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Instructional Scaffolding with Graphic Organizers to Improve EFL Learners' Listening Comprehension and Incidental Vocabulary Acquisition

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ABSTRACT

Instructional scaffolding techniques like graphic organizers aid L2 learners in the mastery of tasks. This study aimed at exploring the effects of graphic organizers on listening comprehension and incidental vocabulary acquisition. To this end, a total number of 157 Iranian intermediate EFL who met the homogeneity criterion of the Oxford Quick Placement Test were assigned to an experimental group (EG) and a control group (CG), through a quasi-experimental design. The participants received a pretest, the instruction, and a posttest. The pedagogical sequences proposed by Vandergrift and Goh (2012) was the underlying roadmap for both CG and EG's instruction. However, the EG's participants were provided with four graphic organizers. In order to assess the efficacy of the graphic organizers, both descriptive analysis and ANCOVA were employed. The results of the study indicated that the EG's participants outperformed their peers regarding both listening comprehension and vocabulary acquisition. Moreover, the data obtained from an interview revealed the learners' positive attitudes towards the treatment. This study could help practitioners in the field of SLA support the use of graphic organizers as instructional scaffolding strategies.

Introduction

Some SLA researchers (Gibbson, 2015; van de pol, Volman, Oort, & Beishuizen, 2015) claim that scaffolding is a promising way to help English learners. Scaffolding is a term borrowed from the Vygostky's concept of working in the zone of proximal development (ZPD). As Nguyen (2013) pointed out, there are various interpretations and operationalization of the term scaffolding. For instance, to scaffold L2 instruction, graphic organizers can be incorporated into the curriculums. Graphic organizers are visual devices that depict information in various ways (Ellis & Howard, 2007) and provide an organizational structure which enhances L2 learners' autonomy (Mora-Gonzalez, Anderson, & Cuesta-Medina, 2018).

Besides fostering learners' autonomy, they direct learners' attention to the key ideas and reduce the cognitive load needed to do a skill (Miller, 2011). They can also activate L2 listeners' background knowledge and improve listening comprehension (Campbell & Campbell, 2009). Listening comprehension is defined as a multilayered purposeful process which requires learners to construct meaning from aural input (Vandergrift & Goh, 2012). Within the language skills' domain, listening is the most difficult skill due to its complex nature encamping various individual, cognitive, and affective factors (Bang & Hiver, 2016).

Moreover, graphic organizers assist instructors to implicitly address new words embedded in the listening materials while learners are occupied with graphic organizers' completion. Chang (2011) claims that vocabulary learning through listening leads to learning more new vocabularies which are indeed by-products or side-effects of another primary activity. Thus, graphic organizers as instruction scaffolding could contribute to more attentional allocation to input, enabling richer analysis, and superior memory performance, and gaining more new words incidentally (Ellis, 2001; Nassaji, 2003; Robinson, 2005).

In spite of the listening importance, L2 learners often regard it as the most difficult skill to learn. Recognizing new words, chunking, missing the beginning of the text, quick forgetting of what was said, and the inability to understand the intended message are major problems frequently observed challenges. Some L2 learners also fail to obtain a holistic view of new words embedded in a listening exercise and consequently, they are unable to acquire them for further uses. Furthermore, the absence of instructional scaffolding techniques is evident in the Iranian EFL contexts.

Therefore, this study made a major contribution to research on employing computerized graphic organizers in order to enhance listening comprehension and vocabulary acquisition. To be more precise, the main objective of the study aligned with pedagogical trends which highlighted the importance of scaffolding listening. Reducing cognitive load, concentrating through organizing the main ideas, and directing the learners' implicit attention to new vocabularies were at the heart of the study. This research also aimed to investigate the EFL learners' attitudes toward the usefulness of computerized graphic organizers.

2. Literature Review

The term *scaffolding* has its roots in the zone of proximal development (ZPD) introduced by Vygostky (1978). The ZPD defined as the distance between what a student can do with and without help. In other words, advocating learners'

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active engagement and assisting them to be autonomous was at the heart of Vygostky's concept of the ZPD (Verenikina, 2008). Many researchers (Berk, 2002; Daniels, 2001; &Wells, 1999) attempted to have a direct operationalization of Vygostky's concept and have an actual application of this theory in educational settings.

