The Use of Interactive Whiteboard in English Vocabulary Acquisition and Learning Effect on Students with Different Proficiency Level

Yu-Liang Ting, National Taiwan Normal University, Taipei, Taiwan
Yaming Tai, National Taipei University of Education, Taipei, Taiwan
Hsin-Yi Lin, Daan Elementary School, Taoyuan County, Taiwan

ABSTRACT

The integration of technology into English teaching is a trend in primary education. The purpose of this study is to explore how the interactive whiteboard (IWB) can be used in the teaching and learning of English as a Foreign Language. Through a wide range of interactive hands-on activities, the IWB’s features are illustrated for the design of English vocabulary learning. The students’ pretest and posttest vocabulary knowledge as well as data gathered from their feedback questionnaires were analyzed quantitatively. In addition, high and low achievers were interviewed for identifying the factors which influenced their preference of IWB activities. The results indicated that participants responded positively toward IWB enhanced vocabulary instruction. Students’ vocabulary knowledge has achieved significant improvement in associating word sounds to word forms as well as matching word forms to word meanings. The quantitative results show that the preferred IWB activities were strongly influenced by students’ language proficiency. Related suggestions are made in how to integrate IWB into vocabulary teaching.

Keywords: Educational Technology, Interactive Whiteboard, Language Learning, Learning Feedback, Vocabulary

INTRODUCTION

The rapid development of information and communication technology has not only opened up new opportunities for learning but also revolutionized the way of teaching. Among the new available technologies, the interactive whiteboard (IWB) has attracted attention in education as the UK has installed IWBs on a massive scale in both primary and

DOI: 10.4018/ijicte.2015040104
secondary levels under government initiatives (Beauchamp & Parkinson, 2005). While many are still skeptical about the educational value of IWB (Maddux, Johnson & Willis, 2001), other researchers have claimed that IWB is useful for raising the level of student engagements and streamlining the lesson planning (Gillen et al., 2008). IWBs can motivate pupils because lessons are more enjoyable and interesting, resulting in improved attention and behaviour (Smith et al., 2005).

In the search for new methodologies and tools that improve English as a Foreign Language (EFL) students’ learning process, the interactive features of IWB seem to offer great potentials in both motivating and facilitating learning as students appear to enjoy multimedia and hands-on activities. Mathews-Aydinli and Elaziz (2010) found that both students and teachers have generally positive attitudes toward the use of IWBs in language instruction and are aware of the potential uses of this technology. IWB’s capability in integrating multimedia seems to offer EFL teachers the opportunities to communicate the meaning of vocabulary in a more effective and attractive way, while increasing learning interactivity.

However, there is little understanding about learning interactivity, which focuses on the technical or physical interactivity between students and technology tools. Aldrich et al. (1998) suggest moving the emphasis away from the level of physical interactivity at the interface to a focus on cognitive interactivity. The design focus of technology tools should be the potential of the technology for encouraging cognitive interactivity, associated with learning processes involving construction of knowledge (Cutrim, 2008).

When learning a new language, vocabulary development is crucial. The lack of needed vocabulary is the most common cause of students’ inability during communication activities (Chastain, 1988). Many researchers have advocated that explicit, direct vocabulary instruction is urgently essential to help EFL learners develop their vocabulary (Nation, 2001; Schmitt, 2000). Thus, how to assist EFL learners in acquiring vocabulary in a more effective way has become a major concern for teachers (Oxford, 1990). However, for meeting the learning needs of all students, teachers have been troubled by gaps among students’ various English proficiency. Among the factors related to English ability, the vocabulary skill between high achievers and low achievers is often discussed (Kail & Leonard, 1986).

For beginning level of EFL students, vocabulary building is important for future academic success. Currently, most of the IWB research is focusing on students’ overall English performances; there is a lack of research on the influences of IWB features on specific skills of vocabulary learning in an EFL context. The interactive functions of IWB allow teachers to design specific activities to stimulate students to practice their word retrieval skills. Moreover, for designing a suitable vocabulary instruction for high and low achievers, teachers need to understand students’ learning preferences and needs. Thus, this study aims to explore the use of IWB on helping students’ vocabulary learning and their learning preferences, especially for the high achievers and low achievers.

**VOCABULARY LEARNING**

In the vocabulary learning, students who have not been directed to attend to the form of a word or do not notice and/or negotiate the meaning of a word will not learn a word (Schmidt, 1994). Knowing a word should involve knowing the word spelling, pronunciation, collocations, and appropriateness (Nation, 2001; Schmitt & Meara, 1997). Nation (2001) has provided a list of different kinds of knowledge that a person must master in order to know a word. The knowledge includes form, meaning, and use. These aspects of word knowledge are also interrelated. It is also important to understand a phonological pathway mapping between letters and sounds and a semantic pathway mapping between letters and sounds via meanings. Such interrelationship of vocabulary knowledge is helpful when single-word reading is held.
Related Content

Virtual School Administration
[www.igi-global.com/chapter/virtual-school-administration/12064?camid=4v1a](www.igi-global.com/chapter/virtual-school-administration/12064?camid=4v1a)

Collaborative E-Learning Using Semantic Course Blog
[www.igi-global.com/article/collaborative-learning-using-semantic-course/1731?camid=4v1a](www.igi-global.com/article/collaborative-learning-using-semantic-course/1731?camid=4v1a)
Learning Experiences in Developing Electronic Portfolios
www.igi-global.com/article/learning-experiences-developing-electronic-portfolios/2295?camid=4v1a

Innovation in Web-Enhanced Learning
www.igi-global.com/chapter/innovation-web-enhanced-learning/12242?camid=4v1a