



Leveraging theories in instructional design: a reflective response to OLSit framework

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Abstract

This paper is in response to the article entitled *A Design Framework for Enhancing Engagement in Student-Centered Learning: Own It, Learn It, and Share* (Lee and Hanafin in *Educational Technol Res Develop* 64(4):707–734, 2016). In this article, the authors proposed a theoretical framework to provide guidelines for promoting engagement in student-centered learning (SCL) based on relevant principles from different learning theories and empirical research findings. This framework connects learning theories with instructional design practices, providing theory-based instructional strategies and methods for improving student engagement in SCL. Challenges of applying this framework include customization issues, time, and resource constraints. More case examples of solving different instructional problems with this theoretical framework would help stakeholders understand how to use this framework in different contexts.

Keywords Theoretical framework · Student-centered learning · Respondent paper

Introduction

A core mission in instructional design is to creatively solve complex instructional problems. Instructional theories can provide guidance for problem-solving processes and explain why things work out the way they do (Reigeluth, 1999). Leveraging instructional theory in our field establishes a shared knowledge base (Reigeluth and Carr-Chellman 2009), supports sensemaking (Yanchar et al. 2010), promotes learning performance (Reigeluth 1999), and informs instructional choices (Smith and Boling 2009; Wilson 1997). Learning theories and instructional theories are two important theoretical foundations of instructional design. The former provides a set of descriptive propositions on how people learn while the latter provides prescriptive propositions on what should be done to produce desired learning outcomes (Landa 1983). However, how to make learning and instructional theories relevant

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and useful to different instructional problem-solving processes remains an issue. This gap may be due in part to the dissociation of theories from practice (Bichelmeyer et al. 2006). Thus, a discussion on how to apply relevant principles from learning and instructional theories to inform a focused problem is needed. The theoretical paper *A Design Framework for Enhancing Engagement in Student-Centered Learning: Own It, Learn It, and Share It* authored by Lee and Hannafin's (2016) sets an example of synthesizing and integrating relevant principles from learning theories and empirical research findings to inform the practice of student-centered learning. This paper aims to reflectively respond to the key ideas presented in Lee and Hannafin's (2016) article and discuss its value, impact, challenges, and future implications for online learning from both a theory and practice perspective.

Key ideas

Based on key constructs extracted from relevant principles of self-determination, constructivism, and constructionism theories, Lee and Hannafin developed an OLSit (Own it, Learning it, and Share it) framework to provide theoretical assumptions and design guidelines to support engagement in SCL. Based on this framework, students will experience three processes in a student-centered learning environment: first, students develop ownership of what and how to learn; and then make efforts to achieve and monitor their goals; and lastly design and produce artifacts to share with authentic audiences. Design guidelines are provided corresponding to each process (please see pp. 722–727 in Lee and Hannafin 2016).

Value and impact

The science of learning that aims at understanding how people learn has been developed over a decade. A central challenge of education is to apply learning theories to the development of instruction science that aims to provide support for learning (Mayer 2008). Although instructional theories and models have been created over the years, the gap between instructional design theories and practices still exists. As an instructor who teaches an instructional design theory course for graduate students, my students often ask me why it is important to learn different learning and instructional theories and what are some good examples of instructional design theories. The OLSit framework provides a very good example to answer these questions. This framework focuses on student engagement issues, pulls relevant principles from different learning theories and empirical research, and provides actionable prescriptions for solving this problem. Lee and Hannafin made appropriate connections among different learning theories and explained how relevant principles in these theories can be applied to promote student engagement. They explained in the article why constructs like autonomy, scaffolding, and audience are important, how we can generate relevant instructional principles from these constructs, and integrate these principles with promoting student engagement practices.

Future implications for online learning

Over the past decade, there has been a rapid increase in the number of online courses and programs (Greenland and Moore 2014; Seaman et al. 2018). This trend has become increasingly prominent since the start of 2020 when the break of COVID 19 pushed many schools and universities around the world to adopt online or remote learning (Bao 2020; Dhawan 2020). The OLSit framework provides valuable guidance for different stakeholders who seek instructional methods, design principles, and theoretical support to enhance student engagement in online learning. First, with restricted interactions, online learning is highly student-centered in nature. It requires students to be more autonomous and self-initiated in their learning. The OLSit framework provides practical instructional methods on enhancing student autonomy, providing goal-setting strategies, scaffolding, and monitoring the goal-achievement process. Specifically, the OLSit framework provides theory-based instructional strategies for teachers, especially novice online teachers, to help their students develop ownership over the learning process, improve learning autonomy, and focus on achieving learning goals. Second, promoting student engagement in online courses remains an issue for course designers. This framework highlights three important key aspects that are important to student engagement—autonomy, scaffolding, and audience—based on related learning theories and empirical research findings. As David Merrill explains that theoretical tools can be used to define instructional prescriptions more precisely (Merrill 2001), the OLSit framework offers instructional designers a direction to design a learning environment that supports student engagement. In addition, this theoretical article provides a good example of operational frameworks that are insightful for researchers in our field. Inspired by this theoretical article, other researchers might come up with alternative operational frameworks to understand different components in an instructional design problem-solving process and provide effective theory-based guidelines to facilitate the design of online learning experiences.

Challenges

Student-centered learning is a comparably generic concept. Although in this framework, the authors provided some theory-based guidelines on how to promote student engagement in SCL at a general level, a challenge remains to customize the use of this framework to different local student-centered learning contexts and audiences. Also, it is time and resource consuming to follow some of the strategies in the OLSit framework. Especially in emergent remote learning, it is challenging for instructors to prepare a course in a comparably shorter amount of time with restricted resources. It is also challenging for learners to take ownership of the online learning process and develop self-regulated learning skills without appropriate supports and preparations. These challenges could be addressed by providing specific examples for applying this framework in specific cases so that stakeholders can better understand how to use this tool to solve different instructional problems in various contexts.

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Compliance with ethical standards

Conflict of interest The author declares no conflict of interest.

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