

The Implementation of Cooperative Learning Jigsaw as a Teaching Method in EFL Classroom

Shafina Rafa¹✉

¹ English Education Study Program, Universitas Negeri Semarang, Indonesia

Abstract

This research aimed at finding how the teacher implements the cooperative learning Jigsaw method in teaching speaking skills based on the three learning activities in implementing learning activities and followed by how the teacher implements the Jigsaw method in teaching speaking skill based on five elements to construct cooperative learning, what the teacher and students' perception about the implementation of Jigsaw and what are the challenges in implementing the Jigsaw method, and what are the challenges in implementing the Jigsaw method faced by teacher and students. This research employed a qualitative descriptive approach with a case study method to investigate 34 students in SMAN 10 Semarang. The data were obtained by using observation sheets and interviews. The analyzed data showed that the Jigsaw method is beneficial for students' engagement, allowing students to be active in learning activities, which help them improve their interpersonal skills, making it easier to communicate, and improving their speaking skills and responsiveness during learning. However, there are also challenges in implementing the jigsaw method, which can still be found in some less interactive students. Yet, some students who are still nervous while presenting their work, this research also has a gap between this research and some of the previous studies, with many previous researchers mostly giving tests to students, which provides more validity and reliability in their data. Thus, it is essential to consider some media and tools when implementing the jigsaw method.

Keywords: *Cooperative learning, Jigsaw Method, Speaking Skill, EFL Classroom, Students' Perception, Teacher's Perception*

✉ Correspondence Address:
Universitas Negeri Semarang
Sekaran Gunungpati Semarang, Central Java, 50229
E-mail: safinarafa672@gmail.com

INTRODUCTION

English is an international language widely used in various countries, and speaking skills can help communicate well. According to Ningsih & Ayu (2023), they also believe that in communicating globally, it is also necessary to master English language skills, especially in English-speaking skills, when communicating globally. Even though it is complex and more challenging, mastering speaking skills is also necessary for students to prepare them for the future. According to Choudhury (2021), in this era in which jobs are more competitive, people, especially young people, learn English to get more opportunities from learning English, which means they can easily get jobs in overseas companies. But, for EFL learners, especially Indonesian students, it is not easy to use English for communication since English is not used for communication in daily life. (Suban, 2021) states that schools in some countries do not use English for communication, but only for academic purposes.

According to Hakim & Putra (2021), the Indonesian education system is centered around the teacher, and the student receives the ideas and knowledge from the teacher. Hence, this habit continues until the student's habitual pattern becomes monotonous with merely listening. According to Ilmi (2023), learning about invoice groups, namely cooperative learning, can develop the ability to communicate and socialize with friends. Since there are so many cooperative learning methods, choosing the proper method for students is necessary to practice communication effectively. (Rohmawati & Haryanto, 2021) state that the Jigsaw method is considered the most effective for helping students' speaking skills because in Jigsaw, students will form groups to study specific problems and become experts in that problem, then they will meet with experts in other groups to share the information they have obtained.

The researcher in this study conducted the implementation of the Jigsaw method as a teaching method to support students' speaking skills using qualitative approaches, and other previous researchers have conducted almost the same research regarding the implementation of Jigsaw in EFL classrooms to support students' speaking skills using a qualitative approach (Agustina, 2019; Halimah & Sukmayadi, 2019; Mayasari, 2023; Yuliza, 2019; Dwijayati, 2020; & Putro, 2020). They also used observation and interview to collect the data, as the researcher used, and previous researchers found that after using Jigsaw

as a teaching method in learning activities, it helps students be engaged in learning activities and helps teachers manage an active classroom.

Meanwhile, there are previous researcher using quantitative approaches to investigate the effectiveness of Jigsaw cooperative learning (Ubaedillah, 2019; Yaseen, 2020; Hasnawati, 2019; Bukit et al., 2023; Ardianto et al., 2020; Uzer et al., 2021; Malla, 2022; Nahdliyati, 2019; Fakhruddin, 2016; Rika et al., 2018; Shah, 2018; Perkasa et al., 2018; Saputri, 2020), and Alamri (2018) aims to found the impact of using Jigsaw which compare experimental group who were taught using the Jigsaw and control group who were not taught using the Jigsaw method and the result from those previous studies always found the experimental group who were taught using Jigsaw method got higher score rather than control group who were not taught using the Jigsaw method in their learning activity. Another researcher conducted a study using both quantitative and qualitative methods. (Effendy, 2018) conducted a study that identified the process of teaching and learning using Jigsaw and involved 32 students of class X MIA 2 of SMAN 2 Sleman Yogyakarta in the academic year of 2017/2018. The researcher gave a pre-test and post-test to students to collect the data, and after she conducted a pre-test and post-test, she found that in the pre-test, students got a Mean = 49, but in the post-test, they got an improvement, with a mean of 62.

