The Effect of Jigsaw Technique on English Reading Comprehension Skills in Thai Secondary School

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Abstract

The purposes of this study were to investigate the effects of using the Jigsaw technique on students' English reading comprehension skills and to investigate how the Jigsaw technique affected students' English reading comprehension skills. This study was a quasi-experimental design. The participants consisted of sixty in eleventh grade students from two classrooms at a secondary school in Khonkaen, Thailand. The control group was thirty students and the experimental group was thirty students. Four lesson plans were designed based on the Jigsaw technique with the cycles of task based learning. The instruments consisted of a pre-test and a post-test, a questionnaire, a semi-structured interview, and a diary. The data were analyzed using independent t-tests, paired t-tests and descriptive analysis technique. The findings revealed that the post-test scores of the students learning through the implementation of the Jigsaw technique with task-based learning were higher than those who learned in the traditional approach. The findings indicate that the students improved their English reading comprehension skills after learning through the Jigsaw technique and task-based learning significantly at the 0.05

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level of statistics. Moreover, the dynamic of "home group" and "expert group" facilitated students' reading comprehension because the students were involved with other students in a group. Learning from small chunks of reading to the whole passage helped the students to gain more thorough comprehension of the text. The findings suggest pedagogical implications for reading instruction in EFL setting.

Keywords: Jigsow, reading, EFL, english

Introduction

English language education is considered an important area in Thai educational policy as it may indicate the strength of Thailand in ASEAN community (Ministry of Education, 2009). Hence, the Ministry of Education stated in the language policy of the basic education that the schools in Thailand must place importance on teaching English by organizing contents and extracurricular activities to enable students to use English in their daily life. Hopefully, Thai citizens will use English as a communication tool with foreigners effectively (The Office of the Basic Education Commission, 2008). However, some Thai students still encounter some difficulties in applying English skills such as speaking and reading. These skills are considered to be significant skills for daily life communication.

According to the researcher's working context as a teacher of English for Thai secondary school, the obvious problem of using English is reading comprehension. The reason for this is that, in a classroom, when students get involved with reading passages, they are unable to comprehend them. They are unable to identify the components of the passage; topic, main idea, supporting details and summary of the passage. Moreover, students are unable to identify the characters and setting of the passage. As seen from the results of an English Ordinary National Educational Test (O-NET) which belongs to the school where the study took place, students often failed in reading comprehension part (Kudkhonkaen Wittayakom School, 2017). This is considered an important English skill for all students at this level. Thus, reading comprehension skill is considered one of their most challenging problems at school. Based on the above mentioned background, the researcher became interested in discovering the solutions to this problem.

Based on the literature search on the problems with English reading comprehension skills, there have been many researchers and scholars who have attempted to solve the problems using different techniques. Aronson (2008) used Jigsaw technique to enhance students' reading comprehension. This technique is one of cooperative learning activities which can be applied to many kinds of tasks. The technique has provided the groups with positive interdependence for

practicing the particular skills. Additionally, Slavin (2005) pointed out that Jigsaw strategy helped students encounter a wider breadth of material that might be possible if each individual independently reads all available sources. The students may select to learn from material that is more appropriate to their abilities and interests. They receive support from class members in learning from their reading, and the students gain practices in synthesizing important information from what they read as they assume the teacher role with group members. According to the study by Arends and Kilcher (2010), this strategy has positive impacts to on students' achievement in reading comprehension scores and participation during the instructional process. Hence, from the researcher's assumption, if the students with mixed abilities learn by using Jigsaw technique, they will have more chances to practice reading skill that begin with a part of the passage and then the whole passage in order to complete the assigned tasks and enhance the particular skill. Jigsaw technique is cooperative learning activities which require students to learn part of the passage and then the whole passage and they have to complete those assigned tasks designed by the teacher (Aronson, 2008). Dwi et al. (2013) pointed that Jigsaw technique could overcome the learners' difficulties in reading comprehension; they could identify the main idea and supporting details, guess meaning of new words, identify communicative purpose of text, cohesive device and reference tasks.

