"The Potentials of the Jigsaw Approach: A Study on Saudi Female EFL Learners' Perspectives, Experiences, and Attitudes Towards Their Reading Comprehension Skills"

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KEY WORDS

ABSTRACT

The jigsaw approach encourages peer interaction and peer tutoring that enhance learners' interpersonal skills through learning to cooperate in small cooperative groups. The design is particularly utilized in language classrooms to maximize students' social interaction, learning productivity, engagement, teamwork skills, and proficiency in language skills. This study seeks to evaluate the perceptions of Saudi female EFL students regarding the efficacy of the Jigsaw method and its influence on their reading comprehension difficulties and anxiety. The researcher created a quantitative tool to gather data from the participants. A 40-item Likert scale of strongly disagree to strongly agree was used to generate statistical results from the participants' perspectives. The study involved both control and experimental groups to assess how Jigsaw influences the social, emotional, and academic abilities of learners. The opinionnaire was distributed to one hundred and ten (n=110) female EFL learners at a Saudi Undergraduate University to record their opinions on the jigsaw approach's efficacy. The statistical results show that the participants greatly admired the idea of working collaboratively with their peers to internalize learning and achieve their mutual goals. However, the participants negatively responded to the concept eliciting their knowledge of vocabulary, grammar, and the recognition of the words in the control group as these items remained the least preferred item in the relevant cluster. Therefore, in the experimental group learners' perceptions were changed regarding their feedback on these items.

1. Introduction

Reading, an intricate yet crucial skill in any English language program, is part of the teaching and learning process that equips students with the abilities needed to thrive in a constantly changing world. It engages learners in decoding, making inferences, and utilizing background knowledge, critical thinking skills, and creativity. The difficulties in reading comprehension may certainly have a significant impact on Saudi EFL learners' learning productivity, self-confidence, and academic achievement. In this context, Çelik (2006) expresses that teaching practices should be properly planned and implemented according to the needs of society and individuals. The role of instructors and learners needs to be adapted according to the requirements of the new educational understanding where the former should assume the role of a facilitator instead of a transmitter of knowledge. Likewise, the latter should become an independent learner who autonomously performs in learning activities (Gurbuz et al., 2015). Saulnier (2009) emphasizes a shift in teaching roles from being the 'sage on the stage' to becoming the 'guide on the side,' encouraging learners to actively engage in their own learning process. Cooperative learning is among the recent popular approaches that guarantee learners' active involvement in the learning process and enhance their academic accomplishments (Bay & Cetin, 2012). The jigsaw technique is a cooperative learning design developed by Aronson, Blaney, Stepan, Sikes, and Snapp (1978) that facilitates learners' positive interdependence by dividing chunks of resources into small pieces and structuring interaction among the participants. The Jigsaw method is a valuable tool utilized to improve students learning and the development of a variety of skills, including language skills (reading, writing, listening & speaking), their engagement, understanding, collaboration, motivation, and retention of knowledge. In the Jigsaw activity, students were split into small groups, and each participant was tasked with a unique segment of the reading material. Blaney et al. (1977, p. 123) describe it as follows:

> The material to be learned was divided into as many parts as there were group members. Each student learned only one part of the total material and was, in turn, responsible for teaching his part to his group mates. However, each group member was responsible for learning all the curriculum material for testing.

The jigsaw approach encourages students to become experts in their assigned chunks of the material. They pay attention to the details, ask questions, and help ensure that all students have a good understanding of the material. This study seeks to assess the views of Saudi female EFL learners on how the jigsaw method affects their reading comprehension abilities and anxiety levels.

