



Application of Jigsaw Strategies in Teaching Reading Comprehension at the University Level

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Abstract

This study investigates how well the Jigsaw technique works to improve reading comprehension in first-year English students at Imam Al-Kadhim College. By giving each student a different section of a text to read and then teach to their friends, the Jigsaw approach, a cooperative learning technique, promotes teamwork among students. Thirty students participated in this quasi-experimental study, which was split into two groups: a control group of fifteen students who got conventional reading instruction, and an experimental group of fifteen students who were taught the Jigsaw technique. To gauge their understanding skills, both groups took a pre- and post-test on reading comprehension.

The experimental group's reading comprehension scores significantly outperformed those of the control group, according to the results, indicating that the Jigsaw technique improves students' comprehension of texts. A post-intervention questionnaire also yielded comments that emphasized the students' favorable opinions of the Jigsaw method, pointing to improved participation, self-assurance, and teamwork. The study comes to the conclusion that the Jigsaw strategy is an effective teaching method for studying reading comprehension and suggests that it be used more widely in college-level English language courses.

Keywords:

Introduction

College students can improve their reading comprehension and retention of material while enhancing their collaborative abilities by using the jigsaw technique. Students frequently feel more responsibility for studying the topic as they understand that they will be the ones teaching their peers the new material. The jigsaw method gives each group member a crucial role to perform in the academic activity, which promotes listening, participation, and empathy. To achieve a shared objective, group members must collaborate as a team; each member depends on the others. No student can achieve total success unless they are a cohesive team. Through this method, all of the students in the class are able to communicate with one another and learn to regard one another as contributors to their shared job. Basic Terms Jigsaw Method Aronson and his associates created Jigsaw in the 1970s in an effort to integrate college students and foster positive relationships amongst kids from different racial backgrounds. Its name is derived from the analogy of assembling puzzle pieces to form a whole picture (Clarke, 1994: 36). Teaching in English the activity and philosophy of teaching English to those for whom it is not their first language is known as teaching English. Harper (2019). Foreign Language Any language that is not native to a certain area or individual is considered a foreign language. It goes without saying that different regions and people within them have different definitions of this. (Rankin, 2023:4)

Literature Review

Elliot Aronson, a social psychologist, created the jigsaw method as a cooperative learning technique in the early 1970s. It is mostly utilized in educational contexts to encourage student participation, critical thinking, and cooperation. The process takes its name from the concept of assembling a jigsaw puzzle, in



which every component is necessary to finish the entire image. (2004, Richard). The Background of Jigsaw Techniques in History One instructional strategy used in the classroom is the Jigsaw puzzle. In Austin City, Texas, it was initially used in 1971. According to Aronson (2008), he used the jigsaw to aid college students with their lesson plans. It was utilized by American, African, and Austin students who collaborated. Jigsaw puzzles are a productive approach to promote learning. With this approach, students are held personally responsible for their learning, exchange knowledge with other groups, and absorb a lot of information fast.

Jigsaw enhances interaction and creates an environment of collaboration and respect for other students since each group depends on its members performing well in order for the group as a whole to perform well. Students worked independently and competed with one another for grades in the classroom. They developed the Jigsaw approach in this setting. In order to teach the children about Eleanor Roosevelt's life, they first assisted a number of instructors in creating a collaborative Jigsaw puzzle.

Each student was given a certain section of Roosevelt's biography after they split the students up into small groups and made them diverse in terms of gender, color, and ethnicity. Needless to say, classmates already considered at least one or two of the students in each group to be "losers" (Aronson, 2008).

In 1978, Elliot Aronson and his companions created the Jigsaw Method as a cooperative learning approach. Learning to read, write, listen, or talk may all be accomplished using this method. The kids work together with their peers and have several chances to get better at communicating. Students that use the jigsaw approach can work with other students to study the topic and have the chance to become more responsible for their education.

University-level students can benefit from the Jigsaw method of cooperative learning. The method is to divide the class into small groups, with five to six pupils in each group. It is the responsibility of each group to discuss a certain piece of information with their fellow students. Slavin, 2009:16.

Advantages of Using Jigsaw as a Technique

(Arends, 2001) mentions many benefits of using jigsaws in the classroom:

1. Jigsaw can improve team and class dynamics by helping to build trust, creating a space for frankness.
2. Jigsaw can give some respectful disagreement and make a safe space for taking emotional risks.
3. Jigsaw can help in building cohorts (i.e., within majors) by enabling students to really get to know each other in the classroom.
4. Jigsaw can help the students translate to more interactions outside of class in departmental and campus activities.
5. Jigsaw can adoptive student engagement through peer learning and more equal participation by everyone in the group by empowering individual students to share their own "expertise" or contribution to the jigsaw group.
6. Jigsaw can require students who are shy or quiet to participate more fully in active ways.
7. Efficiency (time saving): possible to cover more material rapidly when students are assigned different readings/roles/etc. and then teach each other the puzzle.