However, Morales and Campino (2012) argued that there are some limitations of the Jigsaw technique including misunderstanding the content and lack of participation. It is possible that students can get distracted when working in a group. This could result in the whole group not learning the correct information. In addition, as in all group situations, it is possible that one student may not meet their responsibilities. Lack of participation by one or more students in a group would lead to the other students in the group taking on more work and students' irresponsibility. This would obstruct the group's productivity rather than helping them learn in a different way.

Since only one task is not sufficient for practicing students' skill, there should be multiple tasks so that students can get exposure to the target language. Thus, one more beneficial approach which allows students to practice skill from multiple tasks is task-based learning (Willis, 1998). Task-based reading activities may prove to be a good way of integrating English skills and promoting effective language learning because those activities are done with the purposes of producing something, reaching a conclusion or creating the whole picture of something after they have read the texts (Chalak, 2015). To support this statement, Rad and Bakash (2015) conducted the study of enhancing reading comprehension skills of Iranian intermediate EFL learners through task-based reading activities. The result showed that the students' reading

comprehension improved by learning through a task-based method than by using the traditional method. In the same way, Nahavandi and Mukundan (2013) suggested that applying the elements of task-based cycle affected learners' reading comprehension positively. Applying task-based learning in reading classes and letting the learners are responsible for their own learning and providing lots of opportunities for pair work and group work in the class will create an active classroom atmosphere where all the learners engage in the process of their own learning task. On the other hand, there are also some limitations of using task-based learning in the classroom. One of those is task difficulty. While the difficulty of a task can be estimated from the performance of the students, the factors that actually contribute to task difficulty are studied so that it is useful to integrate and sequence the tasks in language teaching. The goal of the tasks should therefore be clarified (Ganta, 2015).

As mentioned earlier, there are many scholars who claimed that Jigsaw technique and task-based learning are beneficial in teaching reading skills. However, little attention has been paid to the integration of these two teaching approaches in enhancing students' reading comprehension and this is the main purpose of the current research.

In this study, the researcher became intended to solve the students' reading comprehension problems by integrating the salient characteristics of Jigsaw technique and task-based learning and avoiding the gaps of both techniques in the English reading classroom. Jigsaw technique was used as the main task. The students were asked to practice reading from part to whole passage. Since students were unable to identify the components of the passage, Jigsaw tasks related to identifying the components of the passage were designed for them to master this essential reading skill. Besides, the conceptual framework of task–based learning consisting of three namely pre-task phase, task cycle and language focus was used to carry out this study (Willis, 1998). Jigsaw technique was applied as the main tasks in the task cycle stage. As mentioned in the literature search, these two approaches were aimed at facilitating interaction among students. Hence, the study was aimed to investigate the effects of Jigsaw technique on student's English reading comprehension skills in Thai secondary school and how this approach helped improve student's English reading comprehension skills.

Objectives

This study aimed to investigate the effects of using Jigsaw technique on students' English reading comprehension skills and how Jigsaw technique helped improve students' English reading comprehension skills.

Methodology

Participants

This research was a quasi - experimental design. The participants of the study were sixty in eleventh grade students from two classrooms at a secondary school in Khonkaen province Thailand. The students were studying in the 2nd semester of the academic year 2018. There were thirty students each in the control and experimental groups with mixed abilities.

Research Instruments

There were two kinds of instruments used in the study.

The implementation of the study was four lesson plans that were designed based on the Jigsaw technique with the cycles of task based learning. The effectiveness of the instructional instruments was verified by three experts using the evaluation form which consisted of ten items adapted from Likert scales: excellent, good, average, fair, and revision needed. The mean scores were calculated from the results. Items scoring higher than three were retained and lower than three were revised. One lesson plan was implemented in the pilot study with students in another school. This was aimed to identify the problems and ascertain the effectiveness of the lesson.

The instruments of data collection included a pre-test and a post-test of reading comprehension skills, a questionnaire, a semi-structured interview and students' diaries. The English reading comprehension pre-test and post-test were used to measure the English reading comprehension skills of the control and the experimental groups. The objectivity and validity of the instruments were evaluated. The test items were evaluated by three experts using the evaluation form to rate each item according to the objectives of the test and how the readers comprehend the test items. Then, the Index of Item-Objective Congruence (IOC) was calculated. Twenty items out of thirty were retained following this evaluation. The pilot study was conducted with students in another school. This research instrument was used as quantitative measurements.

