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Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

The effect of hybrid classes on extrinsically motivated students

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Emerging from the Covid19 pandemic, many higher education institutions rapidly improvised teaching students in a hybrid mode that concurrently combined online and in-person instruction. The varied engagement results from students and staff prompted many institutions to reconsider this hybrid approach (Raes et al., 2020), with opinions of both students and teachers divided on the merits of returning to an in-person classroom. While some studies (Peng & Wei, 2021) noted success at the 'juggling act' of supporting both an in-person class and an online class simultaneously, more studies found the emerging technology, split focus, resourcing and unfamiliar instructions to be a disengaging classroom experience (Aagaard et al, 2023). A lack of clear and quantitative evidence has been noted as a key issue with many of the studies of hybrid learning (Raes et al, 2020). The improvised nature of many pandemic teaching responses and the many variables that may confound engagement results, prompts a more considered and deliberate re-examination of hybrid learning which takes into account the motivational needs of students.

If a student is motivated to attend a hybrid classroom, their subsequent evaluations of the experience seem likely to be related to their initial motives, expectations and reasons for attending. The lens of Self Determination Theory (SDT) offers a range of insights into the type of motivation felt by students and enables the disambiguation of whether a student is motivated intrinsically or extrinsically (Ryan & Deci, 2017). Intrinsic motivation being characterised by an internal locus of control – arising spontaneously from within. Extrinsic motivation conversely is characterised by an external locus of control – motivation is controlled by outside factors and compulsions that a student feels they ought to follow. Deci and Ryan's Intrinsic Motivation Inventory (IMI) offers us additional insights into three descriptive sub-types of intrinsic and extrinsic motivation – autonomy, relatedness and mastery. The idea that an unfulfilled need for personal relatedness in some students might relate to levels of student engagement online and in-person was hoped might explain some of variable engagement responses from students.

This presentation tells the story of how hundreds of students responded to a synchronous concurrent hybrid classroom intervention across four weeks of an otherwise online subject. Utilising high-quality hybrid learning technology available at the time, the advanced Class.com interface and a well-adapted pedagogy the journey of students with differing motivational needs was explored using the lens of Deci and Ryan's (2017) IMI. Through regression modelling, network analysis and a broad analysis of associated demographic factors it was found in particular that low ATAR students with extrinsic motivation were more disengaged by the hybrid classroom environment, in comparison to other motivational subgroups. Contrary to expectation, students with a motivational need for relatedness were not found to respond differently to hybrid learning compared with other motivational subgroups. Recommendations for future iterations of synchronous concurrent hybrid classrooms and research are offered.

Keywords: AI, LLM, Branching Scenario, Authentic Learning, Simulation, AIBS

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