in a physical environment, where clues and puzzles are scattered around the room (see Image 1 as an example). It may help to set up multiple versions of the puzzles, so teams are not reliant on a singular item, and can complete simultaneously. Virtual environments can be set up by creating codes to unlock new content, for example, gaining a password to enter a new tab (e.g. using Microsoft OneNote) (see Image 2 as an example), or a different webpage (e.g. Password Protected Padlets) (Microsoft, 2021; Padlet, 2021). When creating puzzles, it is important that they promote autonomy (teams are self-directed and do not need to rely on support), are achievable (teams should be challenged but able to make progress) and have a focus on collaboration (containing different elements so teams can work together and all members can contribute) (López-Pernas et al., 2019). Small groups of three or four members can be most effective, as decisions can be made quicker, there is a larger feeling of responsibility, and it is easier for teams to bond and synergise. To further develop engagement, collegiality and momentum, puzzles can be scaffolded, with easier ones to begin with before becoming more challenging. By solving puzzles and seeing progress, this creates a sense of achievement

and can be a catalyst for added motivation and enjoyment (Prensky, 2001).

When the escape room has been designed, and is ready to be played, it can help to give an opening briefing to clarify the starting point and to set any specific rules. Creating competition by including a reward for the winning team can further gamify the process and provide an added incentive. It is common that teams may become stuck at a particular puzzle and unable to make progress. Due to this, it is worth including the ability to receive a hint, or the answer, after a certain time, to enable the team to continue, as well as tracking the overall progress of each team in order to give support and guidance if required. After a set time, or when a team finishes, reflecting and debriefing on the experience can help align to the outcome, and meaningfully contextualise the learning and skill development that has taken place. If a team has not managed to 'escape' within the set time, then collaboratively discussing the solutions of the stages, or puzzles, they did not complete is important as a learning opportunity and to not discourage future escape room usage.

## Transferability to different contexts

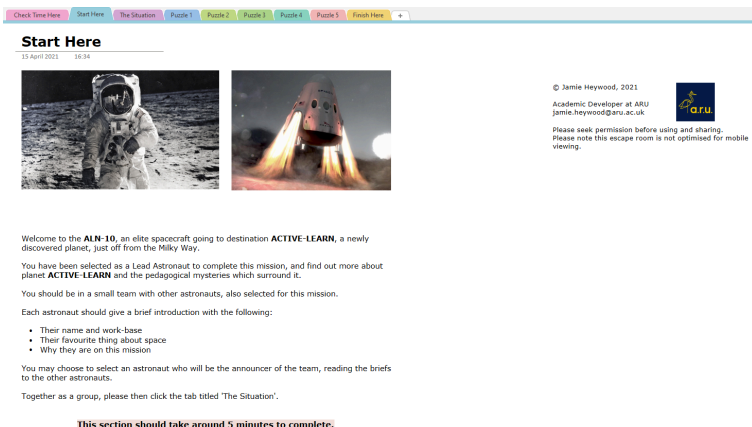
There has been a range of innovative and inspiring examples of escape rooms used in educational contexts. These have been to teach and develop understanding in key aspects of the student journey such as using the university library (University of Staffordshire, 2022), during the student induction process (Coulson et al., 2020) and digital accessibility (Open University Educational Escape, 2021). They have also been designed to enhance specific areas such as communication (O'Brien, 2021), cyber security (University of Strathclyde, 2022) and breaking down stereotypes (Leeds Trinity University, 2022). These have been mapped to certain themes such as a Zombie Apocalypse (the library has been taken

over by zombies! How can you use your library skills to find a solution and save the university?) (Groves, 2019), Harry Potter (a house prefect has locked you in a room and you need to use teamwork to escape – without using magic! See Krawiec (2021) and Image 3) and the authors own design, being an astronaut trapped on their spaceship (which is used to promote educational escape room use!) (Heywood, 2021). By creating a theme or narrative, this helps to foster a fun, playful and immersive experience and strengthens escape rooms being used as a transformative pedagogic approach.

## Images



*Figure 1. Escape room in action*



## Links to tools and resources

### Books:

- Morris, J. (2020). *Escape rooms in education: A practical guide*. Independently published.
- Nicholson, S., & Cable, L. (2021). *Unlocking the potential of puzzle-based learning*. Sage.
- Walsh, A. (2017). *Making escape rooms for educational purposes: A workbook*. Innovative Libraries.

### Platforms:

- Microsoft OneNote: <https://www.onenote.com/download>
- Padlet: <https://padlet.com>

### Web pages:

- Educational escape (Open University): <https://edscape.org.uk/>
- Escape rooms for learning and teaching (Durham University): <https://dcad.webspace.durham.ac.uk/2021/03/19/the-great-escape-escape-rooms-for-learning-and-teaching/>
- Escape to the classroom: Challenging learning environments: <https://wonkhe.com/blogs/escape-to-the-classroom-challenging-learning-environments/>
- OneNote escape rooms: a 10 step guide (University of Derby): <https://digitalhandbook.wp.derby.ac.uk/wp-content/uploads/sites/14/2020/06/Escape-Room-Guidance-1.pdf>
- What are the 7 types of common escape room puzzles to look for? <https://www.60out.com/blog/solve-common-escape-room-puzzles>

### Videos:

- Gamification in higher education: <https://www.youtube.com/>

watch?v=d8s3kZzlyQ4&ab\_channel=TEDxTalks

- OneNote Escape rooms! [https://www.youtube.com/watch?v=suKBV82sJOk&ab\\_channel=MrExham%27sEdTech](https://www.youtube.com/watch?v=suKBV82sJOk&ab_channel=MrExham%27sEdTech)

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## Image Attributions

Escape Rooms photo by Zachary Keimig on Unsplash

Figure 1. Escape room in action by Bearfotos on Shutterstock.

Figure 2. Example online escape room screenshot by Jamie Heywood is used under CC-BY 4.0 licence

Figure 3. Screenshot of Hogwarts Digital Escape Room by Sydney Krawiec is used with her permission. The train photo at top of page is by K B on Unsplash.

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Jamie Heywood is an Academic Developer (SFHEA) at Anglia Ruskin University, promoting and supporting active, inclusive, and collaborative teaching and learning. With experience in teaching and managing courses across FE and HE, Jamie strives to share best practice and foster innovation, through educational development and evidence informed pedagogical support.

# Online escape rooms

NINA WALKER



## What is the idea?

Wanting to find a way to enhance early interaction between students in the online environment, I created an online escape room activity for first year Master of Pharmacy students, after attending a webinar with Rachelle O'Brien who showcased this approach. The escape room that I created comprised a series of puzzles hosted in the online environment. Each puzzle required participants to work together to find a password in order to progress to the next one. The escape room was hosted via Microsoft OneNote and was delivered to small groups via Zoom breakout rooms on the first day of the 2020-21 academic cycle, enabling students to engage with peers from their cohort and staff in a playful learning environment. Each breakout room (typically 15 students) was facilitated by a member of pharmacy staff who shared the OneNote on screen for all participants to see. The escape room was based on generic

puzzles, (not specific to pharmacy education) which were designed to get students talking and lasted about 30 minutes in total. Each room was timed to add a competitive element.

## Why this idea?

The student experience is constructed of many variables including network building and development of a sense of belonging. The first year of study has been impacted by the COVID-19 pandemic which has brought with it many challenges including an obstacle to developing an acute sense of belonging in early higher education (Mooney & Becker, 2021). Early bonding may have been affected by the lack of face to face contact and persistence of the virtual environment (Cheng et al., 2021). I wanted to look for ways to overcome some of these issues and provide a meaningful and rewarding early transition period. Researchers have noted the impact of playful learning as an effective engagement mechanism and in particular escape room use in education has increased substantially recently (Fotaris & Mastoras, 2019). Setting up the online escape room was straightforward, and I used a range of puzzles giving students the chance to interact with each other tackling puzzles in a collaborative manner. I selected puzzles that were not discipline specific, not wanting to alienate students in the early phase through perceived lack of knowledge. Instead I chose puzzles relating to common topics such as film, maths logic, Morse code and common catch phrases. Staff facilitated the session but this approach also allowed early engagement of students with discipline staff in a relaxed environment.

## How could others implement this idea?

Before the session:

Consider what you are trying to achieve. If the main aim is integration and engagement then consider generic puzzles for students to tackle. If you want a specific learning outcome consider how you will break this up into smaller chunks or puzzles.

Open Microsoft OneNote and create a new notebook.

On the first page introduce your escape room. You can import pictures and other media if you want – just check the copyright!

Set your student expectations – timings, how it is going to work and give a simple first password like 'GO', 'START' or similar.

## Start here

Thursday, August 27, 2020 9:22 PM

Hello everyone and a very warm welcome to the start of term adventure..... The aim of this task is for you to work together to crack the codes on each page and escape the INDUCTION WEEK ESCAPE ROOM as quickly as you can.

So what am I expecting? Not too much, work as a team and see how quickly you can figure out the answers. You will need a password from each puzzle to gain entry to the next page. If you get very stuck you can ask for help from your ESCAPE GUIDE (a.k.a you're the member of staff that is here too!). You will also need to note down the first letter or first number from each password/code to enter the final puzzle!

What do you have to do first..... Introduce yourselves to each other if you don't know each other already and work together to get to the end as soon as you can! Make sure that you do the puzzles in order ....

Once that is done, click on the page "Puzzle 1" and enter the code START to begin....remember to tell your tutor to start the clock.....

Figure 1. Start here

On the next page, type your first puzzle and when complete add a password to this page – use your previous password ‘GO’ or ‘START’ and this will create the locked element. You can add a password by right-clicking on the tab at the top. Carry on with this approach until your escape room is complete.

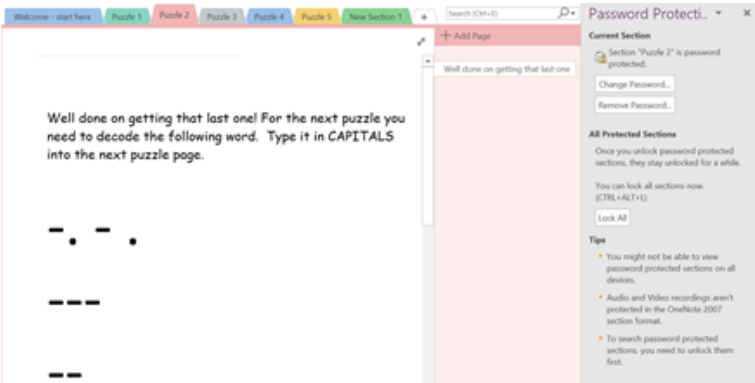


Figure 2. Password entry

It is sensible to create all puzzles first and then password protect the pages!

Create your problems or puzzles and do a test run to check it works. Write all of the passwords down somewhere safe! As you move through the puzzles you will be faced with a password protection message as below:

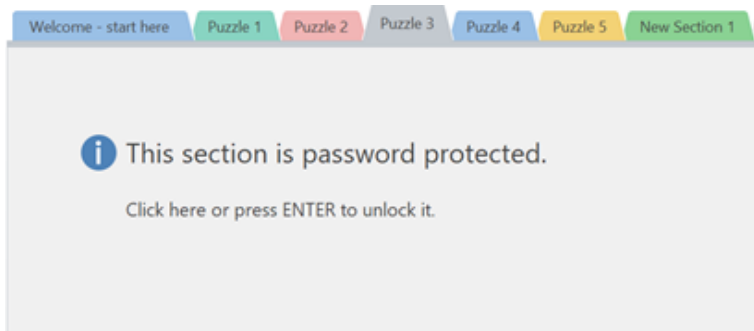


Figure 3. Password protected

Once you have created your escape room, also create a Word document which can be shared on screen if the OneNote fails. Now you can send a link to your shared OneNote notebook for the staff members to share on screen in the breakout rooms. Don't forget to send them the passwords too!

At the activity:

Be clear with your instructions to students. Let them know why we are doing this and how it is going to work. Set the expectation that collaboration is expected and let them know that the activity will be timed. Adding a timed element tends to increase the competitive nature of staff and students.

Next allocate students randomly to a breakout room and move one staff member into each room. Open rooms and allow staff to encourage students to introduced themselves before the Escape room gets going.

Have someone in the main Zoom room to guide students who arrive late or drop out of the meeting, then wait for the first group to finish!



## Transferability to different contexts

This approach could be adopted in any discipline allowing teachers/facilitators to pose any questions, problems or ‘puzzles’ via the online escape room and encouraging students to work through the puzzles together. The resources required for students are a mobile device or computer that can connect to Zoom. You also need some willing enthusiastic staff members to facilitate each Zoom breakout room.

## Links to tools and resources

- Escaping the inactive classroom: Escape Rooms for teaching technology: <https://openjournals.ljmu.ac.uk/index.php/JSML/article/view/395>
- The Great Escape – Escape Rooms for Learning and Teaching: <https://dcad.webspace.durham.ac.uk/2021/03/19/the-great-escape-escape-rooms-for-learning-and-teaching/>

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Figure 3. Password protected Microsoft OneNote screenshot by  
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Nina Walker is the Student Experience Lead for Clinical, Pharmaceutical and Biological Sciences at the University of Hertfordshire. Nina has worked in Higher Education since 2007 and is the module lead for the Transition to Higher Education module. She is passionate about creating opportunities for students to excel, working across diverse student populations particularly around transition points.

# Role-playing in Second Life

DR KATHARINE JEWITT



## What is the idea?

Virtual worlds provide collaborative spaces for learners to meet without real life limitations. They lend themselves well as a place to role-play, because learners can engage anonymously through the adoption of an avatar (their virtual presence) and learn from their peers through observation and discussion (Ghanbarzadeh & Ghapanchi, 2016). Learners are best taught through actively doing, role-playing and reflecting (Jamaludin et al., 2009). Entering the

virtual world, learners can adopt a role to practice their skills via role-play activities, before transferring their skills to real life. Virtual worlds have limitless possibilities in education (Jewitt, 2018).

## Why this idea?

Use Second Life ® as a way for students to develop and practice skills. By taking on a role in a fictional situation, it's a useful way to provide an experience to students and develop a more tacit understanding of course content (Bannister, 2018). Anonymity enables learners to build their confidence, make numerous attempts, develop and practise skills, take risks, fail and communicate more than they may in a real-life situation (Jewitt, 2017). There's no fear of asking a stupid question or saying the wrong thing, instead students can grow and develop in a safe environment (Jewitt, 2018).

There are many virtual worlds in existence for all ages, from Walt Disney's Club Penguin, Gaia Online for teens to popular virtual world video games like The Sims to Google Earth and Bing Maps. Second Life ® is a free multi-user, three-dimensional, graphical virtual world. It is used by around a million members around the world for many aspects of real-life including business, dating, art, entertainment and used as a platform for education by many institutions.

## How could others implement this idea?

### *Get access to Second Life*

Sign up for the free membership, create an appearance and a name

for your avatar and download the Second Life ® application at [www.secondlife.com](http://www.secondlife.com)

The first place you will arrive is Orientation Island where there is an option to work through a tutorial to teach you the basics.

It's worth spending a little time to get to know the basics first and increase your confidence before facilitating activities with your students. There are lots of forums and blogs available on the Second Life website, which provides all the support and answers to questions that you will need. For a quick start guide, see this link:

[https://community.secondlife.com/t5/English-Knowledge-Base/Second-Life-Quickstart/ta-p/1087919#Section\\_3](https://community.secondlife.com/t5/English-Knowledge-Base/Second-Life-Quickstart/ta-p/1087919#Section_3)

Use the search functionality to find out anything you want to know. The best way is just to dive in and have a go.

### *Hold an orientation session*

First you will need to hold an introductory session with your students, so they can learn how to control their avatar. During this session, ensure everyone knows how to sit, stand, touch, zoom and change their view. Use the orientation session to move around the virtual world by walking, flying and travelling instantaneously to different locations, known as teleporting to a new location. Ensure students know how to use the main map to find their way around Second Life ® and the mini map to explore their current location. Spending a little time at the start to explore and experiment will help everyone to build their confidence to work in Second Life ®.

### *Create scenarios*

Provide your students with a set of structured, collaborative role-plays (Jewitt, 2018) to explore challenging and common situations they may face in real-life. Outline the purpose and learning

objectives to the role play activity. Role-play can help address learning across cognitive, psychomotor and affective domains (Rao & Stupans, 2012). Assign roles and ask your students to visit a place to practice the skill. Medical students could meet in a hospital and take on the role of patient and doctor to build their confidence in conversations with patients. French language students could meet in the Louvre Museum and practice communication skills taking on the role of museum guide and tourist. You may provide Teacher Trainers with classroom scenarios they may face or business school students practice negotiation and interpersonal skills or Law students could perform a mock trial.

Second Life ® is an exciting and vast learning space. Students can go off and work in groups, supporting active learning theory in practice, fostering creativity, group discussion and development of interpersonal skills (Poort et al., 2020). Consider how much guidance you want to give to students.

### *Promote self-reflection*

Schedule time for students to come together at the end to socialise and chat about challenges and new discoveries. Sims and Kamik's (2021) research uses virtual reality to support the scaffolding of reflective tasks through mind mapping by supporting use of the 3D space which isn't otherwise available through 2D mind mapping applications. Socialisation has been shown to develop trust, build teamwork skills and provide bridges between social, cultural and learning environments (Salmon, 2013).

## Transferability to different contexts

### *Activity ideas*

Explore islands as an icebreaker or carry out a scavenger hunt. Take your students anywhere in the world, art students could visit the Sistine Chapel or Science Students visit the Space Flight Museum. Research by Tudor et al. (2018) showed how using virtual reality to take students on a geography field trip led to a greater student awareness of large-scale development on the environment.

Use Second Life ® to hold office hours. You could also take advantage of the anonymity to gather course feedback, asking students to swap avatars. Working anonymously can help less experienced students to catch up with their peers and enable students to ask questions without the fear of thinking it is a stupid question (Johnson, 2010).

Hold social events for team building or assign tasks for students to practice interpersonal skills and develop their soft skills. Research by Dyer et al. (2018) used virtual reality to teach empathy in medical education. Host focus groups for students to discuss the course and share problems. Set designated times for virtual discussions.

Take advantage of activities already created by other institutions and assign students to visit islands, for example there are many simulations for medical students, such as exploring inside the human body (Pottle, 2019).

### *Handy tips*

Make sure you have a clear place for students to travel to instantaneously, known as teleporting. In the search box, type in education and teleport to one of the islands.

During the initial orientation session, it is key that students know the basics, such as, how to sit down and how to read the map.

Facilitate activities and allow your students to engage and create their own learning culture. Enable students to find their own way of working in Second Life®, for example, adopting specific roles and ways to communicate. Over time, students develop strategies to overcome some of the technological weaknesses, such as delay in communication or lack of body language. Encourage students to play and experiment in the virtual environment.

Many institutions have created their own virtual campus. You can go beyond the basics by building and scripting and designing whole courses (Irhamni et al., 2014); for example, Code College (2020) deliver classes inside Second Life. Alternatively, keep it simple and make use of the free islands available. I use the virtual world for simulations and role-playing and to enable students to reflect on what they have learned in virtual reality to transfer skills learned to the real world (Jewitt, 2017).

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# Collaborative problem solving for in-depth conceptual knowledge in 3D virtual worlds

DR STYLIANOS MYSTAKIDIS; PANAGIOTIS MOURTZIS; AND  
EFFROSYNI TSEREGKOUNI

## What is the idea?

Distance education in 3D virtual worlds can open up new horizons of student-centred pedagogies with collaborative problem-based activities in the Metaverse. The Metaverse is an interconnected web of social, networked immersive environments in persistent multiuser platforms (Mystakidis, 2022). Easy to set up activities without special or expensive resources can be organised in social VR platforms without advanced programming skills to facilitate the application of complex theoretical academic concepts towards durable, in-depth learning.

## Why this idea?

In many scientific fields there are complex theoretical models, frameworks, typologies, and taxonomies involving multiple stages or categories, e.g. SOLO taxonomy, Bloom's taxonomy (Krathwohl, 2002). Students need to build a deep, meaningful comprehension of each component of the model so as to be able to transfer this

knowledge and apply the model in authentic contexts (Mystakidis et al., 2021). 3D virtual worlds offer both superior visualisation affordances as well as enhanced user agency in comparison to 2D platforms (Dalgarno & Lee, 2010; Kapp & O'Driscoll, 2010). Social VR can be the next, dominant paradigm of open distance education in the context of the Metaverse. Cooperative problem-solving can trigger peer learning, interest, learner autonomy and self-regulation (Davis et al., 2018; Dolmans et al., 2016).

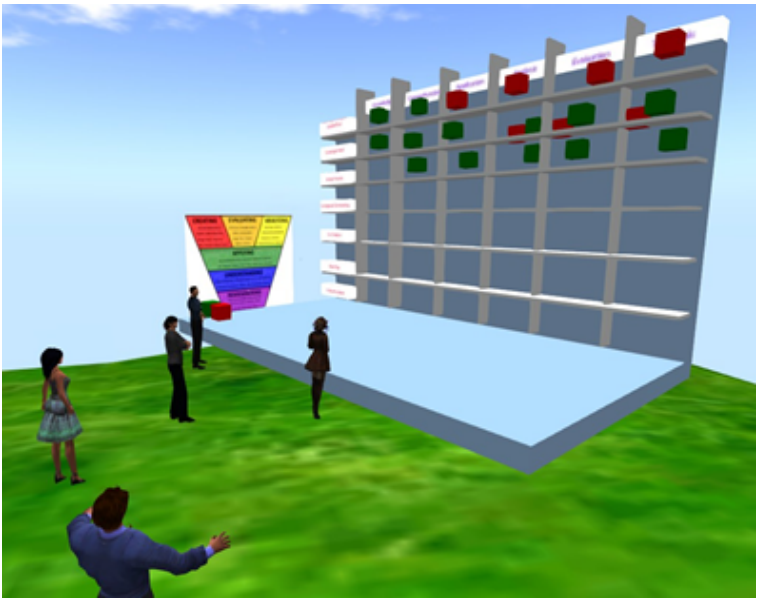


Figure 1. A collaborative problem-solving session in action in a 3D virtual world

## How could others implement this idea?

Figures 1 and 2 illustrate specific application examples. The snapshot in Figure 2 is from a SWOT collaborative activity in a

distance postgraduate course for a UK university. The educator has prepared two identical boards and 3d objects, simple white blocks, in this case with the labels of twelve major technological and pedagogical trends in their longer sides. Students are divided in two groups and have the task to discuss and classify the trends across the strengths – weaknesses – opportunities – threats spectrum in the context of higher education. They can execute this task by picking up each block and moving it to the appropriate quadrant. After working separately, both groups convene to discuss similarities and differences in the plenary.

The following implementation steps are recommended for Second Life and virtual worlds platforms based on the open-source software OpenSimulator.

1. Choose a relevant theoretical framework, model, taxonomy or typology that students need to comprehend.
2. Select short problems, cases, examples or components that fall into the different stages or categories of the framework. Package eventual additional information into a format that is easily accessible to students.
3. Prepare the 2D files for the 3D assets, e.g. text labels in the form of images. Make sure that you have sufficient but not too much empty space around the word or words. Upload them to the platform as textures.
4. Create the required 3D assets in the virtual worlds: the board of the taxonomy and the 3D objects, blocks for the elements or cases titles to be moved and classified. Apply the images on the surface of the 3D objects.
5. Set the appropriate permissions for each 3D object so as to facilitate the group work. For instance, students should be able to move or even replicate blocks but not the board with the framework's categories.
6. Create one duplicate 3D learning setting, board, labels and blocks, for each group. Make sure each group has sufficient distance from others to avoid local voice interference among

groups.

7. Prepare written instructions with the tasks to be completed.
8. Divide students into groups and share instructions both in written and oral form. Allow students to ask questions.
9. Let students execute the exercise, roam among groups to verify their steady progress.
10. Make copies and snapshots of the finished boards.
11. Exhibit the work of each group in the plenary meeting space. Let each group present and justify their choices. Debate eventual differences.
12. Debrief, archive, reflect and discuss group work.

## Things to watch out for

In order to create and materialise objects in a 3D virtual world, the avatar needs to have building permissions. This right can be either granted within an existing group of educators that owns some virtual land, or, another option is visiting public spaces called Sandboxes that are open to all users. Also, in Second Life, uploading images costs 10 Linden dollars each. 1 US dollar amounts to approximately 250 Linden dollars. In OpenSim worlds, all steps are free of charge.

## Transferability to different contexts



Figure 2. Group of postgraduate distant learners ready to start a collaborative activity on SWOT analysis

This idea is relevant to educators who wish to encourage in-depth knowledge and application of theoretical information around a taxonomy (Mystakidis, 2021b). It requires subject-matter and basic editing skills in 3D virtual worlds.

This idea can be implemented in any 3D virtual world or social VR platform that allows either creating or importing custom 3D objects. It is not necessary to build an entire world but rather just the objects for the activity. This is a basic building skill that can be quickly mastered by any educator. Differentiated student access to computing equipment can be addressed by selecting a platform that allows flexible participation through various devices such as VR headsets, computers or mobile apps. In any case, preparatory orientation and technical training sessions are recommended prior

to the course to ensure that both educators and student construct sufficient technical skills to use the digital systems effectively (Mystakidis et al., 2017). This approach can safeguard that technology is an enabler not an obstacle.

Alternatively, this idea can be applied pedagogically to analyse a problem, a situation or story collaboratively by identifying, deconstructing and categorising its components. Other variations could involve a snowball technique to facilitate knowledge sharing and peer-feedback across teams.

From a technological point of view, this practice is applicable also in 2-D settings, e.g. through group work in breakout rooms during synchronous web-conferencing sessions. In this case groups can converse and edit collaboratively a document, e.g. in GDrive.

3D virtual worlds can support effectively playful design (Mystakidis, 2021a), curriculum gamification (Mystakidis, 2020) as well as game-based learning (Christopoulos et al., 2018). Depending on teaching perceptions, student characteristics and the overall context, appropriate game mechanics such as time pressure or competition can be added to gamify the activity.

## Links to tools and resources

- Transform your e-learning with playful design and gamification (presentation): <https://www.slideshare.net/stylianosm/transform-your-elearning-with-playful-design-and-gamification>
- Virtual worlds best practices in education (YouTube video collection): [https://www.youtube.com/playlist?list=PLPRENVaGegME1\\_y2Jbz-6asxcZ3nfW2Y0](https://www.youtube.com/playlist?list=PLPRENVaGegME1_y2Jbz-6asxcZ3nfW2Y0)
- Basic building tutorial (YouTube video): <https://www.youtube.com/watch?v=nBR9mZ61W8s>
- Permission of 3D objects (YouTube video): <https://www.youtube.com/watch?v=RnrmY1eJa1Y>



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Figure 2. Group of postgraduate distant learners ready to start a collaborative activity on SWOT analysis by Stylianos Mystakidis is used under CC-BY 4.0 Licence

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# Plasticine definitions

DR JESSICA CLARE HANCOCK



## What is the idea?

This activity asks small groups of students to define a term by creating a plasticine model—translating their ideas into metaphor and a material object makes them really consider what the term means (James et al., 2014). There are many terms that are frequently used in universities that become jargon and overdetermined, describing concepts that students might be able to parrot a verbal definition of, but do not truly understand: such as criticality, plagiarism or more subject-specific phrases; see, for example, Gordon (2000). Creating a shared definition of these important ideas is beneficial to students. After making the model, groups swap tables, and guess the term that another group's model represents.