The questionnaire and semi-structured interview were constructed. There were ten items in the questionnaire written in Thai and the quality of each item was rated using the Likert five-rating scale checklist consisted of 5 (the most), 4 (more), 3 (moderate), 2 (less) and 1 (the least). A higher score therefore indicated better quality. Three semi-structured interview questions were also provided in Thai. The quality of both instruments was evaluated in terms of objectivity and validity by the experts. The experts evaluated each item according to the objectives of the item and how the readers comprehend each item by rating on the

evaluation form. Then, the Index of Item-Objective Congruence (IOC) was calculated. Based on the results of this evaluation, there were ten items out of twelve were retained. There were also three questions out of five were retained. The pilot study was conducted with students in another school. A student diary was used in a subset of the experimental group to investigate how the Jigsaw technique affected the students' English reading comprehension during the implementation. These instruments were used as qualitative measurements.

Procedures

The study covered one semester of the academic year 2018 which lasted two months from October to December. This study was a mixed method which collected both quantitative and qualitative data. The research procedures were as follows.

1. A test of English reading comprehension skills was given to measure the English reading skills of the control group and the experimental group to ascertain the students' English reading skills before implementation of the study.

2. Four lesson plans which designed based on a framework of the Jigsaw technique and task-based learning were use to teach in the class of the experimental group, whereas the teacher centered teaching approach was used in the class of the control group. During the 16- hour implementation, diaries of the teacher and students were used in each lesson plan. At the end of all lessons, a post-test of reading comprehension skills was used to measure the reading skills of the experimental group and the control group.

3. To elicit how the Jigsaw technique affected students' reading comprehension skills, a questionnaire that contained ten items and three semi-structured interview questions were used at the end of the data collection process.

The data gained from pre-test and post-test were analyzed using independent t-tests and paired t-tests. The data from a questionnaire, semi-structured interview and students' diary were analyzed using descriptive technique.

Results

The results from the study were in accordance with the research questions which were divided into two parts as follows.

1. What are the effects of the Jigsaw technique on students' English reading comprehension skills? The results are presented in the tables as follows.

In order to see any changes in the experimental group, which was taught using the Jigsaw technique, a paired t-test was used to compare the results of the pre-test and post-test for the experimental group, the results are presented in the tables as follows.

Table 1. Comparison of experimental group on pre-test and post-test (paired t-test)

		Mean	Paired Differences						t	df	Sig. (2-tailed)
			SD	SE	95% Confidence Interval of the Difference						
					Lower	Upper					
Pair 1	Post-test Pre-test	13.86 8.63	2.5282	.4616	4.2893	6.1774			11.338	29	.000

According to table 1 exemplifies that the experimental group made considerable progress at the end of the course. When focusing on the results shown in this table, it was found that there was a substantial change in the experimental group. The mean score of this group was 8.63 before the experimental instruction commenced while it was 13.86 at the end of the lessons. According to the table, the significance level of $p = .000 < p = .05$ so it indicates that the experimental group had undergone significant progress. In conclusion, the experimental group performed more successfully on the English reading comprehension skills post-test than pre-test.

In order to directly compare the efficacy of the traditional teaching method versus the Jigsaw method, a t-test was used to compare the post-test results for the control and experimental groups. The results from the independent sample t-test are shown in Table 2 and 3.

Table 2. Post-test descriptive statistics for the control and experimental groups

	Group	N	Mean	SD	SE
Scores	Experimental	30	13.867	2.6747	.4883
	Control	30	9.133	1.8144	.3313

Table 3.   Comparison of post-test scores for the control and experimental groups (Independent sample t-test)

score	Levene 's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Dif-fer-ence	Std. Error Differ-ence	95% Confidence Interval of the Difference	
								Low-er	Upper
Equal variances assumed	5.196	.026	8.021	58	.000	4.7333	.5901	3.5522	5.9145
Equal variances not assumed			8.021	51.025	.000	4.7333	.5901	3.5487	5.9180

As shown in Table 2 and 3, the mean post-test reading comprehension scores were 9.13 and 13.86 for the control and experimental groups, respectively. The mean difference of the two groups is 4.73 and since p value is $0.00 < p = 0.05$. The t-test revealed that this difference was statistically significant. Therefore, the experimental group performed significantly better on the reading comprehension post-test than the control group.

