Chapter 21
Task-Based Learning with Interactive ESP Courseware Integration in Higher Vocational Education

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ABSTRACT
This chapter reports on integrating a self-developed interactive courseware of English for Specific Purposes (ESP) into a self-study and elective course “English Reading for Technology” offered for sophomore students in the Applied Foreign Languages Department (AFLD) of a vocational university in Taiwan two hours per week for twelve weeks. A Computer-Assisted Language Learning (CALL) approach combined with a Task-Based Learning (TBL) approach was adopted. The course mainly focused on vocabulary, reading, and comprehension. Evaluation of implementing these Information and Communication Technologies (ICT) into ESP instruction with courseware integration was based upon data from a variety of pre- and post-tests including cloze, listening, writing, and Q&A. Meanwhile, a traditional teacher-centered Face-to-Face (F2F) instruction was conducted as a control group. The learning effectiveness in most of the post-tests under both instructions has been significantly improved. Students under the ICT instruction with courseware integration made as much progress as those did under the F2F instruction, suggesting that the well-structured courseware offered a potential solution to problems in the development and expansion in frequency of ESP courses in Taiwan by playing the role of an adjunct teacher, peer, and facilitator, through which students were able to practice language skills and learn content knowledge. Most students were satisfied with practices for learning English skills and professional knowledge provided by the courseware and had a positive attitude toward such ICT instruction. In addition, students used reading strategies to a high degree, and the most-commonly used reading strategies were cognitive, memory, and compensation, but social-affective strategies were least frequently employed.

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INTRODUCTION

The aim of the current study is to understand whether or not AFLD students of a vocational university in Taiwan can benefit from integration of a self-developed interactive ESP courseware into an elective course “English Reading for Technology” in which computers play a central role as the means of information delivery, as a way to help students enhance their content knowledge and improve relevant linguistic fluency through their direct interaction with the courseware. Students’ learning satisfaction and strategies toward such courseware-supported ICT instruction are also discussed. Meanwhile, a traditional teacher-centered F2F instruction was conducted for a further comparison.

BACKGROUND

With the development of global markets and internationalization of trade, English language skills are an important tool for competing in the global economy (Graddol, 2006). Competence in English also plays a pivotal role in the success of many careers. One of the goals of foreign language education identified by the Ministry of Education of Taiwan for vocational educational programs is to provide students with the foreign language ability and advanced professional knowledge necessary to succeed in the job market. Meanwhile, the Ministry emphasizes that the principles for curriculum design of technical and vocational universities must be based on the needs of industry. This development trend has caused ESP instruction to be more greatly-emphasized at technical universities in Taiwan (Chang, 2010; Tsai, 2009; Tsai & Davis, 2008).

In general, students in higher vocational education receive a lower public investment compared with their counterparts in higher traditional education. On average, they have a lower level of academic achievement, and spend less time and get less involved in their schoolwork (Lee, Shen, & Tsai, 2008). Thus, it is essential to help them develop more compete and competitive skills. In addition, there are some problems in the development of ESP courses in vocational education in Taiwan. After investigating the relationship of the English proficiency level of about 350 students in four universities of technology, their needs when taking ESP courses, and their expectations of an ESP teacher, Lai (2005) found that: (1) learners’ main reasons for taking ESP courses are their relevance for future jobs in business or technology; (2) sufficient qualified teachers, authentic materials and specific knowledge were not provided; (3) the target need of students taking ESP courses is to be able to apply language skills such as listening, speaking, reading and writing.

In recent years, with the rapid development of emerging technologies, ICT integration into teaching and learning has increasingly been popular by providing learners and instructors with numerous advantages in the areas of contextual, active, self-paced and individualized learning, and automation. Wang (2008) proposed a generic model including three key components: pedagogy, social interaction and technology, for guiding teachers in effective integration of ICT into teaching and learning. The pedagogy refers to support and scaffold students during learning processes by using teaching strategies, techniques or approaches to deliver instruction or facilitate learning. The social component focuses on providing a safe and friendly learning environment in which learners are willing to share information and in which they can also easily communicate with others. The technological component stresses availability and easy access to an online learning environment to make learners more motivated and engaged in learning.

Courseware is widely used in higher education as an integral part of the courses. The integration of multimedia courseware into instruction has become a very effective ICT tool for learning (Roblyer, 2003; Rosenberg, 2001). Tsai (2010; 2011)