In the language learning process, Van Lier (2004) listed six aspects of scaffolding as follows: (a) *continuity*: repeated occurrences over time; (b) *contextual support*: a safe but competitive setting; (c) *intersubjectivity*: mutual involvement and support; (d) *contingency*: the possibility to change scaffolding strategies based on learners' reactions; (e) *handover/takeover*: increasing the role of learners as their confidence increase; and (f) *flow*: communication between participants in a natural way. Based on these features, several researchers (Echevarria, Vogt, & Short, 2017; Gibbons, 2015; Masako & Hiriko, 2008) took practical approaches to have instructional scaffolding by implementing scaffolding strategies.

These strategies range from a macro-level like curriculum planning to a micro-level like interactional scaffolding and using visual devices (Mahan, 2020). Graphic organizers are "visual devices that depict the relationship between terms, facts, and ideas" (Strangman, Hall, & Meyer, 2003, p.1). According to Nesbit and Adesope (2011), students learn better when they are asked to engage in creating graphic organizers. Across the studies to be reviewed in the literature section, there is consistent evidence that learners' language skills improve by using graphic organizers.

For instance, Mora-Gonzalez, Anderson, and Cuesta-Medina (2018) examined how the use of graphic organizers affects the development of argumentative writings of Colombian English learners. In the same vein, various scholars' (Emerson & Maxwell, 2011; Lancaster, 2013; & Reyes, 2011) studies proved that graphic organizers help L2 writers generate ideas, find a focus, decide what to write, and try out language.

In terms of listening comprehension, Ermis (2008) compared the performance on a pretest and posttest of the learners who were provided with the graphic organizer in comparison to those who did not. His study revealed that graphic organizers considerably improved L2 learners' comprehension. Burger (2001) also conducted research on ESL university students who had difficulties in comprehending the lectures. The learners in the experimental groups were provided with a graphic organizer. however, the control group's participants received no special treatment. The teachers and students' reaction to the graphic organizer was positive and the technique facilitated comprehending the lecture.

Similarly, Yang (2015) reported that how graphic organizers affected EFL learners' listening comprehension of authentic videos. The results suggested that students benefited from graphic organizers regardless of their proficiency levels. Lin, Chen, and Dwyer (2006) also examined the effect of these scaffolding strategies on EFL learners' comprehension of an animated-based content lesson. The participants of two experimental groups were exposed to an animation lesion with *question graphic organizers* and *descriptive graphic organizers*. According to the results, the learners in the experimental groups outperformed their peers in the control group. Despite all these positive results, Casteleyn and Mottart's (2012) study revealed that graphic organizers could not help L2 learners in terms of cognitive load, knowledge gain, and self-efficacy.

The other dependent variable in this study was incidental vocabulary acquisition through listening comprehension which has received relatively little research (Meier, 2015). According to Loewen (2014), there are two methods for vocabulary acquisition: intentional or deliberate learning and incidental vocabulary acquisition. Intentional or deliberate vocabulary acquisition involves explicit attention to learning vocabulary items that can be accompanied by explicit instruction. In contrast, incidental learning takes place while individuals learn vocabularies as a byproduct of a different activity such as reading, watching television, and listening to the target language.

To facilitate vocabulary acquisition through listening comprehension, graphic organizers can be employed. Their efficacy could be explained by referring to the Involvement Load Hypothesis (ILH) developed by Hulstijn and Laufer (2001). Accordingly, different involvement load results in different incidental learning. They postulate that the higher level of involvement during a task's completions leads to the higher retention of new words. Shoari and Farokhi (2014) supported this theory and claimed that graphic organizers help learners to be engaged deeply in the process of learning and as a result, a good number of words could be retained. They obtained the result by comparing the scores of pretests and posttest of a control group and a graphic organizer group.

Similarly, Bahadori and Gorjian (2016) scrutinized the impact of graphic organizers and mind mapping software on English learners' vocabulary achievement. The study was conducted on 70 learners in a pre-university center. They were assigned into an experimental group that was learning through graphic organizers and a control group that was dealing with new vocabularies with usual procedures such as definition and explanation. They concluded that graphic organizers as mind mapping activities significantly improved the participants' vocabulary acquisition.