2. How the Jigsaw technique affected students' English reading comprehension skills. The information gained from the questionnaires, students' diaries and semi-structured interviews are presented below.

Table 4.   Students' opinions on the Jigsaw method

No.	Questions	Level of opinion $\overline{X}$				
		5	4	3	2	1
1.	When you get into the original and new group of reading, you are able to find the title of the passage.	0.17	0.43	0.3	0.06	0
2.	When you get into the original and new group of reading, you understand the important idea of the passage.	0.5	0.23	0.16	0.1	0
3.	When you get into the original and new group of reading, you gain the information to support the important idea of the passage.	0.23	0.46	0.17	0.13	0
4.	The original and new group of reading helps you know the main actor/actress in the passage.	0.2	0.53	0.17	0.13	0
5.	The original and new group of reading helps you know the other actor/actress in the passage.	0.26	0.4	0.17	0.13	0

Table 4.   Students' opinions on the Jigsaw method

No.	Questions	Level of opinion $\overline{X}$				
		5	4	3	2	1
6.	When you get into the group, your friends help you find where the story takes place.	0.3	0.5	0.13	0.06	0
7.	When a teacher introduces you to lesson by giving the new vocabulary before you do the task, it helps you to get more understanding when you do reading activities.	0.17	0.53	0.3	0	0
8.	When you do the task that about understanding a piece of the story to make the complete story in the original group with friends, you can components of the passage. Easier.	0.17	0.53	0.17	0.06	0
9.	When you plan your task in order to present, you are able to know the components of the passage.	0.13	0.66	0.13	0.06	0
10.	When you participate in the activities of group reading and doing tasks, you are able to take a reading test better.	0.56	0.3	0.16	0.03	0

As shown in table 4, students reported high scores for questions one to six, which focus on identifying the title of the passage, the important idea, the information to support the important idea, main actor/actress, other actor/actress and where the story take place in the passage. However, there were few students who reported lower scores for these questions, indicating that some students still struggled to identify the components of the passage using the Jigsaw method. With regard to questions number seven to nine which focused on the tasks related to understanding part of the story to the whole story in the original group with friends, students were able to find the components of the passage easier. Most students responded at the highest level. This indicated that tasks that required students to identify the components of the passage by understanding only a piece of the story, then the complete story in the original group, allow students to gain a good understanding of the passage. Although, students responded to the questions positively, none students responded to these questions in the highest level (i.e., a score of 5). As such, these tasks may not the most effective to help students identify the components of the passage. By contrast, most students gave the highest rating to the final question, which related to participating in the activities of group reading and completing the related tasks. This indicates that most of students feel more capable in taking reading tests after participating in the reading activities. Two or three students rated this question at a lower level but this is likely because they have a lower level of proficiency and background knowledge of English.

A semi-structured interview was also used to assess the students' opinions on the use of the Jigsaw technique to facilitate reading comprehension skills. Nine students were selected for this interview, based on their level of proficiency after taking the post-test of English reading comprehension.

Question 1: How do students identify the title, important idea, information to support important idea and conclusion of the passage? The passages below were extracted from the answers provided by participants 1 and 4:

> *"… When I learned about pollution, I got into a group and got my own part of the passage. Then I tried to read it with friends in a new group. I got the idea of the passage and I turned back to the same group. This time, I shared what I have known to the others friends and my friends share theirs too. I knew the title, idea and conclusion of the passage about pollution when friends have shared the whole passage…"* (Participant 1)

> *"… I got the important idea of the passage about rural area from reading the passage and then I talked with friends in original groups, after that we helped each other read the passage in a new group. In the first passage, we could not know where the important idea is. However, when we finished the first passage, a teacher gave us feedback after we have reported the task. So, in the rural area passage, we could know that the important idea easier …"* (Participant 4)

Question 2: How do students identify the main and other actors/actresses in the passage and where the story takes place. The below excerpts are from the answers provided by participants 2, 6 and 7:

> *"… I was so happy to lean the new topic which about earth planet. I could find the name of a person in the passage and the setting when I get into a group. My friends helped me a lot because I think I am a weak one. I also knew it when we complete the jigsaw task…"* (Participant 2)

