

Using the Jigsaw Technique to Improve English Speaking Skills for Freshmen

Tran Thi Yen¹, Nguyen Ngoc Khue¹, Nguyen Thu Trang¹

¹Faculty of Foreign Languages Education, Thai Nguyen University of Education

Corresponding Author: Tran Thi Yen

DOI: <https://doi.org/10.52403/ijrr.20230544>

ABSTRACT

Although speaking English fluently is a necessary skill for students, many English majors and non-majors at universities in Vietnam struggle with it. Jigsaw is an active form of cooperative learning that emphasizes learning in groups with a clear objective and has been shown to raise student achievement levels. Therefore, the main aim of the current study is to improve English speaking skills for non-English majors through the use of the Jigsaw technique. To conduct the study, a mixed-method research design. The participants of this study consisted of 20 female and 10 male freshmen who were studying Mathematics Education in their first year at Thai Nguyen University of Education. These students all volunteered to participate in the speaking pre-test and post-test as well as the feedback questionnaire regarding their perceptions of the Jigsaw technique. The main tasks of the research include investigating the current state of speaking performance among non-English majors at Thai Nguyen University of Education, organizing activities for students to use the Jigsaw technique and speak based on this technique, and then evaluating the impacts of Jigsaw-based speaking activities on the speaking performance of non-English majors. The findings demonstrate that applying the Jigsaw technique significantly enhances and improves non-English majors' English-speaking performance. In addition, student feedback on the use of Jigsaw activities in speaking classes is very positive. The results of this research showed that the students' speaking performance regarding all aspects of vocabulary, pronunciation, grammar and fluency was effectively improved. Finally, the research

suggests ways to improve the potential of Jigsaw activities and make them more engaging, significant, and useful while minimizing their drawbacks.

Keywords: speaking, speaking skill speaking performance, the Jigsaw technique.

INTRODUCTION

The dominance of English in the world is going to grow throughout the 21st century, and possibly beyond. There are four skills that students should master in learning English, which are reading, writing, listening, and speaking skills. Speaking is an oral mode and a productive skill.

However, for most people, speaking is the most difficult skill when learning a foreign language. Although everyone knows that the best way to speak a language fluently is to practice speaking as much as possible but not many people can do this. Students become frustrated during the speaking process when they do not have enough vocabulary or grammar to convey their ideas; they may also be concerned about making mistakes in their utterance; and, in some cases, they are uninterested in the subject. This requires teachers to pay more attention to their students' abilities and to find an approach, process, strategy, or model that could solve the students' problems so that the students' speaking skill can be improved.

In addition, the activities during the English lesson seemed to be boring and less interactive. Therefore, they made the

students less active during the lesson. There were only some students who were actively involved in the English lessons, especially in the speaking lesson. Besides, the teachers mostly used individual and pair work. They rarely used group work which can improve the students' participation in the lesson. When the students worked individually, they could not practice the language functions they had learnt with other students. It means that there was little communication among the students. Based on the description above, a new strategy or technique to improve the students' speaking skill is needed to overcome the above problems.

To enhance and develop students' speaking skills, teachers need to increase the use of authentic materials and the Jigsaw technique is one of them. For this reason, the researchers focus on researching the possibilities and difficulties of applying the Jigsaw technique to help improve speaking skills for non-English majors at Thai Nguyen University of Education. The researchers tried to use a teaching technique and some accompanying actions to encourage the students to speak English. By using the Jigsaw technique and other accompanying actions during the speaking lessons, the teacher can give sufficient opportunities to the students so that they can practice speaking in the classroom.

Jigsaw not only promotes students to use cooperative learning approaches based on the difficulties connected with teaching speaking, but it also creates a stimulating learning environment in the classroom. The Jigsaw technique is said to have many benefits in the EFL classroom, including the capacity to encourage oral practice, enhance conventional technique by motivating students, boost student and instructor self-confidence, and promote authentic communication, according to Aljumah (2011). In other words, Jigsaw helps foster students' ability to work collaboratively and creatively while also fostering a lively learning environment in the classroom.

Therefore, the aim of this research is to improve English speaking performance for non-English majors by organizing activities for students to work in groups and speak about topics which have been discussed with other groups. The aim of the study was investigated through the following research questions.

- What is the current status of speaking skills of non-English majors at Thai Nguyen university of Education?
- What are the effects of the Jigsaw technique on their speaking skills?
- What is the feedback of non-English majors on using Jigsaw in improving speaking skills?

The objectives of this research are to provide an overview of Jigsaw technique and how it can be used to improve non-majors' English speaking performance at Thai Nguyen University of Education. The research also demonstrates how to use Jigsaw activities as a useful tool to improve English speaking performance for non-English majors. In addition, this study has an intention to help lecturers design the process of forming and assessing Jigsaw technique-based activities in their English lessons.

LITERATURE REVIEW

Speaking

In the teaching and learning of English, speaking is one of the four language skills that need to be taught to learners. It concerns the knowledge of sounds, structures and vocabularies. Chaney and Burk (1998) stated that speaking is the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts.

Learning to talk is undoubtedly more challenging than learning to understand spoken language, according to Chastain (1970). Even though it is challenging, it may be attained with lots of practice in actual situations. Harmer (2001) said that there are four special language features in speaking. The first features are the use of connected speech. Effective speakers of

English need to be able not only to produce the individual phoneme of English but also to use fluent connected speech. In connected speech, sounds are modified (assimilation), omitted (elision), added (linking verb), or weakened (through contractions and stress patterning). Due to the complexity of the connected speech, therefore, English teachers should involve the students in activities which are designed to improve their connected speech. The second features are the use of expressive devices. Some native speakers of English use expressive devices in speaking through some ways, such as changing the pitch and stress of parts of utterances, varying volume, and speed, and using facial expressions.

