

In What Ways do Preservice Teachers Utilized an Online Learning Support System?

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Abstract

This study explored how preservice teachers perceived and utilized the Online Learning Support System designed and developed to provide a platform for presenting utilities like content, news, and course assignments, and facilitating communication among students and instructor. In this research, a qualitative method was used. The data was obtained through focus group interviews. Of 43 prospective teacher students enrolled in the “Instructional Planning and Evaluation” course, offered by the Department of Educational Sciences at the Middle East Technical University, 15 students participated in this study. After utilization of the web site throughout the semester, students reported the advantages using online learning support system as: being independent concerning time and place, keeping contact with the instructor any time, accessing up-to-date announcements, and uploading the assignments in an electronic format.

Introduction

The swift development in computer technologies has increased higher expectations from educational institutions. Educational institutions are forced to prepare the next generation of citizens for the technologically oriented world. Teacher education institutions should educate prospective teachers who are able to create technologically enriched instructional settings and use advantages of technologies in instruction as well. It is universities' responsibility to train prospective teachers with technology and how to apply technology to their instruction. In order for preservice teachers to achieve these intended outcomes, schools of education should provide appropriate training in using technology for instruction. According to The Office of Technology Assessment (OTA, 1995) report “The most direct and cost-effective way to educate teachers about technology is through the preservice education they receive in colleges of education or other institutions” (pp. 166-167).

Many faculty members have recognized the potential of using the Internet for instruction. The World Wide Web (Web) offers a great potential for education and provides variety of sources. The Web provides a user-friendly interface and easy access to text, graphics, audio, and video materials that may be used in a common and consistent format. Most educational web sites provide basic course information such as syllabus, schedule, announcements, and reading lists. Others go beyond static materials to include synchronous or asynchronous communication, online testing, discussion groups, conferences, whiteboards, streaming audio and video (Hazari & Schnorr, 1999).

Exposing preservice teachers to using online supplementary material and after the course taking students' perceptions on the utilization of the web site, factors affecting students web site usage rate and their suggestions on the web site could be helpful for the revised version of this tool. The findings of this study also could be beneficial while making decisions about alternative designs of the Web supported learning environments or tools for preservice teachers.

Method

Research Design

This study explored how preservice teachers perceived and utilized the Online Learning Support System (OLSS); designed and developed to provide a platform for presenting utilities like content, news, and course assignments, and facilitating communication among students and instructor. The proposed study looked at the following questions:

1. What are the students' perceptions on factors affecting the usage of the web site?
2. What are the students' perceptions on usage of the utilities of the web site?
3. What are the students' suggestions about the effective use of the utilities of the web site?

In this research, a combination of qualitative methods was used in order to explore the research questions in detail. Due to the fact that very little researches have been conducted on how preservice teachers utilize online tools in their teacher training in Turkey, the initial data gathering needed to be more qualitative in order to gain a breadth view about the subject.

Semi-structured interviews were conducted to gather in dept and broader information about the students' perception of the web- supported course and course web site. Interview guides' primary function is to help outline the topic to be investigated. Out of 15 students, who had indicated that they were willing to share their experiences with the online supplementary web site, three focus groups were constructed. The number of students each group contained was ranged from 4 to 6 students.

Data Analysis

The procedure conducted to analyze the qualitative data includes following steps: Data were organized, categories were generated, data were coded, and emergent understandings were tested. The procedure followed analyzing qualitative data was mainly centered on the procedures stated by Marshall and Rossman (2000) and Patton (1990). First, the researcher read through all the interview data to identify meaningful units based on the research questions and assigned descriptive codes to these units. For instance codes like "colorized text," "summary," "example," "accessibility," "testing" were used to describe data. Second, the descriptive codes that fit together meaningfully were grouped in categories such as "content presentation," "self-assessment," "usability," and "support". The categories enabled the researcher to identify the themes to present data. A third level testing emerging understanding was carried out to evaluate the whole data for their usefulness and patterns of themes. Later thematic coding was employed to generate the general themes that presented in there headings namely, "factors affecting the usage of the web site," "usage of the utilities of the web site," and "suggestions about the effective use of the utilities of the web site".

Findings

Theme I: usage of the utilities of the web site

In this study, students and the instructor utilized the online learning support system throughout the semester. Keeping contact with the instructor online, upload possibility and revising easily was stated by the students as the advantages of the web site. Some parts of the web site were used frequently and some parts were used rarely. "Announcement" part was emphasized as being one of the most frequently used tools of the web site. "Forum" part was seen as the least utilized part of the web site due to its insufficient facilitation. Since, lecture notes was composed of a heavy loaded content, which is not designed in an organized way, students did not preferred reading from the computer screen. Students used the "Help" part of the web site in order to learn how to use the various parts of the web site.