1.1. Statement of the Problem

Reading is a two-way process in which the reader must interact with the text, and the text must interact with the reader. The reader must unravel the written words' meaning to comprehend the author's viewpoint. The findings of several studies show that reading comprehension in the context of Saudi Arabia is never flawless. The researchers reported that Saudi EFL learners do not have the necessary reading

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comprehension skills to understand the written English texts essential to succeed in different academic scenarios. In this context, the results of Al-Qahtani (2016) show numerous factors, including; teachers, curriculum, dearth of learners' motivation, and lack of parental support. Khan et al. (2020) identified factors including limited vocabulary, poor grammar skills, spelling and pronunciation problems, and slow reading speed among learners. Furthermore, research by Qrqez and Ab Rashid (2019) points to a lack of support from parents, teachers, and society, unengaging textbooks, and learners' disinterest in reading English texts as significant issues. Many studies have been carried out across various Saudi universities, yet there hasn't been research specifically examining the reading comprehension difficulties and reading anxiety of Saudi female EFL students through the implementation of the Jigsaw method of cooperative learning at a Saudi undergraduate university. Similarly, the researcher observed that the majority of Saudi Female EFL learners are not very good at their reading comprehension at the intermediate level though they have studied English for more than ten years. This study aims to examine the perspectives of Saudi female EFL learners on the Jigsaw intervention method, their reading anxiety, and their challenges with comprehending English texts.

1.2. Research Objectives

This empirical investigation sets out specific research objectives. The objectives of the study were:

a. To assess how Saudi female EFL learners perceive the effects of the Jigsaw approach on their reading comprehension skills;

b. To evaluate Saudi female EFL learners' views on the impact of the Jigsaw approach on their experience.;

c. To estimate the perspectives of Saudi female EFL learners regarding the impact of the Jigsaw approach on their feelings of anxiety while reading English texts.

1.3. Null Hypotheses

1. There isn't a notable difference between the control and experimental groups of Saudi female EFL learners in terms of how they view the Jigsaw method's impact on their reading comprehension skills.

2. There is no significant distinction in the perception of Saudi female EFL learners in the control and experimental groups regarding the impact of the Jigsaw approach on their experience of working with Jigsaw.

3. There is no notable variance in the perception of Saudi female EFL learners in the control and experimental groups concerning the influence of the Jigsaw approach on their feelings of anxiety when reading English texts.

1.4. Research Questions

The subsequent research questions were formulated for this empirical investigation:

1) What do Saudi female EFL learners think about their experiences with the jigsaw approach?

2) How do Saudi female EFL learners perceive the impact of the Jigsaw on their reading comprehension abilities?

3) How do Saudi female EFL learners view the impact of the Jigsaw approach on their anxiety levels when reading English texts?

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1.5. Background of the problem

Multiple studies indicate that Arab EFL learners struggle with reading comprehension due to insufficient vocabulary and grammar skills, difficulty identifying text structures, and a lack of self-confidence. Khan et al. (2020) investigated the difficulties in reading comprehension faced by Saudi EFL students at the elementary level. The research indicated that inadequate vocabulary, limited grammar knowledge, spelling and pronunciation difficulties, as well as slow reading, are the primary factors contributing to learners' struggles in reading comprehension. Chandran and Shah (2019) found that the majority of students agreed that the primary challenge in ESL reading comprehension is associated with the reading process. The suggestions indicate that educators might tackle challenges with reading comprehension by giving clear guidance on how to read effectively, teaching methods for interpreting various kinds of texts, and fostering a classroom atmosphere where students are encouraged to ask questions and ask for assistance. Hassan and Dweik (2021) employed a mixed-methods strategy to examine the factors and obstacles affecting the English reading comprehension of Jordanian EFL students. The study concluded that these challenges can be reduced by using a variety of interventions, including providing explicit instructions in vocabulary and grammar, teaching reading comprehension strategies, and creating a positive attitude towards reading. Several studies have been conducted on the issue through using different techniques, but the problem still largely prevails.

In this context, the researcher is going to utilize the Jigsaw cooperative learning technique which is an effective tool to engage the students in active learning, address the reading comprehension problems of the EFL learners, and build their self-confidence. As yet, no study has been carried out at a Saudi Undergraduate University to measure Saudi EFL learners' perceptions about their experiences of the Jigsaw activities, poor reading comprehension abilities, and anxiety toward reading English texts. The Jigsaw method breaks down the text into smaller sections, and each student working in a small group is assigned to read one section, discuss it with their teammates, and then teach the information they have learned to the students of other groups. In the Jigsaw technique, the learners do not simply listen to a lecture but are actively involved in reading, understanding, discussing, and teaching the information to their peers. In a similar vein, this technique can also reduce Saudi female EFL learners' fear of reading English texts because it provides them the opportunities to collaborate with their peers and discuss the information they have learned with their peers. This collaboration can help students feel more comfortable with each other and the English language. Furthermore, this approach plays a pivotal role in building Saudi female EFL learners' self-confidence because it requires them to teach the learned material to their teammates and also to the team members of other groups. This interactive process helps develop Saudi EFL learners' confidence in their ability to understand and explain the information.

