

Effects of Online International Peer Learning Program on Speaking Ability and Language Anxiety

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Abstract

This study aims to investigate the effect of online international peer learning program on speaking and language anxiety at the undergraduate level. A case study was employed with 32 undergraduate students from the Department of Applied Foreign Languages at a university in central Taiwan. The training course aimed to enhance students' English communication skills by facilitating interactions with online foreign peers. Quantitative data were collected by means of participants' oral proficiency tests as well as Foreign Language Classroom Anxiety Scale (FLCAS) given before and after the online peer learning program. A significant improvement in students' oral proficiency scores was found from pre to post-program assessments. While there was no statistically significant reduction in overall speaking anxiety levels, there was a noticeable decrease in anxiety levels following the intervention. Results suggested that the online international peer learning program effectively enhanced the speaking proficiency of English as a Foreign Language (EFL) students and, to some extent, alleviated their learning anxiety. Based on these findings, this study provides pedagogical suggestions for L2 practitioners.

Keywords

Language learning anxiety, peer learning

1. Research Motive and Purpose

Since nonnative English speakers currently far outnumber native speakers, English has become a global lingua franca. Interpersonal communication is common in English, and oral communication in English is often regarded as the primary goal of second language education (Hassani et al., 2020). Taiwan's education policy has adjusted and transformed because of the aforementioned factors, with English being adopted as a method for improving cross-cultural communication and a medium for learning (Hsu & Beasley, 2019).

International mobility and cross-cultural competence have become essential for international talents in the globalized world, and they are critical for university graduates entering the job market who hope to expand their employment opportunities. Nevertheless, the Department of Technical and Vocational Education in Taiwan has highlighted several challenges. They have pointed out that most students in technical and vocational college exhibit weak motivation to learn English, resulting in poor learning outcomes and hurdles in developing effective communication and expression skills.

Addressing these concerns, this study analyzed the effects of online peer learning on speaking ability and language learning anxiety in an oral communication course. The focus of this study was to promote students' foreign language communication and expression skills and to reduce their anxiety related to speaking English.

Many scholars of language learning theory have described speaking can facilitate learners to organize and link external contexts and as an indispensable component of social processes. Moreover, these scholars have observed that productive learning significantly contributes to language acquisition. Therefore, English oral production skills are a primary goal for many language learners and are a crucial linguistic ability. Scholars have proposed that cooperative learning can enhance learners' skills because it leads to learning experiences and enriches social communication. Cooperative learning also enhances language learners' oral and cognitive abilities (Tsai, 2019; Namaziandost et al., 2019). Based on the findings of previous studies, this study focused on past oral learning, computer-assisted language learning (CALL), peer learning, learning anxiety, and other learning factors in designing activities for teaching English oral communication that empower students to improve their oral communication abilities in a relaxed and stress-free environment.

2. Literature Review

Because of the importance of communication in globalization, English speaking ability has been incorporated into many standardized language proficiency tests. Oral performance has received extensive attention and is prioritized by most teachers and learners. However, many Taiwanese learners of English as a foreign language (EFL) have a weak English speaking ability. They struggle to overcome multiple speaking-related challenges, including a fear of public speaking, lack of confidence, lack of nonverbal communication skills, and unwillingness to communicate due to a fear of making mistakes (Rachayon & Soontornwipast, 2019). In the field of English teaching, speaking ability is regarded as a crucial means of verifying a learner's capacity to effectively use the target language. Consequently, many studies have evaluated the success of second language learning or foreign language learning by analyzing learners' conversation skills. However, oral ability is considered to be the most difficult skills to acquire among listening, speaking, reading, and writing (Abdulla et al., 2019).

According to scholars and researchers, listening and speaking are the most crucial linguistic skills in professional workplaces. Therefore, language teachers must prioritize these skills (Rachayon & Soontornwipas, 2019). Many teaching and research experiments have been conducted on methods for learning and teaching speaking through innovative curriculum design, teaching methods, teaching materials, and assessments.

