

Application of the Blackboard System in an EFL Course for Science and Engineering Students in China

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Abstract: In light of the growing popularity of the use of computer management systems (CMS) in higher education, this study examined Chinese science and engineering students' experiences and acceptance of the Blackboard system in an EFL course named *International Business Etiquette*. Sixty-one university students took part in the research. Survey and interview results showed students held favorable attitudes toward the Blackboard system. The participants also reported the integration of the Blackboard system with the course developed their English proficiency and knowledge of international business communication.

Key words: the Blackboard system, EFL, curriculum integration

1. Introduction

The developments in information technologies have created exciting opportunities in education and provided new possibilities in language teaching and learning (Alavi 1994; Hubbard 2005). With the advancement of computer technology, course management systems (CMSs) have become the most prominent and promising educational innovation since their development in the 1990s (Cappel & Hayen, 2004; Cloete, 2001; Leahy, 2004), and there is a growing number investigating the pedagogical effects of CMSs in the EFL classrooms (Mekheimer, 2012; Grgurović, 2013; Cheng, 2013). Among CMSs, the Blackboard system has been widely applied. This study investigated the application of the Blackboard system in an EFL course at a university in North China. It attempted to investigate how the system could be integrated with the teaching and further explored learners' experiences and acceptance of the integration.

2. Literature Review

In the last two decades, researchers around the world have fully studied the integration of modern information technology and education. Many researches have proven that in a less stressful e-learning environment, students could be more collaborative, and have more time for rehearsal before participating in class activities (Chun, 1994).

A course management system is defined as a software system that is specifically designed for staff and students to use in teaching and learning (Morgan, 2003). It contains common tools such as course content organization and presentation tools, communication tools, student assessment tools, gradebook tools and functions. A number of empirical researches have been conducted on the adoption of CMSs in language courses for specific skills (Chan, 2014; Mekheimer, 2012) and strategies used among EFL students (Tsai, 2014). In China, CMSs were also used and discussed in literature for English majors (Wu, 2009). Among the CMSs, the Blackboard system is widely used around the world and has become common for teachers, especially in higher education contexts (Ene & Upton, 2014).

This study aims to investigate science and engineering students' acceptance of and attitudes towards the Blackboard system for the integration with an EFL course named *International Business Etiquette*. It was primarily guided by the following two research questions:

1. How can the Blackboard system be integrated with the course?
2. What is the students' acceptance of the Blackboard system as an extension of the EFL course?

3. Methodology

3.1 Research setting and participants

The empirical research was conducted from February 2015 to June 2015 and took 2 hour per week at a comprehensive university in North China. 61 junior undergraduate students (Male=35, Female=26) enrolled in the EFL course and participated in the research.

3.2 Procedure

An orientation session was conducted at the beginning of *International Business Etiquette* course. In that session, students were required to get familiar with the course functions of the Blackboard system. During the semester, students conducted course assignments via the Blackboard system, and presented in class under the direction and supervision of the instructor. Some of their performances and presentations were filmed and shared with other students on the Blackboard system. Assessments were based on students' attendance, performances, and their engagement in the supplementary online exercises and activities on the Blackboard system. At the end of the semester, a survey and a face-to-face interview were used to collect quantitative and qualitative data.

3.3 Application of the Blackboard system in International Business Etiquette Course

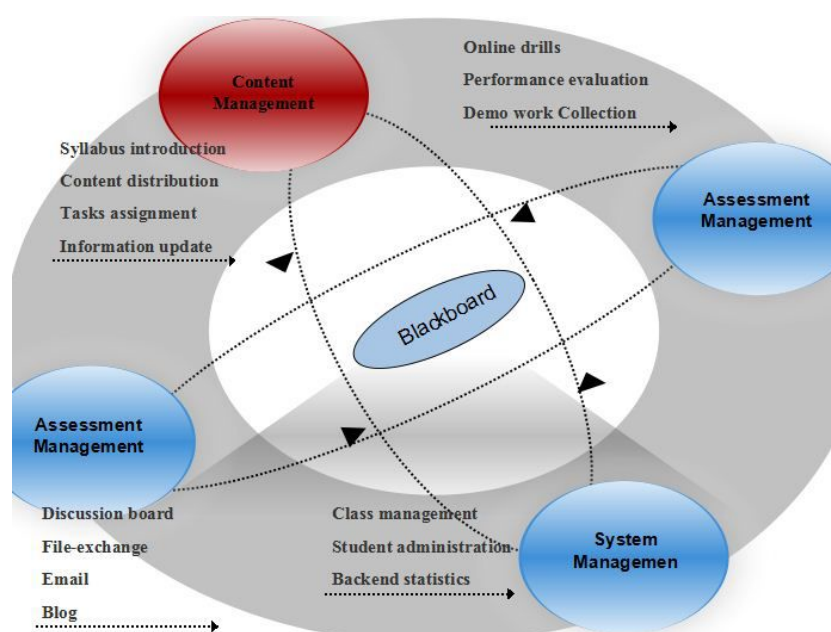


Figure 1: Modules and Functions of the Blackboard system.

