Abstract

Students’ English proficiency in technical colleges in Taiwan is lagging behind their education level. How these students can be helped has become a great concern for teachers and the education authorities. This study gauged students’ attitude toward the use of CALL to supplement their learning in Freshman English class. The researchers created a website at the National Kaohsiung University of Applied Sciences, which contained six types of exercises based on the contents of the Freshman English textbook. Six classes of Level-I students, a total of 373 students, were encouraged to use the website for three months and then answered a questionnaire. The results showed that (1) 66% of the students (N=247) had used the website; (2) 31.58 % of the users (N=78) visited the website for over two hours a week; (3) among the users, more than 70 % responded that the website helped them learn English more effectively; up to 90 % of those visiting the website for over two hours a week showed a positive attitude toward it; (4) around 40 % of the users and 90 % of those visiting for over two hours a week said that the website could boost their confidence and interest in learning English; and (5) a correlation analysis shows that the more frequently the users visited the website, the more favorable the attitude they held toward it. The results indicate that teachers can design textbook-related exercises to reinforce students’ learning outside the classroom. Through repetitive training, students may get better test results and have a higher self-efficacy. This will increase their interest and confidence in learning English.

1 Introduction

College students’ low English proficiency has received increasing attention in Taiwan these years. In 2000 and 2001, the LTTC (Language Training and Testing Center) involved 9,527 students from 85 technical colleges in Taiwan in a test equivalent to the GEPT beginners’ level, a level junior high school graduates are supposed to reach. (GEPT, the General English Proficiency Test, is a standardized test developed by the government of Taiwan to encourage people to learn English and get an accreditation.) The result of the test indicated that, except in the department of foreign languages and of tourism, the percentage of college students who passed the test in all other departments did not exceed 20 %. Since a majority of students on the technical education track lack adequate English proficiency, the school authorities have taken some actions. For example, a large number of universities require students to pass certain standardized English proficiency tests before graduation, called the “graduation threshold.” Such a policy, however, is more stimulating to high English proficiency students.
For low proficiency students, the effects are rather limited (Hsu & Wang, 2006). Apart from the graduation threshold, various remedial courses are offered to help low proficiency students. Students are invited to join a course lasting several weeks to learn basic language skills or to review and reinforce what they learn in regular classes. As the class of remedial course is smaller, the teacher can give individual attention and assistance. Therefore, this kind of course is welcomed by students. Most importantly, the students’ academic performance improves conspicuously after taking such a kind of course (Sheu, Hsu, & Wang, 2007).

Offering extra courses is certainly an effective way to improve students’ language skills. But, due to the extra costs and limited staff, not many schools can do it regularly. Recently, a policy – ability grouping – has gained popularity among Taiwan colleges. Students are placed in different English classes according to their proficiency levels. In this way, high-proficiency students receive instructions that suit their level while the lower-proficiency ones are given easier materials to learn. This may benefit the low proficiency students, too. Taking into account both its advantages and disadvantages, this policy is favored by both teachers and students (Sheu & Wang, 2006, 2007).

Although ability grouping reduces learning pressure on low-proficiency learners, some problems remain. The large class, usually comprising over 50 students, prevents students from receiving individual assistance when needed. Moreover, the limited class time – two hours per week – make it impossible for students to get immersed in the language. When there are too many students but too little time, and extra courses are not available, teachers will have to find ways to engage students in reviewing and learning the course with as much time as possible outside the class, if they want to improve the students’ English language skills. To achieve this purpose, web-based learning might be a good choice.

