

IMPROVE STUDENT IN INTRODUCTORY ECONOMICS AND BUSINESS

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ABSTRACT

The purpose of this paper is to study the effect of receiving instant (reactions or responses to something/helpful returned information) on online homework assignments. Using data from a natural experiment that included over 500 students taking Rules/basic truths of Micro- and Macroeconomics at a midsize public university in Ohio, I show that "Grade It Now" (GIN) option in Aplia an online learning management system improves/increases grades on assignments. This hit/effect is especially strong for (related to school and learning) weaker students and has the same hit/effect on students' grade as does increasing GPA by almost half a point. However, in sections with GIN, students' performance on midterm exams and final exam was either not (related to numbers) different from sections with Grade at Deadline (GAD) option or was actually worse. Using OLS moving backward and controlling for different student and class (features/ qualities/ traits), I show that Aplia's GIN hit/effect on students' performance on exams is negative and does not improve student learning. One possible explanation for this might be due to students' trying to "game" the system by increasing their grades on assignments and lowering their efforts on exams. This behavior seems to be supported with the data since there is no difference in the final grade between sections using.

Keywords: Economic education, Learning technology, Online assessment, Business.

INTRODUCTION

In the past few years, the use of online test/evaluation tools, such as Aplia and MyEconLab, has been quickly increasing. Next to this increase has been the (book, magazine, etc.) of articles examining the effectiveness of these tools. The goal of this paper is to add some new (understandings of deep things) to this growing books. In this paper I study the effect of Grade It Now (GIN) option in Aplia on student learning. I use a data set from a natural experiment that includes over 500 students taking Rules/basic truths of Micro and Macroeconomics at a midsize public university in Ohio. About half of the students used the older version of Aplia where they had only one set of questions to complete online and had to wait until the deadline to receive (reactions or responses to something/helpful returned information) on their work. In this paper I refer to this option as Grade at Deadline (GAD). The other half of students used the newer version of Aplia with Grade It Now (GIN) option, where they were able to get immediate (reactions or responses to something/helpful returned information) on their work for each question on the assignment. Also, under GIN students were allowed two added/more attempts for each question that were not identical, but almost the same as the original question. The main plan/purpose of GIN is to allow students to learn from their mistakes right away, instead of having to wait for help from the instructor or wait to see the correct answers later online.

One of the most important benefits from using Aplia in money flow/money-based studies is its ability to ask not only complex number-based questions but also questions that require the use of graphs. In Aplia, students are asked to get curves, highlight areas on the graph, and control/move around/mislead graphs by shifting curves; all of which is also automatically graded. Since all gave/given questions are electronically graded it can save a

great amount of grading time. Also, Aplia helps instructors by giving them options on how to set up the assignments, how they should be graded, and when the students can expect to get (reactions or responses to something/helpful returned information) to their problems. In the original version of Aplia students would get a described/explained (reactions or responses to something/helpful returned information) that included a step-by-step explanation of the problems after the deadline of their assignments; a method called Grade at Deadline (GAD). In the fall of 2008 Aplia introduced a new tool called Grade it Now (GIN). This new option allows students to get immediate (reactions or responses to something/helpful returned information) on their work for each clearly stated/particular problem. GIN also allows students to try to answer added/more attempts up to three times. These added/more attempts are almost identical to the original question but use different numbers and examples. In other words, after answering a question and getting the (reactions or responses to something/helpful returned information), students may decide to either move on to the next question, or try another version of the question they have just attempted. Finally, in an attempt to discourage cheating, Aplia randomizes the order of questions in each attempt for every student.

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