

## Chapter 32

# Student Teachers' Perceptions of the Use of LMS for Promoting Critical Thinking in Their Future Teaching Career

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### **ABSTRACT**

*The chapter examined student teachers' perceptions of the use of Moodle for promoting critical thinking in their future teaching career. The study used a mixed methods approach with a sample of 70 student teachers from three public universities in Tanzania. Data were collected through a survey, focus group discussions, and a review of documents. Quantitative and qualitative data were analyzed through SPSS 25 and MaxQDA 18, respectively. The findings indicate the potential of Moodle for promoting critical thinking, collaboration, and professional development. Similarly, there were statistically significant differences between pre-service and in-service teachers in perceptions of satisfaction with Moodle and taking LMS-related jobs in the future. Pedagogical implications of the findings and the area for further research have been discussed.*

### **INTRODUCTION**

The purpose of this study was to examine student teachers' perceptions of the use of a learning management system (LMS), Moodle, for promoting critical thinking in their future teaching career. Learning management systems are widely used in many higher learning institutions (Carvalho, Areal, & Silva, 2011; Chootongchai & Songkram, 2018; Danso & Apeanti, 2017; Hoda, 2017; Santo & Duarte, 2013). Similarly, LMS have tools that have the potential for promoting critical thinking such as discussion forums and quizzes (Mwalongo, 2016, 2018). When students have a positive attitude towards an LMS, chances are that they may use it in the future (Damjanovic, Jednak, & Mijatovic, 2015).

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The intention to use technology in the future is further supported by models such as technology acceptance model (Davis, Bagozzi, & Warshaw, 1989), theory of planned behaviour (Ajzen, 1991), and the unified theory of acceptance and use of technology (Venkatesh, Morris, Davis, & Davis, 2003). Knowledge of students' perceptions of the use of Moodle can help us understand whether they can use learning management systems in the future or not. Through this knowledge, necessary intervention measures can be taken in advance. It is against this background, this study examined student teachers' perceptions of the use of Moodle for promoting critical thinking in their future teaching career.

Two research questions guided the study.

1. What are student teachers' perceptions of the use of Moodle for promoting critical thinking in their future teaching career?
2. Are there differences in perceptions of the use of Moodle for promoting critical thinking in their future teaching career amongst pre-service and in-service teachers?

This chapter begins by giving a brief background of the study. Literature related to learning management systems, critical thinking and behavioural intentions to use technology has been reviewed. The methodology, results and discussion of the results have been presented. The final part of the chapter focuses on pedagogical implications followed by a concluding remark.

## **BACKGROUND OF THE STUDY**

There has been a wide use of learning management systems, particularly Moodle, in higher learning institutions (Carvalho et al., 2011; Chootongchai & Songkram, 2018; Danso & Apeanti, 2017; Hoda, 2017; Santo & Duarte, 2013). Similarly, Moodle has the potential for promoting critical thinking (Herro, 2014; Ivanova, Mertins, Abdrashitova, & Isaeva, 2016; Lu & Law, 2012; Mwalongo, 2016, 2018). Given the wide use of Moodle and its potential for promoting critical thinking, there is need for pre-service teacher education programmes to encourage student teachers to use Moodle tools, among other things, for promoting critical thinking in their current learning and in their future teaching career. With that view in mind, this study examined student teachers' perceptions of the use of Moodle for promoting critical thinking in their future teaching career.

Critical thinking is regarded as one of the most important skills for the 21<sup>st</sup> century (Hess & Ludwig, 2017; Lee, Hung, & Teh, 2015). Critical thinking can facilitate sound decision making, problem solving, collaboration with other people and excelling in work places (Davies, 2015; Gambrill & Gibbs, 2017; Halpern, 2014; Lin, 2018). Furthermore, critical thinking helps individuals to be able to select, generate and evaluate information in a given context (Lin, 2018). It can also help to improve thinking (Serrat, 2017).

Among other things, critical thinking can be promoted through the use of learning management system tools. LMS have some tools that have the potential for promoting critical thinking. For example, tools such as the discussion forums can promote collaboration. Similarly, when learners project their attitudes and feelings online, they can reveal their critical thinking dispositions such as open-mindedness, analyticity, systematicity, truth-seeking and inquisitiveness (Mwalongo, 2018).

Various research studies have been conducted about Moodle. Some of these studies have mainly focused on collaboration and assessment (Lu & Law, 2012). Other studies have addressed issues related to motivation for using Moodle (Chung & Ackerman, 2015; Damjanovic et al., 2015; Danso & Apeanti,

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