

100 Ideas for Active Learning

Radically collaborative learning environments

Tab Betts

DOI: 10.20919/OPXR1032/2

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) (<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](https://talis.com/talis-elevate/) or [Hypothesis](https://web.hypothes.is/) 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](https://padlet.com/)/[Mural](https://miro.com/)/[Miro](https://miro.com/) 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.

References

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32(3), 347-364. <https://doi.org/10.1007/BF00138871>

Bovill, C. (2020). Co-creation in learning and teaching: the case for a whole-class approach in higher education. *Higher Education*, 79(6), 1023-1037. <https://doi.org/10.1007/s10734-019-00453-w>

Brookfield, S. (1998). Critically reflective practice. *Journal of Continuing Education in the Health Professions*, 18(4), 197-205. <https://doi.org/10.1002/chp.1340180402>

Brookfield, S. D. (2017). *Becoming a critically reflective teacher* (2nd ed.). John Wiley & Sons.

Chan, J. W., & Pow, J. W. (2020). The role of social annotation in facilitating collaborative inquiry-based learning. *Computers & Education*, 147, 103787. <https://doi.org/10.1016/j.compedu.2019.103787>

Choi, I., Land, S. M., & Turgeon, A. J. (2005). Scaffolding peer-questioning strategies to facilitate metacognition during online small group discussion. *Instructional Science*, 33(5), 483-511. <https://doi.org/10.1007/s11251-005-1277-4>

Cormier, D. (2008). Rhizomatic education: Community as curriculum. *Innovate: Journal of Online Education*, 4(5).

Deslauriers, L., McCarty, L. S., Miller, K., Callaghan, K., & Kestin, G. (2019). Measuring actual learning versus feeling of learning in response to being actively engaged in the classroom. *Proceedings of the National Academy of Sciences*, 116(39), 19251-19257. <https://doi.org/10.1073/pnas.1821936116>

Emory, J. (2014). Understanding backward design to strengthen curricular models. *Nurse Educator*, 39(3), 122-125. <https://doi.org/10.1097/NNE.0000000000000034>

Goldschmid, B., & Goldschmid, M. L. (1976). Peer teaching in higher education: A review. *Higher Education*, 5(1), 9-33. <https://doi.org/10.1007/BF01677204>

Han, H. S., Vomvoridi-Ivanović, E., Jacobs, J., Karanxha, Z., Lypka, A., Topdemir, C., & Feldman, A. (2014). Culturally responsive pedagogy in higher education: A collaborative self-study. *Studying Teacher Education*, 10(3), 290-312. <https://doi.org/10.1080/17425964.2014.958072>

Jackson, C. K., & Bruegmann, E. (2009). Teaching students and teaching each other: The importance of peer learning for teachers. *American Economic Journal: Applied Economics*, 1(4), 85-108. <https://doi.org/10.3386/w15202>

King, A. (1990). Reciprocal peer-questioning: A strategy for teaching students how to learn from lectures. *The Clearing House*, 64(2), 131-135. <https://doi.org/10.1080/00098655.1990.9955828>

Lithwick, D. (2012, June 8). *Chaos theory: A unified theory of muppet types*. Slate. <https://slate.com/human-interest/2012/06/chaos-theory.html>

McKenna, L., & French, J. (2011). A step ahead: Teaching undergraduate students to be peer teachers. *Nurse Education in Practice*, 11(2), 141-145. <https://doi.org/10.1016/j.nepr.2010.10.003>

Moore, J. (2005). Is higher education ready for transformative learning? A question explored in the study of sustainability. *Journal of Transformative Education*, 3(1), 76-91. <https://doi.org/10.1177/1541344604270862>

Renn, K. A. (2020). Reimagining the study of higher education: Generous thinking, chaos, and order in a low consensus field. *The Review of Higher Education*, 43(4), 917-934. <https://doi.org/10.1353/rhe.2020.0025>

Robinson, C., Sterner, G., & Johnson, T. (2006). Don't build it and they will come: Creating space for wholeness, meaning, and purpose in higher education. *Journal of College and Character*, 7(6), 1-4. <https://doi.org/10.2202/1940-1639.1204>

Ruge, G., Tokede, O., & Tivendale, L. (2019). Implementing constructive alignment in higher education—cross-institutional perspectives from Australia. *Higher Education Research & Development*, 38(4), 833-848. <https://doi.org/10.1080/07294360.2019.1586842>

Talis (2021) How Can We Lower Barriers to Entry for Students to Engage? <https://bit.ly/talisbarriers>

Zhu, X., Chen, B., Avadhanam, R. M., Shui, H., & Zhang, R. Z. (2020). Reading and connecting: using social annotation in online classes. *Information and Learning Sciences*, 121(5/6), 261-271. <https://doi.org/10.1108/ILS-04-2020-0117>