

COGNITIVE SCIENCES AND HUMAN DEVELOPMENT

## A Comparative Assessment of Online Learning Readiness for First Year and Final Year Engineering Undergraduates

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## ABSTRACT

Measuring student readiness in online learning should also be of great concern to institutions, including all areas from their curricular development to the pedagogies they experience. Although there have been attempts at universities to develop online learning courses, students' readiness has yet to be investigated, particularly for engineering students who take a mix of theoretical and practical-based courses. This study evaluates the readiness of civil engineering students toward the implementation of online learning and their preferences and acceptance towards online instructional delivery and assessment methods. Ways for improvement are proposed in line with the students' readiness to determine the best desirable practices and strategies for online pedagogy. Respondents are selected from first and final year students, to examine and compare their online learning perspectives. A survey questionnaire was used. Findings revealed that year one and year four students' readiness were relatively moderate for most of the components and relatively high for the components that involved hardware/software requirements and technology skills. Most respondents indicated a moderate acceptance level on online assessment, ranging from a mean score of 3.46 to 3.81. As online learning is gradually becoming another method for life-long and self-determined learning, findings from the study might help university educators to develop better online learning strategies, especially delivery methods and assessments, to help students cope with online learning.

Keywords: engineering undergraduate, delivery preference, online learning, readiness

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