

Foreign Language Speaking Anxiety Reduction through a Jigsaw Activity

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Abstract

Language anxiety has been frequently reported as a universal challenge in EFL contexts. Studies in EFL learning and teaching have addressed the necessity of reducing students' anxiety in a foreign language class. This study aims to examine the anxiety levels of first-year non-English majors' students and to investigate the effects of a Jigsaw activity on their levels of speaking anxiety as well as their opinions about the use of a Jigsaw activity. Participants included thirty first-year Chinese students from a Primary Education department. The data were gathered by means of a questionnaire and a semi-structured interview. Descriptive statistics were used to determine the level of anxiety. A paired-samples t-test was conducted to find the effects of a Jigsaw activity on students' speaking anxiety. The results revealed that a majority of students reported a high level of anxiety when speaking English in class. Students' anxiety has been reduced to a low level through the use of a Jigsaw activity. In addition, students expressed positive opinions about using a Jigsaw activity in an English-speaking class. Based on these findings, some pedagogical implications and suggestions for future research are proposed.

Keywords: Foreign language speaking, anxiety, Jigsaw activity, Chinese EFL students

Introduction

Statement of the Problem

Getting students to express their ideas or to respond orally to teachers is a common problem encountered by EFL teachers in English-speaking classes. Students were found to be very anxious when responding to teachers in English. According to Liu (2006), “anxiety” is found as one of the major factors contributing to students’ reticence. However, a satisfactory exploration on how to reduce EFL students’ anxiety has yet to be conducted. This problem, therefore, has raised a red flag for foreign language learning which requires a low-anxiety environment. People tend to feel anxious when a situation is viewed as a threat which has effects on their performance. In response to the problem concerning anxiety in a Chinese college English-speaking class, a Jigsaw activity was proposed to help minimize students’ anxiety in their English classes.

Rationale

Jigsaw Activity

A Jigsaw activity is one of the cooperative learning methods. It is a group activity in which students are divided into groups, named “home” groups. Each student is assigned a specific part of a task. Then students who are assigned the same part of a task from all “home” groups meet together, thus forming an “expert” group. After sharing the information or materials about that specific part of the task with team members in the expert group, they return to their “home” group to share the materials or information and teach their home group members (Aronson & Patnoe, 1997). In the Jigsaw activity, students gain practice in self and peer teaching, so they can understand the materials at a deeper level than students who simply do it alone or listen to the teacher. During a Jigsaw activity, students get a lot of opportunities to speak the language and become more fluent in the use of the language. Each student has a chance to contribute meaningfully to a discussion, which is more difficult to achieve in large-group discussions. It encourages cooperation and active learning and promotes the value of all students' contributions. Based on what has been discussed above, the Jigsaw method seems to be an appropriate method for teaching speaking. Furthermore, Arnold (1999) says Jigsaw cooperative learning is the most widely used activity to create a real “information gap” in the classroom and encourage communication.

The Principle behind the a Jigsaw Activity: Cooperative Learning

Cooperative Learning (CL) refers to a variety of teaching methods or activities in which students work together to learn and help their teammates learn in order to accomplish a common shared goal (Johnson & Johnson, 1999). There are five fundamental elements involved in CL: (1) Positive Interdependence, (2) Individual and Group Accountability, (3) Interpersonal and Small Group Skills, (4) Face-to-Face Interaction, and (5) Group Processing. A cooperative learning situation comprises all of these elements which distinguish it from other forms of group learning. Long and Porter (1985) demonstrated that CL methods are beneficial in EFL learning because they provide a low-anxiety environment for learners to increase their language production and heighten their self-confidence.

Foreign Language Anxiety (FLA)

According to Horwitz, Horwitz, and Cope (1986), Foreign Language Anxiety is defined as “a distinct complex of self-perceptions, beliefs, feelings and behaviors related to classroom learning arising from the uniqueness of the language learning” (p. 128).

