T. Hirashima et al. (Eds.) (2011). Proceedings of the 19th International Conference on Computers in Education. Chiang Mai, Thailand: Asia-Pacific Society for Computers in Education

Using time management system with SQ3R method to improve student's time management capability

LanAnh Pham*, Gwo-Dong Chen, Liang-Yi Li & Thanh-Dung Dang
Computer Science and Information Engineering, National Central University, Taiwan
phamthilananh0611@gmail.com

Abstract: In this study, we designed a time-scheduling prototype to coach students how to dispatch time. This prototype is designed based on SQ3R learning strategy and through this learning strategy to raise their motivation on doing time management. The preliminary evaluation of our system shows that student allocate their learning time more practical to attain the goals. They also feel the needs of changing their learning attitudes and habits to be more effective in studying.

Keywords: Time management, SQ3R, Motivation, Learning.

Introduction

Time management is an effective method to assist students in achieving learning goals. However, most of the students do not manage their time for their study. They encounter many problems in doing time management. For example, they don't have the ability to structure their study time and adapt a schedule and they lack of motivation to do time management.
In this study, we propose a solution of a time-scheduling prototype that concentrates on motivating and guiding students to dispatch time in their studying plan to make the greatest benefits on their efforts. Students learn to set practical schedules by employing SQ3R learning strategies on their time management process.

1. Description of time-scheduling system

The system comprised three basic modules: the planning module, status module, and reading module. Planning module is designed to help students easily survey and question to define a clear goal and measure amount of time on the task. In our observation, page number, table of contents, title, deadline are factors that student needed when they survey the reading for making plan. Thus, student can reference all those information in the first time of surveying. Based on SQ3R's five steps of learning, the system helps student to create a reference base for defining the clear and feasible goals to attain. Plan is represented in a chronological model. Overall goal for total plan and detail steps for action plan. When a student make plan for their learning, they create a systematic process of steps needed to achieve the most learning according to their schedule time. The plan is synchronized with the course ware. So students can consistently track the specific reading item in the context.
In the reading module, the plan was synchronized with the correspondent reading window. Student can read without necessary turning back to the planning interface for plan checking.

This design is to help reduce disorientation when the student switch in and switch out many interfaces while studying.
During the reading progress, when students read a session, the system record start time and end time of each reading item, using time-based tracking technique. By analyzing data from the database, the system created a daily/ weekly/monthly time log of each reading session. The information of learning status (how much time did I spend on this reading session? How many percentages did I actually learn compared to the plan) was represented to students in the module of status, specifying which current page he was at; comparing to the page position in his plan.
Status module was composed of two sub-modules: my status & friend's status, with purposes of reviewing schedule and take adaption when student feel necessary. Status module also plays a motivational role in doing time management.

2. Evaluation and Results

Five students participated into a pilot test. The pilot test use interview and observation methods and intended to answer the three questions

2.1 Student's current planning situation

Most of the participants were found not doing time management in studying. They remembered the deadline and arrange their time to do the task just before the deadline, based on the important level of the task. When asking about their schedule-controlling in the past experience. Participants were reported often failed to meet a deadline in their studying plan. They put off their task because they cannot finish it as scheduled. Most of the participants did not aware of improving the situation by using different time management skills. They did not have the motivation.
Below is the common information that participants reference when making plan. Besides the table of contents, title of chapter, page number, and further information in the reading are considered. The number of the occurrence of each behavior is A=57.1 % B=14.2 % C=14.2 % D=14.2 %.

- Behavior A: Using the table of contents to know the structure of the textbook, and then checking the page number to estimate time of reading.
- Behavior B: Reading the table of contents, turning each page to get more information on the reading, and then checking the page number to estimate time on reading.
- Behavior C: Looking at the table of content, then go to check each title and then checking the page number to estimate time on the reading.
- Behavior D: Looking at the title, page number and scanning in the content of the reading to measure time on the reading.

2.2 The usage of time-scheduling system

When participants used the system with SQ3R method, they reported that using SQ3R learning strategy in the time-scheduling system was helpful. Because they could measure an amount of time on each reading session more concretely when seriously follow each step of SQ3R method to allocate time. However, participants reported that they encountered difficulty in measure time on questioning step, especially in the first time of surveying. Because questioning while reading also were not their studying habit, but 100% of

participants agreed that questioning is not only useful for studying effectively, but also can assist them in evaluating and focusing time on the key points of content.
The status–checking function was reported to stimulus participants in doing time management. However, 100% of participants suggested including this status-checking function in the planning interface for referencing from the beginning of scheduling. Especially, 100% of participants ask to have a note-taking function in this time-scheduling system. They felt that the note-taking function can only engage them in learning, but also convenient to make a note of schedule adaption while reading. Because participants felt being distracted when coming back to the planning interfaces for adapting time while they are reading.
Participants also gave valuable suggestions on designing a more interactive interface such as including sound and animation for reminder function that we did not have in this version. These comments and suggestions will be considered in the future version of the time-scheduling system.

2.3 Summary

The results showed that in both cases, participants did not finish all the reading in the schedule. However, there was a larger percentage of reading completion of using the system compared to the percentage of not using the system. 100% of the participants completed greater than 80% of the reading when using the system, while 100% of the participants completed smaller than 50% of the reading by using their own method. Three participants said that they were eager to use the system in their studying. Two participants agreed to use the system in their studying if the status-checking function and the interaction design of the interface were improved. Even though, 100% of the participants agreed that using the time-scheduling system with SQ3R was useful.

Acknowledgements

This project was supported by the National Science Council of Taiwan under contract numbers NSC 100-2811-S-008-001.