

UDL and Open Pedagogy: Measuring Student Engagement in Psychology 101

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Project Overview

- Student engagement has been studied independently using the UDL framework & Open Pedagogy principles
- Little research examining the intersection of these two approaches
- This study will bridge a gap in the literature by examining the shared goal of increased student engagement
- The design of this study utilizes the UDL - Multiple Means of Engagement Guideline and the Open Pedagogy praxis of renewable assignments

Overlapping Goals for Student Engagement

Universal Design for Learning

"Consider this learning area and offer multiple opportunities for students to see relevance and value." (Smith, 2012)

"Learners differ markedly in the ways in which they can be engaged or motivated to learn."
(UDL Guidelines, 2018)

Open Pedagogy

"Creates a foundation for our students to begin to invest more deeply, think more critically, work more collaboratively, and communicate more accessibly." (Jhangiani, 2017)

"Facilitating education through the innovation of learning objects that foster student-centered motivation and self-efficacy while promoting community engagement"
(Seraphin et al., 2019)

Student Participant Demographics

- As of fall 2020, 12,405 undergraduate students were enrolled at QCC.
- Because the A.S. program in Psychology had one of the highest increases in enrollment degrees at QCC, we asked students to fill out a demographic survey to see if our sample was consistent with this QCC enrollment data.
- Mean age and ethnicity percentages are consistent with student demographics for the population of students attending QCC according to the data provided by the QCC Factbook for 2020-2021.
- The majority of the sample identified as female. While this is not the case for the entire student population which is more evenly split, it appears consistent with the percentage of females who are enrolled in Psychology courses.
- Although 1 student identified as disabled, we were unable to acquire the enrollment data for this population at QCC.

Methodology

Control Group	Intervention Group
<ul style="list-style-type: none">• given quizzes on course material• no choice of what was on the quizzes• asked to fill out the UWES-9S to measure their engagement with the quiz	<ul style="list-style-type: none">• assigned to create learning materials• option to choose topic of learning material, as well as the type of material they want to create• asked to fill out the UWES-9S to measure their engagement with the assignment

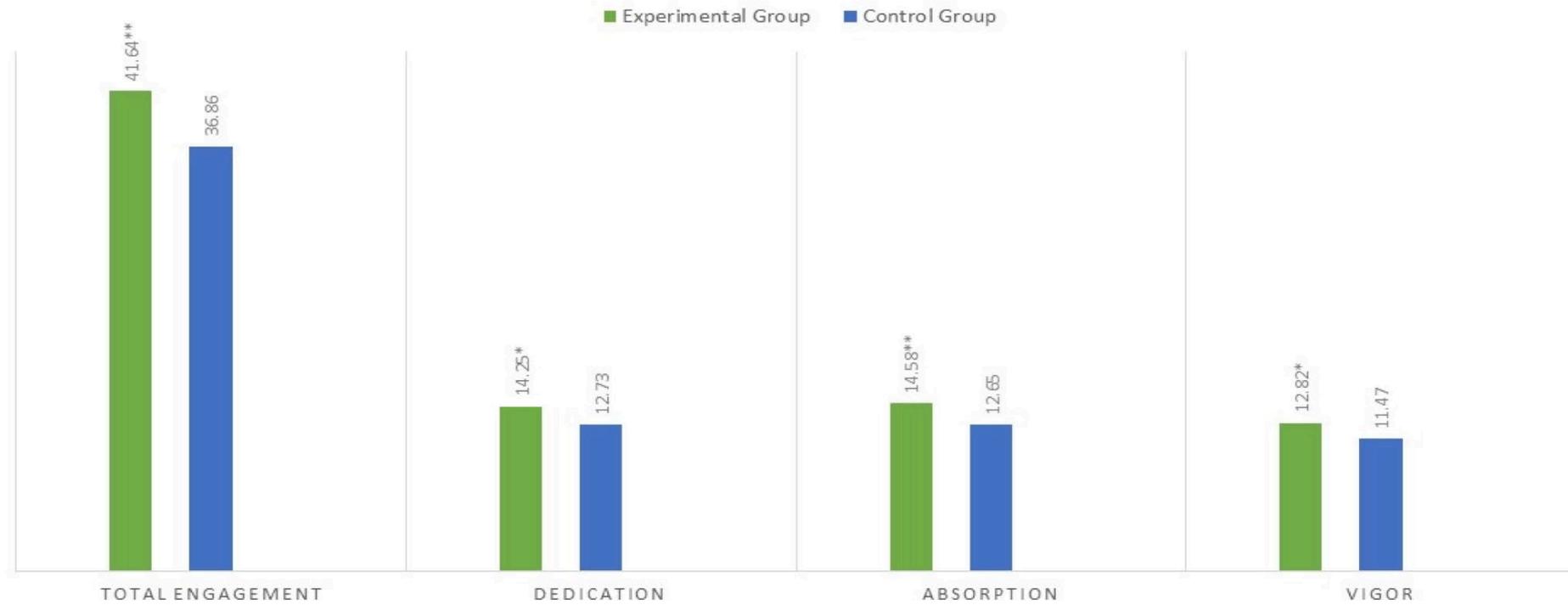
Measurement Tools

- Utrecht Work Engagement Scale for Students (UWES – 9S)
 - This is a 9-item measure of student engagement that assesses several qualities of engagement such as energy, enthusiasm, inspiration, happiness, and self-confidence (Carmona-Halty et al. 2019).
 - The 9 items were sub-divided into three major categories:
 - Dedication (being strongly involved in one's studies)
 - Absorption (being fully concentrated and happily engrossed in what one is studying)
 - Vigor (high level of energy while studying).
 - This scale was distributed to students via a digital survey.
- Assignment Grading Rubric
 - An analytic rubric framework was used (Allen & Tanner, 2006).
 - The rubric was created specifically for the assignment in order to have the best match between the assignment and the course objectives.
 - Students were provided with the rubric before the assignment so expectations regarding their work were transparent.

Results

- Overall mean UWES-9S scores were lower for the Control Group ($x = 36.86$) when compared to the Intervention Group ($x = 41.64$).
- An independent samples t-test showed a significant difference in Total UWES-9S scores between the two groups ($t=-2.683$, $p=.008$).
- Independent samples t-tests also found significant differences between the two groups for the subscales
 - Dedication ($t=-1.927$, $p=.039$)
 - Absorption ($t=-2.423$, $p=.017$)
 - Vigor ($t=-.3179$, $p=.002$)

MEAN UWES-9S SCORES



*p<.05, **p<.01

Discussion

- Overall, students who completed renewable assignments were more engaged than those who completed traditional quizzes.
- These findings suggest that renewable assignments are an effective tool for increasing student engagement and may ultimately lead to better learning outcomes.
- The engagement constructs measured by the subscales, Dedication, Absorption, and Vigor should be further explored using a larger sample size and/or additional measures.
- Future research should: 1) examine the use of renewable assignments in other subject areas; 2) explore the development of additional types of assignments; and 3) study the relationship of renewable assignments to other aspects of UDL.

Questions? Contact us!

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