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A Preliminary Analysis of an Interactive Teaching Platform

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Introduction

Teachers regularly deal with the fact that they do not always have students' undivided attention, and have long been advised to put course content into 15-20 minute blocks of time in order to keep students engaged in class, and hold their attention. Classroom attentiveness refers to the extent to which a student pays attention to the lecture and responds to the teacher during class time (Lau, Liem, and Nie 2008), and is a process involving both cognitive and behavioral engagement (Fredericks, Blumenfeld, and Paris, 2004). This was a preliminary study and the purpose was to investigate if the level of student attentiveness increased with the use of an interactive teaching platform (ITP).

Methodology

Students in an Introduction to Clothing Concepts course (N = 135) subscribed to an app for an interactive teaching platform for the semester (Group 2). The app allowed students to log their attendance, view PowerPoint slides, participate in class discussions, and answer quiz questions. As students entered the classroom, they logged on the particular course site housed on the interactive teaching platform. When the instructor logged on to the same course site and indicated it was time to register attendance, students enrolled in the class were shown a four-digit code on their device (phone, tablet, laptop) that they were to enter so their attendance would be recorded. The teacher was able to post discussion questions or quiz questions and students could submit answers using their device and points were posted to an online grade book that students could access anytime. Results were compared to attendance records and test scores from students enrolled in the same course during the previous semester (N = 138, Group 1).

Attendance was recorded in the previous semester by students signing a roster passed around at the beginning of class. A mid-term exam and a final exam were administered each semester and students' scores from Group 1 were compared to the test scores from Group 2.

Results and Discussion

According to rosters from Group 1 and records on the ITP from Group 2, attendance increased by 12%. Scores on exams increased 20% for students in Group 2 who used the ITP. Multiple choice or one word answer questions were embedded in the PowerPoint presentations. Observations of the number of students responding to the quiz questions during the lectures,

indicated that students were paying attention. The grade book in the ITP recorded student answers and even if the answer was incorrect, the student was focusing on the lecture and had responded. The preliminary data indicates that using an ITP increases attendance and attentiveness, however, student engagement and attentiveness, as well as, retention of information, needs to be measured.

References

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74, 59–109.

Lau, S. Liem, A.D., and Nie, Y. (2008). Task- and self-related pathways to deep learning: The mediating role of achievement goals, classroom attentiveness, and group participation. *British Journal of Educational Psychology*, 78, 639–662