This leads to a whole group discussion and the creation of new, shared and accessible definitions.

## Why this idea?

If students are asked to provide a verbal definition of a particular concept, they may be able to recite one that they have learnt by rote, but this does not mean that they are able to fully understand the implications of this theory or notion. For example, when I discuss plagiarism with students, many are able to confidently respond that it's about 'using someone else's work as your own'; but when asked to expand on this, or give particular examples, or decide on whether a particular scenario constitutes plagiarism or not, they find it much more troubling, suggesting that they do not really appreciate the implications of the definition they have given.

By using plasticine, and asking students to create a model, students have to move from a pat, or pre-determined and prepared, response into the realms of metaphor, which requires a deeper discussion of the meanings of a concept (Gallagher & Lindgren, 2015; Hancock, 2019). Using a material which may be familiar to students from childhood introduces a playful element which has benefits in enabling a different kind of approach to the discussion, and making learning fun (Whitton & Langan, 2019). Playful approaches can move students away from fearing giving the 'wrong' answer, and into a space where open exploration is possible (Nørgård et al., 2017).

Doing the activity in a group means that students can build on each others' knowledge through collaborative peer learning (Boud et al., 2013), and develop a shared understanding of each concept. Working out the meaning of another group's model again facilitates a deeper discussion using metaphor. Students then become clearer about the elements of a particular term or idea. Comparing each group's model enables students to appreciate alternative

perspectives to and definitions of a term that they might have initially seen as being straightforward. This kind of creative response to notions and theories takes students out of their comfort zone of verbal articulation to examine what is really behind the ideas they are discussing (James et al., 2014).

## How could others implement this idea?

Of course, activities such as this are often undertaken using Lego (Hayes, 2016) or similar kinds of building bricks. Plasticine has two clear benefits in comparison: 1) it enables complete freedom in creation as students are not limited by the amount or type of bricks they have been given, or drawn to put bricks together in predictable ways and 2) it is much cheaper than Lego (a factor that led to my original choice of this material). Plasticine has been used in higher education to explore identity (Jayadeva et al., 2022) as well as creating models in healthcare or manufacturing-related contexts.

This idea could be implemented using bought plasticine, or homemade play dough that can be created just using oil, flour and food colouring (possibly with the addition of salt). In the case of neither of these being suitable, a student with a specific allergy might complete the activity by drawing or creating a paper model, or taking a role within the group of directing a creation without personally touching the plasticine.

Although this kind of material has the benefits of freedom in creation, some students are intimidated by a perceived skill level in making something recognisable. If this is identified as a particular issue, this activity could be supported by a brief demonstration of how to make some simple object/figures etc, or by handing out cards with some examples of some components that could form part of the groups' models, and by allowing some additional warm-up activities. These warm-up activities could develop confidence by asking students, either individually or within their group, to

produce some simple forms (e.g. 'you have five minutes to make an animal') before embarking on the main activity around creating a model to represent a concept.

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# 5C COLLABORATION AND CO-CREATION



# The Global Culture Jam, a jam like no other

DR CHRISSI NERANTZI AND LINDA MATTHEWS



## Summary

The Global Culture Jam is a programme that aims to foster cross-cultural learning and teaching and bring together students and educators from different institutions nationally and internationally. It has been developed by educators and students from Manchester Metropolitan University and was offered for the first time in June 2021 as a five-day fully online active learning programme. The themes we explored were around community, sustainability, curriculum and creativity. Educators, students and guests worked together in partnership to create a stimulating, engaging and creative programme to celebrate diversity and bring participants closer together. The programme consisted of a series of live events and self-paced activities all supported and co-facilitated by educators and students. We had over 700 registrations from over 20 different countries. Guest speakers were from Italy, South Africa, Brazil, India, the US and the UK. There were over 1400 participations in the live events throughout the week. Eleven undergraduate,

postgraduate and doctoral students worked in partnership with 18 educators and guests nationally and internationally, as co-leaders, co-designers and co-makers to put together a stimulating and highly interactive programme, including 17 live sessions that attracted from 51 to 208 participants per session. The feedback suggests that the Global Culture Jam was not only an enjoyable event but also highly impactful as it boosted academic confidence and helped develop and strengthen cross-cultural competencies and also create new professional relationships with educators which led to further collaborations.

This contribution will provide some insights into the Global Culture Jam programme and help others consider such an approach in their professional context with educators and students to foster cross-cultural active learning, development and partnership working.

## What is the idea?

The Global Culture Jam (GCJ) is a programme designed to enable and foster cross-cultural learning and teaching and bring together students and educators from different institutions nationally and internationally. It is inspired by practices, pedagogical approaches and research linked to #creativeHE, an international community that was founded in 2015 and now has team members from 14 institutions in the UK, Greece and Canada and over 600 community members nationally and internationally (Nerantzi et al., 2018).

The GCJ ran in June 2021 as a five-day fully online active learning programme. It was a partner event to the Learning and Teaching Festival organised by Manchester Met's University Teaching Academy, and was also integrated into an institutional scheme called RISE, which seeks to acknowledge and potentially credit students' extracurricular activities. The GCJ was organised into four strands, namely community, sustainability, curriculum and

creativity. These provided the thematic scaffold of the GCJ. The programme consisted of a series of live events and self-paced activities utilising participatory, active and collaborative learning approaches such as making, storytelling, learning with objects and play for example and created multiple opportunities over the 5 days to actively engage participants, facilitators and guests into a series of creative tasks and activities to stimulate sharing in a range of ways that brought individuals together through personal and joined-up explorations. The underpinning pedagogical orientations used in the GCJ can be traced back to active learning such as social constructivism (Vygotsky, 1962) and constructionism or learning through making (Gauntlett, 2011; Papert & Harel, 1991) as well as experiential learning (Dewey, 1938). This meant that more complex topics such as community, curriculum sustainability and creativity in the cross-cultural landscape could be explored in a varied, accessible and hands-on way that gave everybody a voice and varied opportunities to express, contribute and learn with and from each other. As the GCJ was offered fully online using digital networked technologies and social media the following design principles were applied 1. Activities, 2. Choice, 3. Facilitator support and 4. Community to boost interaction and engagement in these settings (Nerantzi, 2017).

The event was supported and co-facilitated by educators and students. Educators, students and guests worked together in partnership to create a stimulating, engaging and creative programme to celebrate diversity and bring participants closer together. We recruited undergraduate, postgraduate and doctoral students as co-creators in the form of makers and designers of learning activities and resources (Mercer-Mapstone et al., 2017). Students worked closely with the academic team for two months in advance of the event on co-designing the programme and specific strand activities. Overall, the team consisted of 30 team members. Educators, students from across the institution, interns and further support staff from the International Mobility Office.

MSTeams platform was used to build and facilitate the event

globally. We had over 700 registrations from over 20 different countries. Our guest speakers were from Italy, South Africa, Brazil, India, the US and the UK. As large number of participants were anticipated, Zoom was used for all the live participatory sessions. These were spread across the day to attract as many participants as possible from different time zones and recordings were made available immediately after the live sessions. There was a live session for each strand from Monday to Thursday and a final celebratory event on Friday that brought the event to a close. There were over 1,400 participations in the 17 live events throughout the week. The live sessions were complemented with self-paced activities for each strand, creating flexible engagement opportunities anytime, anywhere, facilitated by educators and students. The Café and Helpline discussions provided additional spaces to socialise and seek support if needed. Facilitators had their own discussion channel to support each other and troubleshoot during the event. Padlets were used throughout the week as well as some Google Drive tools to share, collaborate and curate creations and artefacts during the week linked to the different strand activities. The Doodlefan tool enabled participants to create their own picture book scenes linked to an open education activity. The GCJ had specialist input from museum curators and specialists. This led to the creation of a GCJ museum to curate and showcase some of the work generated by participants during the week. Furthermore the #GCJam21 hashtag was used on social media, such as Twitter and Instagram to extend opportunities for engagement.

## Why this idea?

As the pandemic brought about radical changes to how higher education institutions operated, and campus-based provision rapidly moved online (Bozkurt et al., 2020), global travel restrictions and social distancing became the norm, the GCJ was from the outset



designed to be a fully online programme in the form of virtual student and staff mobility using digital networked technologies and active collaborative and creative learning and teaching approaches, creating an innovative and resourceful solution and an oasis of hope and togetherness during very challenging times to enrich the institutional internationalisation offer and provide stimulating learning opportunities to engage our students and educators institutionally, nationally and internationally.

The GCJ was developed by a team of educators and students from diverse disciplinary areas, backgrounds and orientations from across Manchester Met during the academic year 2020/21. A partnership model of working was adopted from the beginning to maximise on individual diverse expertise, develop new skills and competencies within the team and work together creatively towards making the GCJ a success. The educators were all members of the RISE Internationalisation workstream, who supported the idea of the GCJ and invested in it. Internationalisation is a strategic institutional priority and there was consensus that the GCJ idea would support and strengthen institution-wide activities in this area during very challenging times.

Educators and students partnership working within the host institution has been beneficial for both. Such practices could be considered also in formal curriculum design activities. The feedback suggests that the GCJ was not only an enjoyable event for the team itself, educators and students but also for participants. Furthermore, it seems that the GCJ has been highly impactful as it boosted confidence and helped develop and strengthen cross-cultural competencies and help individuals to connect with others in different parts of the world, build relationships and feel part of a vibrant and diverse global learning community during a very challenging period worldwide. The institution is currently considering adapting this approach for an International Summer School.

## How could others implement this idea?

The GCJ may present an attractive intervention for other institutions who are considering developing virtual student mobility or remote summer school offers that create active and immersive learning opportunities. Post-pandemic, a blended approach could also be considered to offer such a programme and strengthen relationships with collaborative partner institutions.

Further developing the partnership model and extending this to collaborative partner institutions would further diversify and refresh the offer annually, creating multiple opportunities for educators and students to develop and collaborate.

The GCJ can be adapted to suit the context of different institutions, wanting to enrich curricula by creating opportunities for students to co-construct an international study event. Integrating students into the project management team ensures the programme reflects the student perspectives, as well as providing valuable professional and leadership learning opportunities to enhance their employability.

If you are implementing a GCJ event, consider working through the following stages-

- Select the team, time allocations
  - Define clear roles and responsibilities, communication, buddy system
  - Define purpose and theme(s), needs, priorities, aspirations
  - Timeline, milestones and timing, maximising engagement
  - Agree partnership approach from the outset, educators, and students from the beginning, consider a cross-institutional approach with a partner from another part of the world.
  - Design the active learning programme and build in socialisation
  - Create a simple structure (see below under useful resource).
- Avoid too many and too long live sessions. Allow reflective space in between.

- Select simple digital tools and platforms, remember less is more and be aware that not all are available in every part of the world

## Links to tools and resources

An openly licensed Jam Jar is available. It was an Open Education for a Better World project led by Sara Merkaj aiming to create a blueprint based on the GCJ which could be adapted by educators and students. You can access the resource [here](#).

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# An Active Learning 'co-created ideas' collection

DR ROISIN DONNELLY AND DR YUCEF SAI

## What is the idea?

The aim of this work is to apply the active learning (AL) principles of knowledge co-creation and collaboration among academics; a PG Certificate cohort is the example given to illustrate how the communication and collation of ideas among a group of academics happens in practice. The chapter focuses on how a cohort of early-mid career academics can mentor each other and co-create resources. Through their interaction in this active learning activity, inexperienced educators who are interested in improving student engagement, through a process of dialogue and reflection, and in a short time-frame can co-create a suite of strategies that they can take to their own practice, contextualise and implement.

The chapter presents a dialogic and reflective activity targeted at a community of educators participating as learners in an online PG Certificate in 'University Teaching'. Participants who are from a wide range of subject disciplines are encouraged to discuss and reflect on their own active learning ideas and strategies that they regularly use with their students in their own disciplinary f2f and online classes. By the end of the one-hour PG Cert class, the co-created ideas are formed into a 'Collection' (partially shown in the figure below) and subsequently disseminated on the course VLE with all cohorts as a form of inspiration for each other and shared learning across the disciplines. Through engagement with literature, this activity shows how research can inform the

development of educators' AL engagement to enable them to reflect on and then apply AL practices to the classroom.



Figure 1. Range of educators' disciplines in co-creating the resource collection

## Discussion headings in the 'Active Learning Co-created Ideas Collection'

- What are the reasons for designing your classes to be interactive?
- What does an interactive class look like in your discipline?
- What are the possible barriers to active learning in your discipline?

Some examples given by this year's cohort (2021):

- Lack of flexibility on the part of teachers to be more student-centred in their teaching.
- Department restrictions.
- Culture – old versus new outlooks/perspectives.
- Access/use of technology (online).
- Lack of practical implementation opportunities.
- Psychological/Fear of failure/inability to succeed.
- What you do to encourage engagement at the START | MIDDLE

| END of a class?

- What impact have you observed/measured when using this active learning strategy in your own practice?

## Why this idea?

Two key pedagogic principles of AL have been highlighted in this work – collaborative dialogue and reflection; these have led to a synergetic process of combining content and process from disciplinary traditions to synthesise new ways of knowing, and in this instance, lead to a collaboratively created output.

This active learning co-created activity has clear benefits by allowing early career academics (who are mainly the participants on this PG Certificate programme), to ascertain what commonalities are emerging among them as a cohort in relation to the active learning headings/themes above, and the knowledge co-creation fosters active and experiential learning, helping them to develop confidence, and learn how to apply knowledge (Chemi & Krogh, 2017). It is an excellent vehicle for them to co-create a resource for use by themselves in their own classrooms (online or f2f) immediately afterwards as well as into the future. The activity was developed as a direct result of the perceived need identified by the participants themselves in the programme induction. As most of them have just recently begun their teaching positions in the university, they identified that they would value the opportunity to discover a range of strategies from their peers across the disciplines on how to keep students active and engaged. As there were a smaller number of more experienced academics also taking the course, their sharing of their lived experiences on active learning strategies that worked well for their practice was stimulating for the new staff in generating further ideas of their own.

In learning environments of significant diversity, for example, this activity demonstrates the importance of the lecturer/teacher being



actively involved in learning about the interests, learning approaches and styles of a range of participants. Diverse participants introduce each other to more issues and perspectives, new knowledge, strategies and applications. The benefits or effects of sharing ideas highlights to participants that any single form of interaction cannot be expected to hold constant for all types of students, particularly in HEIs that offer a wide variety of courses. This is akin to a community of practice where a shared repertoire of resources are developed: experiences, stories, tools, ways of addressing recurring problems (Wenger & Trayner, 2015). However all this takes time and sustained interaction, and what is offered here is an initial step to this goal.

More broadly, this activity and the resulting resource that was co-created promotes the concept of education as a form of ‘dialogue’ that points to emphasising genuine interaction in the hope that it enriches a person’s character by encouraging mutual respect and understanding to develop the caring, critical and creative capacities of the participants themselves (Kazepides, 2012). Positive dialogue and the exchange of ideas aim to bring together the insights and understandings of the different participants to enable a fusion of perspectives.

## How could others implement this idea?

For colleagues to put this idea into practice in their own context, the following steps can be adapted for different education contexts:

1. **PRE-ACTIVITY REFLECTION:** In advance of the class (up to 3 days prior), a series of both ‘quick-to-implement’ and more considered active learning strategies for the (online) classroom are shared through the two Padlets (links are under ‘Resources’ below).
2. **COLLABORATIVE DIALOGUE-KNOWLEDGE SHARING:** At the

beginning of the online class for 15-20 mins, participants are invited to discuss from their experience the reasons for designing their classes to be interactive, what an interactive class looks like in their discipline and what are the possible barriers to active learning in their discipline. This discussion forms the basis for the Ideas Collection to be formed.

3. COLLABORATIVE DIALOGUE-KNOWLEDGE CO-CREATION: To encourage participants to be reflective about how they think about engaging their students at the start, middle and end of their classes, and what has been the outcome of this strategy, these two prompts are included:
  - What you do to encourage engagement at the START | MIDDLE | END of a class?
  - What impact have you observed/measured when using this active learning strategy in your own practice?

The participants are asked to share in the chat box the activities that they use in their disciplinary context to encourage engagement at the START | MIDDLE | END of a class. Individuals are invited in on the mic to provide further details especially to talk about what impact have they observed/measured when using this active learning strategy. It was noted that strategies they described may work well across different kinds of classes (large, small, lab etc) and subject areas, but others might well see that some method makes more sense for their situation and teaching context.

4. POST-ACTIVITY REFLECTION: Participants are informed that their ideas will be collated into an active learning resource for use after the class. These ideas can then be further shared with their peers in the particular departments/ faculties and be implemented with the view of providing an opportunity for reflective inquiry (Brookfield, 1995) to be undertaken with the goal of improving teaching and learning experiences through action research. They are invited in a subsequent class to reflect

on the meaning of what they've learned as reflective dialogues are an effective method for revealing teachers' tacit knowledge about their pedagogy.

How the steps fit together: Step 1 of reflection at an individual level is vital for stimulating the participants to engage in the knowledge sharing process in Step 2. It in turn is fundamental for knowledge creation (Step 3), which is a process that culminates in further reflection and the production of new knowledge (Step 4).

Follow-up work is planned to determine the impact of the AL 'ideas collection' with staff in their disciplinary practice. This evaluation will be important for establishing the connections between the AL principles of collaborative dialogue and reflection and the co-created resource produced.

## Transferability to different contexts

The online AL activity is applicable to a range of contexts in any community of educators, and can be used by any facilitator of a PG Certificate in Teaching and Learning programme. It is important for educators to create spaces for sharing practice beyond the PD classroom to further organisational learning. The flexibility of a shared resource is that it can be replicated and implemented using a variety of other tools widely available, other than Padlet, such as Jamboard and Bluescape. The use of such tools allows moving deeper into course content, encouraging a more in-depth understanding of material, facilitate brainstorming ideas from the class, and creating a memory of the course. For teaching purposes, these tools visually capture ideas and allow collaboration in real time. For example, in remote learning situations, in courses that focus on developing psychomotor skills and depend on face-to-face (f2f) interaction, these platforms can allow for effective group work among participants in a shared digital space. The activity can work

equally well in a f2f classroom, setting the participants up into small groups of 4 and getting them to feedback their responses and ideas on flipcharts/posters. The learnings from the PG Cert context can be extrapolated for a broader educator audience.

## Links to tools and resources

Prior to this collaborative AL activity, participants view two Padlets on active learning strategies as a source of ideas from across the higher education sector:

- An institutional resource entitled Festival of Learning ‘The Lev Vygotsky ‘Tent’ on peer-to-peer and group work: [https://padlet.com/david\\_gaul/dmvc1z4vgmkaf3ui](https://padlet.com/david_gaul/dmvc1z4vgmkaf3ui)
- A collaborative free-to-access Padlet from University of Sussex: [https://padlet.com/w\\_a\\_garnham/7alpdn5vs5yhxf2](https://padlet.com/w_a_garnham/7alpdn5vs5yhxf2)

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# Chemistry is for everyone: a co-created website showcasing the work of first year undergraduate chemistry students

DR SARAH L. RAWE

## What is the idea?

First-year chemistry students from the University of Dublin have co-created the 'Chemistry Is For Everyone' website (<https://chemistryisforeveryone.com/>), currently showcasing 30 unique exhibits in the form of posters, infographics, games and artworks, on a range of chemistry topics. Each piece was inspired by a popular science book, and these books are also showcased on the site. 44 students selected their book, topic, format of exhibit and created content for this showcase. Alongside exhibits, they give the rationale and explain the science in their own words. Two students worked with a staff member to build the site.

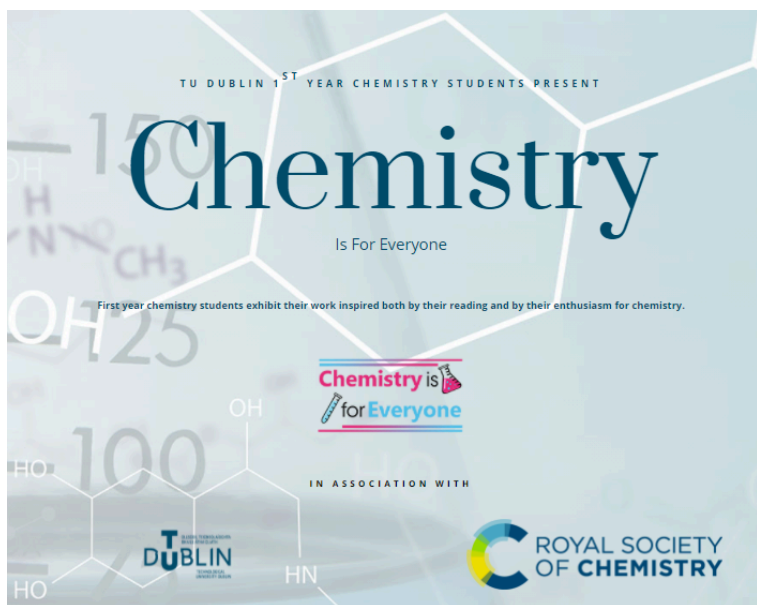


Figure 1. A screenshot of the 'Chemistry Is For Everyone' Website

## Why this idea?

Originally planned as a face-to-face event in which students would present exhibits on a range of chemistry topics to an audience of their family and friends, we produced a student co-created, online showcase in the form of the website due to ongoing health restrictions.

The central aim was to engage early undergraduate students with broader aspects and applications of their discipline, to enable them to identify as chemists and to feel part of the chemistry community. Positive attitudes towards their discipline have been shown to correlate positively with student persistence and performance (Villafañe & Lewis, 2016; Xu et al., 2013). This is helped when

students have the confidence to participate in the conversations of their discipline community.

The benefits of working with students as partners (SaP) in higher education includes enhancing students' enthusiasm and their motivation to learn and encouraging the traits of self-directed active learning (Mercer-Mapstone et al., 2017). A whole-class co-creation approach was used by involving students in the decision-making processes throughout which was important in assigning ownership of and responsibility for the project to the students, ensuring it reflects their interests and priorities (Bovill, 2020). Two student volunteers worked directly with staff to design and build the website.

## How could others implement this idea?

Each student submitted their contribution (we called this their 'exhibit') to the website via the VLE. Exhibits included digital artwork, a sculpture (photographs), a printable game, posters and infographics. The brief required that each exhibit was inspired by a popular science text and was accompanied by explanatory written work. Templates for the written work and an assessment rubric were given at the outset, along with very clear guidelines on good digital citizenship including Creative Commons licensing, avoiding plagiarism and infringement of copyright.

MS Forms was used to facilitate student-decision making throughout. They could 1) choose to work alone, in pairs or in groups, 2) choose a book from one of four provided texts or choose their own (approval needed), and 3) decide on the format of exhibit and 4) volunteer to work on the website design and building process.

Our Web and Online Media Officer supervised two student volunteers in designing, organising and uploading the student-generated content to the website. The site was supported by the



RSC Outreach Fund (<https://www.rsc.org/prizes-funding/funding/outreach-fund/>), therefore we purchased a domain name, hosting services (for a 3 year period) and SSL (Secure Sockets Layer, 1 year) for €290 (\$343 usd). The funding also allowed us to provide a popular science book to each student.

The website was 'launched' and promoted with once to twice daily posts via the School's social media accounts over a one-week period.

## *Recommendations*

Be flexible and allow students to make decisions.

To ease student anxieties:

- We recommend a relatively low-stakes assignment (in this case the 10 % of a module).
- Exemplars (e.g. links to online exhibitions, science infographics, chemistry themed arts and craft projects, posters) should be provided.
- We recommend that students can opt-out of public display without penalty and can, at any time, request that their work be removed.

We used an experienced web designer, but many tutorials are available online if you wish to build a site yourself.

While you can build a website at no cost, we recommend purchase of a domain name (a URL which identifies the website and is easy to remember and find), which is a relatively inexpensive, one-time registration fee.

While our funding allowed us to provide books to each student, articles from publications such as Chemistry World would be suitable and free alternatives.

Templates and rubrics help to scaffold student submissions and manage expectations.

Written pieces were relatively short (200-400 words per student), making the review and feedback process manageable.

You should make sure that you allow time for review and feedback before the proposed launch. Time is also needed for students to act on feedback and make changes before public release.

It is also important to re-emphasise good digital citizenship at the feedback stage (particularly with respect to all images).

A free custom analytics tool can be used to assess the impact of your website. You can track the number of visits (sessions, page views, average session duration and bounce rate), new vs. returning visitors, top 10 countries of those visiting, top pages and where visitors were referred from (from Twitter, Facebook, etc).

## Transferability to different contexts

Recent events have emphasised the importance of good communication skills for anyone working as a professional scientist. We propose that this project is broadly transferable across all STEM subjects.

However, its transferability can be extended by using it as a vehicle for STEAM collaborations in which students from arts or design programmes (for example) work with science students to create exhibits and communicate science topics.

While our project involved first year undergraduates, by changing the nature of the reading material used from the popular science books employed here (or Chemistry World articles suggested above) to research articles or reviews, the approach could be used to develop literacy skills with late-stage undergraduates or early-stage postgraduates.

Finally, as it was carried out in a virtual environment, it could be a suitable project for those interested in providing students with a collaborative online international learning experience.

## Links to tools and resources

- ‘Chemistry Is For Everyone’ website: <https://chemistryisforeveryone.com/>
- RSC OutReach Fund: <https://www.rsc.org/prizes-funding/funding/outreach-fund/>

Examples of good science infographics, a blog article about making effective infographics and a free tool for preparing infographics:

- <https://www.compoundchem.com/infographics/>
- <https://www.impact.science/blog/infographics-a-great-way-to-simplify-complex-science/>
- <https://www.canva.com/create/infographics/>

Articles and examples – Art and Chemistry:

- <https://cen.acs.org/education/undergraduate-education/Chemistry-class-art-gallery/97/i29>
- <https://theconversation.com/when-an-artist-looks-at-a-chemical-element-what-do-they-see-117906>
- <https://www.kettering.edu/news/kettering-faculty-member-studies-intersection-art-chemistry-virtual-residency>

Science Communication Skills:

- Brown University Science Center's Quick Guide to Science Communication May 2014, Available at: [https://www.brown.edu/academics/science-center/sites/brown.edu.academics.science-center/files/uploads/Quick\\_Guide\\_to\\_Science\\_Communication\\_0.pdf](https://www.brown.edu/academics/science-center/sites/brown.edu.academics.science-center/files/uploads/Quick_Guide_to_Science_Communication_0.pdf)

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Figure 1. A screenshot of the 'Chemistry Is For Everyone' Website by Sarah Rawe is used under CC-BY 4.0 Licence

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# Rubrics as active learning tools

DR PAULA CARDOSO



## What is the idea?

Rubrics are traditionally considered as assessment tools that facilitate the learning assessment process, both for teachers and students. However, more than helping promote an assessment tool for authentic learning, it can be one of the main active learning tools. Students will not only read the assessment rubrics pre-created by teachers, but they are invited to collaboratively create it, thus becoming even more engaged with their learning process right from the beginning. This idea will explain, step by step, how to successfully involve students into rubric building and reflect on their future learning, instead of only reflecting on their previous work.