Therefore, it can be concluded that speaking is a beneficial skill, which is the ability to communicate with other people and through this ability, students can express their thoughts effectively. In fact, it cannot be denied that speaking skill is very important to be mastered because when people speak a subject, it makes them be more active rather than passive receive of information, and it also helps to absorb and to process information from a topic.

In summary, speaking is the act of communicating ideas in spoken language, and it is one of the most difficult aspects of language because it calls for foundational abilities like pronunciation, fluency, syntax, and vocabulary. Vocabulary, frequency of practice, functional grammar, pertinent subjects, motivation, self-confidence, and circumstance are all elements that affect students' speaking abilities, according to Widdowson (1985:17).

Speaking Performance

Brown (1994) defines speaking as an interactive process of meaning construction that involves creating, collecting, and processing information, whereas performance refers to the emergence of real utterances as a result of particular psychological processes. According to Brown (2004), utterance, grammar, vocabulary, fluency, content, and

comprehension are the components of speaking performance. Therefore, assessment needs to focus on the following five elements of speaking performance: fluency, accuracy, vocabulary, and pronunciation.

The Jigsaw technique

The Jigsaw technique was first introduced in 1971 by Elliot Aronson, a social psychologist from the University of California. Aronson and Bridgeman (1979) noticed that the competitive atmosphere of classroom may increase hostility among students and assumed that the use of traditional methods of teaching cannot create an active learning environment for students. In the traditional classroom, the teacher is normally the only expert who leads classroom activities without giving students chances to discover their knowledge. Therefore, Aronson hopes to change this convention by developing the jigsaw classroom model as a highly structured cooperative learning technique to enhance motivation for students to learn, develop students' interpersonal and communication skills, and promote students' achievements (Hosseini et al. 2014).

Similar to pieces of a jigsaw puzzle, students – in the original jigsaw technique - are assigned to small groups which consist of different skill levels. In the teaching and learning contents, each group member is responsible for becoming an “expert” on one particular section. The “expert group” members have to cooperate and communicate with other members in order to discuss and master the subject matter that they are assigned with. They return to their “home group” to teach their mastered parts to other members of the groups (Voyles, Bailey & Durik, 2015).

Several modifications were subsequently introduced to Jigsaw II, in which students are required to write down some notes in the provided “expert sheets” and introduce it back to the home group. Moreover, students are also assessed individually not in groups.

Recently, in Jigsaw IV, several additional teacher-based features were incorporated into the technique, such as teacher introduction of the topic, quizzes for expert groups, a quick revision before submitting an individual assessment, and explaining of any part that not fully discussed in the jigsaw classroom (Mengduo & Xiaoling, 2010).

From the definitions and explanations above, it can be concluded that the Jigsaw is one of the cooperative learning techniques that is useful for carrying out effective in-class group work. It is an efficient teaching technique that also encourages listening, engagement, interaction, peer teaching, and cooperation by giving each member of the group an essential part to play in the academic activity.

Previous Research

In the field of English language teaching and learning, several research works have emphasized the significance of the Jigsaw technique in enhancing a particular language skill. Concerning reading comprehension skills, Ali (2001) investigated the impacts of employing the Jigsaw technique on the reading comprehension and anxiety of Egyptian EFL pre-service teachers. The data were collected by employing the TOEFL reading comprehension test and the Foreign Language Reading Anxiety Scale (FLRAS). The study results showed that the use of the Jigsaw technique significantly lessened foreign language reading anxiety and improved the reading comprehension of students.

Meng (2010) also implemented the Jigsaw technique in teaching English reading for students. The findings demonstrated that the Jigsaw technique is more applicable for teaching English reading for college or university students. Adhami and Marzban (2014) conducted a quasi-experimental study to investigate the reading comprehension skills of Iranian high school EFL learners. The results of the post-test showed that female students in the jigsaw

group achieved much higher scores than those in the non-jigsaw group.

Regarding writing skills, Hosseini, Maleki, and Mehrizi (2014) carried out a quasi-experimental study on the Iranian EFL learners. Their research results revealed that the students who were taught with the use of the Jigsaw technique could write better than those in the control group. Another quasi-experimental study was conducted by Zahra (2014) to investigate the impact of the Jigsaw technique on the writing skills of tenth-grade high school students. The research findings revealed that the Jigsaw technique could enhance the students' competence to write a descriptive text.

Concerning speaking skills, Wang (2009) investigated the impacts of employing the Jigsaw technique on the conversational skills of a group of college students. The findings of the study highlighted that the students could promote their motivation to listen and speak and to use collaborative work as well as interpersonal relations in order to achieve a common goal. Similarly, Aimah (2013) explored the effects of the Jigsaw technique on students' speaking skills. The researcher employed a questionnaire, speaking tests and observation notes to collect data. The test results confirmed that the speaking competence of the participants improved significantly. In addition, the observation results emphasized that the students were more interested in the lessons and enthusiastic to communicate with other students. The questionnaire result showed that over 75% of the students voted for the benefits of the Jigsaw technique in practicing speaking skills. They also stated that they gained more confidence to speak up without any pressure.

In Vietnam, Pham Thi Nga (2015) conducted an action research on using the Jigsaw technique to enhance the student's interaction in group work in a grade-10 English-majored class in Son Tay Gifted High School, Ha Noi. The research results showed that the students became more purposeful in learning speaking, more

interested, more attentive in the lessons, thus leading to positive attitude as well as high participation in speaking lessons. Moreover, the Jigsaw activities could create joyful learning atmosphere, which provided the students with more opportunities to obtain knowledge, co-operate with others and helped the students enjoy speaking lessons more.

Tran Van Dat (2016) investigated the effects of the Jigsaw technique on students' knowledge retention in Vietnamese higher education as part of his experimental study. The results revealed that the students in the cooperative jigsaw group (N = 30), perceived their instruction as more cooperative and more student-centered, and less teacher-centered than those in the control group (N = 30). They also obtained

significantly higher scores on a post-experiment achievement test than the students in the non-Jigsaw group. The results also indicated that in general students in the cooperative jigsaw group appreciated most working with others and getting help, discussing and sharing information and teaching others, and enjoyed the jigsaw context.