2 Literature review

2.1 Unsuccessful English learners

A great number of researchers have attempted to identify the problems confronted by low English proficiency students by examining the differences between successful and unsuccessful learners. These two groups of learners are usually distinguished by their academic performance in tests, examinations, or learning tasks. Studies found that major differences lie in aptitude (Skehan, 1998), learning strategies (Abraham & Vann, 1987; Gan, Humphreys & Hamp-lyons, 2004; Green & Oxford, 1995; Oxford, 1990; Wen & Johnson, 1997), beliefs (Huang & Tsai, 2003), and learning behaviors. For example, the behaviors of underachievers have some characteristics. They lack good learning attitude, motivation, or persistence. In class, they need more personal attention, take longer time to finish a learning task, often skip class or attend class late, and often delay or do not submit homework assignments (Chang, Chiu, & Lee, 2000; McLaughlin & Vacha, 1992; Slavin, 1989). The inability to use English learning strategies is also common among low English proficiency students. Ho (1999) surveyed students of a technical college in Taiwan and found that there exist significant differences between proficient and less proficient learners in their use of English learning strategies. Chen and Huang (2003) made a similar comparison and the results show that students with high English proficiency reported higher frequency in language learning strategy use than did low English proficiency students.

As learning is a culturally bound behavior, two studies shed much light on the issue by focusing on Chinese students as EFL learners. Huang and Tsai (2003) surveyed and interviewed 89 senior high school students in central Taiwan to compare the high and low English proficiency learners’ beliefs. They discovered that low proficiency learners believed that they lacked the special abilities to learn English well, that learning English was really difficult, that translation was an important skill to help them grasp the meanings of English texts, and that they are not able to speak any English to communicate with others.

In a study similar to Huang and Tsai’s, Gan, Humphreys, and Hamp-lyons (2004) examined learners’ attitude, strategies, and motivation by engaging 18 college students from Hefei, China, through interviews and diaries to distinguish between successful and unsuccessful EFL students.
They found that unsuccessful students commonly put emphasis on vocabulary and grammar. These students “have a deep-seated belief that a basic vocabulary must be mastered before any other learning activity could take place” (p. 235). Moreover, the students generally experienced “a sense of learning helplessness" and "loss of confidence” (p. 236). As for strategies, unsuccessful students did not take any measure to reinforce their vocabulary or use cognitive strategies to preview and understand a lesson (p. 236). The study also pointed out that these learners lacked self-management ability and the initiative to improve their English through their own efforts. Finally, according to the study, due to their passive and frustrated learning process, the unsuccessful students had almost no motivational experiences to keep them moving on in learning.

2.2 Motivation and achievement

As the foregoing section shows, unsuccessful learners’ lack of learning motivation hampers their learning. The word “motivation” refers to an inner drive that moves one to a particular action (Dornyei, 2001). Studies have found that motivation plays a significant role in deciding the learners’ achievement in language learning. According to Gardner (1985) and Dornyei (2001), second language achievement is associated with language attitude, motivation, and anxiety. Another study revealed that achievement and motivation influence each other, particularly in some affective variables (Gardner, Masgoret, Tennant, & Mihic, 2004).

Psychologists have tried to define what constitutes motivation (Dornyei, 2001). Among the various theories, the self-efficacy theory deserves special attention because it explains the important role that confidence plays in a person’s language learning. According to Bandura (1993), people’s cognitive performance is related to their self-efficacy, which is determined by one’s previous performance, vicarious learning, verbal encouragement by others, and one’s psychological reactions (e.g. pleasure or anxiety). In other words, if people lack successful or pleasant learning experience, they will no longer believe in their own ability to learn and choose to give up quickly. As Ames (1986) pointed out, successful learning is related to earners’ beliefs and perceptions toward their own learning. A study by Tuckman and Sexton (1990) also uncovered a clear connection between self-efficacy beliefs and academic outcomes.

To help unsuccessful learners, it is important to improve their self-efficacy, or to boost their confidence, making them believe in their own ability. But how? Since motivation and achievement influence each other, one may consider using achievement to elevate motivation. Under such circumstances, a better learning result serves as a form of extrinsic motivation. In contrast to intrinsic motivation, extrinsic motivation is usually considered unfavorable (Brown, 1994). Nevertheless, some studies consider it a positive force. Deci and Ryan (1985) discovered that some extrinsic rewards, if properly situated, can be internalized and self-determined, to go with intrinsic motivation. Tuckman (1999) also argued, without attitude (self-efficacy), there is no reason to believe that one is capable of the necessary action to achieve, and therefore there is no reason to even attempt it. But, without drive (e.g. a certain reward such as getting a high score in tests), there is no energy to propel that action, he added.

