reconnect

Reconnecting relationships through technology

Scaffolding student reconnection with instructors and their peers using Perusall

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Rapid shifts to hybrid and fully-online learning driven by COVID-19 have reduced opportunities for face-to-face learning interactions. Interactive (social or collaborative) learning, which permits students to reconnect, is believed to result in more learning than solitary or individual learning because interactive learning is generative (Lee et al 2019).

University teachers want students to engage independently, actively and deeply with recommended or assigned content as an integral part of their learning. These can be in the form of readings from texts, journal articles or websites; as well as multimedia content such as Youtube videos. However, student engagement with assigned readings is frequently low (Kerr & Frese, 2017). While individual engagement with the assigned content is important, social negotiation of meaning and understanding can support understanding, and facilitate interconnections that build a community learning experience. In the "new normal" of reduced face-to-face student-instructor and student-student interactions and connections, effective techno-pedagogical approaches that interconnect students-instructors-learning materials need to be tried and evaluated.

Perusall (www.perusall.com) is an online educational platform that permits social interaction with digital learning resources (e.g., textbook chapters, journal articles, or videos), creates a safe environment where there is no penalty for students in expressing misconceptions, where their peers may offer encouragement (Lee & Yeong 2018), and instructors can scaffold critical thinking and other higher order thinking skills, which can lower students' perception of the difficulty of material (Lee et al 2019). Unlike LMS discussion boards, annotations, which are facilitated by Perusall, are presented alongside and linked to selected content, and tagging of individuals permits conversations in response to annotations. Annotations and conversations may involve critical reflection, higher order thinking skills (Suhre et al 2019), metacognition (Woodward & Neunaber 2020) and can indicate engagement (Marcell 2008). Yet readers of digital texts rarely add comments (Schugar et al 2011). While Woodward & Neunaber (2020) found that Perusall fostered students' social interaction over a text, there has been no systematic study to ascertain why students are more engaged or what increases their engagement.

We report here on a pilot study that investigated how, within the Perusall environment, student engagement varies with instructor scaffolding. This study was carried out in one undergraduate first-year subject in 2020 and 2021 with a total of 84 students. The students came from different discipline degrees (37% Arts, 4% Biomedicine, 6% Commerce, 14% Design, and 38% Science). The instructors asked questions in 50% of the weeks involved in delivering the subject online or in hybrid mode. Instructors intentionally posted questions and comments on the week 1 reading to model the sorts of annotations that students might partake in. Students were required to make five annotations on the set readings for the week which could take the form of a question or comment.

We describe the different scaffolding questions posed by instructors and peers that resulted in a greater frequency of student response, evidence of critical reflection, higher-order thinking and improved student engagement. We also reflect on the implications of these findings for broader teaching and learning.

Keywords: Perusall, scaffolding, critical reflection, engagement, online learning, higher-order thinking

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