The Blackboard system is organized to manage all kinds of online teaching resources and provide a new model for the integration of information technology and EFL curriculum. Like all course management systems, the Blackboard system can enhance instructors' management of assignments, their asynchronous communications with students and create an online learning community and provides opportunities of collaboration (Chang & Hao, 2008). Meanwhile, through tracing online discussion, the instructors can find students' interests and concerns, adjust the teaching strategy, constantly update the teaching mode, and accomplish a better integration.

4. Results and Discussion

Quantitative and qualitative data were collected through a survey and an interview. The questionnaire was originally developed by Davis (1989) and Zheng (2015) about users' satisfaction on online platform. A 5-point Likert scale ranging from one (Strongly Disagree) to five (Strongly Agree) was used to gauge students' views of the Blackboard system.

Table 1 shows the result of the learners' acceptance of the Blackboard system which based on the three dimensions: perceived usefulness; perceived ease of use and learning

satisfaction. Using SPSS for processing, we can see that the data have high reliability as 0.82(max) and 0.74(min). The results show that students held positive attitude toward the use of the Blackboard system in the EFL course. However, students gave relatively lower score on “ease of use” (Mean=2.95), which indicates that it is urgent for the Blackboard system to be more user-friendly.

Table 1. Results of Questionnaire on Learners’ Acceptance of the Blackboard System.

Dimensions	No.	Questions	Mean	SD	Cronbach α
Perceived usefulness	1-5	I think Blackboard is useful for improving my oral English.	3.07	0.91	0.82
		I think Blackboard is useful for improving my English proficiency.	3.36	0.82	
		I think Blackboard is useful for enhancing my interest and motivation in English learning.	3.15	0.98	
		I think Blackboard is useful for enhancing my interest and motivation in International Business Etiquette learning.	3.66	0.93	
		I think Blackboard is useful for developing my intercultural ability.	3.30	0.95	
Perceived ease of use	6-10	I think Blackboard platform is very easy to use.	2.95	1.07	0.74
		I think it is easy for me to learn how to use Blackboard platform	3.26	1.09	
		I think the interface of Blackboard is friendly.	3.33	1.06	
		I think the functions of Blackboard can meet my requirements.	3.33	1.00	
		I think I can learn to operate Blackboard skillfully soon.	3.39	1.04	
Learning satisfaction	11-14	I am satisfied with English learning on Blackboard.	3.10	0.91	0.76
		I am satisfied with international business etiquette learning on Blackboard.	3.44	0.92	
		I would like to keep using Blackboard to study English.	3.07	0.95	
		I would like to keep using Blackboard to learn international business etiquette.	3.13	0.94	

In order to secure in-depth understanding of students’ attitudes towards the Blackboard system, a 30-minute interview was conducted after the survey. Based on Yu’s study, students’ satisfaction with the technology, as well as their intention to adopt it, largely depended on their attitudes towards the systems (Yu et al., 2010). From the interview, we found that learners were more willing to use the Blackboard system for diversified learning. Most of the students expected to improve speaking and listening to “communicate with foreigners freely in English in Business settings”. Students realized that there is still room for improving the Blackboard’s ease of use. As far as our university is concerned, students suggested that the school should invest funding to maintain and update the system regularly; Moreover, the administration office should provide technical solutions so that teachers and students can enjoy the benefits of CMSs without being overwhelmed by technical difficulties (Curti & Shinall, 1987; Decoo & Colpaert, 1999).

5. Conclusion

The purpose of college English education is not only to improve learners’ English proficiency, but also help them to communicate effectively in the target field. This study employed mixed methods and provided a better comprehensive understanding of the students’ experiences and perceptions of using the Blackboard system in an *EFL* course. The findings indicated that the students in this study generally held positive attitudes towards the Blackboard system, most of students admitted they had improved personal qualities and developed English skills via the Blackboard system. Future research should employ a wider range of participants. More in-depth qualitative studies are also recommended to explore the issue.

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