2. Literature Review

2.1. Poor Reading Comprehension Abilities

Reading is the ability to understand and interpret the written text. It has always been considered crucial in academics. It is a critical skill for students, as it allows them to access information and ideas from a variety of

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sources. It is not just being able to decode words but rather being able to understand the meaning of the text, make inferences, and draw conclusions. The research conducted by Al Roomy et al. (2019) found that Saudi EFL learners face difficulties with grasping the meaning of words in particular contexts and understanding the main idea of a passage in English. Alghonaim, (2020) stated that Saudi EFL learners often struggle with comprehension because they may not have the same level of proficiency in reading the English text. They also lack the background knowledge necessary to understand certain texts. As a result, EFL learners may have difficulty understanding the meaning of words and phrases, following the flow of a passage, and identifying the main points of a text. Al-Shumaimeri (2009) mentioned that Saudi EFL learners' performance in reading comprehension is affected by content familiarity which refers to their understanding of the topic of the text. When learners are familiar with the topic, they are more likely to understand the text and to make inferences about the meaning of words and phrases.

2.2. Saudi EFL Learners' Anxiety Toward Reading the English Text

Language anxiety is a feeling of nervousness, or fear that EFL students experience at some point in their language-learning process. Language anxiety might not be able to be overcome completely, however, it can be mitigated over time and with the use of the right strategies. Much of the research on foreign language reading anxiety has concentrated on Asian language speakers, especially Chinese and Korean, with somewhat less emphasis on Spanish and Arabic speakers. Zhou (2017) researched to explore the level of reading anxiety in learners of Chinese as a foreign language in the United

States. The findings of the study indicate that Chinese learners often worry about being unable to understand the content of a text because of their unfamiliarity with the topic, and inability to pronounce unknown words correctly, which makes them feel self-conscious, and uncomfortable reading out loud in class if they are not confident in their pronunciation. Joo and Damron (2015) examined foreign language anxiety in students taking Korean language classes at an American university. The research revealed that students in higher-level courses experienced less anxiety when reading English texts compared to students at lower reading levels. Al-Shboul et al. (2013) investigated the causes of foreign language reading anxiety in Jordanian EFL students with varying levels of English proficiency. The research revealed that dealing with unfamiliar topics, failing to grasp cultural references or idioms, and dealing with unknown vocabulary can obstruct their ability to grasp the text's meaning. This is especially challenging when the text uses a lot of technical or specialized vocabulary.

It is evident that past experimental research has mainly concentrated on identifying causes of reading anxiety and exploring the connection between reading anxiety and comprehension, reading strategies, and the factors leading to reading comprehension problems but as yet no study has been undertaken to administer control and experimental group with Jigsaw to investigate Saudi EFL learners' experiences of the Jigsaw approach, poor reading comprehension abilities and their anxiety towards reading English texts at Saudi Undergraduate University.

2.3. The Jigsaw Intervention

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Cooperative learning (CL) is a teaching strategy where small student groups collaborate to reach a shared objective. The groups are typically heterogeneous, consisting of students with different abilities, backgrounds, and interests. The variety helps ensure that all students have the opportunity to contribute to the group and to learn from each other. Similarly, the students are encouraged to support each other and to hold responsibility for their own learning. They are expected to employ group-related social skills to communicate effectively with each other, evaluate the group's progress, reflect on how well the group is working together, and identify areas where the group can improve.

