

Gender Difference in CALL Programs for English as a Second Language Acquisition

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Abstract: The purpose of the study was to examine the effects of gender differences on the application of CALL programs for second language acquisition. Gender difference is an important theme in linguistic education because it influences the design of curriculum, teaching method, instructional strategy, and students' learning processes. This study applied a mixed-methods design, using both quantitative and qualitative methods, both descriptive and comparative in design. The participants were 200 students (male=34, Female=166) taking EFL courses and CALL programs in Wenzao Ursuline College of Languages in Taiwan. Findings from the study indicated that although 94% students (N=188) acknowledge that learning English with CALL programs can increase the efficacy of English learning, more 57.2% female students (N=95) than 11.7% male students (N=4) felt that learning English with computer is difficult because it requires the basic computer knowledge.

Introduction

A gender difference is a disparity between male and female humans. According to gender role theory, prevalent gender stereotypes are culturally shared expectations for gender appropriate behaviors. Females and males learn the appropriate behaviors and attitudes from the family and overall culture they grow up with, and so non-physical gender differences are a product of socialization (Eagly, 1989; Eagly & Karau, 2002). From the biological viewpoint, females and males also differ fundamentally in the cognitive ability and learning style. These differences derive both from basic physiological differences, such as differences in the development of brain, and from differences in higher-level cortical functions (Keefe, 1982).

No matter what gender differences are primarily culturally or biologically determined, educational research in the last several decades has proven that the gender differences manifestly influenced students' academic interests, needs, and achievements (Halpern, 1986; Collins, Kenway & McLeod, 2000; Swiatek & Lupkowski-Shoplik, 2000). However, different educational domains have different claims to the gender issue. The theorists of Second Language Acquisition (SLA) believe that female learners show possible superiority in their second

language learning process (Burstall, 1975; Boyle, 1987; Ehrlich, 2001). On the contrary, scholars of technology education deem that males have more positive attitudes than females in using computer technology to assist their academic learning (Misu Na, 2001, Li, 2002). Obviously, the educators of these two fields have opposite views in the impact on the efficiency of the learning in gender role.

In today's informational society, the learning approach is usually combined. The computer has now become the indispensable equipment and the influential component of second language learning pedagogy. Educators also recognize that utilizing Computers Assisted Language Learning (CALL) programs can be convenient to create both independent and collaborative learning environments and provide students with language experiences as they move through the various stages of second language acquisition (Kung, 2002; & Rost, 2002; Taylor & Gitsaki, 2003).

Lee (2000) further stated that the reasons why we should apply computer technology in second language instruction, include computer and its attached language learning programs can (a) prove practices for students through the experiential learning, (b) offer students more the learning motivation, (c) enhance student achievement, (d) increase authentic materials for study, (e) encourage greater interaction between teachers and students and students and peers, (f) emphasize the individual needs, (g) regard independence from a single source of information, and (h) enlarge global understanding.

Taylor (1980) also expressed that computer assisted language learning programs can be wonderful stimuli for second language learning. Currently, computer technology can provide a lot of fun games and communicative activities, reduce the learning stresses and anxieties, and provide repeated lessons as often as necessary. Those abilities will promote second language learners' learning motivation. Through various communicative and interactive activities, computer technology can help second language learners strengthen their linguistic skills, affect their learning attitude, and build their self-instruction strategies and self-confidence. According to Robertson et al. observation (1987), the participants who joined computer assisted language learning programs also had significantly higher self-esteem ratings than regular students. Therefore, whether ESL students leaning English with CALL programs will gain or counteract the learning efficiency due to their gender difference has become a significant issue of ESL instructions.

Purpose of the Study

The definition of gender role is a set of behavioral norms associated with males and females, respectively, in a given social group or system, and the root of the gender differences is often influenced by society (Reiter, 1975). According to Macleod et al. (2002), although the margin of gender differences is getting smaller with the changes of society and times, gender differences still play a great role in certain academic subjects to influence students' learning interests and outcomes, such as language, computer technology, science, and math. It means that the traditional sexual view not only influences students' learning perceptiveness, but also affects students' learning willing, attitudes, and motivation. This study attempted to gain a comprehensive understanding of what effects gender differences on the currently technological second language pedagogy and clarify the functions of CALL programs to assist Taiwan EFL students' learning in the future.

Research Questions

Quantitative:

1. What are the effects of gender differences on the application of CALL programs for Taiwan EFL students?

Qualitative:

2. What are the learning barriers on the application of CALL programs for Taiwan EFL male and female students?

Research Design

Mixed-methods methodology was utilized for the study. This type of design includes both quantitative and qualitative approaches, because each individual research approach has its weakness and strengthens. Taken together, they represent the full range of educational research methods (Gay & Airasian, 2000).