RESEARCH METHODS

Research Design

To conduct the study, the researcher employed a mixed methods research design, which combines qualitative methods (classroom observation) and quantitative methods (tests) as summarized in Table 1 below.

Table 1. Qualitative method and Quantitative methods

| RESEARCH DESIGN (MIX RESEARCH METHODS) | |
|---|---|
| MIXED | "mixing" both quantitative and qualitative research and methods in a single study to understand a research problem. |
| QUALITATIVE DATA | + Student Questionnaires (Open-ended questions) + Classroom observation. + Comments on students' speaking performance |
| QUATITTATIVE DATA | + Speaking performance Tests + Students feedback questionnaire (Close-ended questions) |

First of all, the researcher delivered the pre-test to 30 participants who come from Math class K57B at Thai Nguyen University of Education to investigate the current situation of speaking performance among non-English majors.

Then, the researchers analyzed the results of the pre-test and found out the weaknesses in speaking skills of participants. Based on the results of the pre-test, the researcher designed lesson plans and organized the Jigsaw technique activities in speaking lessons. The instructor's in-class observation indicated that students were initially hesitant to engage with each other at the start of the course but became more conversant when they were asked to

regularly engage in small group discussions throughout the term. In the Jigsaw technique activity, most students seemed engaged, even enthusiastic, in both the peer teaching and designing challenge portions. Some groups seemed to fly through the peer teaching and then would sit quietly for 20–30 minutes or more, requiring some guiding questions to maintain conversation through researchers. These informal observations were confirmed by what the students noted in the reflective debrief and the survey.

During these experimental lessons, classroom observation (see Table 2) was conducted to assess the learning process and the effects of the activities and the attitude of students.

Table 2. Classroom Observation

| CLASSROOM OBSERVATION | | |
|---|---|--|
| PHASE 1 | PHASE 2 | PHASE 3 |
| The student's listening to instructions and contribute ideas to speaking topics | How the learners work or divide the task for the members in groups to search for data and discuss | The student's presentation and the way they analyze the situation and give reasons, evidence to protect their opinion. |

After that, the researcher utilized the feedback questionnaire to collect feedbacks of students about using the Jigsaw technique to promote speaking performance and a post-test to evaluate how the Jigsaw technique activities help students improve their speaking performance.

Participants

The study involved 30 first-year non-English majors from Math class K57B, Thai Nguyen University of Education who were enrolled in the school year 2022-2023. The students in the experimental group were about 18 or 19 years old. There were 20 girls and 10 boys. Participation in the project was completed over a 8-week period

and participants were selected based on a convenience sample.

Data collection instruments and procedure

This section presents the data collection instruments that were used in this study and the procedure of collecting data as summarized in Table 3. Some researchers indicated that the basic aim of all research is to seek the suitable answers for the research question. To get the final goal, the researcher had to use appropriate data collection instruments as well as data analysis techniques. In the study, the researchers chose questionnaires, tests, and classroom observation as main data collection instruments.

Table 3. Research Procedure

| PROCEDURES | |
|------------|---|
| 1 | Deliver the pre-test to participants |
| 2 | Analyze the results of the pre-test to find out the weakness in the speaking skills of participants |
| 3 | Design lesson plans and organize activities using the Jigsaw technique in Math class in 8 weeks |
| 4 | Implement the lesson and conduct class observation in 8 weeks |
| 5 | Deliver the feedback questionnaire and post-test to participants |
| 6 | Collect feedback questionnaire and post-test data and analyze them |
| 7 | Provide a discussion on the processed data |

Pre-test

In the pre-test, the students had to present about their topics by themselves. The speaking topic was about the rules for a sport or competition they designed. The researcher developed a Speaking Scoring Rubric (see Table 1) for grading the students' speaking skills and perfected it after consulting experts. Five levels of performance are signified in the rubric:

- A – Excellent (Score 8.5-10.0)
- B – Good (Score 7.0-8.4)
- C – Satisfactory (Score 5.5-6.9)
- D – Poor (Score 4.0-5.4)
- F – Failure (Score 0.0-3.9)

These levels were determined using our university's academic credit system's grading structure, which the students are well accustomed to. For each level, there are five criteria, including Fluency and Coherence, Lexical Resource, Grammatical Range and Accuracy, Pronunciation and the Jigsaw technique. The researchers adapted IELTS Speaking Band Descriptors (public

version) and the Jigsaw technique criteria to create a Speaking Scoring Rubric matching the participants' speaking ability as well as specific characteristics - using the Jigsaw technique in speaking lessons. Each level represents how well students performed in speaking across all criteria. There are several descriptions listed under each level. Each score level can be distinguished from the others using such descriptions. Therefore, teachers must take into account all the criteria and descriptors collectively or holistically while evaluating students' speaking performance in Jigsaw-based speaking tests. There is a maximum score of 10.0. Additionally, complete instructions on how to use this rubric were given to the examiners.

Post-test

The post-test was organized after eight experimental lessons which applied the Jigsaw technique activities in speaking lessons. In the post-test, the students had to

work in groups to discuss and find out more about different topics. Their speaking performance was also assessed with the Speaking Scoring Rubric that the researchers had designed.

Feedback Questionnaire

The questionnaire was developed by the researchers using both open-ended and closed-ended questions to collect feedback from the participants on the Jigsaw technique activities, including information on the steps and procedures, advantages and disadvantages, participants' attitudes, and suggestions to improve the efficiency of using the Jigsaw technique in speaking classes.