Zahedi and Abdi (2010) also prove that graphic organizers could help learners acquire new words. They conducted research on semantic mapping with 40 students at Miandab University. The results revealed that graphic organizers resulted in a deeper level of processing and better word retention. Similar to this finding, Baumann and Edwards (2012) discover that graphic organizers could increase students' interest and achievement to learn new vocabularies. In contrast, Shariffar (2013) found no superiority of graphic organizers to memorization for learning the words.

Although the suggestions for using various types of graphic organizers seem intuitively appealing, questions have been raised whether these claims are supported empirically. Moreover, there is a few numbers of research focusing on integrating graphic organizers into the L2 listening programs because a bulk of research has focused on effects of different graphic organizers on reading and writing (Sam & Rajan, 2013; Walker & White, 2013). Furthermore, most research on listening comprehension has been restricted to a range of sub-skills without making an attempt to trigger acquiring new words incidentally. Despite the importance of the relationship between listening comprehension and incidental vocabulary which been addressed by some scholars (Elley, 1989; Nation, 2006; Vidal, 2011), much uncertainty still exists about the role of graphic organizers as instructional scaffoldings.

Therefore, this study set out to address the following research questions:

1. Do graphic organizers as instructional scaffoldings have any significant effects on the Iranian EFL learners' listening comprehension?
2. Do graphic organizers as instructional scaffoldings have any significant effects on the Iranian EFL learners' incidental vocabulary acquisition?
3. What are the students' attitudes towards applying the computerized graphic organizers?

3. Methodology

3.1. Design and Context of the Study

To assess the impact of the graphic organizers on listening comprehension and incidental vocabulary acquisition, a quasi-experimental, pretest-posttest non-equivalent control group design was used. This research design is appropriate when true random sampling is not feasible (Cohen, Manion, & Morrison, 2007). After gathering the quantitative data, the second phase of the study focused on obtaining qualitative data through implementing a semi-structured interview which provided a deeper insight into the participants' attitudes.

The context of the study was an institute with various branches located in Isfahan, Iran. To make our pedagogical intervention that was utilizing computerized graphic organizers the most effective, the classes equipped with the sufficient number of laptops and interactive smart boards were chosen. This context offered a non-traditional setting for L2 learners who were interested in experiencing innovative ways of English learning. Moreover, the participants were able to use laptops individually for the graphic organizers' completion. The smart boards also paved the way for the instructors to model the process of graphic organizers' completion.

3.2. Participants

In summer 2019, based on the convenience sampling method, the researchers initially chose 162 (N=162) participants, aged 19 to 32 from 8 classes studying English in two branches of an institute located in Isfahan, Iran. The participants had spent at least 6 terms at the institute. They were all at the intermediate level according to the institutes' placement criterion. However, to ensure their homogeneity, the Oxford Quick Placement Test (OQPT) was run. Accordingly, 5 learners who did not meet the homogeneity criterion were discarded because their scores were sharply (-2 SD) lower than other scores. Hence, 157 English learners assigned to an experimental and a control group: graphic organizer group (87 participants) and control group (70 participants).

3.3. Instruments

For the purpose of this study, first, the pen-and-pencil OQPT (2001), consisting of 60 questions in a multiple-choice format developed by Oxford University Press and Cambridge ESOL, was conducted. Granpayeh (2006) believed that OQPT is a standardized proficiency test that has been validated by about 6000 students in 60 countries. The test has two different levels: part one of 40 questions in 20 minutes and part two of 20 questions in ten minutes. The cut-off scores determined by Allen, the test designer, has been approved by many scholars as a reliable indicator (e.g., Jabbari, 2014; Tahriri & Yamini, 2010). In this study, the reliability index of the test estimated through Cronbach's alpha appeared to be .86 which was quite satisfactory.