The Jigsaw method is a cooperative learning strategy that can be effective in enhancing reading comprehension. This requires learners to read, learn, and teach about a specific section of the text, think about their understanding of the material, and identify any gaps in their knowledge. Two key and interconnected educational objectives that enhance reading comprehension include developing metacognitive awareness and mastering content through teaching it to peers (Meng, 2010, p. 502). Winten's (2013) research indicated that the Jigsaw method aids in enhancing reading comprehension by stimulating recall of previous knowledge, elucidating details, prompting inquiries, and summarizing. Ameiratrini (2017) mentioned that the jigsaw approach encourages students to be accountable for learning necessary information since they must individually read and understand a designated part of the text and then explain it to their classmates. Similarly, communication plays a big role in presenting the comprehension they have because they are required to share their knowledge with their peers. This process

facilitates them to be able to think critically about the information they have learned and necessitates them to work collaboratively with their peers.

The students were divided into 10 groups, with four members in each group. The groups were formed based on the names of the students in the attendance register. Both the experimental and control groups learned the same content, yet the experimental group used the collaborative jigsaw technique to practice, while the control group received traditional instruction.

In each class, students were motivated to collaborate and complete the tasks together. Students were informed that they should take responsibility for their own learning. Engaging in CL doesn't mean depending on peers to do your work. Students should understand that their assessment and grades will still depend on their performance at the end of the lesson, month, or year. The researcher identified the objectives of the study, clarified the tasks that needed to be completed, and supervised inter-group cooperation during each session. Throughout the Jigsaw activity with the experimental group, students took on specific roles as recommended by (Adams, 2013, p. 69): 1). working together; 2). listening to one another; 3). questioning one another; 4). keeping records of their work and progress; 5). producing the assessment task (product); 6). assuming personal responsibility by being involved.

3. Method

3.1. Research Design

This research used a quantitative approach to examine the views of 116 Saudi female EFL learners at a university in Saudi Arabia on how the jigsaw method affected

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their social and academic abilities. The research tool was developed to perform descriptive research, collecting and quantitatively analyzing participants' opinions to gain insight into their views on specific aspects of the jigsaw approach.

3.2. Participants

This study employed a random sampling method to generate the data. The Arabic version of the questionnaire was distributed to 116 Saudi female EFL students at the undergraduate level. One hundred and ten (n=110) responded to all the items of the survey and their feedback was selected for the final analysis. The researchers rejected the opinionnaire filled out by some of the participants with incomplete feedback.

3.3. Instrumentation

The researcher scrutinized several studies from similar contexts to formulate an appropriate survey to bring forth the participants' perceptions (see for example, Al-Qahtani, 2016; Hezam, et al., 2022; Tanapanyaworakul, & Koowuttayakorn, 2020, Karacop, & Diken, 2017; Kanama, Siriwan & Prasongsook, 2020). A 40-item Likert-scale survey was designed with closed-ended statements. The present empirical inquiry envisioned four research questions in correspondence with the four variables, which are further fractionated into thirty-three items stacked in the four tables.

3.4. Validity and Reliability

The initial version of the survey was dispatched to three specialists in the field to evaluate its content validity. The feedback from the participants was compiled and incorporated into the survey. The modified survey, after being translated into Arabic, underwent a pilot test with 24 Saudi female

EFL learners chosen at random. Data obtained from the pilot test were entered manually, and to assess the instrument's validity, Cronbach's Alpha reliability test was conducted. The result demonstrated a reliability score of .926, which is considered satisfactory. The final version of the survey was given to participants to collect data.

Table 1. Reliability Coefficient:

Number of Cases	24
Number of Items	40
Alpha	.926

3.5. Measures and Data Collection

The learners provided feedback on the survey containing 4 IVs about their perceptions of the impact of Jigsaw on their reading comprehension, language problems, psychological attitude towards the English text, and self-confidence. A reading comprehension scale containing fifteen items (n=15) was adopted and modified from the Intrinsic Motivation Inventory (IMI), which is a device that measures how participants perceive an activity they experience. The Intrinsic Motivation Inventory (IMI) tool was utilized by Tanapanyaworakul, et al., (2020) to evaluate learners' perceptions of reading jigsaw comprehension activities. The researcher adopted the 8-item research tool utilized by Hezam, et al., (2022) in their undertaking to investigate EFL students' reading comprehension difficulties and problems. Similarly, 16 items are adapted from Zemni, et al., (2021) to assess Saudi EFL learners' anxiety toward reading English texts.