According to some scholars (Ellis, 1994; Gardner, 1985; McDonough, 1986; Skehan, 1989), second language learning is a cyclic process: strong motivation, positive self-efficacy, and effective learning efforts may lead to increased academic improvements and feelings of progress, which may in turn enhance motivation and facilitate further effort. Pintrich and Schrauben (1992) also proclaimed that the value of an outcome affects students’ motivation; in other words, helping learners get a better academic outcome can enhance their motivation and lead to more progress.

2.3 Applications of computer-assisted language learning (CALL)

In 1983, the term computer-assisted language learning (CALL) was first used. The definition of the term is “any process in which a learner uses a computer and, as a result, improves his or her language …” (Beatty, 2003, p. 7). According to Kern and Warshauer (2000), CALL has gone through three phases and computers have been utilized in different ways for different purposes.
The first phrase was structural, or behavioristic. At that time, the computer was to provide drill and practice. The second phrase, or cognitive CALL, was prompted by the communicative approach to language teaching and learning. CALL programs emphasized interaction and offered communication exercises for learners to form a mental linguistic system. After 1990s, CALL moved into the current phase – integrative CALL, which is based on a sociocognitive view of language learning. Programs provide authentic discourse to help learners fit into the community.

In the three phases of CALL development, the computer played different roles, and the activities applied to language teaching and learning also varied. In the first phase, computer was presented as an interactive tutor evaluating students and providing subsequent activities (Fotos & Browne, 2004). With the pass of time, the activities became more diversified to include multiple-choice and true/false quizzes, gap-filling exercises or cloze, matching, re-ordering/sequencing, crossword puzzles, and simulations. The programs offering these activities were considered a supplement to classroom instruction rather than its replacement (Chapelle, 2001). In the second and the third phases of CALL, the computer is used as a tool or medium providing means for students to become active learners (Fotos & Browne, 2004). Applications of the computer include writing and word-processing, e-mail exchanges, use of multimedia, Web search, concordancing and referencing, test-taking, etc (Kern & Warschauer, 2000).

It is not without a reason that the computer in the first phase of CALL was compared to a tutor. The computer gives instructions for individual learners to follow. It adapts to learners’ pace and gives feedback in response to their action. The feedback makes learners know immediately if what they did is right or wrong. With feedback like “Wrong, try again,” the computer points out the existence of an error and urge learners to identify the problem by themselves, like in other types of CALL tasks. This will lead to greater learning gains (Chapelle, 2001). There are also comments to encourage learners or hints to help them out once they get stuck. Moreover, the feedback might contain further explanations of linguistic rules or other information to facilitate comprehension.

Although using online exercises to help student learn linguistic forms seems to belong to the early phase of CALL, such an application still has its value today. The first reason is that attention to form is essential for second language acquisition. Surveying many research studies, Chapelle (2001) pointed out that, even in tasks requiring meaningful language use, it is still necessary to direct learners’ attention to linguistic forms. Fotos (2001) also proclaimed that drill programs for grammar practice can promote acquisition by exposing learners to the materials repeatedly.

Other than facilitating language acquisition, online drills or exercises also benefit learners in the affective domain. For example, Healy (1999) found that the computer, in providing immediate feedback and presenting materials at the learner’s pace, encourages learner autonomy. Although exercises are not as interesting as games, they have something in common. Beatty’s (2003) description of the advantages of games can be applied to online exercises, too. First, both of them can be designed to suit users of different levels, giving clues when necessary and rewards for solutions through points or visual stimulation. Second, the computer enhances the learning process by allowing repetition. “The computer is endlessly patient and never grows bored” (p. 54). Third, to learners, if exercises are designed in the form of quizzes, they “appear to illustrate a learner’s progress and give some security against fear of more formal exams” (p. 54). Since the quizzes are not graded by teachers, the learners feel less threatened. In this way, they can be an effective tool to help low-efficacy and low-proficiency students.