> *"… I knew the actor and the actress because I look at the name of the person in the passage which about matter of food. I also looked at the occupation in that passage. Working in a group helped me a lot…"* (Participant 6)

> *"… When a teacher told us to find where the story took place. I knew it from the jigsaw task; we begin reading from a piece of the story by ourselves then the whole part of the story by our friends in a group. It helped me gain the component of the passage easier …"* (Participant 7)

Question 3: How does Jigsaw reading help students read the passage and answer the questions from comprehension correctly? The passages below were extracted from the answers provided by participants 3 and 9:

"... I liked mixed grouping because it is good for students who are weaker like me because I got only 10 out of 20 of the post-test score. I gained more understanding of the story because my higher friends helped explaining the passage. Reporting what we have done of the jigsaw tasks helped me a lot to gain more understanding of the whole passage...." (Participant 3)

"...When a teacher allowed us to complete the jigsaw task from reading the earth planet passage, members in group shared their ideas of they have known from the new group. So we can gain more understanding of the passage...." (Participant 9)

According to the semi-structured interview, the Jigsaw reading enhanced the students' reading comprehension. This is likely due to grouping students with mixed abilities. That is, high proficiency students could help the lower ones learn the passage and complete the Jigsaw tasks, which included identifying the title, important idea, information to support the important idea, the main and other actor/actress in the passage, where the story took place and the conclusion of the passage. Moreover, students were provided with the opportunity to understand their own part of the passage and then the whole part of the passage. They cooperatively worked together in the group to find parts of the passage tasks and then presented what they had learned. As a result, students benefitted from the knowledge of the other students in the group and this technique lead them to better understand the passage. Consequently, students were also better able to answer the reading comprehension questions.

To confirm the effects of Jigsaw technique on students' reading comprehension, a student diary was also used. Some extracts from these diaries are shown below:

"... I learned more from the previous class, then grouping into original group, study our own passage, and get into a new group in order to study the passage again comprehensibly. While we were do-ing that, a teacher asked questions to find parts of the passage. After that, we got into the original group to explain the passage to the rest of the friend and listen to friend's passage. By doing these activities,

it helped me understand the passage more. I could find parts of the passage such as the title, important idea, information to support the important idea, the main and others actor/actress in the passage, where the story takes place and conclusion of the passage and I could do the test better. ..." (Participant 15)

"... I have learnt about environment, food, rural area and earth. It is learning by grouping Home group and Expert group, studying each part of the passage and practicing identifying topic, main character and summary from the activities. Moreover, there was a presentation which is related to what students have done, this made me get more understanding together with practicing group working and English-speaking skill but I sometime forgot what I have learnt from the class before..."(Participant 20)

The diary entries suggest that students who have learnt through Jigsaw reading had enriched their reading comprehension because they had a chance to learn in a group and help each other learn. Moreover, they were able to identify the parts of the passage by learning through the Jigsaw tasks, they also had a chance to practice speaking and writing in English. As a result, they understood more of the passages and received higher scores on the post-test.

Overall, the findings from all three research instruments revealed a positive effect on students' reading comprehension skills. This may due to the effects of the two teaching techniques, the students were able to read and understand the passage starting from a part of the passage. Their classmates in the next group who had the same part of the passage can help one another learnt about the passage. Next, they returned to the original group and the rest of their classmates who had the different parts of the passage explained to the peers in group. This helped students understand the whole passage. The Jigsaw task which was identifying the components of the passage played an important role in helping the students understand the passages. Students gradually developed their reading skill in each stage of Task-based learning. However, some students did report less positive responses on the questionnaire indicating that this technique may not be effective for all students depending on their language abilities and English background knowledge.

Discussion

According to the results of the study, it can be concluded that the students who learnt through Jigsaw technique and task-based learning performed English reading comprehension significantly. The improvement may due to the

combination of Jigsaw technique and task-based learning. Hence, the discussion was divided into two main parts; the effects of Jigsaw technique on reading comprehension and the effects of task-based learning on reading comprehension as follows.