The final version of the survey was dispensed to the randomly selected one hundred and sixteen (n=116) female EFL learners at a Saudi Undergraduate University. An Arabic version of the survey was formulated by taking into account the fact that

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the English version of the opinionnaire may hamper the insight of the participants. The researchers received one hundred and ten (n=110) valid responses from the participants.

3.6. Data Analysis

The analysis of 110 participants' valid responses involved coding, manual input, and descriptive examination for means, range, and standard deviation using SPSS version 23. Items having greater mean values indicate stronger preferences among participants, and the opposite is true for lower mean values. The data's descriptive statistics were presented in tables for analysis and discussion within the 'results and discussion' section, using insights from similar studies as support.

Table 2. *Participants' Comprehension Skills, Experiences, & Anxiety Level towards Their Reading Comprehension Abilities through Jigsaw Approach*

Variables	Cont. Group		Exp. Group				
	Mean	SD	Mean	SD	t (218)	p	Cohen's d
Reading Comprehension	75.63	4.67	87.55	1.75	.000	<.001	5.13
Feelings of Anxiety	2.00	.24	2.00	.000	1.000	>.001	0.00
Jigsaw's Experience	28.11	1.33	31.94	.49	.000	<.001	-0.12

Note. M = mean, SD = standard deviation, t = t-statistic, p = p-value, Cohen's d = effect size.

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Table 2 showed that, compared to the experimental group (M = 87.55, SD =1.75), the control group of Saudi female EFL learners (M = 95.63, SD = 4.67) significantly perceived the Jigsaw approach's impact on their reading comprehension skills as lower, with a t-value of 12.425, a p-value of less than .001, and a Cohen's d of 5.13. There was no significant difference, found in the perception of Saudi female EFL learners in the context of the impact of the Jigsaw approach on their feelings of anxiety while reading English Text between the Control Group (M = 2.00, SD = .24) and Experimental Group (M = 2.00, SD = .000), t (218) = 2.708, p > .001, Cohen's d = 0.00.

The Saudi female EFL learners from the Control Group (M =28.11, SD =1.33) showed a significantly lower impact of the Jigsaw approach on their experience with Jigsaw confidence as compared to those in the Experimental Group (M = 31.94, SD = .49), t (218) = 1.257, p < .001, Cohen's d = -0.12. The findings reveal significant differences in perceptions of the Saudi female EFL learners regarding the effect of the Jigsaw approach on their English reading comprehension skills and their experiences related to Jigsaw but there was no significant difference in the perception of the Saudi female EFL learners on the impact of jigsaw approach on their feelings of anxiety while reading the English text. These findings of the study suggest that the Jigsaw approach is an efficacious strategy to enhance the experience of Saudi female EFL learners for improving the best English reading comprehension skills without any feelings of anxiety.

Table 3. *Saudi Female EFL learners' Feelings of Anxiety & Jigsaw Approach (Control Group N=110, Experimental Group N=110)*

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S. No	Statements	Control Group M SD	Experimen Group M SD
FA1	I felt stressed while doing the tasks in the jigsaw activity.	4.00 .235	4.00 .000
FA2	I am worried about the assigned task in the jigsaw activity.	3.99 .214	2.02 .302
FA3	I felt nervous when I had to share my thoughts with the group during the jigsaw activity.	3.99 .214	1.98 .134
FA4	Even though I feel like I understand the entire text, I am unable to respond to the reading questions.	4.00 .235	1.95 .209
FA5	I get frustrated when I do not understand what I am reading in English.	3.99 .214	1.95 .209
FA6	While reading a text in English, I often become so confused that I am unable to recall the content I have read.	3.95 .572	1.95 .209
FA7	It is very intimidating to read an entire page in English.	3.99 .516	1.96 .188
FA8	I feel anxious when I read an English text on an unfamiliar topic.	4.01 .498	1.96 .188
FA9	I feel anxious and confused when reading English texts if I don't understand every word.	3.96 .448	1.96 .188
FA10	It is frustrating to encounter words with difficult pronunciation when reading English texts.	3.97 .515	1.96 .301

