Chapter 9
Assessing Online Students' Engagement in Higher Education:
Use Theory to Guide Instructions and Foster Online Learners' Interactions

Hany Zaky
https://orcid.org/0000-0003-0342-8814
Eastern International College, USA

ABSTRACT

Post-COVID-19, exploring opportunities and challenges in online learning has become a crucial area of research. The dynamics of online student interactions are now the focal point of teaching and learning studies. However, higher education institutions are grappling with various obstacles that hinder students' active participation in this new online learning and teaching landscape. Both students and teachers face significant hurdles, including low motivation, engagement, and self-regulation. The online environment presents a variety of challenges that can potentially impede learners' self-regulatory learning, motivation, and engagement. Research highlights the potential of online learning, showing that the correlation between students' learning engagement and professors' scaffolding tactics can unfold the impact of self-regulatory learning on students' online interactions. Therefore, students' social, cognitive, behavioral, collaborative, and emotional engagement is framed to sustain those students' online engagement. This chapter addresses the significant positive impact of educators' scaffolding strategies, learning management, and the use of technological applications on students' online engagement. The

DOI: 10.4018/979-8-3373-2130-1.ch009

chapter presents the Self-System Model of Motivational Development (SSMMD) to report a comprehensive strategy for assertive communication in online classrooms and the Online Engagement Framework for Higher Education to increase educators' awareness of social, cognitive, behavioral, collaborative, and emotional factors. It also reports the tools to gauge learners' engagement in the online environment, students' self-regulated learning, and instructor's scaffolding strategies. The pedagogical implications are presented.

INTRODUCTION

Developing teachers' and administrators' necessary technological skills in online environments is essential to continuously coping with learners' needs and societal progress. Consistent and rapid technological advancements like GenAI and artificial intelligence applications have hampered online teaching and learning environments. These technological innovations call for promoting pedagogical innovation, incorporating current applications into used instructional approaches.

Participating in online learning, therefore, depends on learners' confidence in the offered programs and the available technological facilities. Teachers and students who appear gradually uninterested in their online learning experience the risk of students dropping out and a low level of engagement (Fryer et al., 2014). Research shows that students' learning engagement is strongly related to positive academic outcomes, practical learning, and academic achievement, leading to good educational performance and reducing in-class disruptive behaviors (Zen et al., 2022). The pedagogical innovations in any educational system guide social transformation and cultivate technological skills, leading to a profound learning experience. Virtual learning refers to employing information technology to develop learning activities regardless of the correlated constraints of time and space (Hearn et al., 2017). It is a flexible, accessible, and cost-effective learning experience (Yang et al.., 2022). Self-regulation and supportive online interaction, though, are two areas that foster students' online learning experiences. Additionally, educators' scaffolding strategies, the instructional techniques that motivate student interaction and enhance student-teacher relationships, are teaching tools to foster students' engagement in the learning processes (Zhang & Lin, 2020; Cho & Kim, 2013).

This paper investigates students' self-regulation, learning engagement, and teachers' instruction to motivate online student interactions. It addresses the various learning engagement levels in online environments. Therefore, it answers the following research question:

RQ: What factors drive online students' engagement in the learning processes for more Learner-centered teaching?