Furthermore, another researcher (Pratiwi, 2015; Amalia, 2019; Fitri, 2018; Ibarra & Bastidas, 2014) also aimed to find how Jigsaw improve competencies that needed in speaking skill such as students' vocabulary, pronunciation, grammar, comprehension, and fluency using quantitative approaches and those previous studies got a result which show that the students got improvement in their speaking skill in their vocabulary, pronunciation, grammar, comprehension, and fluency after implementating the Jigsaw method. Related to the researchers above regarding the significant impact of Jigsaw implementation on students and positive perception from students about Jigsaw (Suryani, 2020; Utari, 2018; Erfiani & Neno, 2018; Fitriana, 2019; Cahuana, 2017; Costouros, 2020) in their study find out how Jigsaw significant influence on students in learning process with investigate their progress using pre test and post test and the results are students are become more confidence in speaking English in classroom. Furthermore, another research about positive feedback from students after being given the Jigsaw method in learning English speaking skills has been carried out by several researchers, including Agustina et al. (2019), Hendar (2020), and Habiburrahman (2023). In their research, Agustina et al. (2019) investigated students' perceptions of implementing the Jigsaw in learning to speak English. The subjects of this research were 18 class X students at SMAN 7 Bandar Lampung. The skills learned require communication, and Jigsaw allows cooperative learning so that students can communicate through discussion, and their speaking skills are trained.

Hendar (2020) investigates the role of the students in their speaking English activities by implementing Jigsaw, which involves 42 students in their fourth semester from the Widyatama University English department. This study used action research and used a questionnaire so-called the Jigsaw Opinion Scale (JOS) and got result 73,8% students have the positive opinions about the implementation of Jigsaw which 9,68 % they agree of each group shares their responsibility, 12,9 % everyone gets opportunity to speak, 6,45% agreed more motivated and not afraid if to do grammatical mistake, 6,45% agreed got better understanding, 9,68% agreed everyone compact when give solution, 3,23 % agreed Jigsaw reduces formal situation in learning, 6,45 willing to listen their friends speaking, 16,12% the learning is fun, 3,23 % learning goes very fast, 6,45% the teammate willing to correct their friends grammatical mistake, 3,23% agreed that at the beginning implement Jigsaw is hard, but then it was fun, 6,45% agreed that their dependency from their teacher decreased, and 9,68% agreed that teacher talk less students talk more. That means if Jigsaw positively affects students in their learning activity. (Habiburrahman, 2023) Also found in his research that tenth-grade students of MA Al Hikmah 1 Brebes in his interview, students perceive that Jigsaw is fun and they can clarify issues and restate points of view with peers.

Mutiara et al. (2022) determined students' perception by using a questionnaire, found that 32 students at SMPN 1 Tarakan 62 % strongly agreed, 34,4% agreed, and 3.1% neutral felt happy learning using Jigsaw and found it easier to understand English using Jigsaw. Researchers have reviewed several previous studies to provide information about applying Jigsaw cooperative learning in EFL classrooms to support students' speaking skills. Reviewing previous research, the researcher concluded that research conducted in Indonesia tends to use quantitative and qualitative approaches in middle schools, high schools, and universities. Meanwhile, research conducted abroad tends to be conducted at institutes and universities. The researcher has analyzed many similarities in data from the field obtained from previous research, including subject, data sampling techniques, participants, and research methods.

Several previous researchers mostly took it at the junior and senior high school levels, and some researchers used descriptive qualitative methods and collected data by observation or interviews. Although

there is also a gap between this research and some previous research, many previous researchers mostly used quantitative approaches, which collected data with experimental research, and they gave tests to students, giving more validity and reliability to their data. Some researchers in a previous study also found the effectiveness of using the Jigsaw method with quantitative approaches, and they conducted the research not only on one class to investigate more how effective the Jigsaw method is, so that they can be more accurate in measuring students' ability with test scores.

METHODS

The researcher in this study uses qualitative approaches which collect data with observation and interview. The respondents of this research were students of class X-6 2024/2025 Academic Year at SMAN 10 Semarang, along with the teacher. The students came from different socio-economic backgrounds and had low-to middle-income families. The researcher chose 34 students of class X-6 as the participants and selected 12 participants as the respondents for the interview. The reason this class in that specific academic year was chosen as a participant was that English learning only studied as a foreign language was the most suitable for a study concerning participants, they rarely use English to communicate, and even in English classes they still use their native language which their unfamiliarity affects their speaking skills where they often find it difficult when speaking English. Their learning environment is provided to address the intended variables (i.e., perception towards speaking using the Jigsaw method in the EFL Classroom).

The data that has been analyzed needs to be displayed to display the information obtained for the data display stage. According to Miles & Huberman (1984), a data display is a data collection that has been compiled and allows for conclusions to be drawn and for action. After collecting the data, analyzing the data, and displaying the data, there is a drawing conclusion. After collecting the data, analyzing the data, and displaying the data, there is a drawing conclusion. According to Robinson & Wilson (2022), to strengthen the conclusion, you can pay attention to several things, such as making general comparisons, assessing the strength of the exact claim, considering the extent of the generalization of the hypothesis, and then checking suitability.