Table 3 revealed the comparison between the control and experimental groups of the Saudi female EFL learners for their feelings of anxiety when they were open to applying the Jigsaw technique. As the control group does not apply the Jigsaw approach, therefore, their mean scores range from 3.95 to 4.01 whereas, the experimental group is exposed to the Jigsaw approach showing their mean scores in the range from 1.95 to 4.00. The control group had the highest mean scores, showing that the EFL learners had a great emotional state of anxiety or nervousness whenever they had been assigned to read and answer the given questions from the unfamiliar text in English due to their inability to understand and remember English words' pronunciation. In contrast to the control group, the experimental group showed the lowest mean scores as the Saudi female EFL learners expressed more confidence in reading, understanding, remembering, and answering the given question by comprehending the unknown text in English by applying the Jigsaw approach with little or no nervousness.

The standard deviations of ten items related to the feelings of anxiety of Saudi female EFL learners of the control group and experimental group are in the range from .572 to .214 and from .302 to .000 respectively. Therefore, the responses of the participants for FA6 in the control group and FA2 in the experimental group are more changeable and inconsistent as these items have the highest standard deviation values. Whereas, FA2, FA3, and FA5 in the control group and FA1 in the experimental group have the lowest standard deviations and show more consistent and non-variable responses of the participants in both groups.

Table 4. *Saudi Female EFL Learners' Experience of Handling Jigsaw Approach (Control Group N=110, Experimental Group N=110)*

S. No	Statement	Control Group M SD	Exper. Group M SD
EJS1	I think I can do the jigsaw activity very well.	3.99 .214	1.99 .095
EJS2	I believe jigsaw activity is beneficial for me.	3.98 .191	1.99 .095
EJS3	I enjoyed participating in the jigsaw activity.	3.98 .191	1.99 .095
EJS4	I am satisfied with my performance during the jigsaw activity.	3.97 .286	2.00 .000
EJS5	I am willing to participate in the jigsaw activity again.	2.02 .302	3.99 .214
EJS6	I think the jigsaw activity is interesting.	2.00 .000	3.99 .214
EJS7	I frequently comprehend the individual words in an English text, but I have difficulty grasping the author's intended meaning.	4.02 .134	1.95 .209

Table 4 contains seven items that are related to the handling experience of the Jigsaw approach by Saudi female EFL learners. The control group had not received the treatment of the Jigsaw approach, therefore, EJS7 indicates a high mean score value, 4.02 because the participants of the control group could not be able to comprehend the text in English without the Jigsaw approach. Whereas, EJS6 & EJS5 show the lowest mean scores, 2.00 & 2.02

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respectively. It means that they did not experience Jigsaw activity, therefore, they were unable to understand the interest level of this approach and had no intention to perform the Jigsaw approach again and again.

On the other hand, the experimental group had been passed through the experience of the Jigsaw approach, therefore, EJS5 & EJS6 show high mean score of 3.99 each. It mentioned the great interest of EFL learners to perform and learn an interesting activity again and again in the form of the Jigsaw technique. Moreover, EJS1, EJS2, and EJS3 show the lowest mean scores such as 1.99 each. Some participants did not show a positive experience towards the Jigsaw approach as they had the opinion that the Jigsaw technique was not beneficial for them as they felt hesitation to perform it and hence did not enjoy learning from the Jigsaw approach.

The standard deviations of the control group of Saudi female EFL learners for seven variables range from the highest SD value of .302 to the lowest SD value of .000 indicating the EFL female participants' responses are more spread out and unpredictable to EJS5 to be participated in Jigsaw activity. Moreover, the responses of the participants are more grouped and more expected for EJS6 as they considered the Jigsaw to be an interesting approach to comprehension of a text of English. As compared to the standard deviation values for the experimental group of Saudi female EFL learners for EJS5, .214 were less than the control group's value indicating that the data was firmer and participants had concentration to contribute to Jigsaw activity. The standard deviation values of the experimental group of EFL learners for EJS4 showed the lowest standard deviation, .000. It means the partakers' data was more compactly clustered around the mean and showed more satisfaction

level of Saudi female EFL learners for their best performance during Jigsaw activity.