## Why this idea?

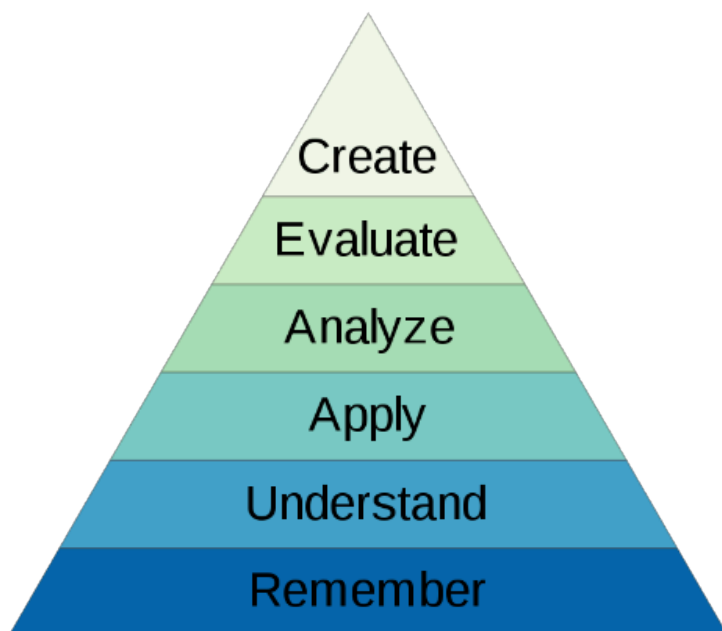
Active learning research is unanimous in stating that students benefit from becoming active participants and their learning increases when they have agency in building their own learning process.

Traditionally, rubrics are seen as tools capable of measuring and communicating student performance, based on previously defined criteria, that are described across a continuum of performance levels. According to Andrade (2010) and Jonsson (2014), they have been considered helpful because they are explicit regarding what is expected from students' learning and, by doing this, they support student agency and self-regulation. Since students know in advance the defined performance criteria and levels, rubrics have an essentially formative role when directed to the assessment process. However, rubrics are not only assessment tools; they also represent one of the learning strategies with the greatest potential, as they allow students to build a learning path using the matrix of indicators

and respective performance quality criteria as guidance maps. That is, instead of students getting feedback on their learning, they get feed-forward, a useful strategy to guide them towards future learning

In the context of emergency remote teaching, it became even more vital to define strategies that would promote students' self-regulation of learning, allowing them to simultaneously become more autonomous and closely followed.

The revision of Bloom's taxonomy (Anderson & Krathwohl, 2001) is essential for us to better understand the advantages of this methodology, as it alludes to the increasing sequence of the complexity of cognitive processes.



*Figure 1. Bloom's Taxonomy Revised*



Traditional learning usually involves basic cognitive processes that students need to mobilise, namely to 'remember', 'understand' and 'apply', whereas most complex processes ('analyse', 'evaluate' and 'create') are often associated with autonomous work. Thus, co-creating rubrics puts students in the most complex cognitive stage and therefore helps teachers support students in developing more elaborate skills, which is paramount in the context of active learning.

## How could others implement this idea?

So, how can rubrics be used as learning tools, where students co-create the criteria and performance standards that they will be asked to develop?

Creating rubrics can be a very time-consuming task and it implies mastering a conceptual framework that students may find it difficult to grasp. Therefore, regardless of the type of rubric or type of work being defined through the rubric, defining a series of steps is crucial for the success of this task.

There are many online tools that have predefined matrices of rubrics and may be easily adapted to the learning goals and strategies of each discipline/subject.

One of them is Rubric Maker (<https://rubric-maker.com/>) which is quite intuitive and user-friendly.

Steps:

1. Present and explain the methodology and analyse examples of rubrics together with students;
2. Present the module/programme topics to students;
3. Introduce the learning outcomes of the module/programme;
4. Divide students into small groups and ask them to analyse the topics and corresponding learning outcomes and create the

- following: 1) assessment tasks; 2) criteria and performance standards for each assessment task;
5. Ask each group to present their results;
  6. Collaborate as a whole group in negotiating and building a final rubric.

All steps are important, but this final step has a huge potential for students to actively reflect on different learning preferences and on their individual path towards performance standards that are actually meaningful for them. These are essential steps in building a student-centred environment, where students have the opportunity to step outside their comfort zone and to really engage into active learning.

## Transferability to different contexts

This methodology can be transversally applied to all disciplines and contexts. However, it needs to be carefully planned and adapted to the learning goals and tasks that are specific to each discipline and/or subject.

It is also important to reinforce the fact that both the tasks and criteria need to be relevant and meaningful for students and need also be aligned with the learning outcomes.

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# Bring it forward: a collaborative learning activity

DR ANASTASIA LOGOTHETI

## What is the idea?

‘Bring It Forward’ is an activity which promotes collaborative learning by combining debate and storytelling traits to engage students in the review of course material during synchronous, in-class instruction. During the activity students are required to respond to a prompt or a question in approximately one minute; the rest of the participants pay attention to each of the mini-presentations to discover omissions or controversies which they then ‘bring forward’ in their own mini-presentations. In more advanced courses the activity can also serve the flipped-class paradigm with students co-presenting new material rather than reviewing content.

Students may participate in ‘Bring It Forward’ as individuals or as team members depending on the size and level of the course. When the activity is run with the students in teams, gaming and competition possibilities emerge.

## Why this idea?

It is well established in the literature that collaborative learning methods not only allow students to be more active in the classroom but also that peer-to-peer collaboration increases motivation and promotes long-term learning (Barkley et al., 2014; Olaussen et al., 2016; Svinicki & McKeachie, 2011). The activity ‘Bring It Forward’

was developed to substitute more traditional approaches to review material and to check for understanding. What students are 'bringing forward' through this activity is knowledge and understanding which is shared with their peers so as to teach each other in a more engaged and less teacher-guiding manner.

Review sessions, brief or extended, are a routine part of teaching content. Most instructors use a combination of well-tried methods (such as, Q & A, quizzes, mini-lectures) to ensure that learners can demonstrate knowledge and understanding of content. Established methods are less student-centred and may engage only some of the learners. Like any student-centred activity, 'Bring It Forward' will be most rewarding when collaborative learning has been presented as an instructional strategy so that learners are clear that competitive aspects of the activity aim at engagement, not antagonism. The activity will also be more effective when learners are explicitly informed that participation and contribution are not only encouraged but rewarded. As not all students in a class are eager to contribute or to speak out, this activity benefits from rehearsal and trial runs. Initially, it can be deployed quite informally so learners grow more confident; eventually, through practice and familiarity, there will be enough willing participants to try the activity.

## How could others implement this idea?

**I.** Before the 'Bring It Forward' Activity (one or two class sessions prior):

- Students are informed about the purpose (to review or to introduce content) and the process of the activity so they can prepare relevant content for their participation.
- Students are encouraged to view the activity as peer interaction for the purpose of collaborative learning and they are free to use storytelling and debate processes to enrich the activity

with creativity.

- Content to be reviewed or introduced (e.g., a theory, a historical event, a character in a novel, etc.) will have been determined before the class and prompts provided in advance.
- The duration of the activity is also announced (ideally no more than 15-20 mins).
- The order according to which students will participate is decided (students can be consulted and propose their preference or even volunteer).
- Depending on the material to be reviewed, the gaming potential of the activity may be developed (especially if students work in pairs or small teams of 3-4 participants).

## **II. Using the 'Bring It Forward' Activity to review material or to introduce new material:**

- A question is asked or a prompt provided related to the content to be reviewed or introduced (from the questions or prompts already distributed).
- The first student responds in max 60 seconds (up to 2 mins if introducing new material).
- The next student 'brings forward' an omission or a new detail or a debate so as to make the first response more complete. Max 60 seconds (up to 2 mins if introducing new material).
- The third participant 'brings forward' something that enriches the first and second responses. Max 60 seconds (up to 2 mins if introducing new material). The fourth participant 'brings forward' something more and so on.
- Depending on the question or prompt, the round typically has 4-5 participants.
- Agreement and disagreement between mini-presentations are allowed (but without dialogue until the end of the presentations).
- The instructor does not intervene during participant contributions but determines silently when the collaborative

responses have sufficiently aided in reviewing the material or presenting the new material.

- The round can be followed by more discussion or the information provided may be deemed complete (other students can participate at the end of a round as required).
- If one round has 4 participants and lasts 5 mins max, another round with another Q or prompt may start. If introducing new material, the round may last 8-10 mins.
- Other students will participate in a new round.
- The more effective use of the activity is when no more than two rounds are used (10-15 mins) so the excitement does not wane and the attention of the learners does not begin to drift.
- In the flipped-class model, students may be asked to study material before class and present it to other students (this may work better at senior or postgraduate level). If the activity is used in a flipped-class model, new content can then be enriched through other active-learning activities.

**III.** Before, during and after the activity instructors plan carefully and keep notes not only on the knowledge and understanding presented and gained by learners but also on who has participated so that on subsequent occasions when the activity is used again, other learners can participate and contribute. Proper preparation and monitoring of the activity may seem time-consuming but the benefits of student engagement are apparent at assessment time.

## Transferability to different contexts

The activity is not discipline specific and can be utilized in any course where peer-to-peer instruction applies. The activity has been designed for synchronous instruction and has been tried in f2f literature classes. Although it has not been tried in online sessions, it may work in virtual settings as well. While there are some

similarities between this activity and a more comprehensive teaching strategy known as 'Fishbowl', this activity is more focused on comprehension through revision than on generating new ideas or engaging in debate.

## Links to tools and resources

- Explore the Fishbowl teaching strategy at <https://www.facinghistory.org/resource-library/teaching-strategies/fishbowl>
- Cornell University's Center for Teaching Innovation offers well-known examples of collaborative learning activities: <https://teaching.cornell.edu/resource/examples-collaborative-learning-or-group-work-activities>
- Columbia University's Center for Teaching and Learning provides theoretical context and suggestions for collaborative learning which relate to an online environment as well: <https://ctl.columbia.edu/resources-and-technology/teaching-with-technology/teaching-online/collaborative-learning-online/>

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# 6 DIGITALLY ENHANCED LEARNING



*Magpie moth*

*"The secret of change is to focus all of your energy not on fighting the old, but on building the new"*

**~ Socrates**

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# Introduction to digitally enhanced learning

DR VICKI DALE; RICHARD BEGGS; AND IKEDINACHI OGAMBA

The contributions in this chapter are themed accordingly; engaging learners online; quizzes and polling; images, audio, video and multimedia; and enhancing the virtual learning environment. Core to all chapters are the key concepts of student engagement and active learning, with their application to digital education accelerated by the Covid-19 pandemic.

## Engaging learners online

The benefits of technology-enhanced learning and teaching (TELT) have been outlined as increased flexibility including a mix of synchronous and asynchronous activities, more personalised learning, support for pre-arrival induction activities, and the potential of learning analytics for monitoring and supporting students (Gordon, 2014), as well as a more engaging learning experience which meets student expectations and assists in the development of information literacies and lifelong learning skills (Adekola et al., 2017). However, real challenges exist; for example, Duranton and Mason (2012) discussed the ‘loneliness of the long distance learner’, and this sense of isolation has been identified in more recent studies in the context of remote learning during the Covid-19 pandemic (e.g. Griffiths et al., 2021). Key to countering this issue and lack of ‘teacher presence’ (Garrison et al., 1999) is student engagement. The active learning methods described in this section represent ways of engaging learners online, synchronously and asynchronously.

Groothuijsen describes the use of a remote online laboratory for experiential learning about machine control in engineering education. Using pre- and post-lab activities, the authors align activities with Kolb's experiential learning cycle, to stimulate planning, doing, reflecting and learning from the virtual lab.

An activity which can be used in synchronous or asynchronous teaching is described by Ogamba; 'map pin-boarding' can be used as an ice-breaker activity, embracing the international diversity of student cohorts, or for co-creation; for example, in relation to crowd-sourcing case studies to illustrate authentic global challenges.

A variety of student engagement techniques are described by Osituyo. An online quiz following a pre-lecture video enables monitoring of student engagement and performance prior to a live session. Different techniques for engaging learners in the class include multiple choice questions (MCQs) and 'Padlet summaries'.

Di Ciolla, Nerantzi and Chatzidamianos reflect on a 'block 'n' flip' approach to learning developed during the Covid19 pandemic. This is a peer-assisted, flipped learning approach to blocked teaching delivery that, through the use of a video tagging software called EVOLI, promotes active, collaborative learning, and facilitates students' engagement with each other and with the subject.

Using woodworking as an example, Parkman considers that adult learners with a specific need will engage actively with otherwise passive videos on YouTube, and encourages us to think about how to harness this motivation to learn from videos in other contexts.

## Quizzes and polling

Bonwell and Eison (1991) define active learning as involving students in doing things and thinking about things they are doing. However large cohort sizes, more traditional learning environments and timetabling constraints often create barriers to achieving this.

Quizzing and polling technologies, accessed via mobile phones and tablets, can potentially transform any learning environment into an active learning space by taking advantage of the devices students have in their pockets and bags, known as bring your own device (BYOD) (Ballagas et al., 2004). Care and planning is needed around access to devices, such as working in pairs and groups to share devices (Beggs, 2016), to mitigate against the digital divide (van Dijk, 2020). In addition, continuing professional development activities are important for educators in order to acquire the technical competence required for enhancing teaching practice using BYOD-based technologies (Siani, 2017). Functionality of quizzes and polling ranges from basic multiple-choice questions (MCQs) to more complex question types, annotating diagrams and open questions from students. Students expect to use technology for their learning, but it needs to be relevant to their success (Beetham & White, 2013). These tools can also provide a platform to encourage engagement of quieter students (Khalil & Ostafichuk, 2020).

Millmore explores using Mentimeter, an anonymous polling tool to engage students in both large lecture cohorts and small group tutorials with undergraduate law students. The anonymous nature of the tool also provides a more inclusive environment encouraging all students to engage.

In his chapter, Ogamba shares his approach to playful pedagogy facilitating the flipped classroom through synchronous online quizzes via his PrepQuiz initiative that uses Kahoot. He explores how his formative, gamified approach can motivate students to complete the preparatory study needed within flipped classroom pedagogies.

Interestingly, Richardson discusses how she utilises Poll Everywhere with the ‘muddiest point’ technique to capture real-time student feedback on their own learning during large lectures.

Other tools can provide opportunities to try something different to basic polling; Niño shares her practice of using EdPuzzle, a video-based quizzing tool to integrate video-based self-assessment. According to the Jisc Digital Experience Insights report, there has

been a rise in the use of online video resources over the years (Jisc, 2021); Niño's approach not only provides video content for her students but also facilitates formative assessment and prepares them for summative assessments.

Vasant explores an alternative to online polling and quizzing tools utilising collaborative technologies such as Google Docs or Word Online to facilitate a team-based True/False quiz inspired by the popular BBC TV quiz show 'Would I Lie to You'. Leaning on the flipped classroom, his approach requires students to co-create 'lies' and one truth informed by pre-session learning. The mode of delivery can either be face-to-face or online via Teams, Zoom or a similar technology.

## Multimedia

The use of different media – or multiple media (multimedia) such as images, audio and video – in learning and teaching can engage learners and promote active learning. In online or blended learning for example, the inclusion of teacher videos can enhance 'teacher presence' and 'social presence' respectively (Huang, 2020). The inclusive concept of universal design for learning (CAST, 2022) requires that teachers provide multiple means of engagement, representation, and action and expression – that educators should provide choice in how students engage with learning, and that they should also be able to demonstrate their learning in different creative ways. The latter relates to the concept of multimodal assessment (Ross et al., 2020), and as well as creating choice about how students evidence learning, this helps students develop essential graduate attributes such as digital skills and media literacy.

The use of infographic-type activities to foster active deep learning is presented by Kozar. She provides ideas for enhancing student participation in flipped classroom by asking learners to create infographics of the key information from pre-session tasks,



to promote deep learning and classroom discussion during synchronous sessions. She also provides ideas for using infographics as assessment and for comparative analysis and discourse.

Miliopoulou presents the use of memes to enhance classroom engagement and learning among students. The idea is to make learning fun and active as students create and generate memes on a relevant topic of discussion using their mobile phone. This allows them to express their thoughts and demonstrate learning in various visual and creative ways.

Jolley discusses the engagement of students in group work through co-creation of podcasts to demonstrate learning in a research-inspired manner. This student-centred activity enhances active learning and enables learners to develop collaborative learning and presentation skills, and digital and reflective skills.

Alexiou discusses the integration of pre-recorded video presentations to enhance students' learning of historical and contemporary concepts and practices, and to motivate students to actively engage in classroom discussions, particularly effective in critical and contextual studies.

Cowie describes the use of a Microsoft application, FlipGrid, to create videos and engage students in creating a sense of community and interaction between teachers and students. FlipGrid can be used for traditional teaching and learning, or as part of a flipped classroom, to empower students to share their ideas and knowledge in a more personal and creative way.

An overview of the benefits of ThingLink, an educational platform for promoting a visual and interactive learning experience, is provided by Edwards-Smith. The platform allows embedding various forms of content including text, images, surveys, videos, website links in one space. It can be used for engaging students on synchronous and asynchronous learning activities and for facilitating a flipped-classroom approach.

## Enhancing the virtual learning environment

It is clear that the Covid-19 pandemic has had an accelerating influence on the refinement of digital education. ‘Emergency remote teaching’ (Hodges et al., 2020) was succeeded by the need to consider best pedagogical practices in the context of a temporary online pivot (Nordmann et al., 2020). Despite years of advocacy for pedagogically informed technology enhanced learning, it is only now that digital education has moved beyond the early adopters to the majority of educators who have had to leverage it out of necessity (Specht et al., 2021). Coincidentally, the increased focus on student-centred learning contributed to a rethinking of the role of the virtual learning environment (Phipps et al., 2018), and the extent to which it can fulfil student and teacher expectations either as a proxy for the physical space during remote learning, or as an extension of the campus in the context of blended learning. Using González’s (2012) taxonomy, this requires moving beyond an information focused strategy using the VLE simply as a repository for learning resources, towards a communication focused strategy to promote deep thinking, and a collaborative learning strategy for collective knowledge building.

It is in this spirit that Roberts and Munday illustrate the use of MS SharePoint integration with Teams to provide a VLE that shies away from typical use of VLEs as document repositories, to create a dynamic space for collaboration and knowledge production.

Roberts and Munday also discuss the adoption of MS Teams for virtual workshops to provide an inclusive alternative to in-person teaching, alleviating pressure on campus room provision, and incorporating third party plugins to create multimodal virtual spaces for active engagement.

Finally, Peramunugamage presents us with MOOMobiPBL – a mobile application which is a proof of concept plugin for the Moodle VLE, which facilitates problem-based learning in an online or blended context. Students work in their small groups in a shared

virtual workspace, and the system also supports self-, peer- and tutor-assessment.

## Take-home message

It is clear that the thread that runs through the rich tapestry of this section is engaging learners in online and blended environments, an important pedagogical construct underpinned by active learning and ‘presence’ – principles that have been emphasised during the Covid-19 pandemic (Ahshan, 2021; Rapanta et al., 2020; Tan et al., 2020), which has accelerated developments in digital education. Regular interaction with students, opportunities for online self-assessment, engaging multimedia, and enhancing the VLE, are essential to ensuring students have a rewarding learning experience and optimised learning outcomes.

These strategies are not only transferable to different disciplines, but also to other learning technologies. For example, Ogamba suggests using a Padlet map layout; however, a Google maps tour or other geographic interactive tool would also support this activity. Similarly, the activities described by Osituyo could be facilitated using any electronic voting tool or collaborative document on a supported platform. Likewise, quizzing is not restricted to dedicated apps, and other collaborative technologies such as Google Docs and Word online can facilitate these activities. The choice of a specific technology is likely to depend not just on pedagogical/technical affordances, but also the data sharing agreements in place at individual institutions, to respect data privacy laws, and the digital accessibility features afforded by individual technologies to promote equitable participation.

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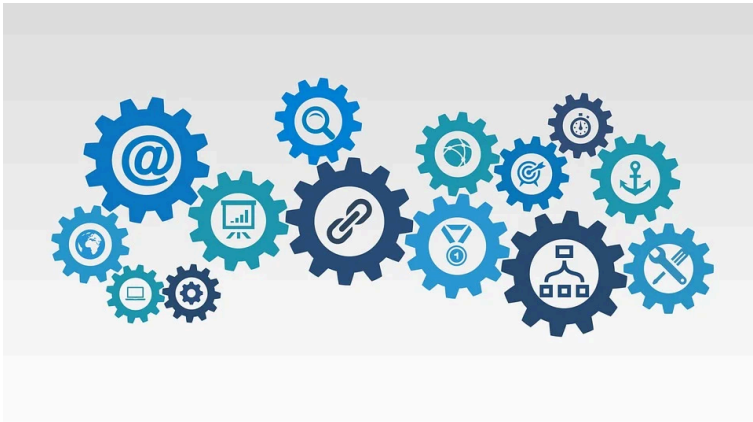


# 6A ENGAGING LEARNERS ONLINE



# Engaging students with remote labs using an active learning pedagogy

DR SUZANNE GROOTHUIJSEN AND ANTOINE VAN DEN BEEMT



## What is the idea?

Labs are an essential part of engineering education. They are a form of experiential learning with the twofold aim to engage students and promote active transfer from theory to practice. In education on machine control techniques, students conduct lab experiments in which they have to control, for example, valves in a system of three interconnected fluid tanks, the position of a metal ball in an electromagnetic field, or the movements of a robotic arm. The past

decade saw an increasing move from physical on-campus labs to online, i.e. virtual and remote, labs (Grodotski et al., 2018). Virtual labs deliver experiments in a virtual environment through simulations; remote labs provide online access to physical labs to conduct experiments with real-world equipment (Bhute et al., 2021).

Following from the specific characteristics of online labs, reconsideration of teaching and learning activities is necessary to promote and retain student engagement and consequent transfer from theory to practice. A remote lab assignment for experiments with machine control techniques in higher engineering education was developed with the aim of promoting students' engagement with the remote lab. The lab assignment is based on principles of active learning and consists of a specific order of activities to promote engagement.

## Why this idea?

A major advantage of virtual and remote labs is that they are accessible to students at any time and from any place (Bhute et al., 2021). For students, this creates opportunities to conduct lab experiments from anywhere, whenever and as often as they want, at their own pace. For teachers, online labs create new opportunities to include lab activities in their education. Overall, virtual and remote labs create new and more opportunities for lab education where opportunities for experimentation in traditional labs are limited or non-existent, for example following limitations in terms of time, space and available lab equipment.

Available evidence shows that engagement with online labs contributes to students' learning outcomes (Broisin et al., 2017; Morgan et al., 2012; Post et al., 2019; Viegas et al., 2018). This suggests that it is worthwhile to stimulate students' engagement with an online lab. However, the major advantage of time and place independent experimentation simultaneously poses a serious

challenge to students' engagement with virtual and remote labs. In contrast to traditional physical labs, the innovative online labs do not have a designated time and place to conduct experiments. Students can access virtual and remote labs 24/7 from anyplace. As a result they also lack the presence of teachers or lab assistants that can support and motivate students during lab experiments.

Building on existing lab pedagogies and principles of active learning, a remote lab assignment was designed to support students' engagement with experimentation in a remote lab. In the assignment, students in small groups work on an open ended challenge following Kolb's experiential learning cycle consisting of pre-lab activities, remote lab experiments, and post-lab activities (Abdulwahed & Nagy, 2009). This way, an ongoing process of preparation, experimentation and reflection, including feedback and support from the teacher, is established.

## How could others implement this idea?

The remote lab assignment, based on a specific order of activities, was designed for experiments with machine control techniques in higher engineering education. For active learning in higher engineering education, Hernández-de-Menéndez et al. (2019) identified four common elements: physical space, technology, activities and results. For active learning with a remote lab, these elements translate to the physical lab set-up, the online interface for experimentation with the physical lab set-up, the remote lab assignment, and the intended learning outcomes. The focus here is on the remote lab assignment, detailing the order of activities.

### *The remote lab assignment*

The remote lab assignment consists of an open-ended assignment

that provides (some) freedom for students in conducting experiments. The assignment should be tailored to the intended student population in terms of complexity and whether it is to be conducted by individual or small groups of students. The assignment is structured in subsequent stages of experimentation following the structure of the course content, i.e. moving from basic to more complex. Each stage of experimentation should progress through a sequence of learning activities following Kolb's cycle of experiential learning: pre-lab activities, remote lab experiments, and post-lab activities (Abdulwahed & Nagy, 2009).

An example of a remote lab assignment as implemented in multiple machine control technique courses at Eindhoven University of Technology is presented in the table below. The assignment was for groups of 4 to 5 students to control fluid levels or flow rates in a three-tank system remote lab using two different machine control strategies. A study on the implementation of the remote lab and accompanying lab assignment showed that an active learning pedagogy can support student engagement.