Among the voluminous research on CALL, most focus on the use of the computer as a tool and medium. Very little attention has been paid to its role as a tutor through online exercises. The reason may be that the exercises are usually incorporated into an online course. For example, Murphy (2007) used multiple-choice reading comprehension exercises to prompt interaction between students in an online version of a reading program. In an action research study, Pilleux and Al-Ahamadi (2004) designed a website for students to access authentic materials after class and assessed comprehension with exercises. After all, both constructivist and behaviorist approaches can exist in the same course (Beatty, 2003). The fact that many English learning websites are using drills and practice to help learners, particularly in grammar learning, and that some researchers are
looking for ways to create more dynamic exercise systems in language learning (Galloway & Peterson-Bidoshi, 2008), online exercises still has a role to play in the current phase of CALL.

2.4 CALL and low English proficiency students

Studies have proved that using CALL in language learning has a positive effect. As Fotos and Browne (2004) pointed out, a large number of works for the past decade “strongly emphasize the significant role of CALL in developing linguistic proficiency and communicative competence in L2 learners as well as promoting increased levels of learner autonomy, motivation, satisfaction, and self-confidence” (pp. 8–9). Despite the generally favorable opinions, some researchers noticed the effects of CALL on students of different ability levels. The interaction of the effectiveness of CAI/CALL and ability level calls for continued analysis because of its importance for language minority learners, and EFL and FL learners (Dunkel, 1991). While some found no evidence of significant differences (Roblyer, Castina, & King, 1988), others suggested that slow learners and underachievers seem to make greater gains in learning as a result of using CAI than do higher-ability students (Fisher, 1983). Dunkel’s study (1987) also revealed that CAI may help underachieving students catch up in a non-threatening instructional environment.

Researchers generally agree that CALL helps low English proficiency students, but how should it be used? For low English proficiency students, simple and basic skills in technology are a pre-requisite. They will find it easier to pay attention to the learning content and to get feedback quickly, which helps boost their interest and self-efficacy. For this reason, the tutorial aspect of CALL can be helpful. In fact, doing exercises online enhances students’ cognitive ability. In an article to discuss learner training for effective use of CALL, Hubbard (2004) focused a section on tutorial CALL. According to him, tutorial exercises exemplify the key concepts of cognition: deliberation following the computer prompt and consolidation following the program’s feedback. While deliberation refers to the process from comprehending to acquiring long-term knowledge, consolidation is the process through which the learner reflects on the experience by raising questions, raising awareness, or associating new material with existing knowledge structures.

The tutorial aspect of CALL suits Chinese students in several ways. First, it simplifies the learning process. As Huang and Tsai’s research (2003) showed, low English proficiency students usually perceive English as difficult. Online exercises can make it seem easier. Secondly, the exercises are particularly useful for reinforcing vocabulary and grammar, which unsuccessful Chinese learners believe they must improve (Gan, Humphreys, & Hamp-lyons, 2004). Thirdly, low proficiency students are incapable of using language learning strategies (Chen & Huang, 2003), and doing online exercises helps them develop some of the strategies, including memory, cognitive, compensation strategies etc.

2.5 Attitude

To evaluate the effectiveness of CALL, students' attitude should be considered. According to Chapelle & Jamieson (1991), researchers investigate students’ use of CALL by posing questions concerning its effects on second language learning, students’ attitudes toward using CALL, and the learning strategies students use during CALL activities (p. 38). Stevens (1984) pointed out that whether CAI is effective depends on the crucial variables associated with students’ attitudes toward language. He suggested that researchers should begin to isolate and study cognitive and attitudinal variables and not just examine how a learner can do better in a multiple-choice test after taking a computer-based course.