DATA ANALYSIS AND DISCUSSION

The current situation of speaking performance among first-year non-English majors at Thai Nguyen University of Education

In the pre-test, the students had to present about their topics by themselves. The speaking topic was about the rules for a sport or competition they designed. The researcher saw that the students' speaking ability is quite poor. In addition, some of them did not pronounce simple words such as *strength, argue, referee, against, athlete*, etc. Perhaps, speaking is a skill that they did not concentrate on as well as did not have many opportunities to practice in class at high schools, so their pronunciation, stress, intonation, and fluency in speaking were not good at all. Although the students prepared their speech before recording, they did not speak fluently; their grammar was also not good; and they did not have enough vocabulary to express their ideas.

Table 4 summarized the main comments and assessments of the speaking performance of each student participating in the study.

Table 4. Results of the speaking pre-test and post-test

| Ss | Comments and Scores | |
|----|--|---|
| | Pre-test | Post-test |
| S1 | F: Long pauses between most words while speaking L: only produces basic words G: produces basic sentences (<i>I am a student, etc.</i>) P: There are several pronunciation errors (<i>education, etc.</i>) JT: Messy use of color, fonts and words SCORE: 2.5 | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: they are more engaged and motivated to learn, critical thinking. SCORE: 4.5 |
| S2 | F: Long pauses between most words while speaking L: makes only the memorized single words or phrases available. G: produces basic sentence forms (<i>I get up at 6 a.m, etc.</i>) P: speak unintelligibly (<i>cheaper, expensive, etc.</i>) JT: Messy use of present, color, and fonts SCORE: 4.0 | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: good use of practice and improve their presentation skills. SCORE: 4.5 |
| S3 | F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: produces basic sentence forms (<i>I want to introduce my family, etc.</i>) P: speak incoherently JT: Correct use of graphics, color, and fonts SCORE:5.0 | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: group discussion and exchange among group members are good. SCORE: 5.5 |
| S4 | F: Long pauses between most words while speaking L: merely creates memorized or isolated phrases G: produces some correct simple sentences (<i>I was reading a book while you were doing the homework</i>) P: speak incoherently JT: Merry use of graphics, color, fonts, words | F: communicates clearly and quickly, only seldom repeating or correcting themselves; hesitation is mostly caused by content and hardly ever by language search. L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: is easy to understand throughout and incorporates a variety of pronunciation |

| | | |
|-----|---|---|
| | SCORE: 4.0 | techniques. JT: group discussion and exchange among group members are good. SCORE: 5.0 |
| S5 | F: lingers for a long time before most words. L: only makes available solitary words or utterances that have been memorized. G: produces basic sentence forms (<i>She is a doctor, etc.</i>) P: Many pronunciation mistakes exist. (<i>ring, watch, excited, neighbor, etc.</i>) JT: Poor use of graphics and words SCORE: 3.0 | F: communicates clearly and quickly, only seldom repeating or correcting themselves; hesitation is mostly caused by content and hardly ever by language search. L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: is easy to understand throughout and incorporates a variety of pronunciation techniques. JT: good use of practice and improve their presentation skills. SCORE: 6.0 |
| S6 | F: speak slowly with frequent repetition and self-correction L: uses simple vocabulary to convey personal information G: produces simple sentence structures with some valid subordinate clauses, but errors are common and might cause misinterpretation. P: mispronunciations are frequent and cause some difficulty for the listener JT: Correct use of graphics, sentences SCORE: 6.0 | F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: they are more engaged and motivated to learn critical thinking. SCORE: 6.5 |
| S7 | F: speak quickly L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly (<i>name, class, school, etc.</i>) JT: Correct use of graphics, color, and fonts SCORE: 7.0 | F: communicates clearly and quickly, only seldom repeating or correcting themselves; hesitation is mostly caused by content and hardly ever by language search. L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 7.5 |
| S8 | F: speak slowly, with frequent repetition L: uses simple vocabulary to convey personal information G: produces basic sentence forms and some correct simple sentences but subordinate structures are rare; errors are frequent and may lead to misunderstanding P: There are several pronunciation errors JT: lots of words in the text SCORE: 2.5 | F: communicates clearly and quickly, only seldom repeating or correcting themselves; hesitation is mostly caused by content and hardly ever by language search. L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 6.5 |
| S9 | F: maintains the flow of speech but uses repetition, self-correction, and slow speech to keep going L: has a wide enough vocabulary in spite of inappropriate G: uses a mix of simple and complex structures, but with limited flexibility. P: can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times. JT: Good use of graphics and fonts SCORE: 5.5 | F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 5.5 |
| S10 | F: speak slowly, with frequent repetition L: uses simple vocabulary to convey personal information G: produces basic sentence forms and some correct simple sentences but subordinate structures are rare; errors are frequent and may lead to misunderstanding P: mispronunciations are frequent and cause some difficulty for the listener JT: Good use of graphics, color SCORE: 5.5 | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 5.5 |
| S11 | F: speak slowly with frequent repetition and self-correction L: only makes available solitary words or utterances that have been memorized. G: produces some correct simple sentences but subordinate structures are rare. P: There are several pronunciation errors that cause some difficulty for the listener. JT: Poor use of graphics, color, and fonts SCORE: 3.0 | F: speaks clearly and without much hesitation, barely occasionally repeating or self-correcting, and very rarely looking for the right words; coherently and suitably develops subjects L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 6.0 |
| S12 | F: speak slowly with frequent repetition and self-correction L: uses simple vocabulary to convey personal information G: produces basic sentence form; errors are frequent and may lead to misunderstanding | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; |