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**Experiment stage 1: manually controlling the remote lab set-up**

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<b>Pre-lab activity</b>	Activities to prepare controlling the remote lab Quiz on theory underlying the experiments	To let students get familiar with the d to (learn how to) prepare experiments Formative assessment: to activate st
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<b>Experiment</b>	Manually online controlling fluid levels or flow rates in the remote lab set-up	To experience the need for a controller provide satisfying results
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<b>Post-lab activity</b>	Progress meeting with the teacher	To either check whether students start them to start
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**Experiment stage 2: determining constants of the remote lab set-up**

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<b>Pre-lab activity</b>	Design tasks to determine constants in a virtual lab	To identify what constants are missing identify the missing values, and to pre experiments
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<b>Experiment</b>	Determining constants of the three-tank remote lab set-up	To gain input for building a controller
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<b>Post-lab activity</b>	Preliminary intermediate report Progress meeting Intermediate report (graded)	To report and reflect on the experiment As a form of formative assessment: To provide feedback on the conduct of the experiment, results, and the report To support continuation of the experiment Summative assessment
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### Experiment stage 3: controlling the remote lab set-up

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<b>Pre-lab activity</b>	Determining two machine control strategies Activities to prepare controlling the remote lab	To let students consider multiple options for control choice To prepare the remote lab experiment
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<b>Experiment</b>	Controlling the fluid levels or flow rates in the remote lab set-up	To apply the two determined control strategies and assess their usefulness for controlling the fluid level in the tank remote lab set-up
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**Post-lab activity**

Preliminary final report  
Progress meeting  
Final report (graded)

To report and reflect on the experiment  
Formative assessment:  
To provide feedback on the conduct of results, and the report.  
Summative assessment

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## Transferability to different contexts

The remote lab assignment was designed for remote lab experiments with machine control techniques in higher engineering education. However, the specific order of activities to promote student engagement can be used in any learning situation involving experimentation irrespective of the experimental environment i.e., virtual, remote or physical lab.

## Links to tools and resources

<https://boost.tue.nl/projects/remote-labs/>

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## Image Attributions

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# Map pinboarding for icebreaker and real-world case-based learning

IKEDINACHI OGAMBA



Figure 1. Sample map pinboard on Padlet

What is the idea?

Map pinboarding involves the use of Map, on Padlet or Google, to facilitate student engagement in icebreaker exercises and case pedagogy in online and blended classes. It allows tutors and students to pin (add) a post to specific geographic environments or locations, react to and comment on others' posts. It also creates a global view of all participant's selected locations, establishments, and posts. Therefore, it has been useful for classes with diversity of

local and international students and for analysing real-world global concepts and case studies.

## Why this idea?

As an icebreaker, map pinboarding could capture participants' various geographical backgrounds, locations or establishments, as well as other information e.g. name, education, hobbies, likes/dislike, pictures etc. This can be useful in getting to know one another and in networking both synchronously and asynchronously, and in a diverse cohort of local and international students.

For engaging students in case-based learning, map pinboarding can be useful for eliciting multiple perspectives and issues from various geographical, socio-demographic and global standpoints. It can be applied in individual and group work to analyse and aggregate information on real-world global challenges and in complex fields like public health and global health, economics, business, management, politics, international subjects etc.

In addition, the use of map pinboarding activities on Padlet promotes visual sense simulation, information assimilation, co-creation and collaborative learning among students and tutors (Dewitt et al., 2015; Gill-Simmen, 2021). Therefore, it can be useful in advancing both students and tutors concepts, knowledge and intercultural and international awareness. When used in case-based learning, it can help in developing key skills which are generally relevant to enhancing students' future career and employability including the ability to independently search, analyse and synthesise and summarise information, critical thinking and problem-solving (Coetzee, 2012). Moreover, map pinboarding makes learning exciting and effective as students can make their contributions based on a familiar environment or location of interest and expertise, and make better sense of the case (Harmer, 2009). Hence, it enhances active participation in class discussions

and group work, provides global perspectives of the concept and problem, and comparative analysis of written case studies or ‘live’ cases.

## How could others implement this idea?

### *Step-by-step instructions on how to implement*

For the purpose of this chapter, Padlet Map would be used to describe how to implement map pinboarding, which is simple and easy to set up as follows:

Log on to your Padlet account.

Click on “Make a padlet”, then select the “Map” format.

Modify the Padlet by adding a title and description of activity to be undertaken; also select a Map Style (see Figure 1); change the Attribution to display author name above each post; enable Comments to allow viewers to comment on posts; enable Reactions to grade, star, upvote, or like posts etc.

Once you have modified and set the sharing and accessibility preferences, it would be ready to share with the student for either synchronously or asynchronously activity.

While sharing the link, you could provide additional instruction on the activity to complement the description on the Padlet wall.

When adding a post, tutors and students could pick an environment or location by searching or selecting a place or establishment or dragging and dropping a pin icon to a point on the map. They could also zoom in and out of the map to pick or view specific establishments, location, cities, countries and continents.

When they have added a post, it would be pinned to the selected locations. They can add text information, pictures, videos, files and other attachments to their posts.

Students and tutors could hover and click on each pin to edit their

post content or to view, react or comment on others' posts. The Preview Panel can also be used to scroll through and view all posts.

Students and tutors can react and comment on posts. The reactions could include “Like posts”, “Upvote or downvote posts”, “Star – Give posts 1-5 stars” or “Grade – Give numeric scores to posts”.

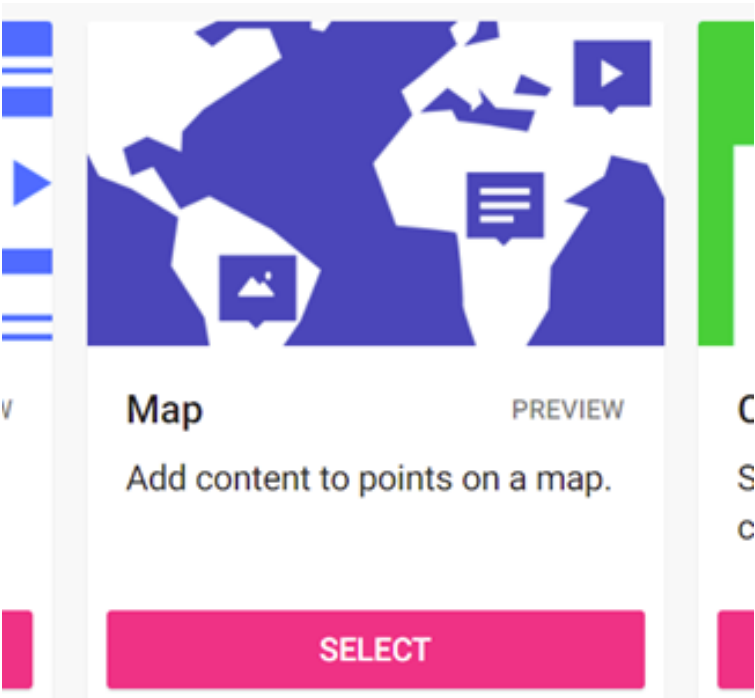


Figure 2. Map format to select on Padlet

**General ideas for an icebreaker:** Ask each student to select a location (town, city, state, region or country) where they are from, then add a post with their name, education and career background, likes and hobbies, and their favourite picture etc. Students and



tutors could react and comment on their peers' posts, creating an opportunity for networking.

**General ideas for case-based learning:** Identify a relevant challenging and complex real-world global problem, provide context and geographical options for students to consider, give clear criteria for analysis and structure for presenting the outcomes on their Map Pin-boarding post (see sample on Figure 2). To use a public health topic as an example, you could have the students do research on the spread of a pandemic in various hotspots and share data and factors affecting the epidemiological trend in the posts or comment box of each Map Pin. Also, the tutors could create Map Pins and have students collaboratively add information to specific Pins for their individual or small group work.



Figure 3. Sample map pinboard highlighting a post

## Transferability to different contexts

Map pinboarding could be used for both synchronous and asynchronous session activities.

Map pinboarding could also be implemented with the use of the Google My Maps application, which is a live platform providing real-time locations, information and features. The Google My Map platform is also more colourful and appealing compared to the Padlet Map wall.

Map pinboarding could be used for portfolio reports for fieldwork activities or field trips.

## Links to tools and resources

- Padlet application: <https://padlet.com/dashboard>
- How to use map format on Padlet: [https://www.youtube.com/watch?v=rN1MPPg\\_A1A](https://www.youtube.com/watch?v=rN1MPPg_A1A)
- Google My Maps application: <https://www.google.co.uk/maps/about/mymaps/>

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## Image Attributions

Figure 1. Screenshot – Sample map pinboard on Padlet by Ikedinachio Ogamba is used under CC-BY 4.0 Licence

Figure 2. Screenshot – Map format to select on Padlet is used under CC-BY 4.0 Licence

Figure 3. Screenshot – Sample map pinboard highlighting a post Padlet is used under CC-BY 4.0 Licence

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# The use of engagement techniques whilst teaching online

DR OLUWASEUN OSITUYO



What is the idea?

The idea of this chapter is to discuss engagement techniques used during lectures, workshops and seminars mainly across accounting modules during the covid era, highlighting what worked well and the drawbacks from an active participation point of view. The impact of the coronavirus pandemic forced higher education institutions to move most teaching activities online (Gallagher &

Palmer, 2020). More than ever, technology enhanced learning tools have become increasingly useful in teaching and learning (Al-Ataby, 2020).

## Why this idea?

The most noticeable advantage of using online learning tools is that it enables monitoring of student engagement. This includes both primary engagement, monitored during synchronous teaching sessions e.g. using multiple-choice quizzes and Padlet exercises to test students' ability to apply concepts taught to real life cases during the lecture; and secondary engagement, monitored outside the classroom e.g. online quizzes (Coovadia & Ackermann, 2021). During the pandemic, the use of online learning tools enabled tutors to find out what was happening behind those black screens during the synchronous lectures and seminars.

Some of these tools, such as having pre-lecture videos and embedding quizzes in these videos might be useful even after the pandemic. This idea is drawn from flipped learning approach which has been highly regarded for its aim to bridge the gap between active learning and actual content coverage (Gopalan & Klann, 2017). The study by Pinto-Llorente et al. (2017) also found that the benefits of using asynchronous technological tools include improving student performance while allowing them to learn at their own pace. In the author's experience, the use of pre-lecture videos and quizzes was particularly beneficial in giving both direct entry students and students progressing from year 1 the opportunity to have foundational but essential knowledge about a topic (by watching the pre-lecture videos and attempting the quizzes embedded in the videos) before attending the related synchronous lecture.

The most noticeable success of using pre-lecture videos, and quizzes during lectures were higher attendance rates for the

module where this method was introduced. The use of quizzes during lectures also provided a more representative performance of students as many students participated in the exercises compared to other methods such as asking the questions verbally. Formal module evaluation from students also highlighted pre-lecture videos and quizzes as part of the 'best aspects of the module'.

## How could others implement this idea?

### *Pre-lecture video + quiz*

- Record one or more videos on the introductory aspect of a topic. Panopto ([www.panopto.com](http://www.panopto.com)) is a common tool used to create recordings in higher institutions. Ideally each video should be no more than 15 minutes.
- Ensure that the videos relate to the learning outcome(s) of the topic. The tutor could focus on a maximum of two of four learning outcomes for example.
- Add a quiz to the video. Where possible, the tutor may add a question after covering a concept that relates to the learning outcome, after solving a question and towards the end of the video to check that the learning outcomes have been achieved. One advantage of using Panopto to embed quizzes in videos is that it stops the listener from moving on to other parts of the video until they have attempted the quiz.
- Ensure that closed captions are added to the videos.
- When students have watched the video and attempted the quiz, the tutor can then download the results and statistics from Panopto and analyse results. Feedback can be provided at the beginning of the related synchronous lecture.

### *Multiple-choice questions that can be used during live/synchronous lectures*

- Several tools can be used to create multiple-choice questions such as Vevox ([www.vevox.com](http://www.vevox.com)).
- During the lecture, students will be provided with the meeting ID. Once the poll is open, students can participate with their smart device (e.g. phones, tablets, laptops, etc.)
- Students who have chosen the right answer will know immediately after attempting the quiz. The poll results can be verbally discussed during the lecture.

### *Padlet summaries during live/synchronous lectures, seminars and workshops*

Padlet is a web-based tool that can be used to collect responses from students particularly on discursive topics during lectures, seminars and workshops. For large cohorts, placing students into virtual groups (also known as breakout rooms in Zoom) will provide an opportunity to collaborate and provide an agreeable summary of their discussion on Padlet.

To use this tool, the tutor would create an account on Padlet ([www.padlet.com](http://www.padlet.com)) and then create a Padlet. Questions to be discussed in breakout rooms can be provided on the created Padlet page.

For seminars and workshops where topics related to research articles will be discussed:

- Students would have been provided in advance with seminar/workshop questions with references of relevant articles to be discussed during the seminar/workshop.
- During the seminar/workshop, students will be asked to discuss the seminar questions in breakout rooms and put a

summary of their discussion on Padlet (the Padlet link is usually shared before students go into their breakout rooms).

- Students are brought back to the main room to discuss the Padlet summaries.
- If the cohort is split into more than one seminar group, the Padlet summaries can be published after all seminars have taken place. This allows students to compare their answers with those from other seminar groups.

For lectures:

- Here, Padlets can be used for knowledge application exercises and real-life scenarios. E.g. When teaching about Sustainability Accounting, a question such as ‘what sustainability issues can be found in the construction industry?’.
- The Padlet link and the question to be discussed are shared before students go into their breakout rooms.
- Students can be asked to discuss the question very briefly in their groups (e.g., 5 minutes) and put a summary on Padlet.
- The summaries on Padlet can then be discussed during the lecture.

## Transferability to different contexts

Online learning tools such as Padlet have been used in teaching on modules offered in various departments. Padlet exercises can be used at both undergraduate and postgraduate level to improve student participation particularly on discursive topics. However, the success of breakout room discussions might depend on willingness and individual circumstances of students in the rooms. Some are likely to be more engaging than others.

Although asynchronous pre-lecture videos have only been introduced to an undergraduate accounting module, they can be



useful for postgraduate modules where the learning outcomes of topics are linked and can be split into introductory aspects and further complex aspects. Online quizzes embedded in pre-lecture videos can be used for both calculative topics and discursive topics. If students are expected to watch multiple pre-lecture videos weekly, a mixture of open-ended questions and multiple-choice questions might be more beneficial to assess their understanding of the learning materials and application to practical scenarios.

Vevox can be introduced to both calculative topics and discursive topics where students' understanding can be tested with multiple-choice questions.

## Links to tools and resources

- Padlet: [www.padlet.com](http://www.padlet.com)
- Panopto: [www.panopto.com](http://www.panopto.com)
- Vevox: [www.vevox.com](http://www.vevox.com)
- Zoom: [www.zoom.us](http://www.zoom.us)

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## Image Attribution

Laptop desk image by Purestock via Alamy (public domain)

## About the Author



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Dr Oluwaseun (Seun) Osituyo is a Lecturer in Accounting at the University of Sussex. Her research interests in the scholarship of teaching and learning include promoting active participation,

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# Block ‘n’ flip: boosting student engagement in the HE classroom

NICOLETTA DI CIOLLA; DR CHRISSI NERANTZI; AND DR GERASIMOS CHATZIDAMIANOS



## What is the idea?

Actively and pro-actively involving students in their learning, providing them with a supportive environment, is key to student empowerment, autonomous learning and development.

One of Manchester Metropolitan University's (ManMet) core

strategies to mitigate the impact of COVID-19 on the student experience, to which engagement is a core contributor, was to configure learning and teaching into “blocks”. Thus, the academic year was divided into four six-week teaching blocks, each occupied by 30 credits worth of content, and followed by one assessment week (Nerantzi & Chatzidamianos, 2020; Nerantzi et al., 2021). Academics worried that, by condensing and intensifying learning, teaching and assessment, this structure would cause insurmountable difficulties: the challenges seemed more daunting than the opportunities were exciting. The inevitable re-think of teaching and learning approaches searched for alternative pedagogical practices that would secure students’ engagement and success despite learning being operationalised remotely (and in isolation) and intensively. The main questions were: how could we ensure that students stayed on the course, remained engaged and participative? What alternative to the traditional campus-based provision could we offer that would be equally effective, or better still deliver additional, unexpected benefits?

The authors’ idea was to adopt peer- assisted, flipped learning, approaches that encouraged active learning, that could help create a seamless learning experience within and beyond the physical and virtual classroom, and at the same time remove some of the problems created by the block delivery (Nerantzi, 2020). We called this approach *Block ‘n’ Flip*.

Keeping in mind that our objectives were to:

- deliver depth and breadth (subject content) and develop higher order critical thinking skills in far less time than usual; and
- enable students to become autonomous learners,
- we redesigned our units to:
- make **interaction** an integral part of the Teaching & Learning (T&L) philosophy;
- **distribute** learning activities across the pre-, during and post-class stages (Ehlers, 2020; Scott, 2020), exploiting the potential of technology to make this happen;

- promote active **blended learning**; and
- align all **learning activities and assessment** constructively with the **learning outcomes**.

This approach enabled us to reduce reliance on teaching as *telling* (i.e. to move away from teaching events where student participation mostly implies mechanical note-taking, with minimum active engagement) and to use class time for scaffolded learning activities instead. Flipped learning and peer assisted learning strategies with synchronous and asynchronous learning opportunities were key to achieving our objectives.

The following pages illustrate how the above plan was put into practice by one of the authors in one of her modules.

### **‘FLIPPING LATIN’**

The principles of the flipped classroom had been piloted in a Beginners Latin class just before COVID struck: the tutor had selected several ‘knowledge clips’ that covered a range of topics relevant to the unit (recorded in-house or found in YouTube) for students to watch asynchronously. To make the viewing activity interactive, a video tagging software was used: a tool – called EVOLI – developed within the EU funded project ELSE of which ManMet was a partner (cf.<https://www.evoli.polimi.it/> or <https://evoli.altervista.org/>). User instructions can be found in Appendix 2).

As the EVOLI tool specifically required students to respond to a clip content by inserting comments or indicating the extent to which they understood and/or wanted further explanation on the topic, its consistent use made engagement and class interaction a distinctive feature of the course (Nerantzi et al., 2021a).

The group of 24 students in the class consisted mostly of 1<sup>st</sup> year Ancient History undergraduates, plus a handful of MA Ancient History students (3) and one PhD candidate. The students were all Anglophone – so Latin, with its limited contiguity with English, was a bit of a mystery to most. There were widespread confidence issues – especially fresher anxiety about tackling new content unaided –

and no established group cohesion, as the students were new to the university.

Given the group composition, plus the compressed nature of the experience due to the reduced teaching time, the following were important, despite a significant level of trepidation from the tutor about asking students to 'go solo' for the initial part of the learning:

1. opportunities for **all** students to learn core concepts, and at their own pace;
2. flexible (= personalised) **scaffolding** for the live session; and
3. **efficient** use of class time (e.g., less time spent **introducing** core concepts, more time to **discuss** them and **consolidate understanding**).

The approach and its rationale were explained to the students at the outset:

- **independent work** had to be carried out in advance of the live session and it was a fundamental part of the experience; and
- the chosen learning approach would be greatly beneficial to them (= they would learn more and more easily) and was 'energy efficient' (= having zero impact on their overall workload).

The preparatory work set was:

- **Multimodal** – the videoclips were accompanied by a range of other written or visual resources for students to explore. Variety was important.
- **Participatory** – students were encouraged to collaborate with each other, through sharing resources and distributing tasks amongst themselves; and
- **Useful** – for the tutor (who was able to customise the follow up "live" sessions, which were targeted to **that** group and its needs); for the students (who could participate in the construction of the unit, orienting their choice of authors, or topics).

The experiment was a success (in terms of student engagement, satisfaction and results), and the pilot experience highlighted the areas that could be improved (See Appendix 1 for a specific application).

## Transferability to different contexts

The COVID emergency made many colleagues eager to try their hand at flipped learning and peer assisted learning, and the experience of Latin demonstrated how overturning the traditional order of teaching and learning and making digital technology an integral part of the delivery of the unit can work across disciplines.

From the 'technical' side, the requirements are:

1. A series of short knowledge clips (no more than 5-7 minutes long) that explore core concepts – these can be produced by the tutor, reworked on the basis of what would have been covered in class, or can be found on the web, where plenty of material is available across subjects; and
2. A range of linked activities that students complete ahead of the live sessions. Activities can be intercalated (watch for 2 minutes, then complete a task, then resume the viewing) or done before or after the viewing.

The preconditions are few, but indispensable to the success of the approach:

- The **preparatory work** must be designed as an **integral part** of the T&L- not an optional activity. Students will take responsibility for their independent learning.
- All **additional activities** should test knowledge **and** provide more opportunities for learning – the Latin flipped class on relative clauses stimulated reflections about communication



strategies that conceal or reveal information, remove or add ambiguity.

- All activities should be able to “travel beyond the unit” and contribute to the students’ self-concordance – covering topics that resonate as much as possible with students’ developing interests and values, and that can be seen as relevant to their lives and future ambitions. The Latin sessions offered illuminating insights into contemporary society and culture.
- Activities must be relevant to the assessment, and the assessment should itself be a form of learning – encouraging students to form study partnerships, to work together to make sense of new information, and to contribute their respective prior knowledge to help their peers with new learning.
- Students must be made to feel that they are not alone – the tutor is there, and help is at hand.
- Conditions must be made equitable – digital poverty, time poverty and differing digital capabilities must be considered, so that no one is excluded from the full learning experience.

## Links to tools and resources

Di Ciolla, N., Chatzidamianos, G., Nerantzi, C., Parry, A. Patil, S., & Sashikumar, S. (2021) Block ‘n’ Flip. Boosting student engagement in the HE classroom in “Coronial” times [invited]. *6th Annual Flipped Learning Conference Post COVID 19: Evolution of the Classroom*. University of Northern Colorado, 3-4 June 2021.

<https://mmutube.mmu.ac.uk/media/>

Kaltura+Capture+recording+-

+May+24th+2021%2C+12A02A56+pm/1\_x4kd9v2j

EVOLI, a video tagging tool developed by the ELSE Erasmus plus project team: <https://www.evoli.polimi.it/>

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## Image attribution

Watering mind image by Gerd Altmann from Pixabay

# Appendices

## Appendix 1

### THE FOX AND THE GRAPES AND THE THORNY ISSUE OF RELATIVE PRONOUNS

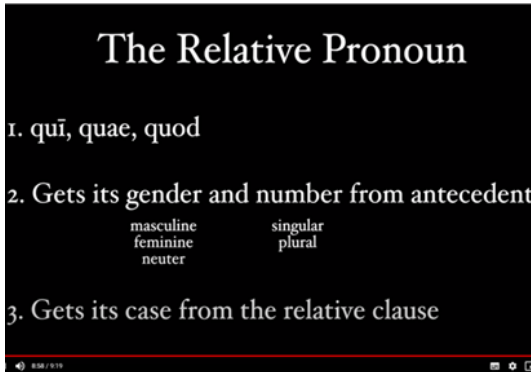


Figure 1. Screenshot of YouTube Video on The Relative Pronoun b

We were reading an extract from *De vulpe et uva*, a famous tale narrated in Latin by Phaedrus, where a few instances of relative pronouns occurred. I observed that:

- all students understood the gist of the story and were able to translate it, but had a limited understanding of the function and meaning of those “words” (i.e. the relative pronouns) in the Latin context.
- many students found the concept of “relative pronoun” complex, even when referred to English and illustrated through examples from English.

In preparation for the following week – and for more reading about Roman wisdom – students were asked to watch a 9 minute ‘knowledge clip’ on relative pronouns in Latin.

HOW IT WORKED: I made the clip available through EVOLI, requiring students to interact with the video – tag it as they watched it, indicating the points where they ‘get it’, where they ‘don’t get it’, and entering any comments, observations or questions.

When I examined the summary of the students’ viewings – EVOLI provides a graph showing the exact time of the clip where each comment was raised – I noticed a peak of ‘I don’t get it’ in two specific points: minutes 1.2 and minute 9, which correspond to the introduction of the grammar explanation. This confirmed to me that students struggled to understand abstract concepts, and to apply deductive reasoning.

In particular, minute 9 corresponded to the grammar recap, which presupposed an understanding of the theoretical content of the entire video:

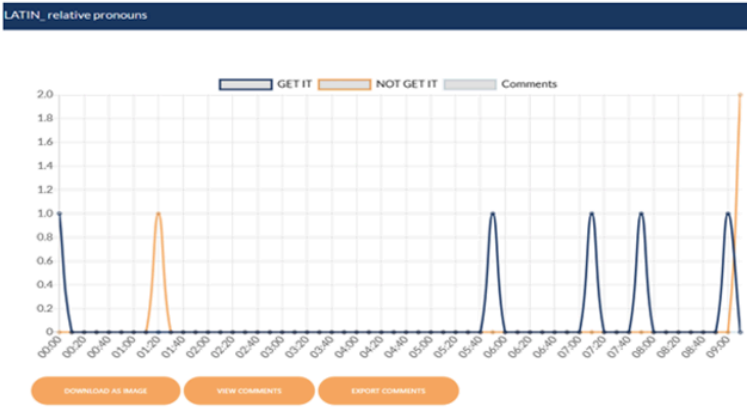


Figure 2. Screenshot of Evoli results on The Relative Pronoun b

Aware of what the sticking points were (and conversely of what was likely to be plain sailing), I structured the follow-up live class as in the diagram below, which students received in advance, and which highlighted the steps we were going to take in the session:



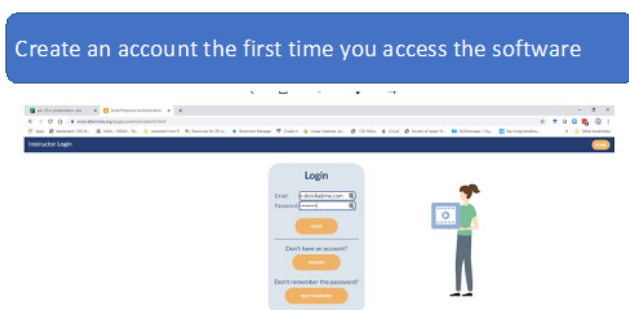
## Appendix 2

The video tagging tool EVOLI is downloadable from <https://evoli.polimi.it/> or <https://evoli.altervista.org/>.

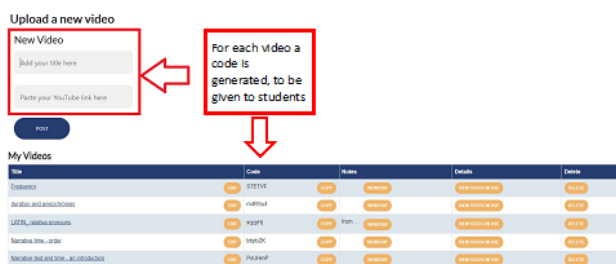
The first time the software is accessed, users need to create a personal account.

There are separate account areas – for tutors and for students.

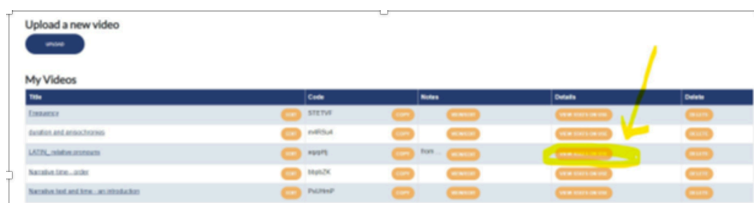
(all figures below are screenshots from presentations done by N



Videos can be uploaded onto EVOLI from YouTube. They can be given a new title (so that content and relevance are clear), and each upload generates an EVOLI code – which tutors give to students.