Negative Aspects of the Jigsaw Method

1. The Jigsaw method may provide certain challenges. A prevalent issue is a student who is domineering. To mitigate this issue, every jigsaw group is led by a designated individual. Students learn that allowing each person to present their own work before asking questions and making comments increases the effectiveness of the group. Students gradually learn that dominance is not in the group's best interests, which leads to a reduction in it (Adams 2013:65).
2. Another issue is that one of the group's students is sluggish. Every member should do their hardest to provide the group the best report they can, just as it's crucial that those who struggle with studying don't give their jigsaw group subpar reports. To lessen this issue, the Jigsaw method depends on "expert" groups. Students collaborate with members of other groups to complete the same section of the report. They get the opportunity to review their reports with other students in this "expert" group and get ideas on how to improve them if necessary (Adams 2013:65).



3. The Jigsaw Technique Steps Using the Jigsaw approach is fairly easy. Each group of pupils consists of five or six people. It is the duty of each participant to study the assigned material. Aronson (2008) states that Jigsaw's English classroom methods may go in the following order:

- a. Students are split up into groups of five or six for Jigsaw. There should be diversity within the group in terms of color, gender, ability, and ethnicity.
- b. A single student ought to be designated as the head of the group. At first, this individual should be the group's most mature pupil.

There are five to six parts in a day's class (one for each member). For instance, to help history students learn about Eleanor Roosevelt, you could break up a brief biography of her into stand-alone sections covering the following topics: (a) Her early years; (b) Her marriage to Franklin and their children; (c) Her life following Franklin's polio diagnosis; (d) Her duties as First Lady in the White House; and (e) Her life and activities following Franklin's passing.

One section is given to each pupil to learn. Only the section they are directly enrolled in should be accessible to them. In order for the students to understand their portion, they should be given enough time to read it through at least twice. No need for memorization exists for students. Students from each Jigsaw group should join other students allocated to the same segment to establish temporary expert groups. Allocate time for the students in this expert group to go over the important ideas in their segment and practice the presentation they will be giving to their jigsaw groups. The students rejoin their Jigsaw group. Each student does a group presentation of their portion. It is suggested for other members to clarify their queries.

The instructor must watch as the students go from group to group. If a member of the group is being overbearing or disruptive, step in and help the group out. There will come a time when this duty falls to the group leader. Until the group leader is able to act effectively on their own, the teacher can discreetly offer advice on how to step in.

To help students understand that the sessions are more than simply games and fun—rather, they truly matter—an exam on the subject matter ought to be offered at the conclusion.

Difficulties with Jigsaw Methods

Adams states that the difficulties of using jigsaw puzzles when employing the jigsaw approach in the classroom, respondents mentioned a variety of difficulties. Below is a list of some of their challenges: this takes a lot of time. Some pupils have a tendency to take over throughout the exercises. College students' time and limited information sources. Although few college students failed to grasp the topic, the jigsaw helped the majority of them comprehend the study she was teaching. College students are not likely to build friendly relationships with other students in that class since they have their own groups. quantity of pupils in that class.

Participation may be impacted by a large group of pupils. Some kids will lack the bravery to participate. The schedule does not provide college students adequate time to complete their presentations. There is a time limit. Students that excel academically will cause difficulties for their less talented peers. According to Flowers and Ritz (1994:15), Teachers' Role Lie (1990:3), and Thanasoulas (2002:2), the teacher has many responsibilities in this process.

These positions are described as follows: creating engaging lessons to convey knowledge; motivating pupils to acquire knowledge; extending involvement; encouraging critical thinking. Interactions between students, teachers, and materials must be balanced; assessing pupils. The Group's Function Ventimiglia (1993:22) proposes a variety of group roles that foster social interdependence among students, whereas Joyce (2003:5) claims that the instructor assigns a task and a role to each group member. The following role cards are distributed to the students

1. The student who records the group conversation and puts together a presentation for the entire class is the recorder.
2. The student who reports to the class is the one who gives the group's information.
3. A student designated as a "checker" is one who keeps an eye on the other students' comprehension of the subject being discussed in the group and halts work to clear up any confusion.
4. The student who provides encouragement makes sure that all members of the group may take part in the celebration of their accomplishments.



5. The student who keeps an eye on and logs the group's general actions is the observer.

Related Previous Studies

1. The previous study has addressed the subject of teaching English as a foreign language utilizing Jigsaw teaching methodologies. Zahra (2014) conducted a study on the use of the Jigsaw technique to improve students' ability to write a descriptive text at One Senior High College in West Bandung. This study sought to ascertain if teaching students how to create descriptive texts using the Jigsaw method enhanced their reading abilities as well as how the Jigsaw approach influenced the students' answers. Students were able to create more detailed readings with the jigsaw approach. Using Jigsaw Technique to Improve the Reading Ability at the Second Year Students' of MTs Negeri.