Advancements in computer and network technology have led to computer-mediated communication (CMC) and CALL being increasingly used. Social networks and virtual communities have formed because of the ubiquitous use of CMC, which has led to societal transformation. Industrial technology has prompted many educators and social researchers to invest in CMC and CALL. Wu et al. (2013) recognized that the body of literature on the use of the Internet and technology in EFL teaching has grown (Liu & Chen, 2007; Payne & Ross, 2005; Tudini, 2003; Wu & Marek, 2009). Online teaching provides students with authentic interactive experiences (Bax, 2003; Sengupta, 2001), which can expand their perspectives, overcome the limitations of classroom learning, and enhance learning motivation (Dornyei, 2005; Lamb, 2004). Mahdi (2014) reported that many studies (Peterson, 2009; Mahfouz & Ihmeideh, 2009; AbuSeileek, 2007; Sha, 2009; Stewart & File, 2007) have revealed that online CMC can create a natural environment resembling the target culture that stimulates students' learning motivation, enhances their listening and speaking skills, promotes their cooperation in cross-cultural relationships, increases their confidence in learning, and enhances their awareness of the international community. Young and West (2018) argued that asynchronous multimedia oral communication can assist learners in developing their speaking ability and enhance their language self-awareness. Hsu and Beasley (2019) revealed that Taiwanese students hold strong positive views and attitudes toward cross-cultural CMC learning experiences despite encountering multiple initial challenges. Alghammas (2020) discovered that students enjoy engaging in a synchronous CMC dialogue and that such dialogues can improve learners' oral proficiency because they enables learners to choose topics and negotiate meaning during longer conversations with native speakers. Lenkaitis (2020) asserted that online peer communication is an effective synchronous CMC method, and it not only provides students with interaction and practice opportunities outside of the classroom but also improves their language communication skills.

The influence of technology has led to the development of technologized teaching methods. For example, the flipped classroom model is a technique that combines online and traditional learning, and flipped classroom technology is a key element of blended learning (Kawinkoonlasate, 2019). Rachayon and Soontornwipast (2019) reported flipped classrooms to involve student-centered learning and to therefore provide students with more opportunities for interactive learning. Knowledge is delivered through online media in certain flipped classrooms, which promotes the development of higher-level cognitive skills. Abdullah et al. (2019) investigated the effectiveness of the flipped classroom model on English speaking performance, and the results indicated a significant difference in students' oral proficiency test scores

before and after the study. That study also observed that students' participation, willingness, and performance in English conversation tasks gradually improved.

Many studies have demonstrated that peer learning can be applied in classroom learning and be integrated with computer-assisted and online courses (Tecedor & Campos-Dintrans, 2018). Taillefer and Munoz-Luna (2014) implemented an online language exchange program to promote cross-cultural communication. In the program, 20 Spanish-speaking students and Chinese-speaking students separately participated in online interactions in Spanish and English to enhance their second language learning. The online language exchange was focused on peer practice and involved online calls lasting at least 30 minutes, with each language practiced for at least 15 minutes. The results revealed that although strong accents can sometimes present challenges in language exchanges, using Skype calls can help learners practice listening and speaking skills and improve their communication skills to some extent. Tsai (2019) revealed that combining collaborative learning with English teaching is effective at improving foreign language learning (Chen, 1998, 1999, 2005; Chiu, 2002; Lai, 2002; Liang, 2002; Tsai, 1998; Wei, 1997; Yeh, 2004, as cited in Tsai, 2019) by facilitating students' understanding the learning content, increasing target language output, and leading students to employ different forms of language and oral communication. Hassani et al. (2020) contended that peer feedback has become an alternative or supplement to teacher feedback for second language learning output. Studies mentioned-above have investigated the use of peer feedback or computer-assisted language learning; however, many topics within the scope of second language acquisition research remain unexplored or insufficiently explored.

According to Chuang (2019), language learning anxiety is "anxiety and negative feelings and the fear of learning or using a nonnative language, especially in classroom situations where self-expression is involved" (MacIntyre & Gregersen, 2012, p. 103, as cited in Chuang, 2019). Researchers often measure learners' language learning anxiety by using the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz (1986). A study revealed that language anxiety not only has a wide prevalence among second language learners but also negatively affects their learning experiences (Daubney et al., 2017). The main source of language anxiety is difficulty expressing oneself in a nonnative language, and anxiety can affect learners' confidence, self-efficacy, and self-esteem (Horwitz, 2017; Gkonou, 2012; Sampasivam & Clément, 2014, as cited in Chuang, 2019). Chuang (2020) asserted that because learners may struggle to express themselves authentically in nonnative languages, they may become silent, fearful, or even panicked when participating in second language learning. Studies have revealed that anxious learners tend to have lower self-esteem (Gkonou, 2012; Liu & Jackson, 2008; Yan & Horwitz, 2008, as cited in Chuang, 2020). Chuang (2020) contended that Japanese university English learners with poorer speaking abilities had higher levels of language learning anxiety than their peers (Kitano, 2001).

The current study employed the action research method and investigated the effects of peer learning with online international partners on students' speaking ability and language anxiety. The participants were students in an English communication skills course (1st semester) in the Department of Applied Foreign Languages at Ling Tung University of Science and Technology. The research questions were as follows: (1) Do students' speaking abilities significantly differ before and after they participate in an international partner speaking course? (2) Do students' language learning anxiety levels significantly differ before and after they participate in an international partner speaking course?

