

On the value of e-homework tasks created by teachers for their students

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Abstract

Recent technological developments help teachers create e-homework assignments to their students. The current analysis suggests that the creation of e-homework is surprisingly easy, and it can lead to highly attractive results. These results include an increase in the teacher's work interest and status, higher homework completion rates, a decrease in the risk of frustrating the students and their parents, and easy analysis of the systematic errors performed by individual students.

Keywords: Blossom E-learning, small decisions, underweighting of rare events, Learning Management System.

Most previous attempts to explore, and develop, e-learning tools focus on sophisticated products designed by experts to help, or even replace, teachers. The main goal of the current paper is to highlight the value of a more modest class of e-learning tools. It focuses on simple tools that are created by teachers in order to help their students to complete their regular homework.

The potential of teacher-created "e-homework" is highlighted by two observations. First is the observation that the creation of educational software can strengthen the teacher's position. Second, empirical research (see Cooper & Valentine, 2001) suggests that traditional pencil and paper homework are less effective than they can be. Part of the problem is that certain students are frustrated by difficult tasks and give up (see Hertwig and Erev, 2009). Adaptive e-homework

that provides immediate feedback reduces the risk of a series of exercises that frustrate the students and their parents.

In order to clarify the feasibility of the positive effects of teacher-created e-homework the first two co-authors of the current paper conducted a pilot study in which we asked a 4th grade teacher (Levia Partushe who subsequently become the third author of the paper), to use the Blossom e-learning editor in order to create e-homework for her students. Levia received a 3-hour course in using the editor, and then created eight e-homework assignments for her students. She spent about half an hour on the preparation of the typical assignment. One of the assignments she developed can be found at <http://www.blossom-elearning.com/lms2/Launcher.php?assignment=657&anonymous=1> All her 8 assignments were introduced to her students, by the Blossom Learning Management System (Blossom LMS), and the students performances data was gathered in the Blossom LMS.

The results reveal that all the students performed all 8 homework assignments at least once. Moreover, a large proportion of the students performed these assignments more than once. In an additional questionnaire we asked the parents to estimate the proportion of exercises that their child could eventually complete alone while working on the e-homework, and while working on similar pencil and paper homework. The results suggest that on average the parents had to solve about 19% of the exercises in pencil and paper homework, and only 3.4% in the e-homework.

References

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