2. Another study conducted by Raudhatuz is titled Medan (2009). The Jigsaw method was to be used in this study to help the pupils become more proficient writers. The purpose of the research was to evaluate the possibilities of the Jigsaw technique for boosting reading skills. English teachers employ the Jigsaw method because it encourages pupils to work together to explain the action in the picture and helps them produce narrative texts more successfully. Using Jigsaw Teaching Techniques to teach English as a foreign language boosts students' motivation to finish assignments and provides them a deeper sense of success and belonging, according to Al_ Noori's most recent research from 2023. Positive responsibility, interdependence, and interaction are credited with this beneficial outcome.

Methodology and Data Collection

1. Research Design

This study uses a quasi-experimental approach to examine how well the Jigsaw method works for teaching reading comprehension to first-year English students at Imam Al-Kadhim College. In order to evaluate the effect of the Jigsaw technique, the quasi-experimental approach compares the outcomes of two groups: the experimental group and the control group.

2. Participants

Thirty first-year students make up the study sample. They are split evenly between two groups: the experimental group (15 students) will be taught using the Jigsaw strategy, while the control group (15 students) will be taught using conventional techniques. In order to guarantee uniformity in terms of academic background and English ability level, participants were chosen from the Department of English.

3. Research Instruments

There were two main tools utilized to assess the Jigsaw strategy's efficacy:

a. A standardized reading comprehension exam was created in order to assess students' comprehension both prior to and following the intervention. Multiple-choice, short answer, and some open-ended questions are all included in the test to gauge various understanding levels.

b. Student Survey: To get input on the experimental group's experience using the Jigsaw technique, a post-intervention survey was given to them. Likert-scale and open-ended questions are included in the survey to investigate students' confidence, engagement, and reported growth in their reading abilities.

Procedures

1. Pre-test: A reading comprehension pre-test was given to both the experimental and control groups to determine their starting comprehension levels.

2. Intervention:

Jigsaw was the method presented to the experimental group. Students were split up into smaller groups and given a certain passage of a text to thoroughly examine. Students then participated in "expert groups"



with classmates who were studying the same material to debate and evaluate the material. Once back in their original groups, they instructed each other in their designated areas. The control group received instruction in reading comprehension using conventional techniques, which included teacher-led reading and comprehension activities devoid of peer instruction.

3. Post-test: To assess any variations in reading comprehension, both groups completed a post-test that was comparable to the pre-test after a predetermined number of sessions.

Data Collection and Analysis

The pre- and post-test findings were part of the data gathering process. They were examined to compare the experimental and control groups' mean scores and assess how well the Jigsaw technique worked. In order to learn more about how students felt about using the Jigsaw technique to reading comprehension, qualitative data from the student questionnaire was also examined.

Ethical Considerations

The goals of the research were explained to each participant, and participation was entirely voluntary. Students were guaranteed confidentiality and that their marks would not be impacted by their test results.

The purpose of this technique and data collecting plan is to investigate first-year students' opinions of this cooperative learning approach and to thoroughly evaluate the effect of the Jigsaw strategy on their reading comprehension abilities.

Questionnaire

The researcher has designed a questionnaire that consists of 8 items, including the gender (females). For 8 items, see Appendix A: Choose your gender: Females Grade: First grade, Second grade, Third grade, Fourth grade, Fifth grade, Sixth grade City, Baghdad Others. Choose your preferred answer carefully:

1. This strategy was beneficial in grasping the supplied content.
Agree Disagree Neutral
2. The approach allowed for a thorough discussion of the subject.
Agree Disagree Neutral
3. The technique improved communication abilities.
Agree Disagree Neutral
4. In the classroom, the exercise assisted in overcoming timidity and hesitancy.
Agree Disagree Neutral
5. The process was entertaining.
Agree Disagree Neutral
6. Learning might be accomplished with the method's help.
Agree Disagree Neutral
7. You are completely happy with this style of teaching and studying as a college student.
Agree Disagree Neutral
8. College students become more engaged and driven during lectures thanks to the strategy.
Agree Disagree Neutral