3. Research Methodology

3.1 Research Participants

The research participants were 32 Taiwanese students from a technology university in central Taiwan who enrolled in an online international peer learning course. The course focused on English communication skills in the first half of the semester and intercultural competence training in the second half of the semester. None of the participants had taken similar courses previously. The students were 24 women and 8 men. Their English proficiency levels according to the Common European Framework of Reference for Languages were A1 (3 students), A2 (10 students), B1 (18 students), and B2 (1 student), indicating that most of the students had an intermediate English proficiency level, and the others had by a beginner proficiency level. The foreign peers were two women and four men from six countries, that is, Mandy from the United States, Andrew from Australia, Felix from Guatemala, Jan from Switzerland, Mathilda from Indonesia, James from Australia, Brian from Brunei, and Johnny from the United States.

3.2 Research Methods and Tools

This study measured students' anxiety levels with the FLCAS on a Likert scale with endpoints ranging from 1 to 5 (*strongly disagree* to *strongly agree*, respectively). This study employed the Chinese version of the FLCAS developed

by Chu (2008) to ensure the participants would understand the questionnaire items. The scale had a reliability level of 0.92. The collected research data were analyzed using SPSS software (IBM, Armonk, NY, USA).

3.3 Data Collection Procedure

The purpose of this study was orally explained to the students before the start of the course, and they were informed that participation in the research project would not affect their grades. Students who were willing to participate were asked to sign a consent form. A total of 32 students agreed to participate for 18 weeks per semester. In the first 9 weeks, the students were provided with regular instruction. They completed a pretest and a learning anxiety questionnaire in the first week and a midterm test in the 9th week. In the 10th week, the international peer platform was introduced, and seven international peer sessions were integrated into the course from the 11th to the 17th weeks. In the 18th week, the participants completed a posttest and a learning anxiety questionnaire. The course content encompassed English oral expression and communication skills.

3.4 Data Analysis

To investigate the relationship between speaking performance and language anxiety, the participants' speaking and FLACAS scores were analyzed using SPSS software. Paired sample *t* tests were implemented to evaluate differences in the students' speaking ability and language learning anxiety level before and after they participated in the English communication skills course with integrated online international peer learning.

4. Results and Discussion

This study conducted a speaking simulation test and introduced the online international student partners for peer learning in the semester. The same speaking assessment was conducted after the intervention, and two native English-speaking foreign teachers evaluated the scores in accordance with speaking assessment criteria. A total of 32 students participated in the assessment. The quantitative descriptive statistics (Table 1) indicate that the average score on the speaking pretest for English communication skills before the intervention was 77.88 (standard deviation [SD]: 6.95), and the average score on the speaking posttest was 82.25 (SD: 6.43). The paired *t* test (Table 2) revealed a significant improvement in the pretest scores compared with the posttest scores ($p < 0.05$). This finding is consistent with the significant improvement in speaking scores reported by Yeh and Lai (2019).

Table 1. Descriptive Statistics for Pretest and Posttest Speaking Scores

Speaking scores	Means	Std Deviation	N
Pretest	77.8750	6.95492	32
Posttest	82.2500	6.42575	32

Table 2. Paired Sample *t* test for Pretest and Posttest Speaking Scores

		Means	Std Deviation	Std Errors Mean	95% Confidence Interval of the Difference		t	df	Sig. (2 tailed)
					Lower	Upper			
Speaking course	Pretest Posttest	-4.37500	6.43955	1.13836	-6.69670	-2.05330	-3.843	31	.001

This study employed the FLCAS and implemented an online international peer speaking program for peer learning. The students' language learning anxiety levels were reevaluated in accordance with the FLCAS after the intervention at the end of the semester. A quantitative analysis revealed that the online international peer speaking program reduced the language learning anxiety levels of the students (Table 3). The average score for language learning anxiety before the peer learning program was 3.02 (SD: 0.60), and this average score decreased to 2.97 (SD: 0.623) after the program. A cross-cultural competence training program was introduced in the second half of the semester; the average score for language learning anxiety before the peer learning program was 3.08 (SD: 0.70), and this average score decreased to 3.05 (SD: 0.60) after the program. The paired sample *t* test (Table 4) revealed that although language learning anxiety levels decreased during the semester after the international peer speaking program was introduced, the results did not

reach statistical significance. This phenomenon is consistent with the findings of Pichette (2009) and Satar and Özdener (2008), whose studies revealed no difference in the anxiety levels of students in traditional classrooms with those of students engaged in online distance learning, and with the findings of another study that revealed no significant difference in anxiety levels before and after voice chat learning.