FINDINGS

The Jigsaw method is implemented well in class X-6 in terms of the Jigsaw method to support speaking skills. Moreover, 34 English students of class X-6 in the 2024/2025 Academic Year at SMAN 10 Semarang found the Jigsaw method beneficial for assisting them in understanding the material and practicing active communication. In addition, the teacher agreed that the Jigsaw method benefits students in learning English. However, the students and teacher also agree that the Jigsaw method improves the cooperative learning process, which builds their communication skills to get various information easily.

The Teacher Implementation of the Jigsaw Method to Support Students' Speaking Skills in an EFL Classroom

The researcher has identified a process of the implementation of Jigsaw method to support students' speaking skill in EFL classroom based on the three learning activities in implementing learning activities according to three step of implementing learning activities (Mayasari, 2023) also to refine further implements the cooperative learning using Jigsaw method in teaching speaking skill, the researcher are guided by five elements to construct effective cooperative learning (Johnson et al., 1991). According to the three steps of implementing learning activities (Mayasari, 2023), there are three activities to help students learn to achieve basic competencies, especially when implementing learning. The learning activities are divided into three steps and explained as follows:

1. Pre-activity consists of how the teacher prepares students to participate in the learning process, gives motivation, gives appreciation, explains learning objectives, and provides learning materials. Pre-activity in learning is an activity to increase students' interest in the material before starting the main activity (Sobel, 2018). In this part, the researcher elaborates on the result of the observation, which observes the teacher during pre-activity in the EFL Classroom. In this observation, the results show that the teacher is already good at pre-activity, as the researcher found that the teacher is not too difficult when preparing the learning objective and learning media for the start of the learning activity. The teacher is familiar with using the Jigsaw method in learning English. The teacher said, "Actually, not often, but sometimes I used it because if I apply the Jigsaw method daily, it's ineffective and bores students". According to the teacher, the teacher already knows the Jigsaw method and uses it sometimes in learning activities. It can be seen that the teacher applied the jigsaw correctly in the classroom during this step.

2. Main activity consists of main activities in learning where the teacher needs to apply learning models, methods, media, and learning sources adapted to the subject. The main activity is an activity in which the teacher gives understanding to the students through exercises or projects (Castelan, 2024). In this part, the researcher elaborates on the result of the observation, which observes the teacher during the main activity in the EFL Classroom. In the main activity it's essential to know the development of students in their skill, especially if they are communicative during discussion or during implementing the Jigsaw method with the teacher's perspective, "Yes, I think it's effective because on the discussion group students are given a time to practice their skill in a small group and then they given a time to present what they have work with their group". From the teacher's perspective above, the Jigsaw method effectively allows students to practice their communication while learning because they need to work in their group, which involves discussion, and students are also given time to present their work.
3. As Mayasari (2023) said, post-activity learning consists of final activities, such as the teacher needs to evaluate the learning activity, give feedback, give assignments, and inform the next lesson plan. In this part, the researcher elaborates on the result of the observation, which observes the teacher during post-activity in the EFL Classroom. In this activity, the teacher is good at implementing the Jigsaw method in the post-activity or final activity, which researchers found that the students show responsibility after doing a discussion session, and it's supported by the teacher's perception below. "Yes, because at the end of the lesson not the end of lesson, it is fifteen minutes before the class over we give a chance to each group to present their work and they can distribute their Job who had to presented or maybe all the member should present it in front of the class they have own responsibility what they have to do". The researcher in this finding also elaborates how teacher implementation of cooperative learning using the Jigsaw method, based on five elements to construct cooperative learning by (Johnson et al., 1991), could be used by teachers to guide students to conduct cooperative learning with group members successfully. The researcher in this finding also elaborates how teacher implementation of cooperative learning using the Jigsaw method, based on five elements to construct cooperative learning by (Johnson et al., 1991), could be used by teachers to guide students to conduct cooperative learning with group members successfully. They are positive interdependence, promotive face-to-face interaction, social skills, individual accountability, and group processing. According to Jones & Jones (2008), positive interdependence is the belief that the group's success depends on how each individual contributes. Based on the data found by the researcher while doing an observation, one group applied this element. The students can implement cooperative learning with the Jigsaw method well. During the interview, the active student of this group also became a respondent and mentioned how the Jigsaw method is helpful, which facilitates them to do discussion and practice their speaking skill in the EFL classroom.

Promotive face-to-face interaction as a part of implementing cooperative learning, where each individual gives feedback to achieve the group's goal (Johnson et al., 1991). According to the data found by the researcher while doing an observation, one group applied this element. The result shows that arranged specific face to face interaction between the members can help them implement cooperation well. Even though they are responsible for each task and understand their subchapter from the topic given by the teacher, they can still actively share the information they have. One of the students' representatives in this group stressed that doing discussions can help students get used to discussing in English, which trains them to be more confident. The Jigsaw method allows learning cooperatively, which can reduce nervousness. The implementation of cooperation in the Jigsaw method makes students support each other so that each student can become the motivation for others, and it can reduce their nervousness.

Individual accountability is the performance of each individual in a group, which assists and supports the group for a better result (Laal et al., 2013). The observation sheet shows that this group applied individual accountability well in implementing cooperative learning using the Jigsaw method, and one of the students' representatives in this group gave positive feedback for implementing the Jigsaw method. It shows that students can become communicative because they have the opportunity to explain the material and learn to other people about the material, so it helps them to discuss the material.