1. The effects of Jigsaw technique on reading comprehension

The findings revealed that students who learned through the Jigsaw technique improved their English reading comprehension based on comparison of the scores between the pre-test and post-test. It showed that the role of the Jigsaw technique was an attention getter for high school students. They became more involved in the class especially within group dynamics. They were able to share background knowledge and new knowledge from their peers in the classroom. Interaction in the classroom was a crucial role especially in the mixed ability classroom. This was in agreement with the statement of Slavin (2005) who studied the cooperative learning method and pointed out that the students received support from class members in learning from their reading. Moreover, each student was encouraged by others to participate in the activities and jigsaw tasks.

However, the results from the questionnaire which were responded by a few students at the lower level pointed out that the jigsaw tasks may be a limitation for the students with a lack of background knowledge of English and some weak students may rely on the higher ones. That is to say, they may not learn how to comprehend the passage by themselves. When they take a test by themselves, they may face difficulties in identifying the components of the passage they read. This was in line with the results of Saed (2011) who studied the effectiveness of the Jigsaw technique and reading comprehension. The study was a quasi- experimental design with two homogenous groups of learners. The results of the study showed that some students still had difficulty when they read the text. This may have been caused by their level of proficiency, their background knowledge of English and their preference of learning. There may be some factors as well that led to students' achievement of reading comprehension such as, English linguistic competence. Some of them may have limited vocabulary knowledge used to infer the main idea of the passage. This was consistent with the study of Prom-D (2012) who investigated the effects of Jigsaw II technique on reading comprehension of freshmen students. The results of the study yielded that the participants had problems in all three areas of reading including sentence structure, vocabulary and paragraph organization. The results indicated that knowledge of vocabulary is extremely important in reading comprehension. Therefore, in the next part of the technique, there would be a discussion which relates the learning of parts of the passage to the higher comprehension of the whole passage.

2. The effects of the Jigsaw technique on students' comprehension of reading passages' components

In the present study, the finding showed that the students were able to practice jigsaw tasks which related to identifying the topic, main idea, supporting details, main character, other characters, setting and summary of the passage. These components led students to gain more understanding of the passage. The results of the present study supported the study of Morales and Campino (2012) who conducted the research in order to investigate the effect of the Jigsaw technique on learners' reading comprehension in eleventh grade. The finding implied that the Jigsaw model had positive effects not only on learners' reading comprehension, but also on the aspects that the reading process implies such as vocabulary knowledge, the coherence and cohesion of ideas and the willingness of reading. Students were able to identify the topic, main idea and supporting details of the passages by learning how to identify these components from the pre-task stage which allowed them to gain the idea of identification. According to the interview, it implied that the students found the main idea that could be seen in the first paragraph of the passage and there were the details to support the gist of the passage. After that they could spot the topic which covered the direction of the whole passage. In the same way, students were able to identify the main character, other characters, setting and summary of the passage by completing the Jigsaw tasks. Students identified setting of the passage by finding the main place where the events happened. Based on the diary, it showed that students identified the characters by spotting the person who played the important role of the passage. Students pointed out that the conclusion of the passage could be connected to the whole understanding of the passage.

Furthermore, Dwi *et al*. (2013) studied the improvement of the learners' reading comprehension using the Jigsaw technique. The research finding showed that the Jigsaw technique could help the learners overcome the difficulties in reading comprehension; they could identify main idea and supporting details, guess meaning of new words, identify communicative purpose of text, cohesive device and reference. This is in agreement with the present study showing that the original and new group of reading facilitates students to identify the title, main idea, the information to support the main idea, the main and other characters in the passage, where the story takes place and conclusion of the passage. The students were able to identify those components of the passage from the procedures of the Jigsaw technique because they had to get into a group of students studying the same part of the passage. Therefore, they gained a better understanding of that part of the passage. When students got back to the original group, they had chance to explain what they understood to the rest of their friends in the original group. Group dynamics played an important role in learning any kind of subjects

because some students may need help from their peers to comprehend the text and complete the tasks given.

Hence, group dynamic facilitated them to read the passage more than one time. Moreover, based on the jigsaw task, it showed that learning from small scale of the passage to the whole passage lead students to better reading comprehension. The result was in accordance with the theory of reading related to bottom up reading model. Students learn from the words or parts of passage to the sentence or the whole passage. This may be caused by the implementation of task-based learning stages. In the next part, there would be a discussion related to the effects of task-based learning on students' reading comprehension.

