Chapter 76

The Study of the Relationship among Learner–Content Interaction, Learning Performance, and Learner Satisfaction in a Blended Learning English Class in a Rural High School

Jiyou Jia
Peking University, China

Yuhao Chen
Peking University, China

Zhuhui Ding
Peking University, China

Xuemei Cui
No. 1 High School of Huojia County, China

ABSTRACT

Learner-content interaction is one of the four interaction types in computer assisted instruction systems. "Without leaner-content interaction, little or no learning will occur" (Moore, 1993). The authors developed a web-based vocabulary and listening learning and assessment system for English instruction, which focuses on the learner-content interaction based on the behaviorisms learning theory. The authors integrated it into a normal English class weekly for a term in a high school located in a rural province in China. They analyzed the student exam scores, the student survey answers, learner-content interaction records in the learning system, and their relationship using statistical software SPSS. The research reveals that there exists almost significant positive correlation between learner-content interaction and learning performance, but there is not any correlation between the learner-content interaction and learner satisfaction. The survey results also demonstrated the learners' satisfaction with this interactive learning system. The reasons for those findings are analyzed. Finally, limitations and further work are discussed.

INTRODUCTION

Taking the definition of Wagner (1994), interactions are defined as "reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence each other." This definition focuses more on the "learning events" than the "media" of interaction.

Four types of interaction occur in computer assisted learning systems, e-learning platforms and web-based learning. They are learner-content interaction, learner-learner interaction, learner-teacher interaction and teacher-content interaction. Learner-content interaction involves such activities of the learners as reviewing learning content expressed in various media formats from traditional textbooks to modern multimedia, understanding the content, doing exercises, writing assignments and examinations, reading the feedback from the teacher or the content provider about the results of exercises, assignments and examinations.

Learner-content interaction is the most basic and fundamental one among the four types of interactions, is the prerequisite of learning and teaching. Moore (1993) explained that without learner-content interaction, little or no learning will occur. In traditional classroom settings, learner-content interaction happens between students and textbooks, students and blackboards, students and teacher's speech and body language, students and exercise books, students and examination papers. The feedback about the results of exercises, assignment and examinations is normally realized through the teacher's participation, because the teacher corrects and scores the exercises, assignments and examinations. The feedback is often delayed due to the one to more teacher-student ratio.

Modern information and communication technology changes learner-content interaction. In PC-based computer assisted learning program, learner-content interaction happens between a learner and a computer, i.e. learner-content interaction is in fact the concretization of human-computer interaction. In web-based e-learning systems, learner-content interaction happens between a learner and the server via the help of the client machine. The feedback and scores about the exercises, assignments and exams can be instantly given back to the learner, only if the answers of the exercises, assignments and exams can be well defined by the teachers or content providers, and can be stored in the computer. Moreover, in traditional classroom settings, the teacher assigns the same exercises and exams to all students due to time limitation. On the contrary, in computer or web based instruction systems, the exercises and feedbacks can be tailored to each learner.

This instant and automatic feedback and personalized exercises are the unique characteristic of computer or web based instruction system compared with traditional teacher-driven classroom. It can not only stimulate the learners to work hard and efficiently on the learning content, but also reduce the teacher's precious time and work on correcting and scoring students' exercises, assignments and examinations.

RELATED THEORIES AND WORKS

The main underlying learning theory for learner-content interaction in computer or web based instruction system is behaviorism. Behaviorism originated with the work of John B. Watson, an American psychologist. Behaviorism is a worldview that operates on a principle of "stimulus-response." All behavior was caused by external stimuli (operant conditioning).

In learner-content interaction of traditional classroom settings, the external stimuli that can motivate the leaners include the teacher's score and feedback to exercises, assignments and exams. Appropriate and ample stimuli can inspire the students to explore the learning content and produce more learning outcome. In computer and

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