STUDENT PERCEPTIONS OF INCLUSIVE PRACTICE IN A LARGE, BLENDED LEARNING CHEMISTRY COURSE

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INTRODUCTION

Strategies that widen student access and participation in blended learning typically focus on strengthening the interactions between students and their instructors, between students and the content and between students and their peers. The elements of cognitive, social and teaching presence form the basis of the highly regarded Community of Inquiry (CoI) framework (Garrison & Arbaugh, 2007) which informs the design of successful blended learning environments. A broad range of approaches to developing inclusive learning environments have also been guided through application of the Universal Design for Learning (UDL) framework (CAST, 2024). Mendoza & Venables (2023) completed a systematic scoping review through the lenses of CoI, UDL and sense of belonging (SoB). While they identified a large body of work that supports the premise that developing a CoI can inherently promote SoB amongst students, there were fewer articles exploring the role of UDL in building SoB directly In this presentation, the outcomes of an evaluative study that has examined the relationship between elements of CoI, students' perceptions of a UDL environment and their participation in blended learning activities (recognised as promoting interactions that foster SoB) will be shared.

STUDY

The setting for this work is a large, first year chemistry course into which multiple elements of the principles of UDL have been embedded (Reyes et al, 2022). Many course activities and assessments require that students engage in learning chemistry concepts through multimodal representations, peer discourse and drawing. Student perception data has been collected through two validated quantitative instruments: the CoI framework instrument (Arbaugh et al, 2008) and the personalized learning support instrument (Zhang et al, 2022) that embeds UDL. The activity and submissions of consenting students, accessed through the learning management system, have also been analysed to evaluate the nature of their engagement. All data collection and analysis procedures have institutional ethical clearance. Statistical analysis has explored potential relationships between the elements of a CoI and student perceptions of their individual learning related to inclusive practice and their interactions with course resources and their peers. Collaborative peer interactions, feedback and relevant tasks were evident as key UDL elements in that course design that contributed to belonging.

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