The Experience of the Iraqi university professors about using Jigsaw Technique in Teaching English Reading Comprehension as a Foreign Language. An experimental test will be administered by the Iraqi university teacher to thirty college students, half of whom have already observed how the jigsaw method is applied in the classroom accurately and motivates academic performance; thus, they form a controlled group. While the others (the experimental group) had never before been aware of the application of this technique. To see if the college students can use all the activities—even if some of them have never taught before—the teacher will give them a model that includes certain jigsaw puzzle game-derived activities. As demonstrated below: Divide the class into groups of no more than five or six people. Assume that the assignment is to study World War II. Sarah's task in one jigsaw group is to investigate Hitler's ascent to power in Germany before World War II. Michael is tasked with covering Britain's involvement in the war; Melody is assigned to investigate the Soviet Union's participation; Pedro is tasked with covering Japan's entry into the war; and Clara is assigned to study up on the creation of the atomic bomb. Lisa, another group member, is assigned to cover concentration camps. At some point, every student will return to their Jigsaw group and attempt to give the group a well-organized report. The arrangement of the circumstances is such that each member's only means of communication with the other. When the college students were given this model, the controlled group (15 students) completed all of the activities successfully because the teacher had given them a test based on their prior knowledge of the subject, while the uncontrolled group was unable to complete the activities because they had never been examined before. As seen below: The Total Number Types of Groups The Results 15 college students controlled group They achieved all the activities 15 college students uncontrolled group They don't achieve the activities The Statistical Results for the Questionnaire With the researcher, the participants were highly engaged, and most of the children answered the questionnaire accurately. There were 283 competitors overall, broken down by gender. The following table presents the analysis of the student data that was collected: Questions Disagree Agree Neutral Question NO.1 15.7% 75.5% 8.8% Question NO.2 14.3% 9.5% 76.2% Question NO.3 18.2% 13.2% 68.6% Question NO.4 41.3% 42.9% 15.9% Question NO.5 30.8% 47.8% 21.4% Question NO.6 10% 67.1% 13.8% Question NO.7 11.1% 77.8% 11.1% Question NO.8 26.2% 47.6% 26.2% The aforementioned statistics make it evident that college students have demonstrated the value and effectiveness of using Jigsaw Teaching Techniques while teaching English to foreign students. More and more parents and educators are realizing these days that pupils need a comfortable space to work in. Given that jigsaw helps pupils increase their brains, it will be especially beneficial for parents who can purchase resources for their children.

Conclusion

This study arrives to the following Conclusions:

1. Improving Reading Comprehension: If the method aids students in reaching greater reading comprehension levels, it may be said to enhance their capacity for information understanding and text analysis.
2. Encouraging Cooperative Learning: The method's success would suggest that it works well for improving students' group work abilities and interactions, which improves their social skills and boosts their desire to study.
3. Increasing Independence and Responsibility: The Jigsaw technique's success may be a sign that students are growing more capable of understanding the material on their own and are prepared to assume the responsibility of instructing others, as it is based on splitting texts and giving each student a specific portion to teach the rest of the group.
4. Developing Self-Confidence: Students' confidence in their language proficiency, speaking talents, and conversation skills may all be increased when they educate their peers.
5. Fostering Critical Thinking Skills: The instructor can determine if an approach is successful in encouraging pupils to think critically and analytically if they see that it encourages students to pose questions and engage in in-depth discussions of concepts.
6. Diversifying Learning Approaches: The application's success would suggest that Jigsaw is a useful strategy that meets the demands of first-year students, who might have varying learning styles, thereby improving the educational process.



7. Students can participate actively in their education through the use of the jigsaw technique.
 8. The pupils in the experimental group acquire their reading skills more quickly using the jigsaw technique than they do using the recommended method.
 9. Jigsaw groups outperform the control group in terms of test scores because cooperative group members actively participate in the process, attempt to help their friends grasp the material, and fully understand the subject matter through their individual responsibilities.
 10. Jigsaw is a cooperative reading method that works well for teaching reading comprehension to Iraqi college students because it gives them practice speaking the target language by having them attempt to communicate in it.
 11. The recommended approach, in which teachers serve as the primary source of questions and answers, restricts students' creativity since they are given a formula for questions to respond to; this results in a dull, uninteresting learning environment.
6. One strategy for navigating the enormous amount of information available is cooperative learning. It goes without saying that every person has unique information that they may impart to others.

Appendix A

The model below, as it will show in the table, is the questionnaire that will be given to the college students in order to choose the best option according to their attitudes and preferences:

1. The method helped enhance communication skills.
Agree Disagree Neutral
2. The jigsaw method was useful in comprehending the given topic.
Agree Disagree Neutral
3. The method enabled in-depth coverage of the topic.
Agree Disagree Neutral
4. The activity helped in overcoming shyness and hesitation in the class.
Agree Disagree Neutral
5. The method was enjoyable.
Agree Disagree Neutral
6. The method was an effective way for learning.
Agree Disagree Neutral
7. As a student, you are fully satisfied about using this method in the learning and teaching process.
Agree Disagree Neutral
8. The method makes the students more interactive and motivated in the lessons.
Agree Disagree Neutral

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