Chapter 56
Flipping the Classroom in a Teacher Education Course

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ABSTRACT

Teacher education preparation programs prepare pre-service teachers for K-12 classrooms. In order to best prepare pre-service teachers, higher education institutions must be cognizant of the changes that are occurring in today's K-12 classes. The flipped model is an approach to instruction where direct instruction and lecture is viewed at home and class time is used for collaboration and project-based learning. This approach to instruction is becoming increasingly popular in primary and secondary education classrooms throughout the United States. It is important to examine how a flipped classroom approach may influence pre-service teachers in a university preparation program. This chapter explores a case study that examined the flipped classroom in a teacher education course compared to a traditional course.

INTRODUCTION

In higher education, instructional strategies have been found to influence teacher self-efficacy (Nietfeld & Cao, 2003). Teachers with high self-efficacy tend to experiment with methods of instruction, seek improved teaching methods, and experiment with instructional materials (Allinder, 1994). Two identical courses of a teacher education program were compared to determine if a flipped approach would have a greater impact on pre-service teachers' self-efficacy than a traditional course. Pre and post-test results revealed students in the flipped classroom had a significantly higher gain in self-efficacy than students in the traditional course. This case study will reveal key factors for implementing a flipped approach in a hybrid teacher education course.

What Is the Flipped Classroom?

When traditional lecture is completed at home via video or audio and student-centered activities take precedence in the classroom the approach to instruction has "flipped." Instructors seeking to maximize the learners' capacity to engage in small group discussion, project based learning, or problem solving tasks, will find the "flipped" model an effective means of student-centered collaboration. This constructivist approach to teach-

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ing calls on learners to become active classroom participants by placing the passivity of listening to a lecturer at the comfort of home so valuable face-to-face classroom time can be used for peer collaboration, inquiry, and project-based learning.

The "flipped" approach emerged as an educational tool in 2006 by Jonathan Bergmann and Aaron Sams (2011) and is characterized by the use of Screencasting to deliver instruction that can be accessed at any time and place. This instructional approach has been embraced by teachers from primary school to higher education as a means of maximizing time to collaborate, problem solve, and investigate content areas.

BACKGROUND

Self-Efficacy

"Self efficacy is the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p.2). Previous experience strongly influences self-efficacy. Self-efficacy will increase when students experience success in the classroom, and when students experience failure self-efficacy will decrease. When observing others perform a similar task referred to as modeling, self-efficacy may be influenced as well. A live model is especially salient when someone has limited prior experience or they are uncertain about their own ability. In the teacher education classroom, pre-service teachers need an opportunity to model and observe strategies that will be particularly useful as classroom instructors. Often times teachers learn about research-based best practices through course readings and lecture, but do not have an opportunity to either experience or observe these practices until they are working as a classroom teacher.

Teacher efficacy can be described as the teacher's belief that he/she has the ability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran & Woolfolk Hoy, 2001). Beginning teachers need strong self-efficacy beliefs in order to continue in the field of education (Mulholland & Wallace, 2001). Teachers who exhibit high levels of self-efficacy are also more satisfied with their job and more empowered (Edwards et al., 2002). Furthermore, a teacher's experience during student teaching practice has also been correlated with higher self-efficacy levels (Bandura, 1997; Mulholland & Wallace, 2001; Pajares, 1997).

Gerges (2001) investigated the factors that influence pre-service teachers variation in their use of instructional methods. Pre-service teachers with little to no experience with a specific teaching method had a lower rating of teacher efficacy and were less likely to implement new teaching methods in their classrooms. Therefore an opportunity to perceive relevant models as well as demonstrate instructional methods is paramount to influencing pre-service teachers with lower teacher efficacy.

Nietfeld and Cao (2003) examined the type of instructional strategies that promote pre-service teachers self-efficacy within a college course. Students perceived active more than passive instructional strategies to be important for increasing their personal teaching efficacy. Moreover, students with the highest gains identified whole-group discussion, peer collaboration and in-class illustration exercises as the most beneficial.

This case study will examine if a flipped approach as compared to a traditional approach to instruction will increase students' perceived self-efficacy in teaching. Students' self-efficacy toward teaching is referred to as teacher confidence throughout this study.