Chapter 108
Virtually Sound:
Flipped Classrooms and Other Learning Spaces

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ABSTRACT

Teaching in flipped or "reversed" classroom mode builds on established student-centric teaching practices that have been in use for decades. Next Generation Learning Spaces (NGLS) further transform the way collaborative learning can enrich students' learning experiences. This chapter discusses expectations, perceptions, and experiences of teaching in flipped classroom mode. In addition, it explores the experiences of students in a senior undergraduate rhetoric and composition course in Australia. This chapter reports on studies that assessed students' perceptions of how the space they learned in, and the flipped classroom mode, impacted on the way they approached interaction with their teacher and peers, and how participation in collaborative activities enhanced their learning. It frames the teacher's experiences of adaptation to the new teaching method and environment, and to the creation and evolution of collaborative assignments, both formative and summative, which are suitable for use in flipped classroom teaching.

INTRODUCTION

This chapter commences with a discussion of Next Generation Learning Spaces (NGLS) at the University of Sydney, considering the space and technology provided for students and instructors. It explores the relevance of the flipped model to these new learning spaces, and showcases teaching and assessment models that allow for dynamic collaboration and the presentation of ideas to peers within a cohort. The particular case study explored here is a writing and research course that encourages critical thinking across a range of text types and high-level research and writing skills. This course has been designed for an NGLS environment, and involves a variety of virtual tasks such as Wikipedia editing, as well as more traditional modes of pedagogy and student collaboration. Unit of study evaluations conducted at the end

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of semester demonstrate the success and popularity of this course. Yet many barriers toward success were encountered and overcome using traditional and novel teaching styles. This chapter explores a range of problems inherent in the adoption of NGLS such as fears regarding technology and technological skills; student knowledge retention outside of the traditional lecture model; and negative responses to the high-tech environment of an NGLS. In doing so, it argues for the relevance of established student-centric teaching practices in the development of a flipped classroom pedagogy. Via an exploration of space and its impact upon learning, this chapter advocates the use of multiple classroom spaces: traditional, new generation, online, and field trip. The combination of these styles has allowed for the benefits of NGLS and the flipped classroom mode to be core to the learning experience whilst retaining useful elements of the traditional lecture mode in order to bridge the gap between student and technology.

BACKGROUND

The author was invited by colleagues from her institution's eLearning Committee to participate in a pilot study of NGLS in 2012, which involved the teaching of classes in recently erected technology-enriched learning spaces. The initial visit to this learning space was an inspirational experience, leading to excited anticipation of the challenges and opportunities for discovery that lay ahead. Accessibility was a key feature of this room and while large screens were affixed to each stationary pod table, each of these offered abundant space for students to add their own devices and use books or take notes. Chairs were movable, allowing greater flexibility in terms of the sizes of groups that students could form. Colleagues from the University's eLearning department provided support and recommended technologies that could be used in particular teaching situations. Most importantly, they provided the initial suggestion that a flipped classroom model would allow for the most efficient and appropriate use of the NGLS.

Due to initial unfamiliarity with this concept, research was conducted to define and understand this new pedagogical mode. Bull, Ferster, and Kjellstrom (2012) noted that specific concepts could be taught in a video format of under 10 minutes duration, interspersed with questions or activities, and this pre-recorded content could be reviewed at different times (p. 11). Through this literature, it became apparent that teaching is essentially reversed in the flipped mode, or turned upside down. Instead of teaching time being taken up by students passively absorbing content delivered by teachers, they would cease to be taught to and instead would be absorbed into the teaching and learning process. This mode emphasizes the centrality of the student in his or her own learning and shifts the role of the lecturer or instructor to that of a "guide on the side." The adoption of such a method would also ensure that the NGLS would be used to its optimum potential: as an environment rich in opportunities for cooperative learning, as well as technologies with which students could further interrogate information, learn, and showcase both their individual and collaborative work to the entire cohort.

The NGLS used for the pilot study had previously been used predominantly for courses that were traditionally taught in the room, particularly because of its geographical setting adjacent to an engineering precinct that was isolated from other faculties of our institution. In short, timetabling choices at that point had been based mainly on traditional patterns of use, rather than on demands for the particular technologies and enhancements that the space offered. Amongst the multiple objectives for this proposed pilot were the need to report on the efficiency of the rooms, to guide the design of future rooms,