LEARNING INTERACTIONS OF A WEB-BASED TUTORIAL PROGRAM AND THE IMPACT ON LEARNERS: THE USE OF THE WEB FOR EDUCATIONAL PURPOSES

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Abstract: Web-based Tutorial program was developed to serve as a supplementary classroom activities for freshman in Foundations of Computer for Education class. The program consisted of two types of learning interactions: human-to-computer interaction and human-to-human interaction. Online materials, lecture notes, recommended reading, and review tests were identified as human-to-computer learning interaction; whereas, human-to-human interaction was set up in form of learning activities for students via web-board, chat forum, and e-mail. The research was aimed at describing the relationship between two types of learning interactions, learners' factors (cognitive, affective and social culture domain) and learners' satisfaction to the use of the web as a learning tool. Artifacts were recorded. At the end of the semester, questionnaires were distributed to students. 130 questionnaires were completed. Among three types of motivation (task value, intrinsic, and extrinsic motivation), task value had a significant correlation with students' satisfaction to the use of web.

Overview

Web is an innovative educational communication channel underlining a concept of learning alone with others. Learners must take their roles as activators constructing their own knowledge as well as contributing to others. In multi-nation virtual atmosphere, however, researches found Asian learners are mostly take their participation less than their counterparts. Presently, educational materials available on web are not pertinent to Thai context and no study has been conducted for how Thai students learn on web environment.

Web-based Tutorial program, then, was developed to serve as supplementary classroom activities for freshman in Foundations of Computer for Education class'1999. Basically, learning activities in the web were arranged via two concepts: Human-to-computer and Human-to-human Interaction. Online materials, lecture notes, recommended reading, and review tests were identified as human-to-computer learning interaction; whereas, human-to-human interaction was set up in form of learning activities for students via web-board, chat forum, and e-mail.

The study

The research was aimed at describing the relationship between learners' factors --cognitive, affective, and classroom culture domain--, and learners' satisfaction to the use of the web as a learning tool in two types of learning interactions (human-to-computer and human-to-human interaction). Students responded to the questionnaire before they were introduced to the web. During the semester, students were strongly encouraged to use the web. Artifacts were collected. At the end of the semester, questionnaires were again distributed to students. 130 questionnaires were completed.

The results showed that there was a significant difference between students' feeling about making use of web for educational and general purposes. Students inclined to the use of web for general purposes. They tended to be satisfied with the human-to-computer interaction type when using the web tool. In classroom, however, students tended to prefer their learning with groups to learning by themselves. Among cognitive domain (prior knowledge about computer skill), three types of motivation (task value, intrinsic, and extrinsic motivation), and classroom

culture (study alone and with group); task value had a significant correlation with students' satisfaction to the use of web. Finally, statistics did not show a significant correlation between academic achievement and other variables.

Learning with web is still a new learning phenomenon for Thai students. Students felt that web was not for learning but for entertaining. Students passively used web for educational purposes. They appreciated the web for its delivering class materials. They tended to be satisfied with the web, when they realized the value of web in accomplishing their learning task (Velayo, 1994). Students participated in activities on web chat and web board for the main reason of completing class assignment rather than for their own wishes.

Furthermore, the study found that students' classroom culture inclined to be group learning, which should be able to be supported by human-to-human interaction via web. However, the study showed students' satisfaction to the web in human-to-computer interaction type instead of human-to-human type. This probably happened because students did not comprehend the application of web learning tool. They did not realize an educational potential of the web. The web was used as a passive media delivering necessary contents for their examination. Learning on the web is more than pre-instruction or content-based learning programs. Web is a value added of computer network capacity. Sharing sources of knowledge and learning interaction among users can be made to happen in online environment. During this early stage of adoption, Thai instructors who wish to integrate web to classrooms not only be careful in learning activities design, they must be aware of preparing their Students to develop set of skills in acquiring information, generating, and synthesizing their knowledge with others.

Conclusion

In order to defuse the web technology as a learning tool, policy makers and instructors should shift the focus from students' technical training about web to educational aspect. The usefulness of the web could occur only when students become active learners: interact with educational contents and collaboratively learn with others via the web. When students realize how to make use of web as a learning tool and optimize its educational benefits by acting as active receptors and contributors; web increases its educational benefits and Thai scholars network will be expanded. The diffusion of such type of communication technology as web for learning will possibly grow in exponential rate (Rogers, 1995).

References

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