The web site was not used for communication purposes frequently since students were having the opportunity to interact with each other and they prefer face-to-face communication instead of communicating via web. Although some of the students preferred to use the "forum" part for communication purposes, most of the students preferred to use telephone and GSM for communicating with each other due to immediacy. Possibility of face-to-face interaction and lack of privacy of the forum messages together resulted in some students being passive participants. "Forum" part was not also utilized effectively to create and carry on discussions. Some parts of the communications occurring between students and instructor were carried out by the "Forum" part of the web site.

Theme II: factors affecting the usage of the web site

Students found the download time of the web site fair enough for their work. Navigation of the web site was stated as being helpful enough to access all the parts of the web site. Visual elements provided within the web site were found to be making the web site easy to use. On the other hand, there are several factors that negatively affect the students' usage of the web site. Introducing of the web site, accessibility, reading off the computer screen, facilitation, privacy, and up-to-date information on the web site were underlined by the students as affecting their usage of the web site.

Lack of orientation toward the utilization of the tools was one of the major factors, which affected the utilization of the web site. The results revealed that students were not given enough information about the features and usage of the web site parts, which in turn underlies the importance of demonstration provided at the beginning of the course. The point, which got the students' attention most, was the facilitation and administration of the web site. The guidance provided by instructor and keeping activities up-to-date played a key role for the frequent usage of web site.

Theme III: suggestions about the effective use of the utilities of the web site

The suggestions made by the students in order to increase the utilization of the web site and to improve the effectiveness of the using web site as a supplementary for the traditional course mainly converged on the presentation of the content, usage of the communication tools, evaluation tools and facilitation of the web site.

The results of this study showed that students enjoyed studying from PowerPoint presentations supplied within the web site. It was emphasized that the overall content on the web site should be comprised different types of resources and these resources should be presented in a summarized way, which causes the students to study from the web site. Students also underlined the lack of examples related with application in the web site.

Most of the students proposed that the web site could be composed of assessment tools. They emphasized two points; one was utilizing the web site as a direct assessment tool, and the second was gathering feedback through the web site. Obviously, most of the students expressed their need for additional activities and questions regarding applications, as well as self-assessment. Most of the students emphasized that instructor should give immediate feedback when a question is posed to the web site.

About the communication tools provided within the web site, students nearly converged on the same topics. They expressed their wish for communicating individually by using a private area supplied in the web site. It was commented that facilitation of students by actively using the web site is the key point in reaching effective usage of the site. Students were expected their instructor to participate to the discussions held in the forum more frequently.

As a final point, some students stated that they were looking for a more enthusiastic and social environment within the web site. For creating such an environment, they suggested communication should not only be base on educational concerns but also social concerns related with contemporary issues and their role in the society. They also said that the climate provided in the web site should not be formal, but warm.

Implications for Practice

For further practice, the following suggestions may be helpful for instructors and instructional designers while designing, delivering and implementing a web-supported traditional environment.

- Provide demonstration at the beginning of the semester as well as providing continuous support and help throughout the semester.
- Provide a wide range of pre- and post activities (additional resources, additional materials, self-assessment utilities etc.) apart from the content. Providing self-assessment tools would help students to monitor their learning.
- Provide enough guidance and support to make students participate to the web site more regularly by posting questions to think on and discuss, sending examples, providing additional materials and Internet addresses to check for.
- Keep the designing of the web pages simple and consistent. Provide simple navigation by informing the student in which page he/she is at that moment and make all the utilities accessible in every page.
- Online supplementary tools should provide social environment to create online community.
- Online supplementary environment should carry tools that facilitate online communication and corporation between teacher and students among themselves.
- The site should support students' privacy with providing feedback and grading system individually and also should provide private communication channels between students - students and students - Instructor.

Conclusion

This research sheds light on development and utilization of an online supplementary tool in preservice teacher education. The findings of this study assist other researches and developers in their development and utilization of web based systems. Moreover, preservice teacher educators can also benefit from the findings of this study. Based on this and similar studies' findings, preservice teacher educators can revise and improve teacher credential courses.

In order to create an effective use of web-based environment, the features of the web site should be used in a manner that parallel with the goal of the related utility. The key to effective web based/supported instruction is focusing on the needs of the students, the requirements of the content, and the constraints faced by the instructor. The overall content should be presented in various formats that meet different expectations of the students. Besides navigational support, the content should be kept in summary or outline form to minimize the reading from the computer screen. It is a widely known fact that in terms of visual design, each web page should be designed in a way that minimal information on each page is provided. Hence, together with these opportunities it is seen that adding self-assessment tools for students could play an important role for students' motivation and interaction. As stated by

different authors, interactivity in a web-based environment is a key to success (Moore & Kearsley, 1996; Palloff & Pratt, 2001).

Due to the fact that very little research has been conducted on how preservice teachers utilize online tools in their teacher training in Turkey, there is a continuous need for further research on the effective use of the Web in teaching and learning process for preservice teachers. Following researches should comprise more than one teacher credential course and participants from different subject areas of preservice teachers. In addition to taking students' attitudes and perception on utilization of the online tools, teachers and administrators' views and perception should also be examined.

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