This study, therefore, investigates low English proficiency students’ attitude toward using computer to review English lessons and reinforce their learning. The researchers set up a website based on the contents of Freshman English at the National Kaohsiung University of Applied Sci-
ences. Then, a survey was conducted on students’ perceptions of their own progress in linguistic knowledge and in confidence and motivation after using the learning website for over three months. The main purpose of this study is to better understand how teachers can help low English proficiency students by providing them with exercises online. This study intends to answer the following questions:

1. What is the percentage of users and non-users?
2. How much time do the users learn English on the website per week?
3. What is the users’ attitude toward the website?
4. Does the learning website help boost confidence and interest in learning English?
5. Is the users’ attitude toward the website related to the time they spent on the website?
6. Does significant difference exist between male and female users’ attitude and among engineering, management, and humanities students’ attitude?
7. What are the users’ comments and opinions about the learning website?

3 “KUAS English Web Learning Level I”

3.1 Background

Freshmen at KUAS are required to take a two-hour course to learn English. Since 2005, the school has adopted an ability-grouping policy for the English course and put the students into one of three levels – I, II, and III – according to the results of a placement test. Moreover, the same English textbook was used in the academic years of 2005 and 2006. The course aims at improving students' reading skills and building up their vocabulary. But teachers who teach classes of lower level usually have to help students with pronunciation and grammar as well. For this reason, the researchers established “The KUAS English Web Learning Level I”. It was part of a project sponsored by the Ministry of Education to enhance students’ English proficiency. The aim of the website was to reinforce the linguistic knowledge that low proficiency students generally lack and believe they should acquire (Gan, 2004).

The website was housed on the school’s server. The school allows faculty to apply for space to create personal webpages. The researchers used the space to set up the English learning website. With the aid of a professional homepage designer, the researchers completed the website in three months. They also used software such as Goldwave to record the pronunciation of the vocabulary and Hot Potatoes to create different types of exercises to be put onto the website. The researchers informed all the teachers of the English level I classes about the website. The teachers then recommended it to the students. After learning a lesson in class, students can visit the website to do exercises for the specific unit to review the lesson and consolidate their learning.

There are some features in the function of the KUAS Web Learning Level I. First, this website is targeted at a specific group of learners. It meets the learners’ needs more precisely. Next, the website attracts low English proficiency students because the contents are identical to what they learn in the classroom. Third, the online exercises on the website allow low-proficiency students to practice repeatedly at their own pace. The lack of time pressure and threat makes learning more enjoyable. Besides, the layout of the website is simple and clear, making it easy to use. Last but not least, the website provides students with opportunities to use English learning strategies, such as context clues (memory), practicing repeatedly, recombining (cognitive), using clues (compensation), paying attention, focusing on listening (metacognitive), lowering anxiety (affective) and so on.

3.2 The design of the website

The learning websites comprises two sections: (1) “Freshman English” and (2) “Online Resources”. In “Freshman English”, there are 12 units based on the textbook Active: Skills for Reading, Book 2 (see Fig. 1).
3.2.1 Freshman English

When a student clicks on a unit on the left side of the homepage, seven sub-sections of the unit will appear: vocabulary pronunciation, crossword puzzle, vocabulary match, preposition cloze test, grammar quiz, and reading comprehension (see Fig. 2).

The first three parts help students learn vocabulary. The Pronunciation page shows a list of the new words in the lesson (See Fig. 3). The icon on the right side links to the pronunciation of the word recorded by the researchers. The students can learn the word by listening as well as pro-
nouncing repeatedly. This works like individual instruction, which is not available to students in a large class. Other than pronunciation, spelling is also stressed. After learning the new words, students can go to the Crossword Puzzle page to review them. If a student clicks a number in the puzzle, the clue comes out in the form of Chinese (See Fig. 4). If the student does not remember the word, a click on the button “Hint” provides the first letter of the word. After filling all the boxes, students click “check” to see what percentage of the answers is correct. Blanks with misspelled words will be left empty for students to try again.