Second, a listening package was chosen from the Learn English British Council website, https://learnenglishteens.britishcouncil.org/skills/listening. On the website, there were various recordings of different situations and interactive exercises that practice listening skill. The recordings were organized according to the levels of the Common European Framework of References for Languages (CEFR). Due to the fact that the participants were at the intermediate level, four recordings of the upper-intermediate level (CEFR level B2) were selected. Therefore, the listening contents were above the current participants' skill level and the unknown words in each passage facilitated measuring the number of words acquired incidentally.

The listening package which was administered both as a pretest and posttest comprising four parts with different topics as follows: How to Study, My Hero, What is in Name?, and New Inventions. Each part accompanied by some comprehension and vocabulary questions designed by the British Council. In this study, comprehension questions were all drawn from the website without any changes. Yet, the vocabulary questions were designed by the researchers. In sum, 15 listening comprehension and 20 vocabulary questions were prepared. The questions were in different formats, such as filling the blanks, true and false, multiple-choice, and correcting the order.

The reliability and validity of the British council tests have been determined by their high demand globally and their high predictive validity on the test takers' academic performance. However, to ensure the test reliability, it was administered to 60 intermediate students of an English language institute as the pilot group of this study. Using the Cronbach alpha coefficient, the reliability coefficient was calculated as .76 which was an acceptable coefficient.

Third, four graphic organizers were designed in different patterns. According to Jiang and Grabe (2007), graphic organizers must be designed in a way that matches specific recurring text structure. Therefore, to increase their validity, the researchers analyzed the audios' transcripts thoroughly and prepared four graphic organizers. To make the participants customize and personalize their work, the graphic organizers were designed by using the SmartArt in Microsoft Word. Table 1 summarizes the details about the listening package and also the related designed graphic organizers.

Table 1 Topics of Listening Package and Graphic Organizers

Topics	Duration	Types of Graphic Organizers
How to Study?	6 min. and 24 sec.	Bubble map (Appendix A)
My Hero	6 min. and 40 sec.	Biography Chart (Appendix B)
What is in Name?	6 minutes	Matrix (Appendix C)
New Inventions	4 min. and 40 sec.	Non-fiction report chart (Appendix D)
	Overall Time: 23 min and 44 sec.	

Finally, an interview protocol (see Appendix E) was utilized with the students who participated in the graphic organizer group. To ensure its validity, the questions were modified according to two SLA experts' opinions. The purpose of the interview was to determine how these participants viewed their experiences using the graphic organizers. The protocol included 3 open-ended questions which were analyzed through identifying the most emerging themes.

3.4. Data collection and procedures

To accomplish the purpose of the study, 162 English learners from two branches of an institute were chosen and after running the OQPT, 157 of them were divided into an experimental group (87) and a control group (70). According to the institute's policy, one of the syllabus components was doing a 30-minutes extracurricular activity to enhance the language skills. Therefore, a consent was gained from the institute's administrators to hold a debriefing session for the instructors who were supposed to this extracurricular activity by using the graphic organizers. The administrators also agreed on a time expansion for doing the extracurricular activity from 30 minutes to 50 minutes. Having obtained the consents, the following procedures were implemented.

First, the participants were pretested to ensure they were homogenized regarding listening comprehension and vocabulary level. Then, a debriefing session was implemented to present thorough information about graphic organizers for the English instructors involved in the experiment. The session also provided an opportunity for the researchers to review the instructors' points of views and modify the experiment plan. Following the pretest and debriefing session, the instructional procedure began for four sessions which last 50 minutes. In order to homogenize the classes regarding listening instruction, the pedagogical sequences proposed by Vandergrift and Goh (2012) was the underlying roadmap which followed by the instructors of both control and experimental group. Table 2 depicts the stages.

As can be seen, these stages required the instructors to follow a five-stage instruction that was mostly students-centered. The only difference between the control and experimental groups' instructions was the use of the graphic organizers. The experimental group's instructors were supposed to integrate graphic organizers as scaffolding strategies into the first, second, and final verification stages. Hence, instead of a conventional note-taking technique which was eminent in the control group through all stages, the graphic organizer's participants had to fit the information into the prepared graphic organizers which were available on their laptops. Finally, the participants were given the posttest to identify any changes that they might make during these sessions.

