

Student Behaviour in an Online Monitoring and Evaluation System

Ozden SAHIN IZMIRLI

Canakkale Onsekiz Mart University, Faculty of Education, Computer Education and Instructional Technology, 17010, Canakkale, Turkey, osahinizmirli@gmail.com

Serkan IZMIRLI

Canakkale Onsekiz Mart University, Faculty of Education, Computer Education and Instructional Technology, 17010, Canakkale, Turkey, sizmirli@gmail.com

Abstract

An online monitoring and evaluation system was developed to monitor and evaluate students' reading activities. This system was designed as an online learning environment (OLE). As the students display more community characteristics on OLE, the environment is getting stronger accordingly. At this point, it is wondered how student behaviours explaining the characteristics of being a community and how these behaviours affect other behaviours. In this research, an answer to the following research question was sought, "Is there a relationship between the number of log in OLE and the number of completion of tasks? What is meant with the number of log in the environment is the number of log in the online monitoring and evaluation system here, and what is meant with the number of task completion is the number of books read. Online monitoring and evaluation system was used during a school term at a Turkish secondary school. Participants of this research were 412 secondary school students. In this quantitative research, log files were used to collect data. Online secondary school. Participants were 412 secondary school students in the quantitative research. At the end of the study, it was found that both low and high-level readers were able to log in the system at a low level. This can be interpreted as that high-level readers focus on completing the tasks they are directly involved in, and therefore, they contribute to the system at a low level. However, it was observed that those who logged in the system at a high level and read many books (17.5%) were found to logged in the system significantly more than those who logged in the system at a high level and read fewer books (8.7%).

Keywords: Online learning environments, student behaviour, student participation behaviour, task completion behaviour

Introduction

The high rate of the reading book in a society is a sign that there are many people who have critical thinking skills in that society. Reading book is beneficial for individuals and thus the societies. Because reading is the basis of mental development, which is an indicator of the level of development of society. In order to help students gain the habit of reading books, students need to meet the books appropriate to their level and interests, and their reading processes should be also followed (Bull and McKenna, 2004; Williams, Bialac and Liu, 2006). After reading a book, students' readings should be evaluated (Hickman, Bielema and Gunderson, 2005). An online monitoring and evaluation system was developed to monitor and evaluate students' reading activities. This system was designed as an online learning environment (OLE). Different roles and behaviours have been suggested in the literature for strengthening the OLEs. In these strengthening studies, the main focus is on community characteristics of these online learning environments. The general opinion in the literature is that in the cases where OLEs happen to become strong communities, the success in the OLEs is high (see Yang, Wang, Shen & Han, 2007; Yeh, 2010). Different researches have examined what type of behaviours are necessary for these environments to make the environment efficient and to make the environment a community. The analysis of student behaviours in OLE is necessary to understand what the outcome of the behaviours is and to determine which behaviours are supported for learning.

In the literature, there are studies investigating which student behaviours are developed in OLEs (eg Kneser, Pilkington & Tresasure-Jones, 2001), which roles form which behaviours (eg Yeh, 2010) to understand the outcomes and functions of OLE on students' developed behaviours (eg De Wever, Schellens, Valcke and Van Keer,

2006). It is understood from the results of the studies in the literature that student behaviours can be influenced by the environment and roles, and behaviours can affect OLE and even student behaviours can be used as an indicator to understand the efficiency of OLE. In this framework, it is worthwhile to understand and interpret student behaviour in OLE.

It is understood from the results of the studies in the literature that student behaviours can be influenced by the environment and roles, that behaviours can affect OLE and even student behaviours can be used as an indicator to understand the efficiency of OLE. In this framework, it is worthwhile to understand and interpret student behaviours in OLE. In some studies aiming to examine the nature of the environment through the discussion records in the OLE, the frequency of participation of the students in the environment, the forms of participation (with or without task completion, active / passive etc.) and the content they shared in the environment were considered as the behaviours of students in the OLE (Blignaut and Troppil, 2003). It is also stated that, through these behaviours, predictions can be made regarding students' gains (De Wever, Schellens, Valcke and Van Keer, 2006). In some of the studies evaluating student behaviours in the cognitive category, asking questions, participating in discussions, explaining, criticizing and developing suggestions were examined as student behaviours. Some studies were categorized within the scope of student behaviours. Some examined all kinds of participation in the field as academic behaviours and the others examined them as non-academic behaviours. Beuchot and Bullen (2005) examined student behaviours through social behaviours. Yeh (2010) states that the roles performed shape the behaviours of the individual, and he classified student behaviours by analysing them. The classification of the behaviours are as follows: (1) high cooperation and high participation (Active collaboration), (2) high cooperation and low participation (Passive collaboration), (3) low collaboration and high participation (Individualized participation) and (4) low cooperation and low participation (Indifference)

Research Question

In the study, the answer to the following question was sought "Is there a relationship between the number of participants in the OLE and the number of task completion?" Here, what is meant with the number of log in the environment is the number of log in the online monitoring and evaluation system, and what is meant with the number of task completion is the number of books read.