The quantitative component of the study was designed to identify the effects of gender differences on CALL programs for second language acquisition. Three class activities were designed by the researchers and demanded students to accomplish, including searching English learning materials from the Internet, using Microsoft Photostory3 software to produce an English video, and presenting a teaching lesson plan through Microsoft PowerPoint Producer. After these activities, a questionnaire entitled EFL & CALL Questionnaire was used to collect data. The data were analyzed based on the responses of participants to the questionnaire. Frequencies and percentages was used in the analysis of data to evaluate whether there were differences in the learning attitude, efficiency, and anxiety between female and male students toward the use of CALL programs for their English as second language learning. The qualitative component of the study involved ten EFL students' interviews in order to identify the problems and barriers for students learning English with CALL programs based on their genders.

Subjects of the Study

In the quantitative portion, the sample population of the study was 200 students (Male=34, Female=166) taking EFL courses and CALL programs in Wenzao Ursuline College of Languages in Taiwan during the fall semester of 2006. Participating students were asked to complete an EFL & CALL Questionnaire designed for this research. The participants of the qualitative study consisted of five male students and five female students from Wenzao Ursuline College of Languages. Interviews were conducted to explore their learning barriers on the application of CALL programs based on students' genders.

Instrumentation

The purpose of the quantitative instrument was to collect data concerning the differences in learning attitude, efficiency, and anxiety between female and male students toward the use of CALL programs for their English as second language learning. An EFL & CALL Questionnaire was created for the study as the instrument after reviewed the related literatures. It contained four

sections. Section one elicits demographic information that was be used to classify the students. Section two to four included 13 questions that examined students' learning attitude, efficiency, and anxiety when they learn English with CALL programs. Each question was answered on a Likert-type 5-point scale form. For the qualitative instrument, ten interview questions was structured but open-ended, which provided data concerning what learning barriers on the application of CALL programs for Taiwan EFL male and female students.

Results

Of the 250 surveys sent out, 200 were returned. The return rate was 80%. The findings of the study are divided into four areas: learning attitude, learning efficacy, learning anxiety, and learning barrier. The following is a summary of the findings.

Learning Attitude

Data collected from the questionnaire indicated that male and female students have different learning attitudes toward the use of CALL programs for their English learning. A majority of male (91.1%) students (N=31) felt that computer and its assisted learning programs are funny and useful, and they were willing to spend more than six hours pre week on the Internet or apply the CALL programs for their English learning. However, less than half female (42.7%) students (N=71) spent more than six hours pre week using CALL programs to enhance their English learning, and more than half female (57.2%) students (N=95) felt that learning English with computer and CALL programs is difficult.

Learning Efficacy

Data collected from the questionnaire indicated that male and female students have different opinions about the learning efficacy when they learn English with CALL programs. A majority of male (88.2%) students (N=30) acknowledged that learning English with CALL programs can increase the efficacy of English learning. However, only half female (53.6%) students (N=89) believed that the efficacy of learning English with CALL programs is not better than the traditional EFL instruction.

Most male and female students enjoyed learning language with computer, and only 11.7% male students (N=4) and 23.4% female students (N=39) who felt that learning English with computer is boring. More than 82.3% of male students (N=28) and 55.4% female students (N=92) believe that learning English with CALL programs can enhance their English reading, writing, and listening skills. However, only 41.1% male students (N=14) and 37.3% female students (N=62) felt that learning English with CALL programs can strengthen their English speaking skill. It means that the current CALL programs may be useful for the reading, writing, and listening skills training for EFL students but still have space to improve in the speaking training area.

Learning Anxiety

Data collected from the questionnaire indicated that male and female students have different perspectives of the learning anxiety when they learn English with CALL programs. Thirty two female students (19.2%) stated that learning English makes them more nervous than leaning English with an English teacher. Compared with male students, there are only five male students (14.7%) are uncomfortable when using CALL programs to assist their English learning.

According to Misu Na (2001), it means that male students often have more confidence in computer technology than female students. The confidence in technology and computer background can reduce the learning anxiety when students adopt CALL programs for their language learning.

Learning Barrier

According to the results of the qualitative interviews, participating female EFL students expressed that their main learning barrier for learning English with CALL programs is that they lack related computer technology knowledge training or they are not familiar with the procedures of computer learning software. On the contrary, male students showed more confidence of technology. The reason caused this difference may be due to male students are usually encouraged in technology learning and have more opportunities for technology practice. In addition, three male students in the interview indicated that the primary barrier for them using CALL programs to enhance their English learning is that the appropriate software of CALL programs is too expensive and often not available in school's computer labs. Therefore, the main problem for male students learning English with CALL programs is whether the software is available rather than their computer skills.

Conclusion

The findings of the study indicated that the gap of gender difference exists in Taiwan EFL students when they try to use computer technology and its assisted language learning programs to enhance their English language learning. Although both male and female students confirmed that CALL programs is helpful for strengthening their English skills, male students have more positive learning attitude and less learning anxiety toward the use of CALL programs for their English learning than female students. To overcome this gap, the researchers believe that the EFL teachers should create more training opportunities to increase female students' technology knowledge and computer skills. In addition, schools should purchase more CALL program software in order to increase students' English learning practices and reduce the learning barriers.

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