3.5. Data Analysis Procedure

In order to analyze the data collected from administrating the same pretest and posttest the following statistical procedures were run. First, K-S test (Kolmogorov-Smirnov Test) and Levene Test were conducted to determine the normality of distribution. Then, in order to assess the efficacy of the graphic organizers on listening comprehension and incidental vocabulary acquisition, both descriptive and inferential statistics were conducted. Data analysis was done by using SPSS software version 22. The analysis of covariance (ANCOVA) was run to investigate any possible effects of treatment on two dependent variables: listening comprehension and vocabulary acquisition. The second part of the research was based on the students' attitudes towards the efficacy of computerized graphic organizers. Evaluating three open-ended questions made the researchers identify the most frequently recurring themes that emerged in the graphic organizer groups' participants.

4. Results

In order to answer the research questions which aimed to investigate the effects of the graphic organizers on listening comprehension and vocabulary acquisition, both descriptive and inferential statistics were conducted. K_S test (Kolmogorov-Smirnov test) and Levene Test were used to determine the normality of distribution assess the equality of variances. Table 3 summarizes the data obtained from comparing the means of pretest in both CG and EG.

As it is shown in Table 3, there was no significant difference between the two groups before the treatment ($p>.05$). To evaluate the effects of the graphic organizers on both listening comprehension and vocabulary acquisition, covariance measurement was run.

According to the results, there was a significant difference between the CG and EG regarding both listening comprehension and vocabulary acquisition ($p<0.5$). Figure 1 demonstrates the impact of computerized graphic organizers on listening comprehension.

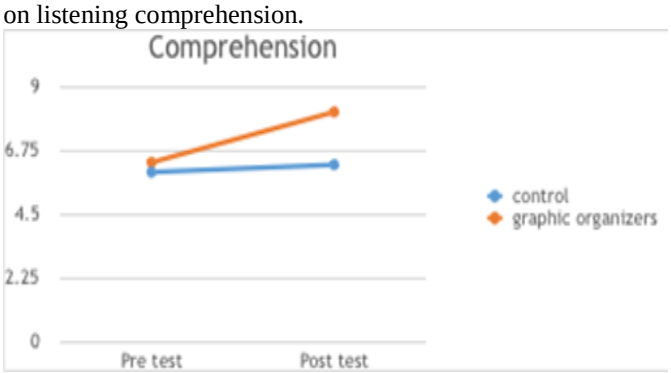

Figure 1. Effects of the graphic organizers on listening comprehension

Table 2 Listening Strategies Stages

Stages of listening instruction	Elaborations
Planning/ predicting stage	After being familiar with the topic, listeners brainstorm and predict the listening content.
First verification stage	Listeners write what they hear, compare the notes with their peers, and modify the notes.
Second verification stage	Listeners write additional details and have class discussion to reconstruct the main points.
Final verification stage	Listeners listen for information that they could not cpmprehend in the earlier stages.
Reflective stage	Listeners try to use strategies for compensating what is not understood.

Table 3 Comparing Mean of Pretest

Variable	Group	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Comprehension	Control	70	5.97	1.39	-1.463	155	.145
	GO	87	6.31	1.48			
Vocabulary	Control	70	6.96	1.06	-1.263	155	.209
	GO	87	7.18	1.17			

Table 4 Covariance Results

Variable	Group		Pre test		Post test		Effect p-value	
		N	Mean	Std. Deviation	Mean	Std. Deviation	Pretest	Group
Comprehension	Control	70	5.97	1.39	6.23	.92	<.001	<.001
	GO	87	6.31	1.48	8.09	1.11		
Vocabulary	Control	70	6.96	1.06	7.13	.95	<.001	<.001
	GO	87	7.18	1.17	7.84	1.17		

From the graph above, we can see that conventional listening practice could not lead to significant improvement in listening comprehension. However, employing graphic organizers significantly improved learners' listening comprehension. Figure 2 also shows the superiority of the EG to CG regarding the incidental vocabulary acquisition.