| | | |
|-----|--|--|
| | <p>P: There are several pronunciation errors JT: Using appearance and typography properly SCORE: 3.5</p> | <p>complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 7.5</p> |
| S13 | <p>F: maintains the flow of speech but uses repetition, self-correction, and/or slow speech to keep going L: has a sufficient vocabulary despite incorrect usage G: combines simple & complicated structures P: can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times JT: Correct use of color, and fonts SCORE: 5.5</p> | <p>F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 6.5</p> |
| S14 | <p>F: Slowly repeating the words while speaking L: only makes available solitary words or utterances that have been memorized. G: produces basic sentence forms and some correct simple sentences but subordinate structures are rare; errors are frequent and may lead to misunderstanding P: mispronunciations are frequent and cause some difficulty for the listener JT: Using visuals, appearance, color, and typography properly SCORE: 6.0</p> | <p>F: speaks clearly and without much hesitation, barely occasionally repeating or self-correcting, and very rarely looking for the right words; coherently and suitably develops subjects L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 7.0</p> |
| S15 | <p>F: maintains the flow of speech but uses repetition, self-correction, and slow speech to keep going L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Correct use of graphics, color, and fonts SCORE: 6.5</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: has a sufficient vocabulary despite incorrect usage. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 7.5</p> |
| S16 | <p>F: pauses lengthily before most words L: only makes remembered singular words or phrases available. G: creates simple phrase structures P: speak unintelligibly JT: Using visuals, appearance, color, and typography properly SCORE: 5.0</p> | <p>F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 7.0</p> |
| S17 | <p>F: speak fluency and lexical diversity L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Good use of graphics, color, and fonts SCORE: 8.5</p> | <p>F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 9.0</p> |
| S18 | <p>F: maintains the flow of speech but uses repetition, self-correction, and slow speech to keep going L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Messy use of graphics, color, and fonts SCORE: 3.5</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: good use of practice and improve their presentation skills. SCORE: 5.0</p> |
| S19 | <p>F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Messy use of graphics, color, and fonts SCORE: 4.5</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 5.5</p> |
| S20 | <p>F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: produces basic sentence forms</p> | <p>F: speaks clearly and without much hesitation, barely occasionally repeating or self-correcting, and very rarely looking for the right words; L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic</p> |

| | | |
|-----|---|--|
| | <p>P: speak unintelligibly JT: Using visuals, appearance, color, and typography properly SCORE: 3.5</p> | <p>errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 5.5</p> |
| S21 | <p>F: speak slowly, with frequent repetition L: uses simple vocabulary to convey personal information G: produces basic sentence forms and some correct simple sentences P: mispronunciations are frequent and cause some difficulty for the listener PD: Correct use of graphics, color, and fonts SCORE: 6.5</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 7.0</p> |
| S22 | <p>F: speak fluency and lexical diversity L: uses simple vocabulary to convey personal information G: produces basic sentence forms P: pronunciations are good JT: Correct use of graphics, color, and fonts SCORE: 8.5</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: good use of practice and improve their presentation skills. SCORE: 9.0</p> |
| S23 | <p>F: speak fluency and lexical diversity L: uses simple vocabulary to convey personal information G: produces basic sentence forms P: pronunciations are good JT: Correct use of graphics, color, and fonts SCORE: 7.0</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 8.0</p> |
| S24 | <p>F: maintains the flow of speech but uses repetition, self-correction and slow speech to keep going L: has a wide enough vocabulary in spite of inappropriate G: uses a mix of simple and complex structures, but with limited flexibility P: mispronunciation of individual words or sounds reduces clarity at times JT: Using visuals, appearance, color, and typography properly SCORE: 6.0</p> | <p>F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 7.0</p> |
| S25 | <p>F: speak fluency and lexical diversity L: uses simple vocabulary to convey personal information G: produces basic sentence P: pronunciations are good JT: Using visuals, appearance, color, and typography properly SCORE: 8.0</p> | <p>F: speaks clearly and without much hesitation, barely occasionally repeating or self-correcting, and very rarely looking for the right words; coherently and suitably develops subjects L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 8.5</p> |
| S26 | <p>F: maintains the flow of speech but uses repetition, self-correction, and slow speech to keep going L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Using visuals, appearance, color, and typography properly SCORE: 6.0</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 6.5</p> |
| S27 | <p>F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: produces basic sentence forms P: speak unintelligibly JT: Using visuals, appearance, color, and typography properly SCORE: 6.0</p> | <p>F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: good use of practice and improve their presentation skills.</p> |

| | | |
|-----|---|---|
| | | SCORE: 6.0 |
| S28 | F: speaks with many long pauses before each syllable L: only produces isolated words or memorized utterances G: produces basic sentence forms P: Many pronunciation mistakes exist. JT: Messy use of presents, color, and fonts SCORE: 4.5 | F: Using repetition while maintaining the flow of speech; a variety of connectives are used. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: demonstrates some good use of characteristics although this is not sustained; typically understood throughout JT: Between images and language layout, coherence. SCORE: 6.5 |
| S29 | F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: creates simple phrase structures P: speak unintelligibly JT: Messy use of presents SCORE: 4.0 | F: speaks clearly and without much hesitation, barely occasionally repeating or self-correcting, and very rarely looking for the right words; coherently and suitably develops subjects L: uses a large vocabulary pool with ease and flexibility; deftly employs uncommon and idiomatic terms with sporadic errors. G: uses a variety of flexible constructions P: employs a variety of pronunciation elements; maintains flexible use of features with just infrequent gaps; and is easy to remember. JT: good use of practice and improve their presentation skills. SCORE: 6.0 |
| S30 | F: pauses lengthily before most words L: only produces isolated words or memorized utterances G: creates simple phrase structures P: speak unintelligibly JT: Correct use of presents, graphics, color, and fonts SCORE: 6.0 | F: employs self-correction, repetition, and slow speech to keep continuing while maintaining the flow of speech. L: despite inappropriateness, has a large enough vocabulary, and successfully paraphrases most of the time. G: uses a combination of simple and complicated structures, but with little flexibility; complex structures could lead to frequent blunders. P: displays some effective feature use and is usually understandable. JT: they are more engaged and motivated to learn critical thinking. SCORE: 6.0 |

(F: Fluency and coherence; L: Lexical resource; G: Grammatical range and accuracy; P: Pronunciation; JT: Jigsaw technique)

The researchers also recorded the students' results in the pre-test to create a bar chart which presents their current situation of speaking skills.