Students access their EVOLI account, enter the code provided by the tutor and watch the video.



While watching, they interact with the content by indicating what is clear, what is not clear, and any questions/comments they have.

Once they have finished the viewing activity, they submit their feedback.

Analytics for the activities are provided in the tutor area – how many people have viewed the video, how many responses there have been, the parts that students found clear or difficult, and what comments have been posted.

A clear diagram shows what reactions have been left and at what points of the video.



All feedback and **comments** are connected to a specific time-stamp in the video (direct link). I use these comments and graphs to plan the follow up session.

These data can be used to plan the follow-up sessions.

## About the Authors



Nicoletta Di Ciolla

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Nicoletta Di Ciolla was Principal Lecturer and Education Lead in the Department of Languages, Information and Communications at the Manchester Metropolitan University, a post she has recently left. Her research specialism is Italian Crime Fiction, and she has recently become involved in strategies to enhance the learning and teaching experience of students and staff through digital developments in Education, through being a PI in a EU funded RKE project.



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Dr Chrissi Nerantzi is a Reader in Academic CPD in the University Teaching Academy at Manchester Metropolitan University, a National Teaching Fellow and a GO-GN Fellow. She is very much interested in the intersection of creativity, openness and collaboration and her practice and research are in these areas.





Gerasimos Chatzidamianos  
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Dr Gerasimos Chatzidamianos is an Experimental Psycholinguist who completed his M.Phil. and Ph.D. research at the Department of Experimental Psychology, University of Cambridge, U.K. He is also qualified to practise Psychology in Greece (Department of Psychology, University of Athens, Greece), and a Qualified Teacher in Special Education. He is currently a Senior Lecturer in Psychology at MMU.

A passionate researcher on mental health and deafness, psycholinguistics, schizophrenia, bipolar disorder, and clinical communication, Gerasimos has extensive expertise on HRA research ethics and the use of social media in health research.

# Passive to active: how online lessons create real world learners

MATT PARKMAN



## What is the idea?

Necessity is the mother of all invention and there has been no greater necessity during the pandemic than in finding new and diverse ways to engage learners in active learning from afar (Zawicki-Richter, 2020).

One of the beneficial side effects of this has been the rise in ‘passive to active’ learning, with the pandemic providing opportunity (Saxton, 2021) from social platforms and media such as Twitch, TikTok and YouTube. This piece will explore the case study of woodworking during 2020 and 2021 and how accounts such as ‘Woodworking For Mere Mortals’ have created active learning opportunities from what are otherwise passive teaching resources.

## Why this idea?

When university lecturers stand at the lectern and begin to speak, they do so to impart specific and defined knowledge to their students. The students, meanwhile, take notes and ask questions and absorb the specific information being given to them. The learning that takes place is facilitated by teaching designed to achieve just that. Whilst an often traditional approach, this does not fulfil the true potential of active teaching and learning. Teachers and learners are engaged with each other, but learners are not learning through doing; there is often no discussion, interaction or participation from learners, nor are there “hands on” activities one might expect to find in a lab-based session (Petress, 2008).

When Jon Peters builds an entryway table in cherry and maple, records it, and uploads that recording to YouTube, he does so for no other purpose than to demonstrate his skill as a woodworker for the entertainment of the viewer. That it is possible to watch that video and learn something (a new technique for measuring dovetails, for example) is merely an unintended consequence. No learning is implied within the relationship between the do-er and the viewer. This teaching is passive.

Where Steve Ramsay and the Woodworking for Mere Mortals YouTube channel comes in is to occupy the space between the two. Building and creating woodworking projects for their own sake, but with an element of active teaching involved in the form of

explanations of techniques and skills and the offering of alternative approaches to achieve the same end result. Learners are able to pause videos to ensure time to effectively encode the information, review both the point that Ramsay has reached and reflect on their own project progress – all active learning principles (Petress, 2008).

It is likely this approach would attract autonomous learners, perhaps older or those with the freedom to be able to access materials. The instructional nature of these videos demonstrates andragogy in action (Lambda Solutions, 2020). We understand that adult education often stems from a need for knowledge, should provide opportunities for self direction and facilitate learning through doing. Channels such as Steve Ramsay's provide an accessible option for learners who are motivated and willing to learn, with it being possible to argue the facilitation of "just in time learning" (Lambda Solutions, 2020).

## How could others implement this idea?

Plenty of others do implement this idea. There are many woodworking channels which take a blended active/passive approach. Channels such as WoodWorkWeb and SeeJaneDrill offer only active teaching, with no passive included. Jonathan Katz-Moses offers just a little passive. ParillaWorks and Blacktail Studio offer around 75% passive, while Andy Phillip's woodturning channel offers absolutely no active whatsoever (he doesn't even speak in or narrate over his videos).

The variety of options available makes this type of teaching and learning accessible to all: beginners through to advanced professionals can find content which will help them solve problems they may be facing with their woodworking projects. Those who are advanced in their skill but perhaps need a visualisation of the end product can obtain this through the likes of Andy Phillip's YouTube

channel, whereas apprentices, or those still learning within the discipline can access videos providing more of a tutorial approach.

Not only does this provide the learner the opportunity to access content for their skill level, it provides ample stretch for those who wish to progress onto harder projects. Online learning, such as this, can also provide improved learning outcomes for neurodivergent learners given the flexibility available (Dahlstrom-Hakki et al., 2020).

## Transferability to other contexts

In the online classroom, it may be applicable for teachers in some subjects to forego the traditional teaching often associated with university lectures and instead make use of a more blended approach. Recorded sessions of the creation of an item (be it furniture or otherwise) could be used to impart passive learning of techniques, skills and competencies so ingrained in the teacher, likely to be unconsciously competent per Noel Burch's model (Brizga, 2016) therefore never thinking to actively teach these competencies or skills. They also have the benefit of not being interactive at the time, so can be recorded once and used time and again, while inviting questions or comments at a later time. This foreshortens lesson time and allows more knowledge to be imparted in a more time-dense fashion.

## Links to tools and resources

- <https://www.youtube.com/c/stevinmarin>
- <https://www.youtube.com/c/parillaworks>
- <https://www.youtube.com/c/BlacktailStudio>
- <https://www.youtube.com/c/AndyPhillipWoodturning>
- <https://www.youtube.com/c/knecht105>

- <https://www.youtube.com/user/seejanedrill>
- <https://www.youtube.com/c/KatzMosesWoodworkingShop>
- <https://www.youtube.com/c/JonPetersArtHome>

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## Image Attribution

Woodturning photo by Austin Ramsey on Unsplash

## About the Author

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Matt Parkman is an Instructional Designer who aims to create fun and interactive educational content, with the learner at heart. He found himself drawn to learning technology and instructional design to create content learners wanted to engage with, rather than feeling they had to.



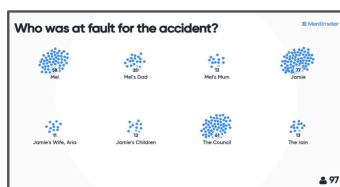
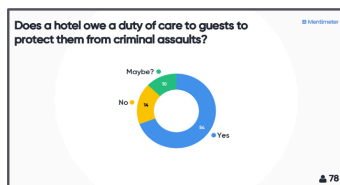
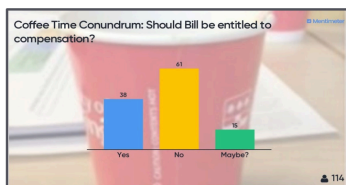


# 6B QUIZZES AND POLLING



# Mentimeter: engaging students with an easy-to-use audience response system

AMANDA MILLMORE



## What is the idea?

Finding ways to engage large lecture cohorts and small group tutorials alike and make teaching more interactive is never easy. Using the app Mentimeter, where students answer questions on their own devices, interacting anonymously with questions posed by the teacher, increases inclusivity, improves student-staff dialogue and makes the experience more enjoyable for all (Mayhew et al., 2020). The dynamic visuals encourage students to interact and break down barriers enabling students to get involved. It benefits the teacher as they can check student knowledge and adapt teaching flexibly in response to student input, and improves student

engagement and enjoyment of the classes. This can benefit students at any level of learning.

## Why this idea?

With many teachers having to move into a blended learning sphere, which is not everyone's natural environment, some aspects of teaching have become increasingly passive and asynchronous, with pre-recorded lectures and materials and dialogue between teacher and students offered asynchronously via discussion boards, Padlets and online forums. Whilst these have their place in creating an online community (McDaniels et al., 2016), they can constrain the discussion (Gao et al., 2013) and can lack a feeling of dynamic dialogue. Mentimeter is an easy to use and helpful application to foster better engagement with students, whether students are physically in the same space in a face-to-face classroom, or studying online and you are seeking to interact in an online classroom; it can be used asynchronously but the focus here is on its use in synchronous settings.

Research has shown significantly increased satisfaction and enjoyment from students using Mentimeter, as well as enhanced student attention (Mayhew et al., 2020). Student feedback emphasised that it was “...*fun and energising – actually interacting with lecturers rather than just sitting and listening makes it easier to pay attention...*” (Mayhew et al., 2020, p. 7).

The anonymity encourages participation (Heaslip et al., 2014), although may at times require more teacher monitoring to remove any inappropriate comments in free text tasks. Moreover, the dialogic approach supports students' learning and understanding of a topic (Alexander, 2017), with enhanced opportunities for students to check their knowledge or gain reassurance of their level of understanding. It does require the teacher to surrender some control of the class, but the corollary of that is increased

engagement. There is an increased investment of time preparing a session to incorporate Mentimeter in teaching, but it reaps rewards in the benefits to the class.

## How could others implement this idea?

### *Before the session – Step 1:*

The teacher prepares slides in advance of the class using pre-set types of question (multiple choice, scoring, scales and ranking exercises, open-ended Q&A style answers and a free text Word Cloud).

How to do it: Create the slides online by going to the [www.mentimeter.com](http://www.mentimeter.com) website. There is a free version allowing 2 slides or 5 quiz questions, or a paid-for option without such limits (Compton & Allen, 2018). The teacher selects the “type” of slide that they wish to appear (see image below):

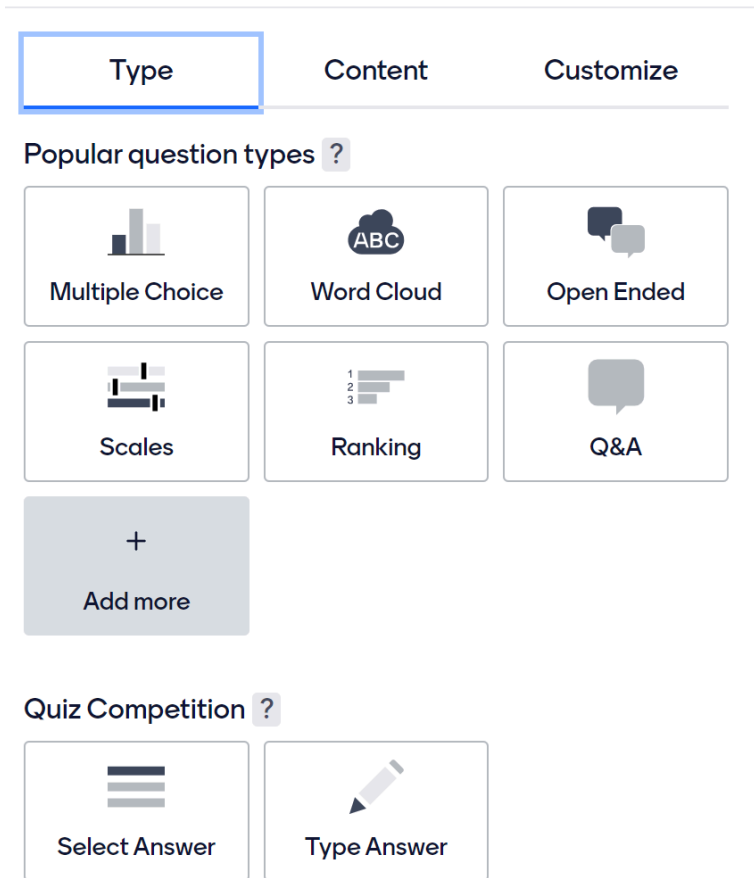


Figure 1. Mentimeter question types

The teacher adds the “content” by setting a question and either pre-prepared answer options or enabling free text.

### *Before the session – Step 2:*

Slides can be enhanced with images, videos and graphics if you wish. It is so quick to use that slides can also be created “in the moment” whilst teaching if it is felt that this would be beneficial.

### *Before the session – Step 3:*

Think about where you can best deploy the interaction and active learning in your session:

- One-off questions.
- A series of questions as a quiz – anonymously or competitively with a leaderboard.
- An interactive icebreaker activity with fun questions.
- “Pin on an image” (used with a map or picture).
- Gathering feedback at the end of the class.
- Use as an informal register, getting students to type their name on a virtual post-it, so that attendance can be checked and interaction encouraged.

### *During the session – Step 1:*

How to do it: In class the Mentimeter presentation is launched by the teacher by sharing their presentation from [www.mentimeter.com](http://www.mentimeter.com) as you would present other materials to a class by using an electronic whiteboard, projector or if working virtually, by sharing the teacher’s screen.

Students use their own devices by going to [www.menti.com](http://www.menti.com) or using the Mentimeter app and entering a unique code from the presentation into their personal device; there is no requirement to

login or to create an account, which would slow down the process making the platform easy for students to use (Mayhew et al., 2020).

The teacher's questions appear on student devices enabling them to respond anonymously, which is where the active learning takes place. Once the concept of interaction via individual devices has been introduced, students become quickly familiar with it, and set-up time is minimal in subsequent sessions.

### *During the session – Step 2:*

This is where the active learning is most effective. Students' anonymous answers appear on the teacher's screen and are visible on the presenting screen to the students. The display is dynamic, showing changes as answers are added, giving students confidence to participate as they see others entering their answers and they realise that their peers may be equally as confused as they are (Knight & Wood, 2005).

### *During the session – Step 3:*

How to do it: With the answers visible on the screen to all, the teacher can reassure the class and highlight correct answers, or adjust their teaching flexibly in response, reiterating and re-explaining areas that may have been misunderstood. It is a useful tool to test the mood of the room, check understanding or encourage deeper thinking.

### *After the session:*

Following the session you can download the students' answers as a Microsoft Excel spreadsheet, which enables you to analyse the



responses and reflect upon feedback. It is also straightforward to download PDFs with the screenshot results of interactive slides.

## Transferability to different contexts

It is possible to integrate presentation slides from other sources such as Powerpoint, to create a seamless interactive experience, with passive and interactive elements, simply upload the slides and interleave with Mentimeter interactive slides.

Students can also comment on non-interactive Powerpoint slides and ask questions in real time. The questions appear on the teacher's screen making them easier to manage, as they do not get lost in a chat box elsewhere.

For repeat use, you can duplicate Mentimeter presentation decks and edit or amend as you wish.

This tool can be used in a range of settings, from students creating revision quizzes for study groups, to social parties with fun interaction as well as the more serious business of teaching and learning.

## Links to Tools and Resources

- The Mentimeter website has a range of resources helping you to explore the application: [www.mentimeter.com](http://www.mentimeter.com)

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Figure 1. Mentimeter question types – Screenshot is used under CC-BY 4.0 Licence

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A former practising barrister, Amanda Millmore teaches undergraduates on the LLB Law programme. A University Teaching Fellow, she is a keen advocate for the use of appropriate digital technology to enhance the student learning experience and to foster active learning.

# Using PrepQuiz approach to enhance students' engagement in online flipped classroom

IKEDINACHI OGAMBA

## What is the idea?

PrepQuiz is an approach to playful pedagogy that uses online quiz games synchronously in a flipped classroom aimed at motivating students to undertake preparatory study and prior learning. They cover subject-specific knowledge, comprehension, and cognitive reflection tests on key content from the students' preparatory materials and case studies for each flipped class. Conducting a PrepQuiz early in the classroom session supports retrieval practice, playful learning and provides a fun transition to the main plenary discussion and small group work activities. As a motivation and reward, a congratulatory message to the winner(s) is posted on the VLE (e.g. Moodle) student community page. By motivating students to undertake preparatory study, the PrepQuiz approach help to enhance their learning, engagement and contribution to seminar/workshop discussions and group work.

## Why this idea?

Experience and research have shown that many students struggle with undertaking preparatory study prior to attending flipped classrooms (Dooley & Makasis, 2020; Herreid & Schiller, 2013; Tomas

et al., 2019). This could be a barrier to active engagement in seminar/workshop activities. More so, online classrooms sometimes give room for some students to hide behind their screens, sometimes with microphones muted and cameras off. Hence, working with other tutors and students, in-session PrepQuiz approach was trialled using online quiz tools (e.g. Kahoot, Metimeter), and the experiences and feedback was used in developing the approach.

The design of in-session PrepQuiz approach with elements of fun and competition motivates students on preparatory study. In-session PrepQuiz also enhances deep learning by spurring critical debates and discussion around answers, and by creating opportunities to clarify concepts and experiment what is learned (Harlow & Peter, 2014; Humrickhouse, 2021). Hence, it could be used in developing and addressing the learning of threshold concepts in a subject matter. Moreover, by engaging students in retrieval practice, PrepQuiz approach supports flipped classroom strategy of achieving knowledge retention and information literacy instruction (Gopalan et al., 2020; Shatto et al., 2017). Therefore, they are effective as formative assessments and for improving assessment literacy and outcomes.

A combination of game-based learning techniques and tests with elements of point scoring and competition in PrepQuiz is very transformative in sustaining students' interest although some learners may not value the competition. The effectiveness of PrepQuiz is evidenced by the significant improvement in students' engagement in the quiz exercise and participation in the subsequent classroom activities. This was captured in the students' feedback in the module evaluation e.g. *"I definitely like the Kahoot quiz which is related to our session and it's a fun way to actually revise about what I have studied before and it helps in a group task."*

## How could others implement this idea?

The PrepQuiz approach can be designed using various online quizzing platforms. But for the purpose of this chapter, the Kahoot platform will be used to describe the implementation of PrepQuiz.

### *Pre-session*

Start by designing quiz items (questions/activities) from the pre-session materials the students are expected to study before the classroom.

Think of key information and sections that could test the knowledge or cognitive reflection of the students in an informal and playful way.

Consider different types of tests e.g. Multiple choice questions (MCQs), Open-ended, True or False, Type-in answer, Brainstorm and Puzzle formats.

Register on Kahoot.com platform, then create the quiz items. It would help to have a small number of items, not more than 10 per session.

For each item set a time limit, points and answer options (see Figure 1, and link on “How to create a Kahoot...”).

You may add a picture, graph or video to specific items.

Add the response options to each item considering a combination of correct, plausible/relative, incorrect and silly answers.

After setting up, test the quiz. You should play it yourself to ensure the appropriate responses and timings have been selected.

Note that there are some limitations of the free version of Kahoot which only allows up to 50 players, while the paid versions are tiered for 100/200/200+ students.

## Kahoot! setup page

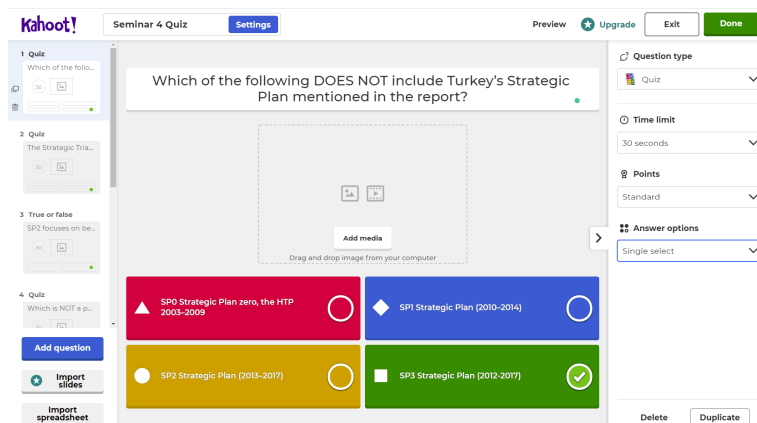


Figure 1. Kahoot setup page

When sharing the preparatory materials and information for the class, notify students about the in-session PrepQuiz exercise and how it will run. In addition to their laptop/PC for joining the online class, ask students to have an internet-enabled phone handy for the PrepQuiz game.

## In-session

It is more useful to conduct the PrepQuiz early in the session as a warm-up to the plenary discussion and group work.

Inform students of the rules and tips for the PrepQuiz and Kahoot game. It is important to emphasize that the Kahoot platform scores for both speed and accuracy of response. However, in presenting and facilitating PrepQuiz, gamification and play is very important.

The idea is not only to test their knowledge but to encourage playful learning and warm-up for other classroom activities.

Open Kahoot.com on your computer browser, share screen, then play the PrepQuiz, displaying the Join link and PIN. Ask students to join with their phone or computer device and input their name. Check if everyone is ready, then start the quiz (see Figure 2).

### *Kahoot join page*



Figure 2. Kahoot join page

Create opportunities to discuss the answers and clarify concepts, and for students to interrogate or discuss the quiz outcomes, and reference or engage further with the preparatory materials and case study. There are three way you can do this:

- Pause in between quiz items; or
- After the quiz exercise you can take some time to run through



- and discuss the items, responses and answers; and/or
- During other classroom activities, where there may be opportunities to reiterate and explain the answers.

Winner (s) and runner ups should be recognised and commended at the end of the PrepQuiz. Kahoot has a winners' podium which is helpful with this. (see Figure 3).

### *Kahoot Winners' podium*

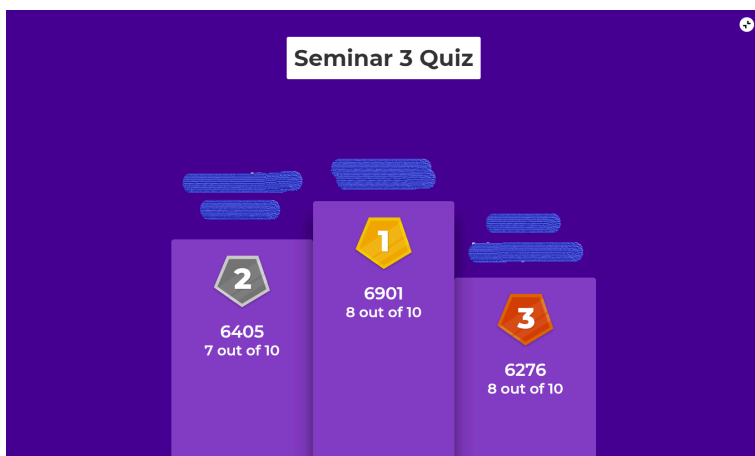


Figure 3. Kahoot Winners' Podium

### *Post-Session*

It may also be effective to announce the winner(s) and runner ups on VLE student community spaces. This could motivate more students to prepare and participate in future PrepQuiz and sessions, including students who were absent.

## Transferability to different contexts

In-session PrepQuiz, using Kahoot, has been effectively used for online flipped classrooms. But they could also be used in face-to-face or hybrid classrooms, and at various levels of education including foundation, undergraduate, postgraduate, and CPDs sessions.

In-session PrepQuiz could be used in both formative and summative assessment contexts. However, there may be some limitations and considerations for use in summative assessments e.g. randomisation of questions to prevent the issues of student collusion in online tests, which is currently a national issue on online assessment. This might be something worth exploring with education technologists, depending on institutions and platforms you use.

Other available online quizzing platforms that could be useful for creating the in-session PrepQuiz include Mentimeter, Quizizz, Socrative, Plicker, Learnosity etc.

## Links to tools and the resources

- Sample PrepQuiz on Kahoot: <https://create.kahoot.it/share/seminar-3-quiz/294af030-394d-4f84-b8ec-b989268ee9ca>
- How to create a kahoot: Step-by-step guide and extra tips for teachers: <https://kahoot.com/blog/2021/01/28/how-to-create-kahoot-tips-teachers/>

If you use another platform, you can find the relevant guide on their website.

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Figure 3. Kahoot Winners' Podium screenshot by Ikedinachio Ogamba is used under CC-BY 4.0 Licence

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Ike Ogamba has a broad experience of leading the design and delivery of learning and teaching in HE and leadership and management experience in global health and development practice. He is a Senior Fellow of the HEA, with Scholarship of Teaching and Learning (SoTL) interests in design, innovation, digital education, e-learning, inclusive and authentic curriculum.

# Modern Muddiest Point: the use of polling apps to enhance classroom dialogues in large groups

DR JO RICHARDSON



What is the idea?

The use of interactive polling technology to assess students' learning is a quick and easy way to engage students in developing their metacognition in large lectures or other classes, particularly

where it is otherwise challenging to implement flipped or active learning.

## Why this idea?

This is a very easy way of making large group classes interactive. By combining polling technology (e.g. Poll Everywhere) with the metacognitive technique known as the “Muddiest Point”, you can gather real-time student feedback on their own learning.

The Muddiest Point asks students to identify what they find most unclear (“muddy”) or confusing about what they are learning:

“Regular use of the Muddiest Point in classrooms, which requires only a few minutes, sets a tone that confusion is a part of learning and that articulating confusions is not done solely to inform the instructor, but also to inform students themselves; students can use identified confusions to drive their independent learning or to generate dialogue” (Tanner, 2012, p. 116).

Polling technology has proved popular with both students and lecturers and has positive effects on student engagement and learning (Rose, 2019).

Students can enter their responses via an anonymous online poll, quickly and clearly informing the instructor about their learning. No special equipment is required: students can use their own mobiles or laptops.

Running these interactive polls over several lectures creates a classroom dialogue around topics that are interesting or challenging, even in a large cohort in which students are otherwise intimidated from asking questions. Additionally, it can be used to feed forward to later lectures, and ask students questions which test their prior learning.

## How could others implement this idea?

These instructions are for Poll Everywhere, which is a popular platform with both students and instructors (Shon & Smith, 2011), but any polling technology can be used. Most of them allow a limited number of users for free. For larger groups you may need a paid subscription: check what your University offers.

Generally, this method is effective if deployed e.g. in a didactic lecture, at a suitable point. This could be the beginning (e.g. covering topics from a previous class), the middle (e.g. discussing a topic just covered in the class before moving onto a different topic), or at the end (e.g. consolidating the content of the class).

### *Preparation before class (5 minutes)*

Set up the poll in advance of the class. If using Poll Everywhere, login and follow their guidelines, which are very simple, but there's a detailed written instructor guide here if you need it: <https://www.polleverywhere.com/instructor-guide>

In your account, click "+Activity" to generate a new poll. For the Muddiest Point, I recommend selecting the "Q&A" option. This allows students to enter freeform text. Importantly, it also allows them to upvote other answers: this can quickly identify the question they most want answered or the topic that everybody found challenging.