Method

Research Context

Researchers conducted the study at the schools in a province located in the western part of Turkey through an Online monitoring and evaluation system aiming to improve students' reading habits. This system was designed as an OLE. The online monitoring and evaluation system for book reading activities which was used as an OLE was a system funded by TUBITAK (The Scientific and Technological Research Council of Turkey) and developed by the Çanakkale Onsekiz Mart University.

During one semester, the OLE was used in two schools. The use OLE measures students' reading habits through a scale at their first log in the system. The system identifies the students' areas of interest in reading books in their first entry and provides them with the opportunity to change their preferred fields of interest anytime along the process. OLE starts to recommend the most appropriate books to the students choosing among the ones available in the system considering the parameters defined through the scale and questionnaire given at the very beginning. The book recommendation system included in the OLE aims to assist students in the book selection process and to prioritize the books that the student may like in accordance with their habits of reading books. Students can choose a book that is recommended to them, or they can start to read a book which they themselves prefer.

Students obtain and read the book they want to study. There is no book reading session in OLE. Once students inform the system that they have decided to read a book, the OLE continues to guide students along the reading process. In OLE, students are informed about the number of people reading the chosen book, the number of people who like it, the number of people advising and the time recommended to read the book. The students who complete the book reading process states that in the system to complete the reading process. Upon this, the OLE asks students if they are ready to make the evaluation process in order to determine how well the chosen book was comprehended. Students can have a multiple-choice test in OLE. This test consists of 10 multiple choice questions

randomly chosen from the question pool to measure how well the read book is comprehended. The student's reading comprehension score is sent to the screen of teachers, students and their parents. After this stage, students are asked whether they want to write any comment about the read book, to recommend it to friends and whether they want to rate the book with star/stars. During one semester, students continue this process through the OLE.

Participants

The participants of the study were 412 secondary school students (188 male and 224 female). 211 of these students were 5th grade (51%), 139 of them were 6th grade (33%), 42 of them were 7th (10%) and 20 of them were 8th grade (6%) students.

Data Collection and Analysis

The data collection tool of the study were the records of the OLE system. The OLE system counts how many books students have read. The number of books that students have read is considered as “completed task” behaviours. The number of students’ log in the system is considered as “participation” behaviours. The system also keeps records regarding this data. The relationship between the number of students’ log in and the number of task completion was found out by chi-square analysis.

Findings

The chi-square analysis was used to examine whether there was a relationship between participation in OLE environment and number of task completion. The results are given in Table 1.

Table 1.

The relationship between the number of task completion and the number of log in the system

		The number of Log in the System		Total	
		Low level (0-14)	High level (15 and above)		
Number of books read	Low level (0-2)	n	303	29	332
		%	91.3%	8.7%	100%
(Number of task completion)	High level (3 and above)	n	66	14	80
		%	82.5%	17.5%	100%
Total		n	369	43	412
		%	89.6%	10.4%	100%

($X^2=5.30$, $df=1$, $p=.021$)

Low-level readers logged in the system at a low level (91.3%). High-level book readers logged in the system at a low level (82.5%). In other words, both high-level readers and low-level readers logged in the system at a low level. However, when we looked at the high level of log in the system, it was seen that those who read a lot (17.5%) were found to have logged in the system significantly more than those reading book very little (8.7%) (X^2 ($df = 1$) = 5.30, $p < .05$).

Conclusion and Suggestions

In this study, the relationship between students' logged in OLE environment and task completion behaviours were investigated. In the study, it was found out that both low book readers (91.3%) and high book readers (82.5%) logged in the system at a low level. This can be interpreted as that high-level book readers focus on completing the tasks they perform directly and therefore contribute to the system at a low level. It is possible to suggest that low-level book readers log in the system less as they have less number of task completion. In the study, it was also observed that those who logged in the system at a high level and read a lot of books (17.5%) logged in the system significantly more than those who had a high level of log in the system and read fewer books (8.7%). It can be interpreted from that the log in the system has an effect on the reading rates. Further studies are needed to investigate the relationship between different student behaviours. Moreover, under the light of the findings of this study, the researchers can examine the effects of the roles designed for instructional purposes and how they can influence students’ behaviours.

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