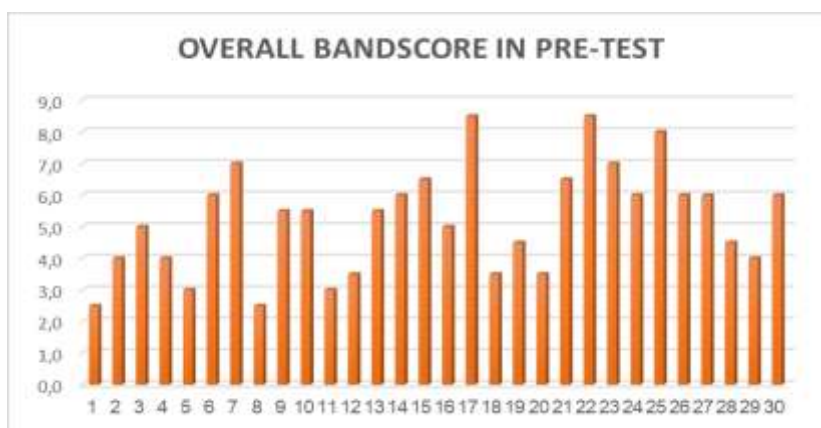


Figure 1. The students' overall band score in the pre-test

The provided bar chart makes it evident that the pre-test scores were quite low, mostly falling between 3 and 6.5. Up to 40% of the students received a grade of three or four; 50% received marks five and seven; only 10% got a grade of eight or higher.

Additionally, the researchers displayed the results of grading the participants in the pre-test through the pie chart below to indicate the existing state of speaking performance among the participants:

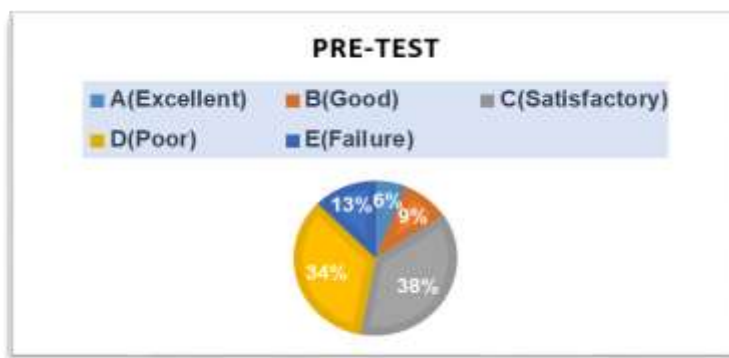


Figure 2. Results of grading student's speaking performance in the pre-test

It can be seen from the given pie chart that in the pre-test students achieving Grade A-Excellent account for only 6,67% and Grade B-Good about 10%. Meanwhile, 36,67% of students gaining Grade C-Satisfactory; over one third of them got Grade D-Poor; and 10% got Grade F-Failure.

The impact of the Jigsaw technique on different aspects of students' speaking performance

Following the experiment, we administered the pre- and post-speaking test to the participants. The students' speaking performance was assessed according to the Speaking Scoring Rubric, which focused on five criteria, namely band score, fluency and coherence, lexical resource, grammatical

range and accuracy, pronunciation, and the Jigsaw technique.

Table 5 compared the average speaking scores of the students in the pre-test and post-test. It can be seen that their performance was very different from the speech they made in the pre-test. They could speak more fluently in about 2-3 minutes. Their vocabulary also got better, which made it easier for them to convey their thoughts and opinions. Moreover, there was a reduction in grammar errors. In other words, they were less grammatically incorrect than when they spoke in the pre-test. The students' results which spread from 6 to 9 were also much higher than in the pre-test.

Table 5. Average scores according to the Speaking criteria

| | Fluency and Coherence | Lexical Resource | Grammatical Range and Accuracy | Pronunciation | the Jigsaw technique | BAND SCORE |
|--------------------------|-----------------------|------------------|--------------------------------|---------------|----------------------|------------|
| Pre-test average scores | 5,1/10 | 5,2/10 | 5,0/10 | 5,2/10 | 4,4/10 | 5,2/10 |
| Post-test average scores | 6,5/10 | 6,6/10 | 6,4/10 | 6,4/10 | 6,5/10 | 6,5/10 |

Students improved significantly in each of the evaluation categories. Specifically, students got much bigger changes in the Lexical Resource criteria as well as Grammatical Range and Accuracy criteria with an average score of 6,6 and 6,4 respectively in the post-test, which were 1,4 points higher than the results in the pre-test. Furthermore, they still had many difficulties with the Fluency and Coherence criteria and Pronunciation because the average score in the post-test for these criteria only increased to mark 6,5 and 6.4 respectively, compared to 5,1 and 5,2 in the pre-test. We also found

that the participants' scores for poster design were the highest in both the pre-test and post-test at 5,2 and 6,5 respectively. We also compared the speaking outcomes of the participants in the pre-test and post-test, as shown in Figure 3, to illustrate the impact of employing the Jigsaw technique on students' speaking performance.

Figure 3 reveals that in the pre-test students gaining Grade A-Excellent account for 6,67% and Grade B-Good 10%. Meanwhile, 36,67% of students gaining Grade C-Satisfactory and only over one-third of them

got Grade D-Poor and 10% got Grade F-Failure.

By contrast, in the post-test the percentage of students who got Grade A, Grade B, Grade C and Grade D was 10%, 37%, 40%

and 13%, respectively; no students got Grade F. It can be seen that the students became more confident and creative in both Jigsaw activities and speaking.