Steadily et al (2008) state that social skill is a competency that requires individuals to build positive social relationships and can contribute to the social environment. The observation sheet shows the students have good social skills in implementing cooperative learning using the Jigsaw method. The researcher found that the students are more compact when presenting and active when discussing and respecting different opinions. One of the active students in this group also gave positive feedback on implementing the jigsaw method. Respondents can improve their speaking skills by explaining material during the

implementation of the jigsaw method, which allows them to work together, share information, and present group work in front of friends, thus training their social skills.

Group processing is a session where each member's engagement is reviewed, and the decision is made on which action from a member is helpful. The researcher found that one group applied this element. More detailed results of the students' performance are presented in the following table of the observation sheet. The observation sheet above shows that the group implements cooperative learning using the Jigsaw method well. The researcher found that the group actively advises on better performance before presenting their work; they also list the best actions they must take for a presentation. One of their member stressed how interesting it is when we can solve the problem by discussing it.

Teacher & Student's Perception in the Implementation of the Jigsaw Method for Cooperative Learning in Training Speaking Skills

After the researcher observed and collected the data in the research site, the researcher found several advantages gained by students, including that implementing the Jigsaw method tends to enhance students' engagement and make them enjoy the learning process. One of the student respondents agrees that the Jigsaw method helps understand the material and makes it enjoyable because students can learn from friends. The respondent's response above shows that using the Jigsaw method makes students care about other students. In contrast, students cooperate, allowing them to learn better through their friends' explanations.

The researcher also found that the jigsaw method effectively improves students' speaking skills, as supported by the students' perceptions below. While implementing the Jigsaw method, students need to move from one group to another to do the discussion, and as the respondent said above, it can train them to become more responsive. Aside from students' perception about implementing the Jigsaw method, which gives advantages, the researcher also elaborates on teachers' perception of the benefits of implementing cooperative learning using the Jigsaw method, which can give students self-confidence and help teachers manage an active classroom. The jigsaw method allows students to try communicating with friends, which can improve their self-confidence. The researcher also found that implementing the Jigsaw method in this research helps the teacher conduct a more active classroom.

Challenges Faced by Teachers & Students During Implementation of Cooperative Learning Using the Jigsaw Method

Although the teacher had advantages in implementing the jigsaw method, the researcher found that the teacher also faced challenges. According to what the teacher said above, the teacher needs some effort to make students active because it's challenging if there are still less interactive students in a cooperative learning activity. In line with the challenges faced by the teacher, who still found some less-interactive students, one of the student respondents also faced the same challenges as the teacher, arguing that the challenging part of the Jigsaw method is when working with less cooperative friends.

DISCUSSION

In this study, the researcher found that this data contrasted with findings by Astriani (2013), who also found that using the jigsaw method helps students train their speaking skills and motivates them. This study has a purpose to know what the teacher and students' perception is and what challenged they faced in the implementation of Jigsaw method using qualitative approach which describe the data based on the subject's experience same with previous researcher Putro (2020) conducted qualitative research with collect the participants respond after using Jigsaw method. In this section, the researcher found that each step of implementing a learning activity (Mayasari,2023) helps the teacher comprehend what activities should be done from the beginning to the end. Furthermore, this finding shows that the teacher gives a positive perspective and agrees that the Jigsaw method benefits students and helps the teacher conduct an active learning activity without too many tools. Drouet et al. (2023) also have the same finding, which in their study, they found that due to teachers using the Jigsaw method as their method in learning, it leads teachers to focus on students' needs and consider if the teaching activities allow students to become centered on learning.

Implementing the Jigsaw method has successfully supported students' speaking skills, as students also adapted five elements to construct cooperative learning (Johnson et al.,1991) in implementing the Jigsaw method process. Each group employed each aspect, which helped them complete the task and present it easily. It showed that promotive face-to-face interaction was the most effective element, mainly when used with the Jigsaw method, because the O5 got a higher score. The observation sheets and the findings proved that the teacher and students successfully conducted cooperative learning using the Jigsaw

method. During the implementation of the Jigsaw method, the researcher also found that teacher is only a facilitator which directs students in conducting discussions and in applying the Jigsaw method as cooperative learning it is the same as found by Yuliza (2019) which also found that in implementing the Jigsaw method, the teacher is only as a facilitator and the learning process is not only focused on the teacher but focused on students' performance in the classroom. Moreover, in this research the teacher also needs to give a proper direction and organize students so that the implementation of this method goes well as the research from previous studies by Habiburrahman & Dwinalida (2024) which found in their research how successful in implementing the Jigsaw method depends on the appropriate direction and how the teacher organizes students. Moreover, the researcher found that students perceive implementing the Jigsaw method positively, which gives advantages to train engagement, speaking improvement, and responsiveness. Some benefits are in line with previous research by Nasichah (2023), which found that after implementing the Jigsaw method, students become more engaged and active in participating in the learning activity, and Fawaidah (2024) found that students' speaking skills were further improved after implementing the Jigsaw method. Another researcher, Chopra et al. (2023), also found that after implementing the Jigsaw method, each student actively shares their knowledge and works cooperatively to present their work.

