

## GAME-BASED LEARNING OF MICROECONOMICS BY UNDERGRADUATE ENGINEERING STUDENTS: EVIDENCE FROM HONG KONG

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### ABSTRACT

Noticing the problems with *traditional ways of teaching* microeconomics and motivated by the growing interest in game-based learning, this paper presents the first study of integrating a commercially available computer game as an additional complementary learning tool into a compulsory introductory microeconomics course taken by 450 Chinese-speaking engineering undergraduate students at a Hong Kong university. We use a game-based learning design for the course and conduct a survey to collect the data for determining student perceptions of and experiences with the computer game. We develop a statistical model to delineate the effects of different drivers of a student's scores in the computer game and mid-term and final exams to assess the students' learning outcomes, finding that the computer game is only marginally effective in enhancing the students' learning of microeconomics. The results of our study lead to practical recommendations for an integrated approach for successful game-based learning, which are useful for academics interested in using a computer game to teach microeconomics or other business subjects.

**Keywords:** Economics Education; Undergraduate Economics; Game-based Learning; Microeconomics; Hong Kong.