Chapter 26

Flipped Class Pedagogy as a Digital Pedagogical Strategy in an Open Distance E-Learning Environment

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ABSTRACT

This chapter explores student teachers' performance and perceptions of a flipped classroom pedagogy vs. a lecture method in a teacher education course at an open distance learning university. The study used an explanatory mixed methods design, employed a pre-test and post-test online survey, and economics blog postings to collect data for the study. Only Post Graduate Certificate of Education (PGCE) and Bachelor of Education (BEd: senior and further education and training phase) student teachers (n=371) were purposively selected. It is reported that the flipped classroom pedagogy group outperformed the lecture group in the final examination scores. Furthermore, the flipped classroom pedagogy encouraged an engaging atmosphere and accelerates a collaborative interactive synergy among student teachers. Finally, the findings revealed that the role of the teacher in the flipped classroom pedagogy design is crucial, promoting optimal learning experiences for student teachers in the course. Findings could not be generalized because this study employed only a small sample, but further investigation is needed to compare similar teacher education courses.

INTRODUCTION

The Higher education sector, in particular teacher education programmes, have started rethinking curricula over the past five years by employing more teaching-integrated technologies into pedagogy. Their objective has been to change the traditional pedagogies employed by lecturers, either in contact (residential) or in online classrooms, to accommodate and include digital natives in the learning process. In

line with the reimaging of this thinking, Bergman and Sams, subject teachers of chemistry at a Colorado High school started experimenting with the "inverted class" to support their learners who often missed classes. In 2002, Bergman and Sams as many other teachers were worried about frequent in-class time loss of sports and other cultural activities interfering in student learning. These two teachers reimaging the design of in-class time and started experiments with videos and other supportive materials down-loaded from YouTube to support students in out-of-class time. They created an out-of-class teaching paradigm, flipping classroom, for their students to watch, read and reflect anytime and anywhere at their own pace. In view of the popularity of this teaching approach, Bergman and Sams (2012, p.19) wrote a seminal text, *Flip Your Classroom*. The current debate at universities is whether to include technology-integrated student-centered teaching strategies in the learning programmes, like the Flipped Classroom Pedagogy, ePortfolios and Web 2.0 technologies to support students towards self-directed (Jones 2010; Robichaux & Guarino 2012). The current debate at colleges of teacher education – about introducing and redesigning learning programmes by including Flipped Classroom Pedagogy – emerged in 2007 as a technology-integrated teaching strategy used as a means of supporting students as part of an open distance learning approach (Bates, 2010; Albert & Beatty,2014). To ensure that teacher education pro-grammes are appropriate, academics have been exposed to the Flipped Classroom Pedagogy approach as a recent phenomenon employed to support students' learning (Wasserman, Quint, Norris & Carr, 2017). Furthermore, this Flipped Classroom Pedagogy is imperative to enhancing student teachers learning and it accommodates their academic expectations – in particular, their aspirations to become qualified teachers (Critz & Knight, 2013; Strayer, 2012).

After extensive literature reviews on research studies conducted on FCP as a teaching strategy, it was found that most studies conducted were either in contact or in a blended learning mode but to a lesser extent through an open distance-learning (ODL) environment. After engaging critically in more than sixty-eight (68) articles and twelve (12) scholarly books on FCP as a pedagogical tool across subjects and students performances, the researcher could not found sufficient evidence of this strategy used in an online environment. This prompted the researcher to explore the FCP as instructional approach whether it will yield sufficient evidence for an ODL online context. The researcher realizes that there is a need to advance the "knowledge gap pertaining to the practical side of this phenomenon" that must be explored because of a plethora studies were done in contact sessions but to lesser existed for blended learning and open distance learning contexts.

This chapter determines to what extent does the use of Flipped Classroom Pedagogy impact on student teachers learning as compared to lecture as part of learning to teach the Economics course at an open distance learning university. The sub-research questions (RQ) were formulated:

RQ1: How does the flipped classroom pedagogy compare to the lecture method impact on student learning in the Economics course?

RQ2: Are there any differences between the groups pertaining to the semester test and the final exami-nation paper in the Economics course?

RQ3: How do Economics students' teachers experience the use of Flipped Classroom Pedagogy through-out the course?

In next section of this chapter, a description of the lecture method versus a Flipped Classroom Peda-gogical approach is provided. Furthermore, research studies on the FCP as a digital teaching approach is

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