3. The effects of task-based learning on reading comprehension

According to the effects of using the procedures of task-based learning on students' English reading comprehension, the results indicated that the students had more interaction in the classroom because they had chances to help each other to learn. The higher students helped the weaker ones to learn in a group. So, they improved their performance after learning through the process of task- based learning; this statement was in accordance with Chalak (2015) who conducted the study related to the effect of task-based instruction on reading comprehension of Iranian EFL learners. The findings suggested that using interactive tasks in English classes improved reading comprehension abilities of Iranian EFL learners. He also pointed out that student-to-student interaction while performing the tasks provided opportunities for them to talk about vocabularies and monitor the language they used. This was similar to the findings of the current study. During the pre-task stage the students were able to gain new vocabulary and structure related to the passage. The students also developed the idea of identifying the components of the passage. Based on the results of the diary, it pointed out that the pre–task stage was important for students to gain new vocabulary which helped them to have higher comprehension when completing the task.

According to the interview, the results yielded that completing the task in the task cycle stage together with planning the tasks in order to report the components of the passage led students to have higher score of reading comprehension. The results were supported the study of Nahavandi and Mukundan (2013) who studied task – based cycle in reading comprehension classes with two intact classes. After they had done the research project, the finding showed that previous knowledge or background knowledge was really important for students to continue to the next reading stages. This was agreement with the results of the present study which showed that time limitation may affect student's knowledge of the previous class. In the same way, the results from the questionnaire about the task showed that these kinds of tasks may not be the most

effective tasks that helped students to identify the components of the passage. This proved that only one task was not enough for practicing students' skills. This was in agreement with the statement of Willis (1998) who presented that the method should be multiple tasks so that students can be exposed to the target language effectively. Besides, during the language focus stage, the students had more chances to learn more about language use and the techniques of identifying components of the passage. This helped students to gain more comprehension of the text they read.

However, the results from the part of the questionnaire which was responded by few students at lower levels pointed out that the procedures of task-based learning may be the limitation for learning in the classroom since this kind of procedures lasted more than one hour of teaching. Hence, during each stage, students may forget what they had learnt from the previous class because there was no continuation of the lessons. This result was similar to the findings of Viriya (2018) who investigated task- based learning with students of academic English. The results indicated that time constraint was one of the limitations of the results since it was not continuous. The process of task-based learning lasted more than one hour, so students may forget what they had learned from the previous class. The teacher must review before starting the next class. Consequently, the students could link their prior knowledge with new knowledge that the teacher was trying to provide for them.

In conclusion, according to the effects of the two teaching techniques, students are able to read and try to understand the passage beginning with a part of the passage. Their friends in the next group who have the same part of the passage can help each other learn the passage. Next, they come back to the original group and the rest of friends who have the different parts of the passage explain to the peers in group. This helps students understand the whole passage. Jigsaw tasks which are identifying the components of the passage plays an important role to help students understand the passages. This shows that learning from a small scale can lead to higher comprehension with group dynamics playing an important role in learning any kind of subject due to some students needing help from peers to complete the tasks given.

According to the results from this study, this contributes to the new teaching approach of teaching and enhancing students' English reading comprehension skills because of the salient characteristics of the two approaches as follows. Jigsaw tasks allow students to separate into groups and then learn separate parts of reading passages. Then they learn the whole passage in groups.

This implies that teaching reading from a part of the passage to the whole passage, students comprehend gradually from each part and then the whole passage. Phase 2 of teaching task-based learning allows students to have more interaction with peers in each group during the tasks stage, the planning and presentation stages help students to review their tasks and show how they comprehend the passage. This implies that interaction is vital in English class, especially, in a reading class of students who have mixed abilities and students who do not have the same background knowledge of English skills.

Recommendations

According to the finding of the study, it generates some recommendations for further study as follows. Firstly, it recommends that future research should be conducted with other groups of students who are either in the same educational levels or different educational levels. Secondly, it recommends that other teaching approaches which focus on cooperative learning may be applied with the framework of task-based learning because the nature of this framework focuses on communication and interaction in the classroom. Thirdly, teachers may apply other types of task when teaching reading comprehension such as listing and sorting tasks. Finally, the researcher may investigate the use of Jigsaw technique and task-based learning on other language skills such as writing and speaking.

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