Learning will hardly be productive if learners are exposed to a high-anxiety learning environment. Many studies have demonstrated a negative relationship between anxiety and academic performance (MacIntyre & Gardner, 1991; Horwitz, 2001). Moreover, Liu (2006) found that students felt the most anxious when they responded to the teacher or were singled out to speak English in class. These negative correlations illustrate that language learning and teaching calls for an anxiety-reducing method to break through the “anxiety barrier”.

From a review of research studies concerning anxiety, previous studies in this area put little emphasis on how to reduce anxiety. Therefore, the present study aims to explore the degree of anxiety experienced by first-year non-English majors and to investigate the effects of a Jigsaw activity on students’ anxiety levels and their opinions towards it. To achieve this, three research questions were posited targeting Chinese EFL learners:

- (1) What is the scope of the students’ FL anxiety in an English-speaking class?
- (2) Can the Jigsaw activity help reduce students’ anxiety?
- (3) What are students’ opinions about using the Jigsaw activity in an English-speaking class?

Research Methodology

The research design included the participants, the instruments, the procedures of data collection and an analysis.

Participants

30 first-year students majoring in Primary Education were selected as participants based on the sample availability. They had all registered for an English-speaking class. The experiment lasted two months.

Instruments

To examine the students’ levels of speaking anxiety and the effects of a Jigsaw activity, questionnaires and a semi-structured interview were used. The details are given below.

First, Speaking Anxiety Scale (SAS): A 33-item survey, with 17 items adapted from the Foreign Language Classroom Anxiety Scale developed by Horwitz et al. (1986) and 12 items adapted from the Personal Report of Communication Apprehension-24 developed by McCroskey (1970). In addition, there were four other items based on the behavior and reaction of students in class. For example, “I keep silent in my English class because I am afraid of making mistake.”; “I avoid having eye-contact with teachers in my English class”; “I feel nervous even if I am well-prepared”; and “I bury my head when the teacher asks questions in my English class.” Finally,

this survey is a 33-item questionnaire designed with a 5-point Likert scale ranging from ‘Strongly Disagree’ to ‘Strongly Agree’ with values 1–5.

To avoid students’ misunderstanding the English questionnaire, all the items were translated into Chinese. The internal consistency reliability of the SAS using Cronbach’s alpha was 0.91, which indicated that the questionnaire was highly reliable. The same SAS questionnaires were administered to the subjects respectively before and after the Jigsaw intervention.

The semi-structured interview: In order to obtain in-depth information about the participants’ opinions on the use of a Jigsaw activity, semi-structured interviews were carried out in Chinese with 15 students after the teaching experiment was finished. Each student interview lasted for about 20 minutes. All the interviews were audio-recorded, and later transcribed and translated.

Data collection procedure

The data collection procedure lasted about eight weeks. Firstly, the SAS questionnaires were administered to the 30 subjects before the Jigsaw activity was implemented. Secondly, after its implementation, the same SAS questionnaires were distributed to the same 30 subjects. Finally, the semi-structured interviews were conducted.

Data analysis

SPSS was employed to analyze the data to determine the students’ anxiety levels. Based on the 5-point Likert scale FLCAS, the total score of the SAS ranged from 33 to 165. The amount of anxiety can be classified into three levels: a score between 33 and 66 indicates a low level of anxiety; a score between 67 and 132 indicates a moderate level of anxiety; whereas a score between 133 and 165 indicates a high level of anxiety. The higher the total scores are, the more anxious the student is. A Paired Samples Test was conducted to test the significant differences in anxiety scores before and after the Jigsaw intervention. The interviews were transcribed and rechecked by two English teachers who have considerable experience in transcribing data in the field of language research. An analysis of the content was conducted on the qualitative data.

Results

The following three sections report the findings based on the research questions.

Research question (1): What is the scope of the students’ FL anxiety in an English-speaking class?

This section presents the anxiety levels reported by the students both before and after the use of the Jigsaw activity.

