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.
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.

References


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