

COLLABORATION IN AN ONLINE COURSE IS COMPARABLE TO COLLABORATION IN A FACE-TO-FACE COURSE

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Abstract

Remote learning through various communication systems has been available as a teaching strategy for many years. During the COVID-19 pandemic, remote learning has become an important method of educational delivery available for K-12 and higher education as leaders follow the health and safety guidelines. However, in remote learning environments, active learning collaborative team projects are more complex. Many institutions of higher learning around the country began using a Hybrid-Flexible (HyFlex) instructional model in response to the current global pandemic where students can choose to take online or face to face sections of their course. The flexibility in the model allows students and school systems to follow social distancing guidelines while providing quality educational experiences. Dumford and Miller (2018) contend “a user-friendly design and adequate technological support must be considered differently within online education” (p. 453) since online students sometimes feel isolated from professors. We offered an online only version of our traditionally face-to-face design thinking course during the fall of 2020. Students participated from different parts of the world and various time zones. Course materials were available in the learning management software and students worked as individuals and in small groups asynchronously and synchronously. Active learning in small groups requires collaboration, which is potentially more difficult in online environments. This research brief reports on our comparison of collaboration between the two modes of participation.

Methodology and Findings

While working on a four-week group project, students used the Comprehensive Assessment of Team Member Effectiveness (CATME) system to evaluate student participation within a group. CATME includes five dimensions that contribute to an effective team: interacting with teammates; keeping a team on track; expecting quality; having relevant knowledge, skills, and abilities; and contributing to the team’s work (Loughry, Ohland, Moore, 2011). Students use the CATME surveys in both sections to evaluate each group member on the five dimensions during the four-week group project. These five measures were used to compute a contribution score for each student in a group which ranges from about 0.20-1.05 where 1.00 represents full participation. A primary analysis with descriptive statistics was conducted to evaluate the distribution of statistical CATME scores for the face-to-face and online sections. The observed mean and standard deviation for the face-to-face section was 0.99 (0.12) with a sample size of 76. The observed mean and standard deviation for the online section was 0.95 (0.18) with a sample size of 102. An independent sample *t*-test with an alpha-level of 0.05 of the data resulted in no significant difference from the mean CATME score in the face-to-face section of the course and the online section of the course as the $t(176) = 1.71$, $p = 0.089$. The results indicate that there is no statistically significant difference between collaboration in the online class and the face-to-face section based on the scores from the CATME survey. A midterm evaluation of the online course including comments from students demonstrated the effective use of communication and collaboration in the course. Students indicated easy communication methods through the online communication platform and peer feedback as positives that promote successful collaboration.

References

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