Table 5. *Saudi Female EFL Learners' Collaboration & Jigsaw Approach (Control Group N=110, Experimental Group N=110)*

S.No	Statements	Control Group	Experimental Group
		M	M
		SD	SD
CJS1	I felt I could trust my peers during the jigsaw activity.	4.00	1.99
		.000	.095
CJS2	I can do very well at jigsaw activities compared to others.	3.99	2.02
		.214	.302
CJS3	I prefer to interact with my friends while doing the jigsaw reading activity.	2.28	1.99
		.718	.095
CJS4	I felt like working with my friends as a group in the jigsaw activity again.	4.00	2.01
		.000	.214

Table 5 mentions the mean scores and standard deviations of Saudi female EFL learners for four variables related to their collaboration in performing the Jigsaw activity. The highest mean scores of the control group for CJS1 and CJS4 were 4.00 each, greater than compared to the experimental group for the same items which were 1.99 and 2.01 respectively. This suggests that participants in the control group, unlike those in the experimental group, were unfamiliar with collaborative work during the jigsaw activity, as they had not been exposed to it. Consequently, they expressed a desire to engage in the jigsaw activity without fully understanding the implications. Therefore, the low mean scores of the experimental group indicate that participants preferred to perform the Jigsaw activity individually.

Moreover, the standard deviations for four items indicate the highest values in the control group was shown by item CJS3, .718 as compared to CJS3, .095 in an experimental group of EFL learners indicating the more spread-out data in the control group as the responses are more inconsistent of

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doing work in collaboration during Jigsaw activity as compared to an experimental group of EFL learners. Moreover, the lowest standard deviation value of .000 for CJS1 and CJS4 is less than the experimental group's standard deviation values by showing their less attitude toward trusting peers and not working together in collaboration with peers again they have bad consequences with peers during the execution of Jigsaw activity in an experimental group. Therefore, the highest standard deviation value in the experimental group for item CJS2, .302 as compared to the control group, SD value was .214 for CJS2 indicates that participants in the experimental group had thought of their best performance as compared to other participants.

Table 6. *Saudi female EFL Learners' Reading Comprehension Skills & Jigsaw Approach (Control Group N=110, Experimental Group N=110)*

S.No.	Statements	Control Group	Experimental Group
		M	M
		SD	SD
RCJ1	I think the jigsaw activity helps to improve my reading comprehension.	2.28 .718	1.99 .095
RCJ2	I find it challenging to understand texts due to a lack of adequate English vocabulary.	2.33 .779	1.96 .188
RCJ3	I encountered difficulties in understanding texts due to my grammar limitations.	2.32 .753	1.95 .228
RCJ4	I encounter challenges in understanding texts because I lack knowledge of sentence structures.	3.15 .363	1.96 .188
RCJ5	I struggle to understand texts if I'm unable to translate every single word.	4.04 .188	1.96 .188
RCJ6	I face problems comprehending a text because I cannot understand its main idea.	4.00 .235	1.97 .164
RCJ7	I face problems in understanding texts despite understanding the meanings of all the words.	3.98 .270	1.95 .209
RCJ8	I face problems in understanding lengthy texts.	4.01 .253	1.95 .209
RCJ9	I am worried about the phonics principles that I need to grasp to read in English.	3.96 .427	1.95 .209
RCJ10	It is fun to read a passage in English.	3.92 .651	2.00 .235
RCJ11	I approach reading passages in English with confidence.	3.80 .776	2.00 .235
RCJ12	The most challenging aspect of learning English is acquiring the skill of reading.	2.38 .928	1.98 .134
RCJ13	I would prefer to focus on learning to speak English rather than learning to read it.	4.00 .383	1.99 .095