Table 1. Comparison of anxiety levels before and after the Jigsaw activity (N=30)

Anxiety range	FLA Total Score	(before) N (%)	(after) N (%)
Low anxiety	33 – 66	3 (10)	15 (50)
Medium anxiety	67 – 132	8 (26.7)	13 (43.3)
High anxiety	133 – 165	19 (63.3)	2 (6.7)

As Table 1 shows, from a total of 30 students, only 3 students (10%) fell into the low anxiety group. 8 of them (26.7%) fell into the moderate anxiety group and more than half of them (63.3 %) fell into the high anxiety group. However, after the Jigsaw activity, there were more students in the moderate and low anxiety groups, and only 2 (6.7%) students reported high level of anxiety.

Research question (2): Can the Jigsaw activity help reduce students' anxiety?

A Paired Samples t test was used to test the significant differences in the range of anxiety before and after the Jigsaw activity. The results are presented in Table 2.

Table 2. A Paired Samples t Test of Anxiety reduction before and after the Jigsaw activity

	\bar{x}	SD	t	P
Pre-Jigsaw	125.73			
		31.529	9.375	.000**
Post-Jigsaw	71.77			

** P < 0.01

As shown in Table 2, when the p-value is .000, this indicates a significant difference in students' anxiety before and after the Jigsaw activity. In other words, students' anxiety has been significantly reduced. From this result it can be concluded that the Jigsaw activity can help reduce students' anxiety in English-speaking classes.

Research question (3): What are students' opinions about aJigsaw activity in English-speaking classes?

Findings gathered from a semi-structured interview on the students' opinions concerning the use of a Jigsaw activity were categorized into three main themes. The results are shown in Table 3.

Table 3. The results of the semi-structured interview (N=15)

Themes	Students' opinions (%)
1) Supportive learning environment	81% of the students indicated that the Jigsaw activity provided them with a supportive, relaxing, comfortable or less stressful learning environment.
2) Active learning process	64% of the students mentioned that the Jigsaw activity kept them moving around, thus they had a lot of fun and did not feel bored.
3) Positive learning results	70% of the students commented that the Jigsaw activity helped to reduce their anxiety and increased their confidence.

Even though most students revealed positive reactions towards the Jigsaw activity, it is interesting to note that some students expressed negative feelings about the Jigsaw activity. They stated that the Jigsaw activity made them feel more anxious, because they worried very much that they might disappoint their teammates by not performing well in the activity.

To sum up, a majority of students felt anxious before the Jigsaw implementation. However, the students' anxiety levels were reduced after the use of the Jigsaw activity. Moreover, the students expressed positive feelings towards it.

Discussion

With regard to Research Question 1, which examines students' anxiety level, more than half of the students reported a high level of anxiety. This result is consistent with Liu's (2006) findings that a large number of students had feelings of anxiety when learning English. However, this finding does not support Liu and Huang's (2011) result that the subjects in general did not feel anxious in English language classes. One likely explanation may be the difference in the learning context. For this research study, most students are from undeveloped areas where traditional ways of teaching are still the dominant teaching method. Students had not had much opportunity to practice speaking when they were in high school. As a result, their speaking proficiency tended to be low. Therefore, students' high-level of anxiety may be attributed to the fact that lack of practice leads to low language proficiency, which in return provokes anxiety in students in speaking English, as found in Liu's (2007) study.

Regarding Research Question 2, which examines the effects of the Jigsaw activity on the levels of the students' anxiety, the results in Table 1 and Table 2 revealed significant differences indicating that students' anxiety levels in general were greatly reduced after the Jigsaw activity. This finding is in line with Morgan's (2003) study, which found that a cooperative learning environment was less stressful and could reduce learners' anxiety. However, it is contrary to Duxbury & Tsai's (2010) findings that language anxiety increases with the use of cooperative learning practice in the classroom. One possible explanation could be that the cooperative learning activities were not well-tailored to the students. The possible reasons for the positive effects of the Jigsaw activity on the levels of anxiety in this study can be attributed to the underlying advantages of Jigsaw activities.