Aside from students, the teacher's perceptions are also essential to strengthen students' perceptions. In this research, the researcher found that teachers perceived that implementing the Jigsaw method provides benefits in the form of students becoming more confident after implementing the Jigsaw method because they were used to speaking English through discussion. In line with findings by Suryani (2020), the research discussion, while using the jigsaw method, helps students to improve their self-confidence. Likewise, another advantage is the teacher can conduct a more active classroom, where students are not passive because they find enjoyment in learning with their friends, which is also in line with the research by Ws (2013) found that in the Jigsaw method which allow students work in group with friends help them to be more active while learning in the classroom.

The findings also found that the teacher faces challenging parts, although some students are active during implementing the Jigsaw method. Yet, some students are still not active when implementing the jigsaw method. The same finding from Rahayu (2012) also found that although the Jigsaw method gives opportunities to make students more active, teachers should motivate students to be active, because motivating them can enhance their participation in learning activities and prevent students from becoming passive. The findings show that the students gained an advantage that helped their speaking, engagement, and responsiveness. Nevertheless, students still argue that speaking, explaining the material, and presenting are the most challenging parts, meaning they have not yet mastered speaking, explaining, and presenting. The same finding from (Netta, 2021) found that students, while doing the Jigsaw method, some find it challenging to share their thoughts because they have not mastered some vocabulary.

CONCLUSION

The study on 34 students in the X-6 class at SMAN 10 Semarang showed that the implementation of the Jigsaw method has successfully supported English speaking classrooms as it is supported by the three steps of implementing learning activity (Mayasari, 2023) and five elements to construct cooperative learning (Johnson & et al., 1991).

Moreover, the implementation also runs well and shows advantages. These include students' engagement, such as students' speaking improvement and students' responsiveness. In this study, the teacher also found challenges from the time constraints, and students are sometimes noisy. Despite all the difficulties students and the teacher encounter, both agree that this method successfully assists their speaking skills.

Furthermore, in this study also has a gap from previous researcher which the researcher in this study only focusses on how teacher implement cooperative learning using Jigsaw method, how teacher and students' perceptions, and what challenges they faced but the researcher not conducted experimental research as what some of previous research conducted in their study to support their data more validity and reliability. Thus, the researcher concludes that the Jigsaw method is an excellent cooperative learning method that could help students' speaking skills and is easy to implement.

REFERENCES

- Alamri, H.R.H. (2018). The Effect of Using the Jigsaw Cooperative Learning Technique on Saudi EFL Students' Speaking Skills. *IISTE journal*, 9 (6), 65-77.
<https://www.iiste.org/Journals/index.php/JEP/article/view/41150>