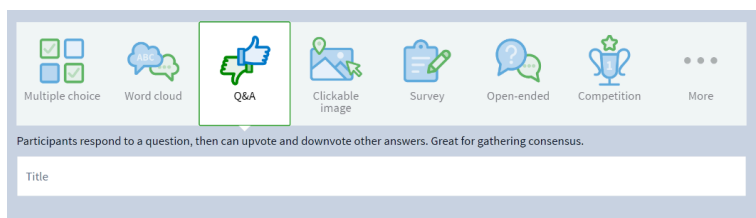


Figure 1. Screenshot of poll choice menu from Poll Everywhere, with Q&A selected

Give it a title to prompt answers, e.g. “What do you find most confusing about Topic X?”

Once the poll is created, you can change various settings, found on the right hand side. Some you may find useful are making the poll anonymous, and filters such as e.g. enabling moderation.



Figure 2. Screenshot of an example poll screen from Poll Everywhere, with the title “What do you find most confusing about topic X?”

You can also choose whether to embed your poll in your Powerpoint presentation or just have it open on an internet tab.



### *In class (10-20 minutes)*

Activate your poll at the appropriate point (don't forget to display it on your screen) and you're ready! The link for the students is displayed at the top of poll screen.

Once students have entered their answer, you can close the poll, and then answer their questions. You can of course always keep the poll running in the background, as a way to collect ongoing questions, but this is less useful for generating discussion.

Collecting responses takes no more than 5 minutes; responding to them and generating discussion takes 5-20 minutes depending how detailed you get! If you find you can't cover all the questions, don't be afraid to revisit them in a later session.

## Transferability to different contexts

As this technique is so simple to use, and does not take much time, it is very versatile. It can be used for almost any discipline in the humanities or STEM subjects, and you can bring it into many different classroom environments, such as seminars, workshops or even practical sessions.

This method is also perfect for engaging students in online classes, and where blended learning (simultaneous online and in person) is occurring.

You can also combine this technique with other tools; for example, you might set a problem on a Padlet board in advance of the class, and then use the polling system to generate discussion.

## Links to tools and resources

- PollEverywhere guide contains all you need to set up your poll,

- plus ideas, and “how to” webinars: [www.polleverywhere.com](http://www.polleverywhere.com)
- Padlet: [www.padlet.com](http://www.padlet.com)

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Dr Jo Richardson completed her doctorate at Cambridge University in 2005, subsequently spending several years in developmental biology research. She has been a Lecturer in Biochemistry at Sussex since 2016, teaching across a range of modules, with class sizes from 6 to 300. She has received three institutional teaching awards.

# EDPuzzle to integrate video-based self-assessment

DR ANA NIÑO

## What is the idea?

It is well documented that video input can help students gain a deeper understanding of content, and concepts whilst increasing motivation (Alder, 2019). If you are looking into ways to integrate video-based activities in your class, you will be interested to explore EDPuzzle. The process is simple, just find a relevant video for your class, add some comprehension questions on key facts throughout the video, and assign it to the class. In line with the learning outcomes, this tool can be used as a quick knowledge checker with immediate feedback for self-assessment purposes. The basic plan is free for teachers and students and you can install a YouTube extension to edit videos more easily.

## Why this idea?

It creates beautiful interactive video lessons that you can easily embed into your VLE. It enables you to edit copyrighted videos from YouTube, Vimeo or TED Talks. You can adapt the existing online videos or create your own. The beauty of this tool is that you can take extracts to illustrate any particular teaching point, do voiceover or include questions and/or comments in the selected videos.

EDPuzzle not only helps you assess your students by formatively tracking their progress and generating data on their achievements,

but it also helps the students get prepared for the summative assessments by having their comprehension/content knowledge checked as they practise. Students seemed very engaged and loved receiving immediate feedback on their answers as they watched the videos.

EdPuzzle can be used synchronously or asynchronously in online teaching, for example, as input for discussion if students need to assimilate various concepts, or as a follow-up resource to memorise or reflect in preparation for the next class. It can also be used independently or collaboratively in between lectures, to check whether students have understood some concepts before doing some further practice on them.

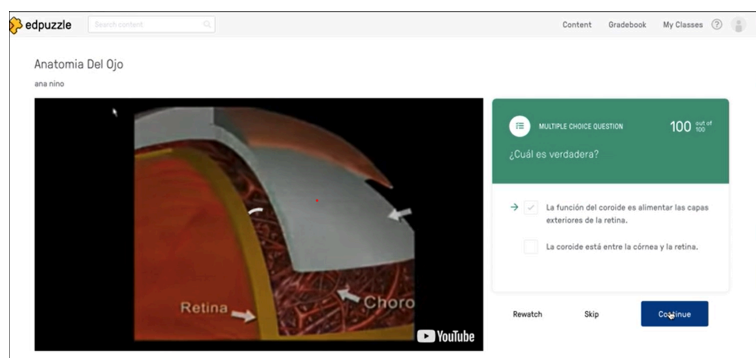


Figure 1. Example of a true/false interactive question embedded in an EdPuzzle video activity

I used it as a self-assessment tool with my medical Spanish students to practise listening comprehension and terminology around various topics such as eye anatomy as shown in the picture above. The students are prompted with true/false or multiple choice questions as they watch the video and they receive immediate feedback as they go along. Its effectiveness is attributed to how it fosters autonomous learning and self-monitoring, which

are fundamental in the online teaching and learning context and can greatly improve students' performance (Mega et al. 2013).

## How could others implement this idea?

In order to implement its use in your class, follow these steps:

- Identify the learning outcomes around core concepts.
- Re-think what constitutes acceptable formative and summative assessments in your course.
- Design the activities for your lecture and think how you will sequence them so that you can integrate an EDPuzzle activity in them in a meaningful way, e.g. to be done before the synchronous session or as a follow-up.
- Choose an adequate video for the class and write relevant questions/prompts in the video. Do not forget to include feedback.
- Re-think the instructions for this activity so that they link to learning outcomes and assessment.

Embed the activity in the VLE and include relevant activity links in the course program in order to direct students to the resource.

## Transferability to different contexts

It is a very versatile tool that can be used in many different teaching subjects and contexts. All it takes is finding the right video input for your cohort and inserting relevant questions for self-assessment, comprehension or to prompt them with challenging questions for discussion.

In STEM subjects, for example, interactive questions can include

chemical structures in the form of equations or formulas (Pulukuri & Abrams, 2020). Teachers appreciate the automated marking and students benefit from instant feedback (Hill, 2020).

## Links to tools and resources

- EdPuzzle: <https://edpuzzle.com/>

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Dr Ana Niño teaches and coordinates general and medical Spanish courses at the University of Manchester. She is Senior Fellow of the HEA and researches on technology-enhanced language learning.



# Would I lie to you? Checking knowledge in pre-reading, listening or watching tasks

SANTANU VASANT

## What is the idea?

Using the format of the BBC TV Quiz Show ‘Would I lie to you?’, this game involves students presenting either a right or wrong answer to a factual piece of information in the pre-reading, listening or watching given by the lecturer. The students work in groups to come up with right and wrong answers to materials and split into groups, they have to compete against each other to guess if the information they are being presented with by the opposing team is right or wrong. They get one point for each answer they get right.

## Why this idea?

This idea of this format came from a true or false quiz activity in Barkley and Major (2020), it’s an active learning handbook entitled ‘Student engagement techniques: A handbook for college faculty’. It’s a simple idea, yet a powerful one to engage students to pre-tasks, which academics often struggle with. It gives students a task to do in pre-session or pre-reading, listening or watching tasks and is an engaging way to get a group of students to think of right and wrong answers, which means they have to really engage with the material they have to learn. Through this gamification approach,

there is an element of competition as well, that aids motivation. This is a fun way to mix up a seminar. As the teacher, you can then act more as a facilitator/observer during the session.

## How could others implement this idea?

This idea would make a great seminar activity for a class of up to 40 students but is scalable using breakout rooms in webinar solutions. It's all about making what is factual knowledge recall more engaging in an in-person or online setting, depending on your context.

These are the steps to take in implementing this activity:

1. Find a relevant pre-teaching session text or video to read, listen to or watch. Not too long or short, it must be accessible based on the level of the undergraduate or postgraduate course and your students. Everyone in the cohort sees this material.
2. Ask students to read the text, listen or watch the video.
3. In pre-assigned groups get them to write right and wrong statements for a piece of factual knowledge in the pre-watching, listening or reading material. They can do this in a shared document, over Microsoft Teams to collaborate together outside of the teaching session.
4. Ask them to send you their right and wrong statements on the pre-reading per group. This is so you can check.
5. Instruct the students to make the right or wrong statements that are as difficult as possible and get them to be as believable when presenting their answers to the opposite team.
6. Split the class so that two groups go off into break out rooms either physically or virtually.
7. Get one person to be the host if you don't have a graduate assistant(s) or other members of staff to assist.
8. The host asks a member of the team to go first, the member

reads their statement, the other team has to guess if this is true or false. You could get them to say why it's true or false, adding to a greater level of knowledge acquisition.

9. Asks the 'hosts' to keep a tab of the points.
10. Consider offering a small prize to the winning team.

## Transferability to different contexts

This activity is relevant to any academic, in any subject where there are definite answers or knowledge to recall. Whilst not a higher level of knowledge application, it would particularly suit first-year undergraduate students, as you want them to really have a grasp of the key knowledge in your discipline before they move onto the more advanced applications of knowledge.

This activity also builds collaborative working into a light-hearted task, which can be used to build onto more serious group work tasks that might be assessed, so is also a good entry-level collaborative working task.

If you have the physical space, you can use different classrooms, or a big classroom and have groups in the corners of the room. If you did this in a virtual space, then breakout rooms in a webinar platform would be ideal, to give time for the group to interact. These can be either Microsoft Team, Zoom or similar platform. This is particularly important in large cohorts of students, where a task such as this would allow everyone to participate and feel part of a group.

## Links to tools and resources

In addition to using a webinar platform such as Microsoft Team or Zoom, students can use Google Docs or Microsoft Word online as a

shared document for writing down their questions prior to one of the group sending to the teacher.

To aid students writing right and wrong answers, this Vanderbilt University on writing good multiple choice questions is useful (Brame, 2013): <https://cft.vanderbilt.edu/guides-sub-pages/writing-good-multiple-choice-test-questions/>.

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# 6C MULTIMEDIA





# Student-created infographics: three practical ideas for active learning

DR OLGA KOZAR

## Infographics: flipped classroom and assessment ‘game-changers’

We are witnessing a true democratisation of graphic tools, such as infographic or banner templates. With a growth of free or freemium (partially free) online services, such as Canva, Easel.ly or Piktochart and an increasing number of free quality templates (e.g. Slidego), creating a professional-looking infographic is easier than ever, and can be done even by beginners.

This democratisation of infographic creation presents teachers with a unique opportunity to incorporate infographic-type activities to increase engagement (VanderMolen & Spivey, 2017) and enhance assessments (Dyjur & Li, 2015) in their teaching. Not only can using infographics foster a skill of visual communication, which is highly valued in various industries, but it can also create sustainable learning and teaching objects that can be reused in future offerings of the same subject. What is more, infographics can also contribute to the culture of diversity and inclusion (Ortiz & Redmon, 2020).

Below are some ideas for incorporating infographics in your teaching.

### Idea 1: Increase engagement with otherwise ‘dry’

content, like reading

Recent research seems to indicate that up to 80% of university students currently do not read their assigned readings (Deale & Lee, 2021). This has an impact not only on the quality of class discussions, but, most importantly, on student learning and final outcomes. It also tends to undermine teachers' efforts to flip their classrooms and make their synchronous sessions more interactive and discussion-based.

Asking students to create simple infographics with the key information from their assigned readings (or other content, like watching a lecture recording) can become a real game-changer, as infographics hold the potential of promoting deeper learning among students prior to their synchronous sessions and they are also 'quick-to-process' for the educator and other students.

### *Deep learning*

When students formulate key messages of the reading in their own words, and arrange this information visually, they engage in higher order processes, and are therefore more likely to both process content on a deeper level and retain it long-term.

### *Flipped-classroom friendly*

More and more teachers aspire to 'flip' their classrooms and therefore need students to engage with content prior to synchronous sessions. It is widely recommended that teachers use a 'pre-class assurance of learning' task to minimise the biggest hindrance to a successful flipped classroom – students not having consumed the content. In my opinion, infographics can be a valuable tool in teachers' 'pre-class assurance of learning' toolbox

## *Benefits of infographics as a ‘pre-class’ task*

A big advantage of infographics and the reason why they are increasingly used in all kinds of industries is that they are quick to process. It takes less time to see an image with text and a visual representation of the relationships, such as cause and effect, than to read several paragraphs of text.

This ‘quick-to-process’ quality makes infographics an attractive candidate for the ‘pre-class’ task. For example, students can post their mini infographics in the discussion thread prior to coming to class and teachers can allocate 5-10 minutes at the start of the class to collaborative viewing of these artefacts.

The creative nature of infographics can also increase the likelihood of students engaging with, and commenting on the work of other students.

Bonus idea: Seek your students’ consent to use their work in future offerings, and you will have excellent and versatile teaching tools. For example, you can feature student-created infographics with proper attribution in your lectures or content delivery or ask students to analyse and suggest improvements to (potentially anonymised) infographics. Student-created infographics can also serve as great revision or enhancement resources.

## Idea 2: Using infographics as ‘assessment tools’

Communication skills are critical for career success in different industries, and infographic-creation both requires and vividly demonstrates good communication skills. Replacing some written or oral assignments, like reports or presentations, with infographics gives students an opportunity to practice and develop their communication skills and gives students a tangible object that they can later share with future clients or employers.

Introducing infographic-based assignments can also increase

markers' enjoyment of the marking process and can potentially take less time than marking a presentation or a text-based assignment.

For example, Dr Rimante Ronto, a lecturer in the Department of Health systems and populations at my university and a recent recipient of a national teaching award has been using infographic assignments with great success for several offerings. She finds that this assignment is often transformative for students, which resulted in her being recognised as an award-winning educator.

Rimante suggests carefully scaffolding infographic-creation skills by providing students with 'how-to' resources and videos as well as examples of other students' work to provide a benchmark.

An easy way to provide students with support is to share 2-3 infographic creation tutorials from Youtube. See links at the end of this chapter for some free video tutorials.

### Idea 3: Use infographics to compare different theories or discipline controversies

Infographics are a unique tool to visually present a comparison of different theories and controversies. If your discipline or topic has a variety of perspectives or approaches, asking students to present them visually in an infographic form can be an enriching and effective teaching method, which will also result in lasting and reusable artefacts for future students.

### Final word

In summary, student-created infographics is a versatile technique that can be adapted to different contexts and tasks, ranging from low-stakes 'pre-class assurance of learning' in a flipped classroom to replacing some of the assignment tasks. It provides a range of

benefits, such as (i) increased engaging with otherwise ‘dry’ readings; (ii) deeper learning, (iii) improved communication skills, including multimedia skills; (iv) contributing to learning resources for future cohorts and (v) creating artefacts that can be shared with future employer.

### *Free video tutorials*

Canva <https://bit.ly/canvayoutubetutorial>



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Piktochart <https://bit.ly/piktochartinfographicyoutube>



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Ease.ly <https://bit.ly/easilyyoutube>



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# Memes in class? Using multimodal texts to feed open-ended creativity

GEORGIA-ZOZETA MILIOPOULOU





## What is the idea?

In 1976, Richard Dawkins defined memes as units of cultural transmission or imitation (Dawkins, 1976, p. 192) and later described memes as mutating patterns of information (Dawkins, 1986, p. 158). Memes have also been approached as replicators or representations and have been described as viruses becoming endemic within or between generations (Sperber 1996, p. 24-32 and p. 57-58).

The internet meme, usually consisting of a photo or image and a caption, appears to be all the above: a cultural transmission of ideas or feelings, spreading virally and constituting patterns of information. Though more limited in form, the internet meme has become extremely popular among young people (Jakubowski, 2021; Penney, 2020).

Memes can be used as tools for active learning almost by definition, since they act as units of cultural transmission, replicators, or patterns of information. By processing thoughts and ideas to be conveyed through a popular form, students may reflect on significant topics while engaging in a familiar activity.

Active learning includes methods of instruction which engage students in the learning process through meaningful and reflective activities (Bonwell & Eison, 1991) while fostering diversity and acknowledging differences of opinion and ways of thinking (McKeachie et al., 2006). Active learning fosters engagement and one of the ways to achieve this is introducing activity into the traditional lecture (Prince, 2004).

Meme-making can allow students to express their thoughts and demonstrate understanding of taught topics multimodally, to compare such thoughts, and to assimilate learning material through a critical lens. Memes in class have been found to promote critical thinking (Wells, 2018) and visual literacy (Romero & Bobkina, 2017), as well as in the peer review of chemistry exams (Underwood & Kararo, 2020) and in Pharmacy (Brown, 2020). In most of these cases, creating was meant to facilitate understanding of key topics.

In the activity we propose, students are asked to create memes to develop their creative skills, particularly in the context of marketing communications and creative advertising, an idea also considered by Dawkins himself and the advertising agency Saatchi & Saatchi (Solon, 2013). They actively engage in the learning of creating advertising. The students are asked to create memes during class time. They may be given a visual; or they may be given a topic. Then, they are asked to improvise adding captions to images or images to sentences to provide a resonant meme. Given the right prompts and instructions, students can engage in an intuitive activity, test and develop their skills in the context of active learning.

## Why this idea?

This is a classroom activity. Students can use their mobile phones – legitimately! They may select an app they already use or download a free meme generator application. The activity unfolds as follows:

The instructor gives students a visual. This could be a product or, even better, something completely irrelevant that would trigger combinational creativity (Boden, 2001).

The instructor gives students 10-15 minutes to find unexpected captions for this visual, which promote a product or social cause.

Afterwards, the students share at least one of their memes in class and provide feedback on the experience.

Bringing memes in class can be fun and help students achieve important learning outcomes like:

Understanding the interplay between words and images in the context of creative advertising, while connecting this understanding to visual rhetoric and visual semiotics (Sturken & Cartwright, 2001; Rose, 2001).

Analysing rhetoric tropes that appear in different memes, familiarising themselves with metaphors, metonymies, ironies, etc (McQuarrie & Phillips, 2008).

Developing their critical skills and assessing their cultural capital by isolating and analysing the components of a meme and by tracing the cultural references that lurk in either text or image thus engaging with social constructionism (Miltner & Highfield, 2017).

Understanding polysemy and the role of cultural context in the appreciation of each meme (McQuarrie & Phillips, 2008).

Transferring this skill in creating advertising or branded content for online and offline purposes while discussing the resonance and impact of media content (user or brand generated) in their everyday life.

Applying the learning of combinational creativity and rhetoric tropes, in practice (Boden, 2001).

## How could others implement this idea?

Before each exercise, the instructor discusses how memes emerged and how they came to be defined in the new media environment. They may ask students to download a meme generator application on their laptop or mobile phone. The instructor also discusses how memes can be of use in exploring cultural trends. The instructor may then connect memes to broader course related theory, by referring to theories of (indicatively) semiotics; visual rhetoric and visual sociology; social constructionism; media effects and advertising effects, creativity studies etc.

Then, the instructor introduces the activity and allows students some time to think individually. Possible ways to proceed could be:

- Giving students a topic like “first day at school” and asking them to find appropriate visuals to bear this or a similar caption
- Giving students a visual and asking them to add text, describing any feeling or situation
- Giving students a situation or emotional or mental state and

asking them to find both text and image to convey it in a resonant manner

The students should work individually, under some time constraint because a degree of pressure usually motivates them to think more intensively.

The students share their memes, and the instructor might then discuss:

*a) About the process*

- The time limitation, pressure, and its impact on creative thinking
- The role of inspiration and the role of constraints as these were given in the prompt

*b) About the outcomes*

- How different the memes were
- Perceptions of originality and creativity when the same people have the same task and must follow similar patterns or use the same raw material

*c) About the connections with theory*

- As discussed above

## Transferability to different contexts

This activity was initially designed to trigger students who study creative advertising. We have also used it for topics in Public Relations, digital & social media content. As discussed, this activity is also useful to students in visual sociology, visual studies, and graphic design. Though the activity per se does not change, the instructor should put it in context both before and after, to ensure relevance and connection to the learning outcomes. Choosing discipline specific prompts is important and will help contextualise the experience thus leading to both active and experiential learning.

## Example of student output

For the student work, Creative Commons licensed images were used and all brand names were removed.



Figure 1. Student example



*Figure 2. Student example*

**Ordered my own food.**



**Got free desert.**

*Figure 3. Student example*

## Links to tools and resources

- The Making of “Just For Hits” (2013 Saatchi & Saatchi New Directors’ Showcase) by Richard Dawkins & Marshmallow Laser Feast [https://www.youtube.com/watch?v=\\_3sT3B4pF5s](https://www.youtube.com/watch?v=_3sT3B4pF5s)
- Mobile apps for meme creators: <https://memegenerator.net/>; GATM Meme Generator; Mematic.

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## Image Attributions

Richard Dawkins meme by Redwoodneo is used under CC BY-SA 3.0 licence: <https://commons.wikimedia.org/wiki/File:Dawkins-Memes.jpg> (Wikimedia Commons)

Figure 1. Student example using photo of Vermeer's *Girl with Pearl Earring* by Geheugen van Nederland is based on [https://commons.wikimedia.org/wiki/File:Girl\\_with\\_a\\_Pearl\\_Earring.jpg](https://commons.wikimedia.org/wiki/File:Girl_with_a_Pearl_Earring.jpg) (Wikimedia Commons)

Figure 2. Student example is based on [https://commons.wikimedia.org/wiki/File:The\\_Hills\\_Are\\_Alive\\_With\\_The\\_Sound\\_of\\_Music.\\_Tracey\\_Bell\\_impersonates\\_Julie\\_Andrews\\_\(14964254648\).jpg](https://commons.wikimedia.org/wiki/File:The_Hills_Are_Alive_With_The_Sound_of_Music._Tracey_Bell_impersonates_Julie_Andrews_(14964254648).jpg) (Wikimedia Commons)

Figure 3. Student example is based on [https://commons.wikimedia.org/wiki/File:Baby\\_Boy\\_at\\_Lunch\\_-\\_Zipolite\\_-\\_Oaxaca\\_-\\_Mexico\\_\(14983154344\).jpg](https://commons.wikimedia.org/wiki/File:Baby_Boy_at_Lunch_-_Zipolite_-_Oaxaca_-_Mexico_(14983154344).jpg) (Wikimedia Commons)

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# Active Learning: student-generated podcasts

REBEKKA JOLLEY



*Figure 1. An image of a microphone and voice editing software in the background*

## What is the idea?

Podcasts are a prevalent source of media that most of us listen to and engage with daily, whether they be for educational or entertainment purposes. A student generated podcast is a current and engaging way of allowing students to co-create and complete group work. This idea will discuss step by step how students can make a seven to fifteen minute episode. Students can develop learning development skills such as: research, collaboration,

criticality, debating, and presentation skills alongside digital and creative skills such as script writing and audio editing, combining theoretical critical thinking and reflection within a digital and interactive medium.

## Why this idea?

Student generated podcasts are an effective active learning tool that also enhance students' collaborative learning skills (Edirisingha, & Salmon, 2007). Using student generated podcasts is a valuable group work activity. Podcasting has specific tasks and roles that students can assign to each other. Cane and Cashmore (2008) explore student generated podcasts as learning tools that successfully enhance team working skills as students had roles in the production process and shared the workload.

By incorporating 'podography' (Laing & Wootton 2007) into your pedagogy it can improve sessions with students as it offers a unique learning experience, and in my own practice has improved students' motivation when tackling theoretical research materials. Student generated podcasts are unique as they combine a creative task with a research focused output. Unlike essays and other more conventional 'academic' tasks, podcasts encourage students to think, problem solve, and present their research findings creatively. The process of production fosters students' development and curation of a number of skills such as: critical and creative thinking, analytical, devising, script writing, presentation and teamwork. Snelling (2019, n.p.) states that podcasts 'lets students practice their presentation skills in a low-risk environment'. Furthermore, podcasts are a student-centred activity. Podcasts create a narrative and produce a digital storytelling product, and during the task students improve their digital and reflective skills (Jenkins & Lonsdale, 2008). Using them within my own teaching in the subject of Theatre and Performance with my first year undergraduate

students in their classes of 10 on their Contextual Studies module. The podcasts help them investigate, analyse, and research a particular theatre practitioner which helps them when they have a later summative assessment of an essay. I have seen how it has boosted students' interest, and motivation in the subject material for the rest of the module and their engagement with the later summative assessment.

## How could others implement this idea?

Student generated podcasts are easier to set up and run than might have previously been thought, and you do not need to book out a media production room or technical equipment to use this as an activity. Students will need:

- A device with a microphone and recording software – most smartphones, computers, laptops, or tablets have these, students may need to transfer the file from one device to another to edit the audio.
- Access to editing software – I'd recommend Audacity which is free and has a very easy to use interface, it also has a phone app that can be used to record and edit audio.
- A place to host and share the final podcast episode – this could be your Virtual Learning Environment or a shared drive folder on Google Drive or OneDrive or Microsoft Teams Channel.

To use this as an activity you will need to familiarise yourself with audio editing software, just the essentials such as how to cut audio parts, add in additional audio and export the final version, so that you can advise students if they need any help with this. I learned all of this through a YouTube tutorial that is linked below. Give the students a demonstration of how to edit the audio and also signpost them to the video tutorial. As the tutor you need to put the students

into groups. The students should assign themselves roles such as: researchers, hosts, scriptwriters, audio editor, producer. You'll need to decide how long you would like the podcast episodes to be. I'd recommend between seven to fifteen minutes long. If it is a large class of students, you may want to do seven minutes.

You as the tutor also need to decide what the podcast's topic should focus on or explore and decide what type of podcast format you want the students to do, alternatively you could allow them to choose. The following are the most common formats of podcasts that I have found that you could use as a framework for your students' podcasts. In the appendices there are two examples of scripts that some of my first-year students have written, Appendix One is a roundtable discussion, Appendix Two is an interview with the playwright, and Appendix Three is an interview with an expert.

**Roundtable discussion** – All members of the group contribute to the discussion of a topic presenting a variety of views and facts.

**Interview** – Some of the students act as hosts and others act as the interviewee, asking questions and discussing a topic. There could be more than one guest for the interview if it is a large group.

**Debate** – Hosts of the episode are given a topic and prepare alternative views for discussion and debate the topic trying to come to a resolution or summary at the end of the episode.

**Narrative** – The hosts explore the narrative of a topic. This may be the narrative or history of an event, movement, or theory.

**Storytelling** – The hosts of the episode explore a topic and involve their own personal reflections and opinion in the discussion.