However, an analysis of variance and descriptive statistics revealed statistically significant differences in the pretest and posttest scores for multiple items. For item 2, "I am not worried about making mistakes in English class," the average score for the pretest in the first half of the semester was 3.47 (SD: 0.95), and the average score for the posttest was 3.00 (SD: 0.00). For item 3, "I get very nervous when I know I'm about to be called on in English class," the average score for the pretest in the first half of the semester was 3.81 (SD: 0.90), and the average score for the posttest was 3.16 (SD: 1.32). This difference was statistically significant ($p < 0.05$). For item 5, "I won't mind taking more English classes," the average score for the pretest of the semester was 2.16 (SD: 0.77), and the average score for the posttest was 2.13 (SD: 0.91); the average score for the pretest of the semester was 2.94 (SD: 1.01), and the average score for the posttest was 2.34 (SD: 0.83). The difference for this item reached statistical significance ($p < 0.05$). For item 6, "When I'm in English class, I find myself thinking about things that have nothing to do with the class," the average score for the pretest of the semester was 2.41 (SD: 0.84), and the average score for the posttest was 2.56 (SD: 0.98). The difference for this item reached a significant level ($p < 0.05$). For item 14, "I am not nervous when speaking English with native speakers," the average score for the pretest of the semester was 3.59 (SD: 0.87), and the average score for the posttest was 2.84 (SD: 1.05). The difference for this item reached a significant level ($p < 0.05$). For item 17, "I often feel like skipping English class," the average score for the pretest of the semester was 1.59 (SD: 0.84), and the average score for the posttest was 2.00 (SD: 1.27). The difference for this question reached a significant level ($p < 0.001$). For item 18, "I am confident when speaking English in class," the average score for the pretest of the semester was 3.44 (SD: 0.91), and the average score for the posttest was 2.88 (SD: 1.10). The difference for this question reached a significant level ($p < 0.05$). For item 26, "I feel more nervous and anxious in English class than in other classes," the average score for the pretest of the semester was 2.22 (SD: 1.01), and the average score for the posttest was 2.63 (SD: 1.26). The difference for this item reached a significant level ($p < 0.05$). For item 31, "I worry that my classmates will laugh at me when I speak English," the average score for the pretest in the first half of the semester was 2.28 (SD: 1.05), and the average score for the posttest was 2.72 (SD: 1.42). The difference for this item was significant ($p < 0.05$). These findings reveal that the students' anxiety levels significantly decreased after the intervention involving online international learning partners. The pretest and posttest scores for the students' oral expression improved significantly, which indicates that online peer learning enhanced the students' English speaking and communication abilities. Although the anxiety index for the students' oral expression decreased after the online peer learning was implemented, the decrease did not reach a significant level, indicating that not all students immediately adapted to oral communication training with online international learning partners, and some students may require a longer adaptation period. This finding is consistent with Pichette's (2009), which indicated that remote learning does not eliminate the possibility of peer conversations and that classroom anxiety can occur in online environments.

Table 3. Descriptive Analysis of Language Learning Anxiety

		Means	Std. Deviation	N
Speaking Course	Pretest	3.0247	.60413	32
	Posttest	2.9738	.62330	32

Table 4. Paired *t* tests for Pretest and Posttest Language Learning Anxiety

		Means	Std Deviation	Std Errors Mean	95% Confidence Interval of the Difference	95% Confidence Interval of the Difference Upper	t	df	Sig. (2 tailed)
Speaking Course	Pretest Posttest	.05094	.95322	.16851	-.29273	.39461	.302	31	.764

The Taiwanese EFL students who participated in this program exhibited significant improvements in their speaking ability after participating in the online international learning partner program. The online program reduced the students'

speaking anxiety. The quantitative results did not reveal a significant decrease in speaking anxiety after the course ended. This indicates that some students still experienced anxiety when speaking English after they participated in the online international learning peer program. This study demonstrated that international online learning partners can assist university students in improving their listening and speaking skills. However, such partners do not significantly reduce students' speaking anxiety levels, and therefore, natural learning anxiety persisted in the English oral communication course.

5. Conclusion and Recommendations

This study incorporated the use of online international learning partners into a formal oral communication course. This classroom-based and interactive international peer learning program was implemented at the start of the post-pandemic era and after the introduction of Taiwan's Bilingual 2030 policy. This program can enable teachers to embrace student-centered learning and adjust their roles. In the proposed blended course, teachers provide knowledge and instruction on speaking skills and subsequently serve as guides when students complete practical exercises with international partners to thereby assist students in communicating with foreign students in English. The one-to-many grouping of speaking exercises in this approach enables students to establish a cooperative relationship with their international partners.

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