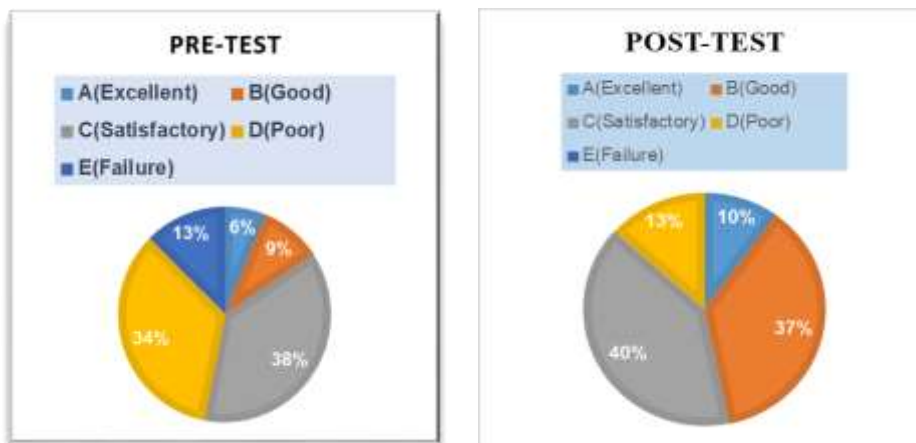


Figure 3. Grading students' speaking performance in the pre- and post-test

Classroom Observation

The students in the experimental process attended eight speaking lessons with 08 topics based on the English syllabus of the curriculum. The researchers required the students to work in groups of 6 members, discuss and present about the topic based on the Jigsaw technique.

When we observed the speaking classroom, we discovered that their vocabulary, grammar, pronunciation, fluency, and overall work all considerably improved over time. By utilizing synonyms or antonyms, students demonstrated how their vocabulary linked to the spoken subjects had grown. In terms of grammar, the researchers saw a clear drop in the incidence of grammatical errors following peer review and instructor correction; students detected the errors and fixed them on the drafts before delivering their speaking performance. Additionally, there was a noticeable improvement in their speaking speed and they could pronounce more naturally with appropriate intonation, emphasis, and less hesitation than they had at first.

Additionally, the results of the analysis of the observation checklists reveal that the interactions between students, their attitudes during classes, and the environment in the

classroom were all consistently favourable. In particular, during the Jigsaw method exercises, the students and researchers worked very cooperatively as they comprehended and followed each other's directions and inquired for explicit explanations. They didn't use their phones to play games or talk with friends. Additionally, these students actively engaged in group projects or discussions regarding the speaking topics. The students appeared to be content and engaged in the lessons, which energized the classroom environment.

It can be summarized that students were provided the opportunity to generate ideas, create eye-catching artwork, collaborate with others more effectively, and enhance their speaking abilities when participating in the Jigsaw-based speaking activities.

Students' feedback on the Jigsaw-based speaking activities

Based on the findings of the student feedback survey, we can see that the majority of students are interested in learning English speaking using the Jigsaw method. They want to use this approach not just to learn how to speak English, but also to advance in other aspects of language

learning. Almost all surveyed students (90%) like speaking English through the Jigsaw technique. After the experimental time, the students admitted that Jigsaw-based speaking activities had positive effects on students' motivation in learning speaking skills. It means that their attitude toward English speaking skills was very favorable.

There were many speaking activities designed with the Jigsaw technique. Figure

4 illustrates activities that students like during the experimental process. The percentage of students who liked presentation was about 70%. In other words, most of them were interested in speaking English based on working in groups. The proportions of students who like knowledge about famous people and giving/supporting their opinions were equal at 56,7%.

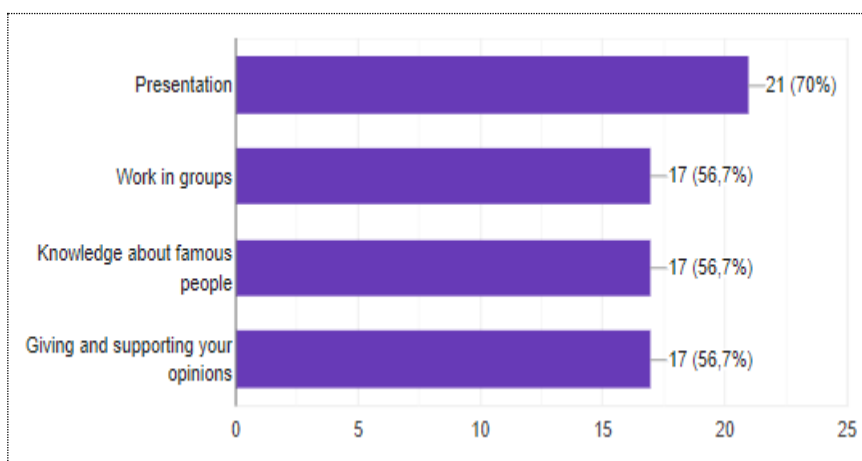


Figure 4: Students' opinions about speaking activities with the Jigsaw technique

Figure 5 shows how the Jigsaw technique improved many aspects of speaking performance. Vocabulary was one element of speaking that most students (76,7%) found to be improved. In other words, they learned more language from group projects than from traditional classroom exercises. Other aspects that improved were Grammar and Fluency with 40% of the votes; pronunciation was in the third place at 36,7%. In the speaking lessons, students

were engaged and talkative, and some of them did not feel bashful when speaking in front of the class. After speaking with the Jigsaw technique and following the researcher's directions, 40% of the students thought their grammar had improved. In addition, half of the students agreed that their fluency as well as motivation to speak has improved. Other students found that intonation improved when they took part in speaking based on using Jigsaw, at 40%.