Firstly, Jigsaw activities provide students with a supportive learning environment where team members help and encourage each other. For instance, one student (S16) said "*I felt less pressure because I knew my teammates were always there to help me if I had some problems*". Therefore, when feeling supported by and receiving positive feedback from teammates, students tended to feel more relaxed and confident. The design of the Jigsaw activity provided group members with an equal opportunity to contribute to the group work. No one was left out. Everyone's contribution to the group was necessary and valued. Under these conditions, group members were encouraged to help each other and to appreciate each other's efforts so that they can reach their final shared group goal.

In addition, each member's answer represents a collective idea of the group, no matter how good or poor the answer is (Flowerdew, 1998). For example, one student (S15) stated "*The class was not as threatening as before. I did not worry about making mistakes or being laughed at by the other students. If they laughed at me, that means they laughed at my group also, not only at me, because I was part of the whole group*". Therefore, the shared responsibilities produced in the

Jigsaw activity enable individuals to be less frustrated in producing their output. Once this point is realized, learners feel safe and relaxed enough to speak without worrying about losing face or being viewed as incompetent.

Regarding Research Question 3, which is about students' opinions toward the Jigsaw activity in the English-speaking class, most students expressed positive opinions towards the use of the Jigsaw activity. The possible explanation for this could be due to the benefits provided by the Jigsaw activities.

Firstly, Jigsaw activities provide students with a non-threatening learning environment in which they feel safe, comfortable and relaxed enough to express their ideas freely. For example, one student (S10) mentioned "*...I did not feel nervous in Jigsaw activities because all my group members were so nice and friendly to me...*" A supportive learning environment can expand a students' sense of family and enhance their self-confidence, which may help them take more risks in their learning. A supportive learning environment results in students' positive perceptions towards their learning. For example, one student (S3) said "*...I felt I was a necessary part in the group. I am more motivated and can perform better if I know that my effort or work is appreciated and needed....*"

In addition, students reported they learnt more effectively when they used a Jigsaw activity. The principle of CL, i.e., face-to-face interaction, promotes peer interaction by the exchange of information and by mutual encouragement, so that the information can be processed more efficiently and effectively, thus more ideas are elicited. For example, one student (S10) said: "*Jigsaw group work is a good way to boost ideas and opinions.*" Furthermore, the characteristics of Jigsaw design also reduce each individual's workload. In these circumstances, with peer interaction and the sharing of the workload, learning is likely to be more effective and productive.

Conclusion and Pedagogical Implications

According to the findings and discussion in the previous sections, anxiety was found to be prevalent among first-year students. They seemed to be very anxious when speaking English, even when they were properly prepared for it. Therefore, it is necessary for English teachers to find a way to help students reduce their anxiety about speaking. In this study, the Jigsaw activity proved to be an effective way to address the problem of students' anxiety, by providing a supportive climate in the classroom. These findings show that the Jigsaw activity had a positive effect on students' anxiety and students had positive opinions towards it.

The results of this study provide some pedagogical implications for teaching. First, it is important to foster a supportive learning environment in which students feel safe and willing to take risks, especially for learners who may have previously had negative learning experiences. Therefore, in order to make the speaking situation less anxiety-provoking, instructors should tailor classroom activities to meet students' affective needs. Second, instructors can make students realize that in fact making mistakes is normal in speaking. If students are not afraid of making mistakes, they will not care so much about losing face. Consequently, they will feel less threatened and more confident when speaking.

Limitations and Recommendations for Further Research

One limitation of this study should be noted. Due to the lack of availability of subjects, the present study was conducted with only thirty students from the Primary Education Department of a Chinese university. Therefore, the results may not be definitely generalizable to students majoring in other fields. Hence, the present findings offer a starting point for further research to continue the topic by expanding the research context and the sample to see how these findings are applicable to other learning groups. Further research is recommended in implementing the Jigsaw activity for use with other language and study skills such as reading, writing, listening or critical thinking. A longitudinal study is also highly recommended for further research to observe students' improvement in their learning through the use of the Jigsaw activity.

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