- Amalia, E.R. (2019). The use of Jigsaw Technique in Hortatory Exposition Text to Improve Students' Speaking Skill at the Second Grade Students of SMAN 1 SUMBEREJO [Bachelor thesis, University of Lampung]. Digital Repository Unila. <https://digilib.unila.ac.id/58023/>
- Agustina, D. (2019). Students' Perception of Jigsaw Technique Implementation in Learning Speaking at the First-Grade of SMA N 7 Bandar Lampung [Bachelor thesis, University of Lampung]. Digital Repository Unila, <https://digilib.unila.ac.id/59273/>
- Agustina, D., Mahpul ,M. , Munifatullah,F. (2019). Students' Perception on the Jigsaw Technique Implementation in Learning Speaking at the First-Grade of SMA N 7 Bandar Lampung. Unila Journal of English English Teaching, 8 (3): 1-16. <https://jurnal.fkip.unila.ac.id/index.php/123/article/view/19576>
- Ardianto, D.J., Hery, Y., & Gede, E.P. (2020). The effect of jigsaw on speaking performance of first grade students at SMAN 3 Bandarlampung. Academia Edu, 1-9, https://www.academia.edu/92756146/The_effect_of_jigsaw_on_speaking_performance_of_first_grade_students_at_SMAN_3_Bandarlampung
- Astriani, M. (2013). The Influence Of Jigsaw Technique Toward Students' Speaking Ability Of The Seond Year At Madrasah Aliyah Darul Ulum Tandun [Bachelor Degree Thesis, UIN Suska Riau] UIN Suska Repository. https://repository.uin-suska.ac.id/9721/1/2013_2013119PBI.pdf
- Bukit, H. B., Sarma, D.K.S., Sabar, M., & Himpun, P. (2023). The Use of Jigsaw Strategy on Students' Speaking Ability in Expressing Gratitude and Appreciation. Journal of Applied Linguistics, 3 (1), 32-39. <https://doi.org/10.52622/joal.v3i1.151>
- Cahuana, M. A. (2017). The Jigsaw Cooperative Learning Technique As a Resource to Enhance Confidence and Fluency in English Oral Activities of Students in 10th Grade at INSTEC [Master thesis, Universidad del Norte]. Repositorio Institucional Universidad del Norte. <https://manglar.uninorte.edu.co/handle/10584/8611#page=1>
- Castelan, J. (2024). What Are Learning Activities And What Is Their Importance in The Educational Process?. <https://www.iseazy.com/glossary/learning-activities/#:~:text=Learning%20activities%20are%20projects%20or,of%20the%20wider%20learning%20program>
- Chopra, D., Kwatra, G., Bhandari, B., Sidhu, K., J., Rai, J., & Tripathi, D., C. (2023). Jigsaw Classroom: Perceptions Of Students And Teachers. Springer Nature Link, 33, 853-859. DOI:10.1007/s40670-023-01805-z
- Choudhury, M. (2021). The Journal of Asia TEFL Effectiveness of ELT in Rural India: A Study Based on Learners of Suburban India. The Journal of AsiaTEFL. 18(1),329-335. DOI:10.18823/asiatefl.2021.18.1.24.329
- Costouros, T. (2020). Jigsaw Learning Versus Traditional Lectures: Impact on Student Grades and Learning Experience. Teaching and Learning Inquiry, 8(1),154-72. <https://doi.org/10.20343/teachlearninqu.8.1.11>.
- Dwijayati, I. F. (2020). Implementing Jigsaw Method for Teaching Speaking a Case Study of Teaching and Learning at SMK Swadaya Klaten [Bachelor's degree thesis, University of Widya Dharma Klaten]. Unwidha Repository. <http://repository.unwidha.ac.id/2063/>
- Drouet, C., O, Kaestner, L.V., & Margas, N. (2023). Effects of The Jigsaw Method on Student Educational Outcomes: Systematic Review and Meta-Analyses. Front. Psychol, 14 : 1-19. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2023.1216437/full>
- Effendy, R.L. (2018). Improving The Speaking Skills of Grade X Students of SMAN 2 Sleman Yogyakarta Through the Use of Jigsaw Technique. English Language Teaching Journal, 7(1): 49-58. <https://journal.student.uny.ac.id/index.php/elt/article/view/12500>
- Erfiani, Y.P.V., & Neno, H. (2018). The Effect of Jigsaw Method to Improve EFL Students' Vocabulary Ability. Academia Edu, 2(2): 171-183. https://www.academia.edu/83670217/The_Effect_of_Jigsaw_Method_to_Improve_EFL_Students_Vocabulary_Ability?uc-sb-sw=5775752
- Fakhruddin, A. (2016). The Effectiveness of Jigsaw on students' Speaking skill in Majalengka University. Jurnal Unma. 2 (2) : 11-15. <https://jurnal.unma.ac.id/index.php/edc/article/view/488>
- Fawaidah, D. (2023) The Effect of Cooperative Learning Jigsaw Type to the Students' Speaking Skills in Grade XII MIPA of MA Sumber Bungur Pakong Pamekasan. Etheses IAIN Madura Publishing.
- Fitriana, D.A. (2019). Students' Perception on The Use of Jigsaw Technique to Develop Their English Language Skills [thesis, University Muhammadiyah Yogyakarta]. UMY Repository.