Fig. 3: Vocabulary pronunciation

The third part is another exercise on vocabulary learning. It requires students to insert a word in a sentence. The Matching page shows sentences with a blank (See Fig. 5). Students click in the bar to get several choices. After picking up one choice for every sentence, students click the button “check” to see the answers. If the answer chosen is incorrect, it won’t appear and the students have to pick another answer for the sentence. This exercise helps students use context clues to learn the usage as well as the meaning of the word.
ter test results, which may lead to higher self-efficacy and increase their interest and confidence in learning, and then facilitate further efforts (Ellis, 1994; Gardner, 1985; McDonough, 1986; Skehan, 1989). The good outcome of tests is a good way to change learners’ beliefs, elevate their self-efficacy, and facilitate their learning. When they find that web-based practice can enhance their learning in the classroom, they could be more willing to access it.

6.2 Interest and confidence

The second implication concerns students’ interest and confidence. Although 66% of the subjects used the website, there remained 34% non-users despite the teachers’ recommendation. Moreover, only 31.58% of the users visited the website for over two hours a week, while 15.79% seldom got online to learn. The reason that students were reluctant to use the website could be severalfold: It might be that the design of the website could not attract their interest; the difficulty level of the exercise did not match students’ level; their learning style did not match the hands-on nature of the CAI (Oxford, 1990); or technical problems could not be overcome. Also, some comments stated that the website made using Hot Potatoes was not interactive or interesting enough. Whatever the reasons might be, a very important finding is that the more frequently the users visit the website, the more favorable attitude they hold toward it. These results indicate that attracting reluctant users would be an effective way to boost their learning. As the website was designed to extend students’ learning, enhancing the intrinsic or extrinsic motivation of users who visit less often or who never visited the web becomes a vital and challenging task. In this respect, it is suggested that teachers look for more interactive software to design more interactive activities or exercises. Moreover, they may offer some rewards to encourage online learning.

6.3 Teachers as web designers

A third implication concerns teachers’ role. Teachers are encouraged to be web-designers because they know students’ English level and learning pace the best. They can monitor students’ learning and adjust the website materials whenever necessary. However, designing web exercises takes a lot of time. It is highly recommended that several teachers teaching the same level of students work together. This not only allows them to brainstorm more ideas but also eases the workload.

7 Limitations

As this is the first online learning website established by the researchers, some technical problems remain to be overcome. It might also be one of the reasons why some students would not access the website. With more technical support, the website can be refined and the results might be different. For future research, the focus may be put on the difference in students’ English proficiency before and after using the website for a period of time and on the difference in progress between users who visit the website often and those who seldom access the website.

References


A Study of Low English Proficiency Students’ Attitude toward Online Learning


Appendix

A Questionnaire on Using KUAS English Learning Web

I. Personal Information
   1. gender: □ male  □ female
      2. college: □ engineering □ management □ humanities

II. Use of the Website
   1. I have used “KUAS English Learning Web” (www2.kuas.edu.tw/edu/english1)
      □ Yes  □ No
      (If you have never visited this website, don’t answer the following questions.)
   2. I use “KUAS English Learning Web” (hours per week)
      1. □ not often (less than 1 hour)  2. □ neutral (1~2 hours)  3. □ often (2~3 hours)  4. □ very often (over 3 hours)

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<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>NU</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<td>3. The website can help me learn English more effectively.</td>
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<td>(1) It can help me learn pronunciation</td>
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<td>(2) It can help me learn spelling</td>
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<td>(3) It can help me learn vocabulary</td>
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<td>(4) It can help me learn preposition</td>
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<td>(5) It can help me learn sentence structure</td>
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<td>(6) It can help me learn grammar</td>
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<td>4. The online resources can help me learn English.</td>
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<td>5. The website can help improve my English proficiency.</td>
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<td>6. The website makes me more confident in learning English</td>
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<td>7. The website makes me more interested in learning English</td>
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<td>8. My suggestions on the website: _______________________________</td>
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