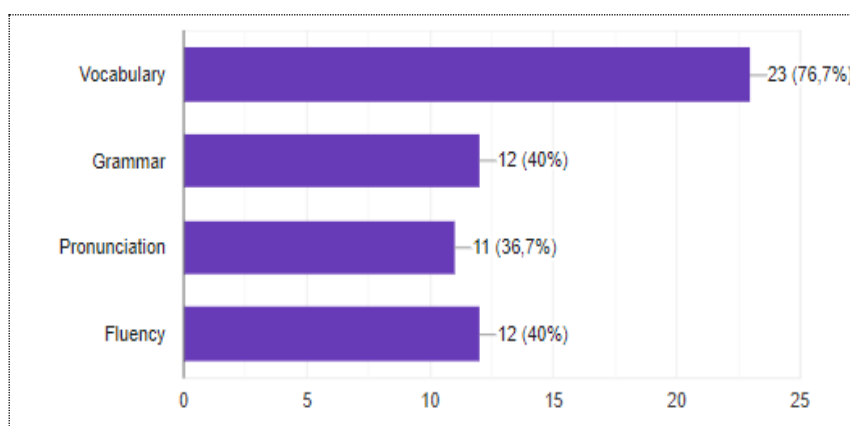


Figure 5. Improvements in different aspects of speaking performance

CONCLUSION

The current research was conducted to improve English speaking performance for non-English majors by organizing activities for students to work in groups and speaking based on changing position of leaders after they have discussed about different topics. The research results show that the Jigsaw technique can be considered an effective and interesting way of teaching speaking for the purpose of enhancing students' speaking performance.

After the experiment, the researcher could answer the three given research questions. Regarding the current situation of speaking performance among non-English majors at Thai Nguyen University of Education, it can be summarized the level of speaking skills of the first-year non-English majors was not good in general; they still had problems about grammar, pronunciation and fluency. Nevertheless, as the experiment progressed, the researchers observed that the students had a favorable attitude to the use of the Jigsaw technique in speaking classes, and that they became more creative, motivated, engaged, and interested in their studies. Therefore, it can be inferred that the use of Jigsaw-based activities could improve students' speaking performance. Additionally, the majority of non-English majors had a positive attitude toward activities involving the use of the Jigsaw technique, and most of them claimed that they were content and delighted with the approach. They provided a number of additional justifications for their agreement with the use of the Jigsaw technique, including the fact that it gave them the courage and willingness to talk, enhanced their ideas, and gave them the vocabulary, grammatical structures, and interest needed to come up with new ideas. They also listed numerous ways in which the jigsaw technique could improve their speaking performance. With all of these advantages, we strongly recommend that this technique be incorporated into other subjects, not just speaking courses, in order to improve

different aspects of the English language for students.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. Adhami, M. & Marzban, A. (2014). The effect of jigsaw task on reading ability of Iranian intermediate high school EFL. *Journal of Academic and Applied Studies (Special Issue on Applied Sciences)*, 4(2), 13-24. doi.org/10.4304/tpls.4.2.387-394
2. Aimah, S. (2013, December). The application of jigsaw and numbered heads together techniques in improving students' ability in speaking skill. Paper presented at the 2nd English Language Teaching, Literature, and Translation International Conference, Faculty of Languages & Arts, Semarang State University, Java, Indonesia (pp. 476-481).
3. Ali, M. (2001). The effect of using the jigsaw reading technique on the EFL pre-service teachers' reading anxiety and comprehension. *Journal of Education College, Helwan University*, (3), 1-22.
4. Aljumah, F. (2011). Developing Saudi EFL students' oral skills: An integrative approach. *English Language Teaching*, 4(3), 84-89. doi.org/10.5539/elt.v4n3p84
5. Aronson, E., & Bridgeman, D. (1979). Jigsaw groups and the desegregated classroom: In pursuit of common goals. *Personality and Social Psychology Bulletin*, 5(4), 438-446.
6. Brown, H.D. (1994). *Principles of language learning and teaching* (3rd ed.). New Jersey: Prentice Hall Regents.
7. Brown, H. D. (2004). *Language Assessment: Principles and Classroom Practices*. New York
8. Chaney, A.I., T.L Burk.(1998). *Teaching Oral Communication in Grades k-8*. Boston: Allyn & Bacon.
9. Harmer, J. (2001). *The Practice of English Language Teaching* (3rd ed.). Harlow.
10. Hosseini, S., Maleki, R., & Mehrizi, A. (2014). On the impact of using Jigsaw II technique on the development of writing performance of Iranian intermediate EFL

- learners. *International Journal of Language Learning and Applied Linguistics World (IJLLALW)*, 7(3), 198-215.
11. Meng, J. (2010). Jigsaw cooperative learning in English reading. *Journal of Language Teaching and Research*, 1(4), 501-504. doi:10.4304/jltr.1.4.501-504
 12. Mengduo, Q., & Xiaoling, J. (2010). Jigsaw Strategy as a cooperative learning technique: Focusing on the language learners. *Chinese Journal of Applied Linguistics*, 33(4), 113-125.
 13. Pham, T.N. (2018). A study on using jigsaw technique to enhance the Students Interaction in Groupwork – An Action Research at the 10th English-Majored Class in Son Tay Gifted High school, Hanoi.
 14. Tran, V.D. (2016). The Effects of Jigsaw Learning on Students' Knowledge Retention in Vietnamese Higher Education. *International Journal of Higher Education*, Vol. 5. DOI- 10.5430/ijhe.v5n2p236
 15. Voyles, E., Bailey, S., & Durik, A. (2015). New pieces of the jigsaw classroom: Increasing accountability to reduce social loafing in student group projects. *The New School Psychology Bulletin*, 13(1), 11-20.
 16. Wang, T. P. (2009). Applying Slavin's cooperative learning techniques to a college EFL conversation class. *The Journal of Human Resource and Adult Learning*, 5(1), 112-120.
 17. Widdowson, H. G. (1985). *Explorations in Applied Linguistics* (Vol. 1), Oxford University Press.
 18. Zahra, R. (2014). The use of jigsaw technique in improving students' ability in writing a descriptive text: A quasi-experimental research at one senior high school in west Bandung. *Journal of English and Education*, 2(1), 64-75.

How to cite this article: Tran Thi Yen, Nguyen Ngoc Khue, Nguyen Thu Trang. Using the jigsaw technique to improve English speaking skills for freshmen. *International Journal of Research and Review*. 2023; 10(5): 367-382. DOI: <https://doi.org/10.52403/ijrr.20230544>