Students should brainstorm in their groups should brainstorm and create a plan of action to get the podcast episode completed. They should research the episode and encourage them to include this research within the script of the podcast as they write it. I'd advise telling the students to structure their podcast episode with a script, just like any other research task. After the script is complete the students can then record the episode on their device and use editing software like Audacity to edit and export the audio file and upload it to the hosting platform.

## Transferability to different contexts

The completed podcasts could be listened to in class and another activity could be created by asking the students to prepare for a question-and-answer session or a feedback discussion. It could be assigned as an independent learning or extension task asking the students to listen to the episodes outside of the session and make notes on their peers' podcast episodes and have an in-class discussion. The activity could be transferred across any discipline, so long as there is a topic to be discussed, researched and debated the podcasts could be on any subject. For instance, in a case study of nursing students Dudas (2012) examines how podcasts are successfully used to promote active learning. Furthermore, the activity can be used across different educational sectors and student levels, it is not just limited to higher education, this could be used in further education or at high school level. Snelling (2019) recommends using podcasts to promote active learning and notes a case study of a librarian using student generated podcasts in their sessions with high school students in the USA. The podcasts, depending on the format used, could be used as a formative or summative group work assessment. Tutors could use the 'Storytelling' format to ask students to reflect on a work-based placement and use this as reflective evaluation. The narrative format can explore the history or development of a certain topic / theory chronologically. The narrative format could be used as a literature review, reviewing the existing literature on a certain research topic / question. The interview or roundtable discussion formats could be used with students to explore providing an overview of a topic to a general non-specialised audience. The debate format can be used to help students develop their critical thinking skills as they must consider other existing opinions and research and synthesise those sources drawing comparison and contrasts. I use student generated podcasts as a task in my sessions when teaching my first year undergraduate Theatre and



Performance degree students. They have a module that contextualises contemporary performance practitioners and part of their assignments is an essay; I ask the students to pick one of the practitioners that they are interested in and write a podcast script either interviewing the practitioner or as a roundtable discussion debating the practitioner's legacy and contemporary relevance. This allows them to consider multiple viewpoints and produce their own critical argument which then aids them in their essay writing. Student generated podcasts are a versatile and engaging group work task that can be applied across a variety of disciplines and can replace conventional group work activities like presentations.

## Links to tools and resources

- Anchor – the easiest way to make a podcast: <https://anchor.fm/>
- Audacity free editing and recording software: <https://www.audacityteam.org/>
- Instructional YouTube Video on editing in Audacity: <https://www.youtube.com/watch?v=WWFvG1-AmNk>



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://openpress.sussex.ac.uk/ideasforactivelearning/?p=455#oembed-1>*

- National Public Radio organisation has a helpful guide for students on creating a podcast: <https://www.npr.org/2018/11/15/662070097/starting-your-podcast-a-guide-for-students?t=1631609962195>

- The New York Times article on Teaching Students How to Produce Their Own Podcasts:
- <https://www.nytimes.com/2018/04/19/learning/lesson-plans/project-audio-teaching-students-how-to-produce-their-own-podcasts.html>

### *Possible places to host your files*

- Google Drive
- OneDrive
- Microsoft Teams Channel files section
- VLE Moodle or Blackboard

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## Image Attribution

Microphone-Audio-Recording-Podcast by TheAngryTeddy is used under Pixabay Licence

## Appendices

### *Appendix 1: First Year Theatre and Performance Undergraduate Students' Contextual Studies Podcast Script – Roundtable example on playwright Samuel Beckett*

Introduction – Host 1 – Hello and welcome to our weekly podcast. Our topic for today's discussion is the Irish novelist, playwright, director, and poet Samuel Beckett. Samuel Beckett became considered “as one of the most iconic writers from the twentieth century” stated by Cambridge University Press in 2019. Today we want to explore that consideration and look at the themes within his work and try to understand why it is considered as absurdist pieces of work.

Host 2 – The first theme I noticed in his pieces is -Tragicomedy – he used his own personal life and experiences to create pieces, performances, and novels. In his later work he mainly focused on language, using very minimalistic movements, he wanted the cast to feel restricted to show pain to show the reality of what they are going through. However, there is a controversial change in his work

as he turned his pieces to physicality rather than language after he took interest in Charlie Chaplin and how pieces can be performed through movement. He was also influenced by Buster Keaton due to physicality in his movements also the dangerous sides of movement.

Host 3 – Another factor I saw was the direct link to his Parents- He deeply missed his father when he passed in 1933 and from then he developed depression from mourning him. His only way of venting this depression was throughout his novels, performances, and other things of literature. His characters are mostly influenced by his father and other people he met in life. “Then his relationship with his mother became very resentful. He always saw being born as a great crime and I think the mother is tied up in that,” says Professor of Drama at Trinity College Dublin, Nicholas Johnson.

Host 2 – I was reading up on this not long ago. The book was called *Dark Humour In Waiting for Godot* by Gizi Emir if any of our viewers want to check it out I think this is a key theme in his plays, I would recommend. Emir says that Beckett incorporated a lot of dark humor into his pieces. I believe that in his opinion: “humor being the intense suffering of others and violence. The audiences laughter being the aftermath of their unfortunate situations.” Emir also says that when someone in a play, has witnessed something or are coming to terms with something, comedy is used to guide them from traumatic events. To be honest I feel like there are people out there who would lightly joke about certain topics or situations because they might feel uncomfortably by it.

Host 1 – Looking at his work I have noticed a theme of meaning of life throughout his plays as there is a key base around existentialism which means the problem with being alive. You can see from comments he has made in the past that being born wasn't a decision of his and if he had the choice he would choose not to be born – “I had little talent for happiness”. In my opinion I do think the way he has written his plays, has a direct link to his own life as they have dark moments which highlights he suffered with depression keeping him bed until – mid day. Also the play named “Not I” can also be interpreted as a moment from his life as it involved treating

women negatively throughout. This could be a huge way of showing his anger and failed relationship with his mother.

*Appendix 2: First Year Theatre and Performance  
Undergraduate Students' Contextual Studies Podcast Script –  
Interview example on playwright Samuel Beckett*

Student 1 as Samuel Beckett, interview.

Student 2 as interviewer / host.

Topics: theatre of the absurd – Esslin's essay

Themes & style, inspiration – use plays as reference

Relationships with other practitioners – Joyce

Use of set, Aristotle's unities – space, time, action

PODCAST – Theatreverse

Student 2: Hello folks and welcome back to another episode of Theatreverse, the show where we bring the past to present and give you the ins and outs of all things Theatre. Today, I have a very special guest, back from the grave for a one night only interview, Mr Samuel Beckett!

Student 1: [deep sigh, monotone] Aye, I would say it's a pleasure to be here...but I'd be lying.

Student 2: [awkward laugh] Well, why don't you tell us a little bit about yourself?

Student 1: [deep sigh] Yes, my name is Samuel Beckett. I was born in 1906 in Ireland, Foxrock to be exact.

Student 2: And what would you say you're most known for?

Student 1: What a question. Well, before you rudely awoke me from my slumber, I was something of a playwright. I have a few novels under my belt, a few poems.

Student 2: Fascinating, and what is it that got you into that career path?

Student 1: I studied modern literature in college, along with languages. I taught briefly in Belfast, then in Paris. It was there I was introduced to James Joyce by a friend of mine.

Student 2: Would you say he was your starting point?

Student 1: One could say so. I assisted him with his work. He became a trusted friend of mine.

Student 2: And this friendship pushed you to pursue your own career?

Student 1: My first work was an essay defending his methods. His name gave me a foot in the door, if you will.

Student 2: And what fuelled the transition from novel writing to theatre?

Student 1: After the war, I had returned home to Ireland. I was in my late mother's room, and suddenly it hit me. All this time I had felt that I would never surpass Joyce, that I would remain "in his shadow". It was a revelation of sorts, that allowed me to change my thought process. I couldn't be Joyce. I couldn't beat him at his own game. His philosophy that knowing all there is to know had gone as far as he could take it.

Student 2: And what happened next?

Student 1: I wrote. Many of my works didn't see the light of day until the 50s. Many publishers rejected my writings. It wasn't until my companion finally found someone willing to publish my work *Molloy*. French critics seemed to enjoy it, it was met with a modest commercial success, and so they agreed to publish more of my works.

Student 2: Including what perhaps started your rise to fame, *Waiting for Godot*. Whilst playing at Théâtre de Babylone in Paris, in January 1953, it amazingly successful. What inspired your works?

Student 1: The life around me. War, poverty, loss, time. The meaning of life, the pain and suffering it brings, how truly absurd it is that we exist.

Student 2: So, would you say your own experiences played a big part in your work?

Student 1: Undoubtedly.

Student 2: You mentioned the word "absurd". In his 1960 essay, Martin Esslin coined the term "Theatre of the Absurd" in which you are mentioned. He said "Each of these writers, however, has his own

special type of absurdity: in Beckett it is melancholic, colored by a feeling of futility born from the disillusionment of old age and chronic hopelessness". Would you agree with that description?

Student 1: I think it would be hypocritical of me not to. My work plays both with philosophy and existentialism, the comedy is within the tragedy.

Student 2: Tragicomedy.

Student 1: Precisely.

Student 2: Author Margaret Drabble mentions your relationship with your mother in her book "The Maternal Embrace: Samuel Beckett and His Mother May". She calls it "close and combative", describing your mother as "a formidable woman". Would you say that this difficult relationship with her was the cause of most of your unhappiness?

Student 1: I could never truly escape my mother. She had her own ambitions for me, and whilst my brother remained obedient and settled, I found myself wandering in a different direction. We never saw eye to eye. I admit, it made me physically ill. We had our moments, a momentary truce here and there, but we always fell back into the old song and dance.

Student 2: Do you think she loved you?

Student 1: In her own way. As I loved her in my own way. Perhaps that's a tragicomedy in itself.

Student 2: Within your work you played with non-linearity; your stories seemingly had no plot or timeline, everything was up to the audience's interpretation. Do you think this is what interested people?

Student 1: I think people will believe what they want to believe. It doesn't matter how or why I wrote my plays, it doesn't matter what I believe the main message is; that's beside the point. They're lessons, no matter what they come out believing the audience will walk away having faced something we all fear; hopelessness. It's as real as theatre can be.

Student 2: One may argue that it's the ambiguity that's made you so popular.

Student 1: One may.

Student 2: Your play *Waiting for Godot* is a great example of this technique. We have the characters but not their background. We have the play but no real story or development; the characters end the show the way they started, waiting for Godot, who himself is never actually revealed. It's an entirely new concept.

Student 1: It's absurd. To truly enjoy my work you must abandon reason, you must turn your back on logic and tradition. I give no details, not on the time, on the place, or on the people.

Student 2: It would defeat the purpose.

Student 1: Exactly.

Student 2: One last thing before we end; what do you think you brought to the world, to theatre, with your work?

Student 1: I think I allowed people to acknowledge ridiculousness of living. We all search for answers and meaning, adding symbolism and religion to fill in the gaps. We want a reason for our pain, our suffering. I created a way for people to look that in the eye. I wanted my audience to have an experience. It's up to them to find the meaning, if there is any.

Student 2: Thank you for your time. I'll let you get back to...your death now. Thank you listeners for joining me in this journey towards understanding the mastermind, Samuel Beckett.

*Appendix 3: First Year Theatre and Performance  
Undergraduate Students' Contextual Studies Podcast Script –  
Expert Interview example on playwright Samuel Beckett*

Speaker 1: Hi I'm Speaker 1 welcome to my podcast "Throughout History," we have Speaker 2 talking about Samuel Beckett. Speaker 2, could you tell me was Beckett a Theatre Director and Playwright?

Speaker 2: Yes, Beckett's chosen style of theatre was Theatre of the Absurd but unlike Ionesco and Harold Pinter, Beckett centred his work around the human life. He wanted to unveil his viewpoint



on how we are merely existing but he also wanted the audience to gain what they wanted for themselves from his oeuvre.

Speaker 1: Beckett had a particular purpose in mind when he wrote 'Waiting for Godot,' could you tell me what it was?

Speaker 2: Yes, when he established the piece, he makes the audience spend time waiting for Godot and he doesn't appear and then tomorrow arrives, and we still do not see Godot. In an article from the Irish Times in 1956 a critic by the name of Vivian Mercier wrote: "Beckett has achieved a theoretical impossibility – a play in which nothing happens, yet keeps audiences glued to their seats. What's more, since the second act is a subtly different reprise of the first, he has written a play in which nothing happens, twice."

I think it's Beckett's way of portraying real life from his point of view.

Speaker 1: In what way is he portraying real life and why would he want to create a play where nothing happens?

Speaker 2: One of Beckett's quotes is: "The end is in the beginning and yet you go on."

I think this was a way of expressing his outlook in the sense that he believed that life was meaningless, implying that there's a whole lot of nothing and then we die....

Speaker 1: Why do you think Beckett had this outlook on life?

Speaker 2: Beckett suffered deeply with depression sometimes only waking up at midday and his Father's death in 1933 triggered his interest in existentialism.

Speaker 1: How does he create work that keeps the audience entertained at the same time as having a dismal approach?

Speaker 2: He uses tragicomedy in his work and jokes about death to give the audience a sense of both tragedy and comedy at the same time triggering feelings of catharsis for the audience which reflect on his own personal suffering.

Speaker 1: Who is Godot that the audience are waiting for?

Speaker 2: Godot is very symbolic in that it represents something godly or godlike that the audience are waiting for but doesn't happen, displaying Beckett's belief in existentialism. Godot also

means death which symbolises where we all end up when we eventually transpire.

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# Using multimedia to teach critical and contextual studies

DR ARTEMIS ALEXIOU

## What is the idea?

Critical and Contextual Studies (CCS) modules offer students the opportunity to learn about their discipline's historical and contemporary practice, so they are able to position their own practice within this context. Typically, students learn about historical and contemporary concepts and practices when reading academic texts written by specialist authors in the field. This approach to knowledge has its own benefits, yet, this chapter suggests an alternative method of delivery for this type of information: a learning activity using pre-recorded presentations by key speakers.

## Rationale for idea

In the 1970s, the Coldstream reports argued for changes in higher education that would “improve the status of artists and designers” (Borg, 2012, p. 4); namely the implementation of Contextual and Critical Studies (CCS) modules to all art and design HE courses. Since then, art and design education at university level has been “almost uniquely divided against itself” (Frayling, 2004, p. 40), often because CCS is taught in a traditional manner that tends to “reinforce students’ roles as passive learners” (Ebert-May et al., 1997, p. 601). Subsequently, the requirements of academic study, which are quite different from those of experiential learning study, create

an indisputable anxiety to art and design students, including many dyslexic students and students with other mental or learning difficulties typically included in this cohort.

Research reveals that teaching CCS is most effective when instructors follow an active learning approach, which has been found to improve academic achievement and encourage an inclusive environment for all students (Baepler & Walker, 2014; Bamber & Tett, 2001; Haggis & Pouget, 2002; Parker et al., 2005; Smith & Cardaciotto, 2011; Thomas, 2002; Weller, 2016). Furthermore, an active learning approach can be applicable and beneficial for small-size and large-size classes, when planned appropriately, whilst alternative forms of delivering content help students learn effectively (Berk, 2009; Falchikov, 1995; Stefani, 1994).

## Step-by-step instructions on how to implement

*Step 1: Identify the learning outcomes of your teaching episode, within the context of your module*

Think about the learning outcomes of your module, asking: where does this teaching episode stand within this context? Once you are able to identify exactly what is the content that you wish to deliver during this teaching episode, you will then be in a position to write down the learning outcomes of this specific session.

*Step 2: Understand your student cohort*

Think about your student group. Are they experienced thinkers and writers, or not? In which stage of their studies are they in? Does your student group have a mixture of confident and timid students? Is your student group mono-disciplinary or multidisciplinary? Do

students have similar skills in critical thinking? Does your student group have a mixture of team-workers and loners? Do students tend to consistently sit with their friends? Does the student group have any students with learning difficulties or ESOL students?

### *Step 3: Identify an appropriate learning method*

Following the in-depth study of your student group described above, you can now identify the most appropriate teaching and learning method for this specific group of students. This chapter argues that an active and humanist learning approach (Weller, 2016; Rogers, 1961) would be most helpful in the majority of cases.

### *Step 4: Identify a suitable learning activity*

Taking into consideration the learning outcomes of this specific teaching episode (Step 1), the specific characteristics of this student group (Step 2), and the specific learning method you wish to implement (Step 3), you now have to decide what learning activity would be most suitable. Then, having decided the type of activity you wish to organise, you have to look for appropriate resources.

More specifically, let's assume you are planning a teaching episode that aims to communicate the difference between art and design practice to a multi-disciplinary group of design students. The group includes Level 4 students of diverse strength and from diverse backgrounds. Yet, most students have one common characteristic: they generally refrain from reading academic texts and have a short attention span. With that in mind, a learning activity that incorporates non-textual content and collaboration amongst peers may prove beneficial. For instance, you can use a recording from an international event showing an established

design historian discussing the difference between art and design, asking students to identify key information from this presentation.

*Step 5: Plan the teaching session minute by minute, from start to finish*

Having completed the above steps, you are now in a position to plan your teaching episode minute by minute. Remember, to include all the parts of the hourly session, such as welcome, instructions, breaks etc. and consider how you will assess your aim was achieved.

To continue with the above example, your teaching plan may include:

Duration	Activity Description	Assessment Method
5 mins	/ The teacher welcomes students and offers instructions of the day's session // The teacher asks students to form groups of 2-4 people	/ The teacher answers any questions to make sure they understand the activity
15 mins	/ Students watch video 1 on the screen // Students identify and write down their answers to the list of questions provided	/ The teacher moves around the classroom monitoring each group of students, quietly offering support if needed, without distracting other groups
5 mins	/ Students deliberate with peers // Students finalise their answers	/ The teacher moves around the classroom monitoring individual groups, quietly offering support if needed, without distracting other groups
15 mins	/ Students watch video 2 on the screen // Students identify and write down their answers to the list of questions provided	/ The teacher moves around the classroom monitoring individual groups, quietly offering support if needed, without distracting other groups
5 mins	/ Students deliberate with peers // Students finalise their answers	/ The teacher moves around the classroom monitoring individual groups, quietly offering support if needed, without distracting other groups
15 mins	/ The teacher goes through each question on the list prompting students to offer their answers // If students missed any answers during the videos, the teacher encourages them to figure them out through dialogue /// The teacher offers a summary of the key theoretical points learned	/ The teacher answers any student questions to make sure students understood the lessons learned  / The teacher offers a list of additional resources for further study to students

Table 1. Proposed Teaching Plan

## *Step 6: Identify the facilities and resources required*

Finally, you have to plan ahead in terms of the facilities and resources required to deliver your teaching episode. Have you found a suitable space large enough to fit your student group? Does the classroom have the appropriate furniture in place for your learning activity? Does the classroom have the appropriate IT facilities? Can all students see and hear clearly the video on the screen? Do you need to print hand-outs in advance? Do you need to bring other supplies with you, such as pens?

## Transferability to different contexts

This learning activity can be applied to small-size and large-size student cohorts, and is especially suitable for learner groups studying practice-based subjects (art, design, nursing, social work etc.).

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Dr Artemis Alexiou is a Senior Lecturer in Design History, and Fellow of the Higher Education Academy. She holds a doctorate (funded by AHRC) in design, media and women's history (Manchester Institute for Research and Innovation in Art & Design, 2017). She has held faculty roles at Manchester Metropolitan University and other UK higher education institutions since 2012. Over the years, she has taught Critical and Contextual Studies across a plethora of art and design courses, whilst acting as module leader and research supervisor at undergraduate and postgraduate level. She is a keen advocate for an inclusive pedagogy in HE, persistently striving for social justice in education and beyond.

# Flipgrid videos for student interaction

NEIL COWIE



What is the idea?

Flipgrid is a video sharing Microsoft application. A teacher can easily set up a class project asking students to make their own videos on a digital device with a camera. The videos can be up to ten minutes in length and students can edit their videos to include multimedia and text. After they upload their videos to Flipgrid all classmates and the teacher can view them. Students and the teacher can then make short feedback videos or write text messages commenting on everybody's work. In this way, a real sense of community and interactivity can be fostered. In my setting as an English language teacher in a Japanese university, Flipgrid is an ideal application for students to practice speaking and listening outside of class.

Many students find English communication very challenging and Flipgrid gives them the opportunity to practice in a less stressful environment.

## Why this idea?

Video sharing offers a number of benefits to a teacher such as giving instructions and feedback, and students can demonstrate their skills and knowledge (Cowie & Sakui, 2021). Videos can be slowed down, rewind and have subtitles – all of which can enhance learning by making their content easier to process and understand (Mayer, 2017) and decrease ‘cognitive load’ (Sweller et al., 2011). Videos are also available on demand so they can be viewed by students in their own time which is very helpful for managing time, especially for non-traditional students. One important benefit for remote students is that videos can be used to develop a feeling of class belonging, which has been shown to be an extremely important element of online learning (Redmond et al., 2018). There is a strong connection to the well-known ‘Community of Inquiry’ framework for e-learning (Garrison, 2011; Garrison, et al., 1999) which is based on three overlapping aspects of ‘presence’ (social, cognitive and teaching). Flipgrid is particularly suitable for collaborative sharing and so when students interact with each other and their teacher through video these three aspects of presence can be developed.

## How could others implement this idea?

Many institutions maintain Microsoft educator accounts that include applications such as Teams or Office 365. If this is the case then Flipgrid will also be bundled into this account and will be accessible to teachers and students. If not, an individual teacher

can create a free Flipgrid account using a web browser or mobile application and supply a link to the students to the teacher's Flipgrid home page.

Once a teacher has a Flipgrid account they can then create a class (called a group) and for each group they can create a lesson (called a topic). The topic has a title and space for instructions on what students should do when they make their videos. After this the teacher specifies the length of the video from a drop-down menu and can also add various visual effects such as GIFs or photos that reflect the theme of the lesson. Flipgrid also has a large library of ready-made lessons that can be copied and adapted to suit an individual teacher.

Once the topic is complete the teacher shares a link with their students who click on the link to see the instructions and make their videos. Users can make a simple talking head video or they can make their video more sophisticated with a variety of effects such as the insertion of text or images. One of the main attractions of Flipgrid is that it is very simple to use and so students can focus on the task rather than the technical issues of making a video.

Once students are satisfied with their video they then upload it to the topic page. If a teacher wishes, the students can view each other's videos and give feedback, either through written comments or in the form of another video. The teacher, too, can also do this and has the extra option of giving feedback privately. A number of additional functions are available that the teacher can access to increase feedback and interactivity such as: creating a 'mixed tape' of the best videos, highlighting individual videos on the topic page, and using a QR code that enables a video to be viewed with embedded augmented reality. One feature that is particularly useful for students working in a second language is the 'immersive reader' function which enables students to analyse their own scripts.

## Transferability to different contexts

Flipgrid can be used in almost any context where a student needs to present their ideas or demonstrate knowledge or skills to others, and where the viewers might wish to comment, ask questions or give feedback. This will include most traditional forms of educational context such as presentations, seminars and tutorials. Flipgrid is also very useful for a flipped classroom where students can practice and prepare for an in-lecture task. However, what is particularly attractive about Flipgrid is the interactive thread that can be created amongst students. This thread can be used as a kind of narrative device where students collaborate to develop their ideas and use Flipgrid to record them. It is an ideal way for students to critically reflect on their learning, develop their metacognitive skills, and be part of a portfolio of evidence for formative or summative assessment.

## Links to tools and resources

- Introduction to Flipgrid: <https://education.microsoft.com/en-us/resource/13cb22b1>
- The Educator's Guide to Flipgrid by Sean Fahey, Karly Moura & Jennifer Saarinen (shared under Creative Commons license): <https://drive.google.com/file/d/0BzZGEfOtEWqPcGUzcFd2RzRjYTQ/view?resourcekey=0-QrOyfBQvTUZ94vsn4va1EQ>

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Neil Cowie teaches various university English as a Foreign Language courses. His research interests include how to increase student engagement online through video, student-generated Virtual Reality materials, and collegial teacher development. He has also created five online courses on the Udemy platform. The most recent is academic reports in English.

# Learning through exploration and experience using ThingLink

AMY EDWARDS-SMITH

## What is the idea?

ThingLink as an education platform has gained attention as a success in recent years (Appaasmy, 2018; Nakatsuka, 2018/19). ThingLink is an online digital tool that allows for embedding images, surveys, videos, website links, and more in one online space, which results in a visual and interactive learning experience. The creator uploads an image and then utilises ‘tags’, which when clicked provide additional content. 360-degree images can also be used to provide an immersive VR experience. The final result is a visual and interactive learning experience that links information together in a coherent manner. For educators, ThingLink offers flexibility and the opportunity to assess students’ understanding through embedded tools and conditional progression settings. It also allows for storytelling, promotes dialogue and fosters independent learning. ThingLink has been successfully used in practice in both synchronous and asynchronous situations and is helpful for both a flipped-classroom approach along with being a recap resource, and works well as part of a virtual learning environment. ThingLink has a free version; however, an upgraded subscription allows students to collaborate and create their own content, meaning there are sufficient opportunities to challenge students through all stages of Bloom’s (1956) taxonomy. Bloom (1956) believed that in order for students to successfully master complex cognitive processes



(sometimes referred to as higher order thinking), they must first master the more simple cognitive processes. This means that students must first acquire knowledge before they can create, analyse or evaluate.

## Why this idea?

The advancements in technology have resulted in new opportunities for educators to create an online environment that synthesises a wide range of information for students to explore in one place. Multiple researchers (Domagk et al., 2010; Evans & Gibbons, 2007; Hannafin & Peck, 1988; Mayer et al., 2003; Moreno et al., 2001) have highlighted the link between interactive learning opportunities and deep learning. Using ThingLink promotes student engagement as they interact with selected, and therefore relevant, information to develop their critical thinking skills. In addition, there is a sense of agency over their learning opportunities as they seek out information for themselves in a directed manner. This chapter will provide instructions and inspiration for educators to use ThingLink in their own practice.

## How could others implement this idea?

ThingLink is a free to access resource with the potential to upgrade for existing features (which I will differentiate below).

To begin one needs to sign up at [www.ThingLink.com](http://www.ThingLink.com). The most straightforward concept of ThingLink is an interactive image. This means that when you choose 'create' you will need to upload an image (which can be 360 degrees). You can either do this by creating your own or using licence-free pictures from websites such as Pixabay (<https://pixabay.com/>).

Once you have uploaded your image, you will add 'tags'. The 'tags' are the interactive element and can be customised to suit your needs. There are four different types of tags, as explained below;

**Text and media:** This allows you to insert writing (with a title), add images, insert an audio recording and include a button that navigates to other websites of your choosing. You can have a combination of any of these options.