- <http://repository.umsida.ac.id/bitstream/handle/123456789/30185/1.%20Naskah%20Publikasi.pdf?sequence=11&isAllowed=y>
- Habiburrahman, M., & Dwinalida, K. (2024). Students' Perception On Jigsaw Strategy in English Teaching And Learning Activities. *JEPAL*, 5, 1-13. DOI: <https://doi.org/10.32627/jepal.v5i1.1058>
- Hakim, M., A., R., & Putra, O., A. (2021). Comprehension of Academic Communication Among Indonesian Students at a Public University in Malaysia. *Journal of Asia TEFL*, 18(2), 633-639. DOI:10.18823/asiatefl.2021.18.2.17.633
- Halimah, L., & Sukmayadi, V. (2019). The Role of “Jigsaw” Method in Enhancing Indonesian Prospective Teachers’ Pedagogical Knowledge and Communication Skill. *International Journal of Instruction*, 12 (2):290-304. <https://eric.ed.gov/?id=EJ1211055>.
- Hasnawati. (2019). Increasing Students’ Speaking Skill by Using Jigsaw Technique at the Seventh Grade Students of Senior High School Number 4 Palopo [Bachelor thesis, IAIN Palopo]. Repository IAIN Palopo. <http://repository.iainpalo.ac.id/id/eprint/1396/>
- Hendar. (2020). Enhancing Students’ Speaking Ability Through Jigsaw As One of Cooperative Learning Techniques. *Palarch’s Journal Of Archaeology Of Egypt/Egyptology*, 17 (10): 2781-2791. <https://archives.palarch.nl/index.php/jae/article/view/5382/5310>
- Ibarra, A.J.A & Bastidas, J.L.J. (2014). Using the Jigsaw Activity to Develop Speaking in a Public High School in Pasto. University of Narino Publishing.
- Ilmi, N. A. (2023). Improving Students’ Speaking Skills through Cooperative Learning in Vocational School Context. *Jurnal Ilmu Sosial dan Humaniora*, 1 (4) : 765-784. <https://journal.ikmedia.id/index.php/jishum/article/view/150>
- Johnson, D. W., Johnson, R., T., Stanne, M. B., & Garibaldi., A. (1990). Impact of Group Processing on Achievement in Cooperative Groups, *The Journal of Social Psychology*, 130, 516. <https://doi.org/10.1080/00224545.1990.9924613>
- Johnson, D.W., Johnson, R.T., & Smith, K.A. (1991). Cooperative Learning: Increasing College Faculty Instructional Productivity, *ERIC*, 4, 1-168. <https://eric.ed.gov/?id=ED343465>
- Jones, K., A., & Jones, J., L. (2008). Making Cooperative Learning Work in the College Classroom: An Application of the "Five Pillars" of Cooperative Learning to Post-Secondary Instruction. *Journal of Effective Teaching*, 8 (2): 1-10. <https://eric.ed.gov/?id=EJ1055588>
- Kuliahana, A., & Marzuki, G.,A. (2024). Utilizing Group Discussion Technique in Developing Speaking Skill in an EFL Classroom. *Academic Journal of English Language and Education*, 7, 305-316. <https://doi.org/10.29240/ef.v7i2.8197>
- Laal, M., Geranpaye, L., & Daemi, M. (2013). Individual Accountability in Collaborative Learning. *Procedia- Social and Behavioral Sciences*, 89, 293. <https://doi.org/10.1016/j.sbspro.2013.09.191>
- Malla, R. (2022). The Effectiveness of Using Jigsaw Technique in Telling Luwu folklore To Improving Students Speaking Skill at the Second Grade of Junior High School 8TH Palopo [Bachelor thesis, IAIN Palopo]. Repository IAIN Palopo <http://repository.iainpalo.ac.id/id/eprint/4977/>
- Mathers, N., Fox, N., & Hunn, A. (1998). Using interviews in a research project. Simons University. <http://web.simmons.edu/~tang2/courses/CUAcourses/lsc745/sp06/Interviews.pdf>
- Mayasari, D. E. (2023). Implementation of Teaching Speaking Skill through Jigsaw Method in the Eighth Grade of SMPN 1 Banyuwangi 2022/2023 Academic Year. Digital Library UINKHAS Jember Publishing.
- Millman, J., & Hammond, L.D. (1990). *The New Handbook of Teacher Evaluation: Assessing Elementary and Secondary School Teachers*. Google Books. https://books.google.co.id/books/about/The_New_Handbook_of_Teacher_Evaluation.html?id=JAE4DQAAQBAJ&redir_esc=y
- Miles, M. B., & Huberman, A. M. (1984). *Qualitative Data Analysis Second Edition: An Expanded Sourcebook*. Viva University Press.
- Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative Data Analysis Third Edition: A Methods Sourcebook*. SAGE.
- Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative Data Analysis Fourth Edition: A Methods Sourcebook*. SAGE.
- Mutiara, N., Daniel, Arifin. (2022). The Ninth-Grade Students' Perception On Teaching English Through Jigsaw Method In EFL At SMPN 1 Tarakan. *Jurnal Cakrawala Ilmiah*, 2 (4) : 1-10. <https://bajangjournal.com/index.php/JCI/article/download/4325/3164>

