
**Categories:** Active Learning, Flipped Classroom, Review of Literature

**Summary**

In this article the authors undertake a review of the extent literature pertaining to use of the flipped classroom in higher education. According to the authors, their interest in doing a literature review of the flipped classroom stemmed from the growing pressure on institutions of higher education to improve student learning and the increasing popularity of the flip as a means of addressing those concerns. Thus, they attempted to conduct a “scoping review” of the available research with the intent of delineating the extent and nature of said research, summarizing and further disseminating the finds of the extant work, and identifying gaps within the literature on the flipped classroom.

Having defined the broader objectives of their review, the authors also identified several questions that they hoped to answer through their research. Overall, they wanted to identify “how key aspects of the flipped classroom contribute to its effectiveness and to an improved student learning experience.” Within that overarching query, they focused on a variety of specific questions, including what technologies were being employed, what economic and time resources were required to implement the flipped classroom, what has been learned about staff and student attitudes towards the flip, and what, if any, improvements in educational outcomes had been facilitated through its use. Finally, they hoped to establish a common conceptual framework used for the flipped classroom.

After a lengthy discussion of the methodology employed in culling their sources, the authors turned to a discussion of their findings. In their discussion of technology, the authors noted that the literature suggested that the specific technology used to deliver the flipped classroom was less important than the content provided online. The literature also showed that a wide array of methods can be effective in developing the pre-class, or online, portions of the flipped classroom, and that the form and structure of the online content played an important role in determining student satisfaction. Finally, the research indicated that online aspects of the flipped classroom were well suited for the development of lower-level cognitive skills, but less effective in promoting higher-order thinking.

When it came to actual activities employed in-class, the authors noted that the literature presented a truly diverse range of approaches. One commonality between these, however, was the particular role of the professor in the in-class segment of the flipped classroom: the instructor operated more as a “learning coach” than as a teacher. Perhaps the most salient finding that they reported on in regards to the in-class portion of the flip was the need to ensure that pre-class, online learning elements were being effectively integrated into class session activities.

The review also offered several conclusions about the requisite resources for employing the flipped classroom. First, the authors noted that the literature suggested that some institutions might find it difficult to broadly implement the flipped classroom due to a variety of factors including tech support, class size, etc. Second, the articles surveyed suggested the need for greater institutional supervision in
the employment of the flip. Finally, the articles reviewed emphasized the need for ongoing IT support in order to ensure the effective delivery of the online content vital to the flipped classroom.

The last two areas of finding reported out by the authors pertained to short and long-term impacts of the flipped classroom on learning, and the level of acceptance by faculty and students. Unfortunately, the literature only offers uncertainty when it comes to the actual educational efficacy of the flipped classroom. The authors found a general lack of evidence pertaining to definitive impact, positive or negative, on student learning. Moreover, they noted that while student perceptions of the flip were generally positive, a significant minority of student respondents indicated that they had negative attitudes towards the method. As such, the authors argued that considerably more research was needed in assessing the link between the flipped classroom and improved learning outcomes. Similarly, the authors identified mixed attitudes among faculty towards the flip. While teachers recognized its value as a means of promoting student engagement, they also noted a host of obstacles to its effective implementation and assessment. Thus, the authors concluded that we need to develop a better understanding of “how to effectively translate the flipped classroom concept into practice.’’

Conclusions

Despite some of the limitations that they discovered within the literature, the authors concluded that the flipped classroom has great potential for the improvement of learning in higher education. In particular, they note, it offers a logical approach to the cultivation of critical and independent thinking in students. The authors also concluded that further research needed to be done in a variety of areas pertaining to the use and facilitation of the method. Finally, they counseled that academics and institutions need to be cognizant of the dangers that arise when teachers try to employ the flipped classroom without fully understanding the pedagogy, and as a result fail to effectively implement it.

Applications

As a review of the extant literature on the flipped classroom, this article has fewer and different applications than those that detail research on a particular method of advanced teaching. That said, it offers some important considerations for those considering the use of the flipped classroom. In particular, it highlights some of the potential pitfalls of improper application, and stresses the need to very carefully consider the construction of a flipped class. Perhaps most importantly, this article offers a thorough and extensive list of potential sources to consult for anyone who wishes to learn more about the flipped classroom, employ it, or conduct research on the method.

Citations of Interest


