

Student Attribute and the Effectiveness of Classroom Response System in Teaching Economics

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Abstract : In this project a web-based classroom response system (CRS) was used in the teaching an intermediate level economics course. This system allows the instructor to post a question on the screen and students to answer questions using their own electronic mobile devices. The questions and the results summarizing student responses can be shown to students simultaneously and the instructor can make timely feedback to students in class. CRS gives students a chance to respond to the instructor's question privately, encouraging students who might not typically speak up in class to express their thoughts and opinions. There is a vast literature on the advantages and challenges of using CRS. However, empirical evidence on the student attributes that increase the effectiveness of CRS in improving student learning outcomes is sparse. The purpose of this project is to (1) find out if the use of CRS is beneficial to students taking economics, and (2) discover key student attributes that will likely make CRS more effective. Students' performance in examinations and an end-of-semester questionnaire were used to assess the effectiveness of CRS in this project. Comparing the examination scores of the CRS treatment group and control group, the treatment group performed considerably better and statistically significant differences were found basing on paired t-tests on the differences. According to the questionnaire results, around 75% of the students in the treatment group generally agreed that CRS allowed them to express their views more freely. We also observed that students who prefer to use instant messaging rather than making conversations are generally more positive towards CRS. The use of CRS also benefits the instructor - students' rating of the instructor in the teaching evaluation was significantly higher for the CRS treatment group.

Keywords : education technology, classroom response system, student attributes, economics education

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