- Nahdliyati, W. (2019). The Effectiveness of Jigsaw Technique to Improve Students' Speaking Ability" (A Quasi-Experimental Research at The Seventh Grade of MTs Darul Irfan Kota Serang in Academic Year 2018/2019). [Bachelor thesis, UIN Sultan Maulana Hasanuddin Banten]. UIN SMH Banten Institutional Repository. <http://repository.uinbanten.ac.id/4012/>
- Nasichah, A.H. (2023). The Role of Cooperative Learning Method in Teaching English to Improve Students' Skill: a Systematic Review. Conference on English Language Teaching, 244–258. <https://proceedings.uinsaizu.ac.id/index.php/celti/article/view/499>
- Netta, A. (2021). The Application Of Jigsaw Technique In Teaching Speaking In Indonesian Context. *Pedagogik: Jurnal Ilmiah dan Pendidikan dan Pembelajaran Fakultas Tarbiyah Universitas Muhammadiyah Aceh*, 8(2): 249-259. <https://ejournal.unmuha.ac.id/index.php/pedagogik/article/view/1170/539>
- Ningsih, M.N.P., & Ayu,M.(2023). The Implementation of Mind Mapping Technique to Improve Students' Speaking Skill at SMPN 10 Bandar Lampung. *Journal of English Language Teaching and Learning*, 4 (1): 19-25. <https://jim.teknokrat.ac.id/index.php/english-language-teaching/article/view/2758/852>
- Perkasa, K.I., Emzir,E., & Dewanti, R. (2018). Enhancing English Speaking Skill Through Jigsaw Cooperative Learning (Action Research in X Class of MIA SMA Negeri 2 DKI Jakarta). *BAHTERA: Jurnal Pendidikan Bahasa dan Sastra*, 17 (2): 46-53. <https://journal.unj.ac.id/unj/index.php/bahtera/article/view/7624>
- Putnam, R.T. & Borko, H. What Do New Views of Knowledge and Thinking Have to Say About Research on Teacher Learning? . *Sage Journals*, 29 (1), 4-15. <https://doi.org/10.3102/0013189X029001004>
- Putro, D.B.H. (2020). Using Jigsaw Learning to Teach Student's Pronunciation Ability Toward English Club at MAN 3 Tulungagung. [Bachelor thesis, State Islamic Institute of Tulungagung] Repository of UIN SATU Tulungagung. <http://repo.uinsatu.ac.id/16105/>
- Pratiwi, R.O. (2015). Improving the Speaking Skills of the Tenth Grade Students of SMK N 1 Depok, Sleman, Yogyakarta by Using the Jigsaw Technique in Cooperative Learning in the Academic Year of 2013/2014. Eprints UNY Publishing.
- Rahayu, S. (2012) Improving Student's Speaking Competence Using Jigsaw. Sebelas Maret University Publishing.
- Rika, Y., M. (2017). The Implementation Of Jigsaw Technique in Teaching Speaking Of The Eighth Grade Students At The Second Semester Of SMP Negeri 1 KRUI IN 2015/2016 Academic Year.[Bachelor Degree Thesis, Islamic University of Raden Intan Lampung]. UIN Raden Intan Lampung Repository. <https://repository.radenintan.ac.id/1376/>
- Robinson, O., & Wilson, A. (2022). Practicing and Presenting Social Research. UBC Library.
- Rohmawati, P., Haryanto, H. The Implementation of Jigsaw Learning Model in Teaching Speaking for Senior High School Students. *Indonesian Journal of Language Teaching and Linguistics*, 6(2), 221-229. <https://doi.org/10.30957/ijoltl.v6i2.718>
- Saputri, D. (2020). Improving Students' Speaking Skill by Using Jigsaw Method at the Tenth Year of SMAN 6 Palopo [Bachelor thesis, IAIN Palopo]. Repository IAN Palopo. <http://repository.iaipalopo.ac.id/id/eprint/3169/>
- Shah, D.P. (2018). Employing the JIGSAW Cooperative Learning Technique in a Class of English and Communication Skills for The Students of M.Sc. II nd year. *Research Gate*, 1-8. https://www.researchgate.net/publication/348899347_Employing_the_JIGSAW_Cooperative_Learning_Technique_in_a_class_of_English_and_Communication_Skills_for_the_students_of_MSc_II_nd_year
- Steadly, K. M., Schwartz, A., Levin, M., & Luke, D., S. Social Skills and Academic Achievement. *ERIC*, 3 (2): 1-8. <https://eric.ed.gov/?id=ED572705>
- Suban, T., S. (2021). Teaching speaking: activities to promote speaking skills in EFL classrooms. *Lectio: Journal of Language and Language Teaching*, 1(1): 41-50. <https://journal.unwira.ac.id/index.php/LECTIO/article/view/888>
- Suryani. (2020) The Implementation of Jigsaw Model to Improve Students' Speaking Skill at the Eight Grade of SMPN 5 Parepare [thesis, IAIN Parepare]. Repository IAIN Pare. <https://repository.iaipare.ac.id/id/eprint/3695/>
- Sobel, D. (2018, May 23). Teaching interventions: Pre and over learning. *SecEd* . <https://www.seced.co.uk/content/best-practice/teaching-interventions-pre-and-over-learning/>
- Ubaedillah, U. (2019). Improving Students English Speaking Ability Through Jigsaw. *ResearchGate*, 2 (3): 216-227.

- https://www.researchgate.net/publication/336287295_IMPROVING_STUDENTS'_ENGLISH_SPEAKING_ABILITY_THROUGH_JIGSAW
- Utari, R. (2013). Using Jigsaw Technique To Improve The Speaking Ability Of The Grade VII Students OF SMPN 3 Depok In The Academic Year Of 2010/2011. [Unpublished Bachelor Degree Thesis]. Yogyakarta State University.
- Uzer, Y., Yus, V.U., & Novianti. (2021). Improving the Students' Speaking Competence through Jigsaw-Type Cooperative Learning Method by Using Multimedia Devices in Sjakhyakirti Senior High School Palembang. *Holistics Journal: Hospitality and Linguistics*, 13(2): 19-26. <https://jurnal.polsri.ac.id/index.php/holistic/article/view/4511>
- Ws, D., E. (2013). Using Jigsaw Technique To Improve Speaking Skill For The Science Students Of Grade XI-1At SMAN 2 Yogyakarta In The Academic Year Of 2011/2012. [Unpublished Bachelor Degree Thesis]. Yogyakarta State University
- Yaseen, W. S. A. Impact of Jigsaw Cooperative Learning Technique on Enhancing Kuwait English Language Student- Teachers' Speaking Skills. *The New Educational Review*, 6 :119-143. <https://doi.org/10.15804/tner.20.61.3.10>
- Yuliza, P. (2019) An Analysis of the Strength of Jigsaw in Teaching and Learning [thesis, UIN Ar-Raniry Banda Aceh]. UIN - Ar Raniry Repository. <https://repository.ar-raniry.ac.id/id/eprint/13480>