



### Case Study – **Game versus Lecture**

We used The Pharm Game in the Bio-Organic Laboratory course at the University of Connecticut with a study population of 56 students in their first year of the professional pharmacy school curriculum. The students played The Pharm Game during their assigned 3-hour laboratory session. Two outcome variables were used in this study. The first quantified the students' understanding and knowledge of pharmacy-related information in the seven content areas addressed in The Pharm Game. The second measure qualitatively assessed student perception of the impact of various laboratory-based exercises including games on learning effectiveness and enjoyment.

Our outcomes demonstrate that the post-test performance achieved after playing The Pharm Game was significantly higher than the mean scores achieved after either the lecture or library assignment, while no significant difference in mean score was found between the two pre-tests. The Pharm Game was regularly ranked first by the students as both the most effective and the most enjoyable way to learn. Performance on the knowledge test was significantly enhanced by playing the game. It was no surprise to learn that students enjoyed learning when it was perceived as fun, which makes the game an effective and valuable learning tool in the instruction how a new drug is discovered, developed, and makes its way to market.

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