**Text label:** This is a label that displays your choice of text when the user hovers over it.

**Add content from website:** This allows you to embed media from other platforms such as SlideShare, Microsoft/Google forms and YouTube. The content you embed displays on the screen without the need to navigate away from the page. All that is needed is an embed code from the sharing options menu.

**Create tour:** Here you can link ThingLinks together. This is useful as it prevents an overload of information on one page and allows a new background image. The ThingLink you wish to tour needs to be completed to select it as a 'scene'. This option is advantageous to educators as you can choose to have a 'conditional transition'. Students must correctly answer a question before moving on, which can be a typed answer or multiple choice. This means that a final instruction at the end of the tour enables educators to assess learning.

I have created training on ThingLink for beginners (<https://www.youtube.com/watch?v=HkgUSIDLlew>)

<https://www.youtube.com/watch?v=HkgUSIDLlew>

If you prefer to work through training independently, you can access the ThingLink I used in my training at: <https://www.thinglink.com/scene/1420777259911872514>.

Below are some examples that have been used successfully in practice.

An example of an escape room is at <https://www.thinglink.com/scene/1475117875772522498>. I have used tag 4 to create a tour and

used the conditional transition to ensure students have accessed the information before they progress.

Collaborative learning is a crucial component of my classroom. At <https://www.thinglink.com/scene/1419343337927737345>, you will see an example of a collaborative learning task. In this task students worked in groups to explore cases of poor care and complete an embedded Microsoft form for assessment and feedback purposes. I used Powerpoint to create the background and instructions and have embedded a Microsoft form for students to complete their answers. The resulting ThingLink was then utilised for a feedback activity.

The example at <https://www.thinglink.com/scene/1421139920449175555> demonstrates how students can work independently to explore the resources that you have provided. Again, the use of an embedded form allows you to monitor engagement.

As mentioned above, you can upgrade your account, allowing you to provide 'seats' to students who can then collaborate and add to a shared ThingLink. At <https://www.thinglink.com/scene/1413538234914308099>, you will see how my students worked together to create a global sexual health map. In this situation students were creating content for themselves and their peers. This was used throughout the module and added to as new concepts were explored. Students could become 'experts' in their countries and subsequently compare and contrast their knowledge with other countries. As accounts are free, students could theoretically create their own ThingLink independently to share with others if the cost needs to be avoided.

Upgrading an account also allows insight into which of tags have been accessed and the number of views.

The final stage is to ensure your privacy settings are correct and then choose a sharing method. You can use a link (as I have within this chapter), or you can make use of an embed code so your ThingLink sits neatly within your virtual learning environment.

## Transferability to different contexts

ThingLink's adaptability means that it can be utilised in several disciplines, whether exploration-based learning of a topic or experiential-based learning in the context of practical experiences (Kolb, 2015).

The platform's ease of use means that it can be a valuable tool in introducing new concepts and formative and summative assessment possibilities.

The focus on images, as opposed to text, and the opportunity to include audio recordings means that the tool is inclusive of a variety of learning preferences.

For educators, the ThingLink blog provides examples for educators to explore. There are also training opportunities and webinars should educators wish to develop their skills further. The included prompts help create new ThingLinks, and a little practice can speed up the creation process.

## Links to tools and resources

- ThingLink homepage: <https://www.thinglink.com/>
- ThingLink blog: <https://www.thinglink.com/blog/#.YrCOynbMJPY>
- ThingLink training video: <https://www.youtube.com/watch?v=HkgUSIDLew>
- ThingLink training resource: <https://www.thinglink.com/scene/1420777259911872514>
- Escape room example <https://www.thinglink.com/scene/1475117875772522498>
- Collaborative learning example <https://www.thinglink.com/scene/141934337927737345>
- Independent learning example <https://www.thinglink.com/>

scene/1421139920449175555

- Create example <https://www.thinglink.com/scene/1413538234914308099>

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# 6D ENHANCING THE VIRTUAL LEARNING ENVIRONMENT





# Microsoft SharePoint integration within Teams for delivery of lecture content

DALE MUNDAY AND JENNY ROBERTS



## What is the idea?

With a blended approach to higher education learning becoming more commonplace in the aftermath of the Covid-19 pandemic, Microsoft SharePoint integration within Teams creates an engaging and interactive Virtual Learning Environment (VLE) to promote remote active learning. Students access lecture recordings, lecture

slides, core text chapters, interactive elements, quizzes and other learning material in a single accessible location without the need to download or open individual files. The creation of a single interactive learning space encourages student engagement and builds a platform for self-directed learning, formative assessment and feedback.

## Why this idea?

Traditional VLEs have become little more than link repositories or overwhelming collections of unrequired course content. Khomik et al. (2021) identify that whilst a VLE such as Moodle is functional and offers an amount of consistency between modules and programmes, it lacks engagement for remote learning and accessibility for students with disabilities. Additionally, “Optimise individual choice and autonomy” (CAST, 2018), contributes to the wealth of suggestions based on research and feedback given within The Universal Design for Learning (UDL) Guidelines ensuring, “that all learners can access and participate in meaningful, challenging learning opportunities”. Therefore, by creating a learning focused platform via SharePoint for each week with relevant materials, coupled with collaborative notebooks and chat functions within Teams, students have a ‘one stop shop’ for all their learning needs. The ability to embed almost any type of content extends the SharePoint page to limitless possibilities with pedagogic design and implementation focused around active learning. Harnessing the functionality of the Office 365 suite of applications allows a SharePoint page to be seamlessly integrated within a Teams channel and the content to be linked to conversations encouraging active learning practices.

## How could others implement this idea?

To harness the full potential of SharePoint, the following basic steps will enable seamless integration into Teams:

1. Create a Teams space and enrol student cohort
2. Open SharePoint and locate the Teams site corresponding to the Team that you have just created (this should have been automatically created for you)\*
3. Click on 'New' and then 'Page'
4. Choose an appropriate structure for the weeks content
5. Populate with a mix of multimodal learning resources (lecture recordings, lecture slides, documents, quizzes, videos, interactive elements etc.)
6. Create assessment opportunities throughout the materials (formative quizzes, calls to action etc.)
7. Publish the SharePoint page
8. Within the Teams space, create a tab within the channel you wish your SharePoint page to be located and select the SharePoint app
9. Select the page that you have just published
10. Check all functionality is enabled and working correctly

\*Creating a SharePoint page linked to the Team you wish to publish in will ensure that students are able to access all embedded functionality.

Once you have completed this basic setup, you can begin to explore creating active learning opportunities by embedding resources and creating interactive elements.

*Example: To encourage active learning around organisational structures, students were asked to click on a virtual spinner that assigned them a type of organisational structure to*

research (Figure 1).

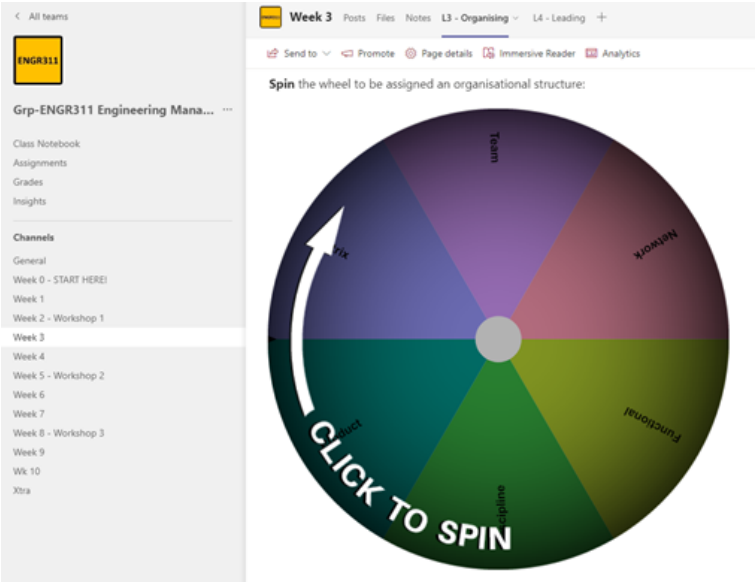


Figure 1. Embedded virtual wheel spin (Wheel Decide Ltd, 2021)

*Below this a ‘Call to action’ web part was added into the SharePoint page and linked to a conversation started with the ‘Posts’ tab of the same channel (Figure 2).*

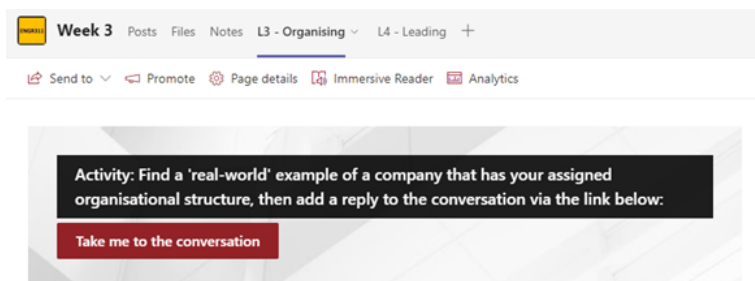


Figure 2. Call to action within the embedded SharePoint page

*Students then populated the conversation with their findings, allowing the convenor and other students to review and react.*

SharePoint pages created using different layouts, colour schemes and images, allow for both continuity between weeks of study and the creation of a highly engaging experience.

## Transferability to different contexts

This approach is very adaptable and can be configured to suit the curriculum area, pedagogic approach and student group targeted. The range of tools that can be embedded ensure that an individualised approach can be designed from inception. Both the access and method of delivery (synchronous/asynchronous) can

be used across a range of courses due to its open and flexible structure. The ability to embed a range of resources and materials allow for a framework of learning to be designed, appropriate to the needs of the students and the intended learning/module outcomes. The facility to pull in a range of types of resources mean that the approach is not limited to a specific approach, opening it up to be used in a multitude of ways.

Acknowledgment is given to the limitations that Institutional policies may impose for utilising an alternative VLE, and indeed successful widespread adoption is reliant on support both institutionally and collegially (Gilbert et al., 2021). However, to inject active learning into stagnant or uninspiring modules, the idea presented allows an efficient and effective platform to achieve this.

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## Image Attribution

Person using MacBook Pro photo by Avel Chuklanov on Unsplash

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Figure 2. Call to action within the embedded SharePoint page screenshot by Dale Munday and Jenny Roberts is used under CC-BY 4.0 Licence

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# Virtual workshops using Microsoft Teams

JENNY ROBERTS AND DALE MUNDAY



## What is the idea?

Originally developed to facilitate the delivery of a two-hour workshop in a challenging physical learning environment with 180 students, the utilisation of a Microsoft Team allows for fast paced and engaging experiences for students. Coupling inbuilt functionality with third party applications allows effective e-moderation to facilitate student collaboration, group discussion and

construction of knowledge through an active learning approach. Benefits of utilising this method are the removal of barriers of physical location, equipping students with practical experience of remote or virtual working and provision of digital capture to enable revision and reconfirmation of learning.

## Why this idea?

The intent to create an inclusive, engaging and learner-centred approach to a traditionally didactic module. The pandemic shifted the emphasis from face to face delivery into online rapidly, with a detriment to teaching and learning practices in many cases. This approach was planned and considered to offer the most effective means of supporting students with the transition to online learning, whilst maintaining the social interaction key to creating a rounded graduate. However, the benefits of this modality of delivery extend beyond the limitations posed by the Covid-19 pandemic, addressing constraints of physical learning environments such as available space VS class size, uncondusive lecture theatre style seating for small group interaction and the creation of an inclusive and flexible learning environment aligned with The Universal Design for Learning (UDL) guidelines (CAST, 2018).

## How could others implement this idea?

Planning the workshop session is paramount; start by outlining what the Learning Outcome (LO) of the workshop is, what you specifically want students to achieve in the session and how you intend them to construct this knowledge.

*Example: For the LO: 'Relate legal requirements governing engineering activities to given scenarios to demonstrate responsible*

*management practices', the desired outcome is for students to create a 5-minute summary video capturing the relevant legal implications around an allocated engineering case study. Knowledge construction is through initial research of the case study, aligning it with applicable legislation and capturing a summary of the findings contributing to a resource databank.*

Once an outline plan is established, add in critical timings to enable effective e-moderation of the session.

Construct the workshop VLE following these steps:

1. Create a Microsoft Teams space and enrol student cohort
2. Create 'Channels' for each workshop
3. Populate each channel with a range of active learning content appropriate for the relevant workshop

Integrating third party applications such as Wakelet, Genially and Flipgrid (all free to access without institutional subscription), enable additional functionality and opportunities for highly engaging content to stimulate active learning.

*Example: Wakelet captures introductory information about the different case studies each group of students will be researching. It allows formatted text, hyperlinks and images to be displayed in a succinct and accessible manner (Figure 1).*

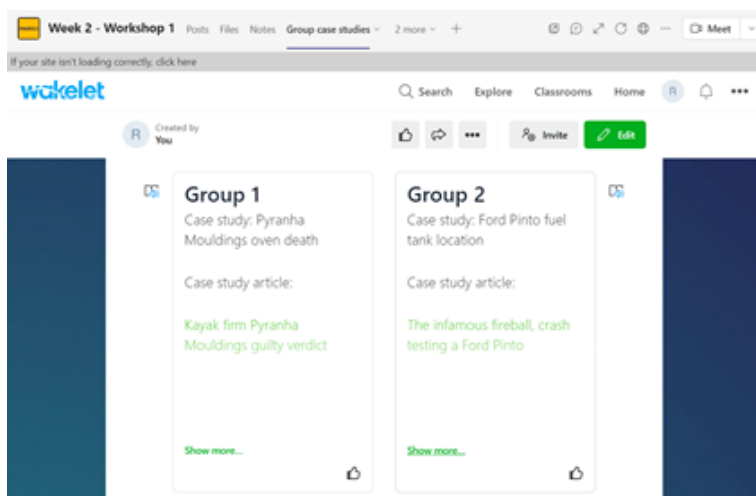


Figure 1. Example Wakelet integration into Microsoft Teams

*Genially-created infographics contain information on legislation in an engaging format (Figure 2).*

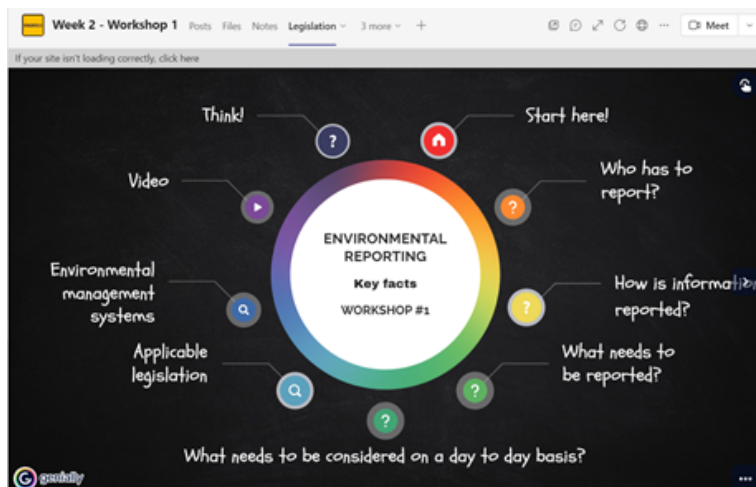


Figure 2. Example Genially infographic integration into Microsoft Teams

*Flipgrid captures recorded summaries and creates a learning resource databank (Figure 3).*

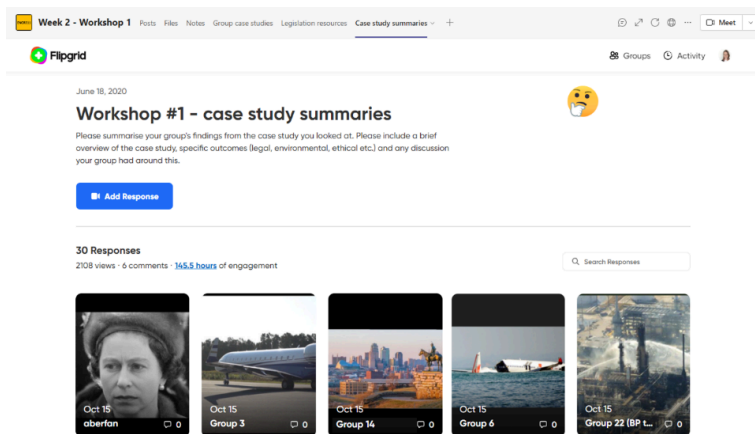


Figure 3. Example Flipgrid integration into Microsoft Teams

Once you have designed your active learning space within a specific application, integrate it into Microsoft Teams:

1. Add a tab within the workshop channel
2. Select the application you would like to use\*
3. Enter the URL or join code for your pre-designed page

\*Tip – if an application is inaccessible, integrate it as a website.

The virtual environment for delivering the workshop is now complete and ready for use. To ensure a smooth running workshop:

1. Facilitate collaboration in chat, collaborative documents and breakout rooms
2. Monitor progress using in built analytics and formative assessments throughout

## Transferability to different contexts

The idea can be transferred into any discipline, with variation in the content, structure and purpose leading the pedagogic approaches. The variety of integrated tools into the learning design allowed for multimodal engagement opportunities that can cross curriculum lines and work across the variety of higher education (HE) and further education (FE) settings. The Flipgrid example amplifies how student created summary videos can be used as an effective assessment of learning, but also assessment for learning resources. The engagement across one set task that in face-to-face delivery would equate to around 1 hour, in the online space resulted in 140+ hours of engagement from students. However, care must be taken to ensure that, as identified by Haq et al. (2018), students successfully adopt and engage with the technology introduced to fully realise the benefits of this active learning method. In the example given, reflection on workshop engagement and content fed into a subsequent summative assessment.

The scope for variety within Microsoft Teams means reduced limitations in regards to the options and pedagogic approaches one can take. The opportunity to plan and deliver both synchronous and asynchronous content in a variety of engaging ways can be utilised across a range of courses and institutions. Acknowledging that not all institutions may have access to Microsoft Teams, individual applications can be utilised independently for active learning workshops, with links provided to participants via the institution's standard learning management system. The author Roberts recently successfully delivered the workshop described in the example to a cohort studying in China and adopted the aforementioned approach in the absence of Microsoft Teams.

## Links to tools and resources

- Wakelet: <https://wakelet.com/>
- Genially: <https://genial.ly/>
- Flipgrid: <https://info.flipgrid.com/>

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# MOOMobiPBL: Moodle Mobile Problem-Based Learning

ANURADHA PERAMUNUGAMAGE

## What is the idea?

The rapid advancement of technology has played a significant role in our day-to-day lives. The COVID19 pandemic had a profound effect on education, enabling us to learn remotely. Students today are accustomed to spending their days with smart devices due to the abrupt change in learning and teaching mechanisms. The majority of students in Sri Lanka used their mobile phones for educational and instructional purposes. As a result, we decided to promote active learning through the use of a mobile application called MOOMobiPBL. It is a proof-of-concept plugin for the Moodle platform. A plugin was developed and tested with undergraduate engineering students to promote Problem-Based Learning (PBL): by incorporating a learning problem into the course, the teacher creates an activity for learning. This concept has been tested in a blended or hybrid environment as well. The primary problem can be subdivided into sub problems, and students can work collaboratively to solve the problem. Each group of students is assigned the same learning problem and works in a discrete virtual workspace. Moodle mobile PBL supports a variety of self, peer, and teacher-administered assessment schemes. The teacher can create peer evaluation sheets for students to use to evaluate both their group members and themselves. Additionally, the plugin keeps track of each student's activities and contributions.

## Why this idea?

PBL provides opportunities for students to work as active learners. PBL requires more individual attention from the teachers as facilitators to guide the students in the right direction. Moodle allows teachers to share content and asynchronous communications. However, there are a set of drawbacks to implementing the PBL in Moodle environment. For instance, Moodle does not facilitate group peer evaluation. As a solution, a Moodle mobile plugin (MOOMobiPBL) was initially designed and developed to enhance PBL among engineering students. MOOMobiPBL supports teachers in the setup of their courses, encouraging a blended learning manner and students participating actively in the course activities. Figure 1 shows the developed theoretical framework (MobiPBL) that can be adopted in any kind of educational setting. To develop the framework Barrett's (2006) PBL framework steps were considered. Additionally, the didactic triangle and Technology Adoption Model (TAM) were considered. In the MOOMobiPBL all evaluation methods were used i.e. self, peer, group, and teacher evaluations.

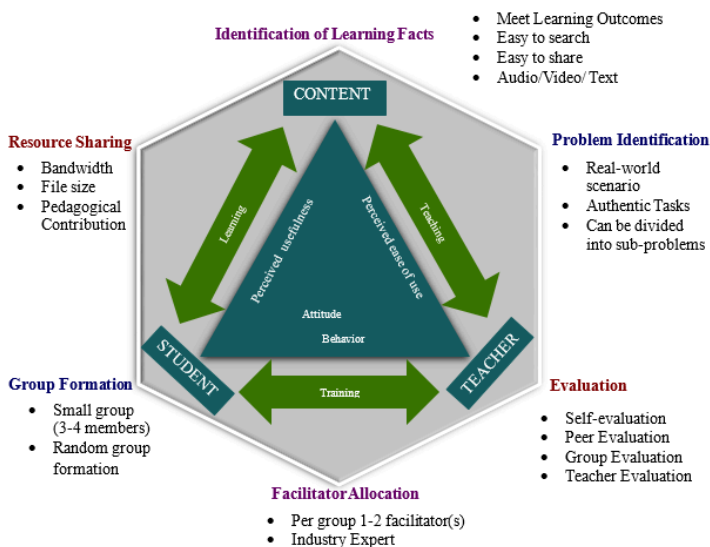


Figure 1. Mobile learning (MobiPBL) framework to enhance PBL (reproduced in Peramunugamage et al., 2020)

## How could others implement this idea?

Problem-Based Learning is a student-centric teaching methodology that promotes “active, constructive, contextual, cooperative, and goal-directed learning” (Barrows et al., 1980). Implementation of the PBL differs from course to course based on the learning objectives of the module. However, teachers can follow similar steps to construct the activities as shown in figure 2. PBL has been implemented in many areas of health education, such as dentistry, pharmacy, and nursing, in universities worldwide (Kolmos & Holgaard, 2008; Mohd-Yusof et al., 2013). In the early '90s, PBL was further applied in different disciplines such as architecture, law, and social work (Barrows et al., 1980). It was also applied in professional

education fields like nursing, industrial design, optometry, architecture, law, and business (Chappell & Hager, 1995). However, online or mobile PBL implementation is in the primary stage.

When developing PBL courses through the MOOMobiPBL environment, teachers can divide the activities. The large group size and the open-ended nature of online discussions did not allow for students to effectively collaborate. For large classes, a proper mechanism to engage with all participants must be devised, else some may drop out of the activities. Moreover, the nature of the course needs to be considered when introducing online activities, as set out in Figure 3.

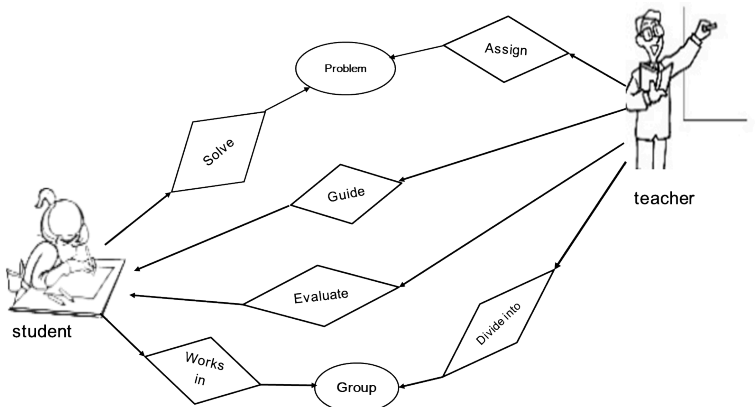


Figure 2. PBL workflows and functions

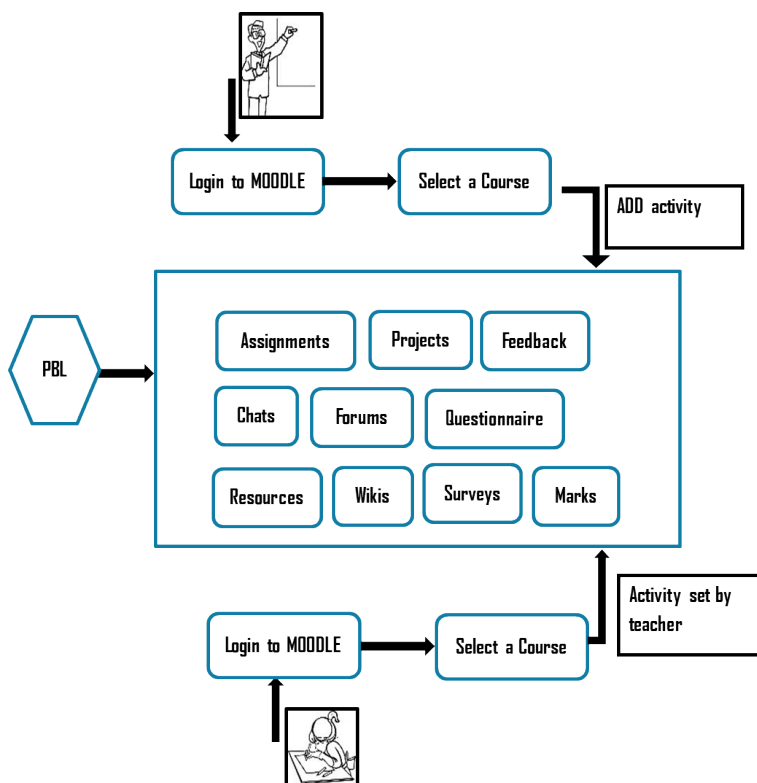


Figure 3. Moodle mobile PBL activities and steps

## Transferability to different contexts

MOOMobiPBL was first evaluated using engineering modules. However, if a teacher wishes to monitor individual interactions between a teacher and a student, between a teacher and a group of students, or between students, the plugin can be used, as it enables everyone to participate in active learning. Additionally, the plugin can be used to implement PBL at the course, module, or activity level. The plugin enables students to reflect on and track their progress through the course. Peer assessment, individual or

group assignments, and teacher assessment via assignments and examinations all help students and teachers keep track of their progress. Generally, the steps below can be used to configure a course with Moodle-based PBL activities.

Step 1: Divide students into groups (random or based on preference)

Step 2: Assign the project to groups and allow students to subdivide it into smaller projects

Step 3: Submit individual reports for discussion within the group

Step 4: Keep track of each student's contribution

Step 5: Before submitting the final project (report, presentation, or artifact) outcome, solicit feedback from the group and preview the final report

Step 6: Maintain a student diary in which all project-related details are recorded (Even if the student uploaded a report for the project). If a person is an evaluator, he or she will allow evaluation of the assigned projects/group activity

Step 7: Students may submit a summary contribution report for each project

## Tools and resources

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