The data presented in Table 6 illustrates the mean and standard deviations of thirteen factors concerning the enhancement of comprehension skills among Saudi female EFL learners through the implementation of the Jigsaw approach. In the control group, the mean scores of these items range from 4.04 to 2.28. Therefore, RCJ5 with a high mean score, of 4.04 indicates the difficulty of learners to comprehend the English text without knowing the meaning of every word as compared to the low mean score of RCJ5, 1.96 in an experimental group which showed the removal of this difficulty and learners can comprehend English text without translating every word through the help of Jigsaw activity. Whereas, item RCJ1 in a control group of EFL learners showed low mean scores such as 2.28 indicating that learners felt that it was difficult to enhance their reading comprehension without the Jigsaw approach. RCJ10 and RJS11 in an experimental group of EFL learners showed high mean values by showing that female EFL learners enjoyed reading English paragraphs and they felt happy when they read this paragraph with confidence by applying the Jigsaw approach.

The standard deviation values for thirteen variables range from .928 to .188 in the control group, while in the experimental group, they range from .235 to .095. RCJ12 got a high standard deviation in the control group by measuring the more spread data or inconsistent responses of respondents as compared to the standard deviation value of the same variable in an experimental group that was 1.98 showed the less spread out or unchangeable data that emphasizes that female EFL learners felt no difficulty when reading the English passage by using the jigsaw approach. Again, high values of standard deviation of CRJ10 and CRJ11, .235 each respectively in an experimental group measured the inconsistent data or changeable

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responses of respondents upon reading English with confidence is an enjoyment for female EFL learners. Whereas, the low standard deviations of .095 for RCJ1 and RCJ13 mentioned the more concentrated responses near the mean value and Saudi female EFL learners felt it more enjoyable and interesting to speak English with others rather than to learn it but they accepted the importance of Jigsaw approach to know the words in English that made it easy for EFL learners to speak in English well with others frequently.

4. Discussion

The results of this study indicate the significant impact of the Jigsaw approach on the experience of practicing the Jigsaw techniques and the improvement of their level of English reading comprehension abilities. The Participants in the experimental group who applied the Jigsaw approach manifested significantly higher levels of confidence in their English reading comprehension abilities as well as more positive experiences and perceptions of using the Jigsaw approach when compared to the control group. These results indicate that the Jigsaw approach is a useful tactic for improving Saudi EFL learners' reading comprehension abilities.

The researchers mentioned that the learners use Jigsaw techniques in their collaborative learning which in turn has an enhancing effect on their increasing academic success. The jigsaw approach is a very useful, effective, and helpful technique in the learning process of theoretical courses especially at the primary, middle, and university levels to develop the critical thinking process of the students concerning their capabilities to express themselves along with the enhancement of their communication skills. That is the reason, teachers are using the

Jigsaw technique to augment the learners' motivation and engagement to read (Hezam, et al., 2022). According to Karacop and Diken (2017), the Jigsaw approach is very useful to upsurge the ability of reading comprehension. Therefore, putting into practice the Jigsaw technique in the teaching-learning process helps to create more responsible learners about can handle the problem along with its solution together working in the group. In short, the Jigsaw is one of the best ways for teaching reading to make students able to comprehend what they have read.

5. Conclusion

The current study mentions very strong evidence that the Jigsaw approach is one of the best-used techniques for enhancing the reading comprehension ability and the experience of Saudi EFL learners to go along with Jigsaw without their feelings of anxiety while reading English texts. Therefore, according to the results of this study, The Jigsaw technique can be a very effective and helpful teaching aid for EFL teachers who want to sustain effective reading comprehension skills.

6. Recommendations

Based on the study's findings, the following recommendations are proposed: 1) To help EFL learners develop positive perceptions, experiences, and confidence in their reading English comprehension capability, EFL instructors should assimilate the Jigsaw technique into their reading instruction. 2) Future studies should look into the long-term effects of Jigsaw instruction on EFL learners' reading comprehension skills and investigate the effectiveness of the Jigsaw approach in different EFL reading contexts. 3) The jigsaw approach should be specifically designed to give students occasions for peer-

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to-peer learning, productive feedback, and metacognitive reflection.

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