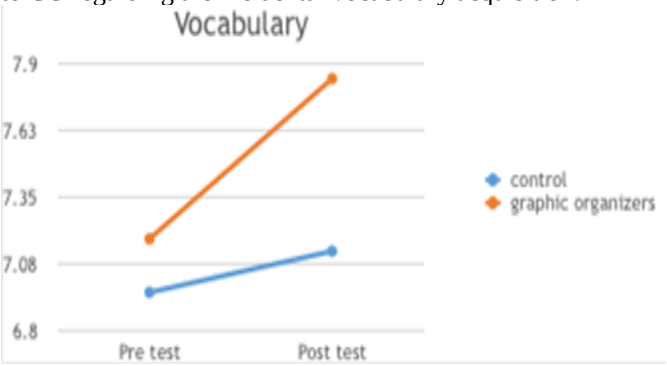

Figure 2. Effects of the graphic organizers on vocabulary acquisition

From the data in Figure 2, it is apparent that the graphic organizers assisted the learners to recall vocabularies of listening better. Finally, in the qualitative phase of the study, a semi-structured interview was conducted and the most emerging themes were identified. Table 5 presents the attitudes of the graphic organizer's participants.

It is apparent from the table that the majority of the participants found the graphic organizers as helpful scaffolding strategies which led to better listening comprehension. In addition, more than half of the graphic organizer group's participants indicated the usefulness of the treatment regarding new words leaning. Meanwhile, 33.3% of them indicated the confusing and complex nature of the graphic organizes.

5. Discussion

To address the first research question which aimed to investigate the efficacy of the computerized graphic organizers on listening comprehension, a pretest and posttest were administered to the participants in the EG and CG. The results showed that scaffolding instruction through graphic organizers significantly enhanced the learners' listening comprehension. The findings of the current study are in consistent with many researchers' (Ermis, 2008; Lin, Chen, & Dwyer, 2006; Yang, 2015) studies that compared the performance on a pretest and posttest of the learners who were provided with the graphic organizer in compare to those who did not. These research all confirmed how graphic organizers reduce cognitive load needed to do a task and resulted in better comprehension. However, this study did not support the research conducted by Casteleyn and Mottart (2012) who claimed that graphic organizers could not help L2 learners in terms of cognitive load, knowledge gain, and self-efficacy.

Furthermore, the study set out to determine the impacts of the graphic organizers on incidental vocabulary acquisition. Hence, a vocabulary test comprising 20 targeted new words were administered as a pretest and posttest. The results revealed that the EG's participants significantly gain more new vocabularies in compared to their peers in the CG. The finding corroborates the idea of the Involvement Load Hypothesis (ILH) developed by Hulstijn and Laufer (2001). Accordingly, retention of unfamiliar words is related to the amount of involvement during processing these new words. It is also in agreement with other researchers (e.g., Bahadori and Gorjian, 2016; Shoari and Farokhi, 2014; Zahedi and Abdi, 2010) who supported this theory and claimed that graphic organizers help learners to be engaged deeply in the process of learning and as a result, a good number of words could be retained.

Finally, the last question aimed to scrutinize the learners' attitudes towards employing the graphic organizers. Therefore, the researchers conducted a semi-structured interview with the graphic organizer group. The most recurring themes stated by the participants proved their effectiveness. For instance, two participants stated

The graphic organizers helped me improve my listening…while I was listening to the audio and completing a part of the graphic organizer, I could predict what the speaker (will) say next. The titles (provided in the graphic organizers) helped me pay attention to the main ideas more…

Using laptops and graphic organizers were really fun in the classroom… It was much better than taking notes on a piece of paper (the conventional method) …just it was a little difficult to type on the keyboards and the (structure) of (some) graphic organizers was confusing

6. Conclusion

For many years, SLA researchers have taken much interest in targeting their efforts at investigating the concept of *scaffolding* that is a branch of Vygostky's sociocultural framework of mind. Most often, in the field of SLA, an asymmetrical version of scaffolding which is an expert-novice interaction is prevalent. Returning to the questions posed at the beginning of the study, it is now possible to say that vygostky's scaffolding is not merely limited to the assistance transmitted from the expert, e.g., a teacher to the novice, e.g., a student. Since the temporariness nature of the assistance provided by teachers is an obstacle, scaffolding techniques could compensate for this shortcoming.

Table 5 Emerging Themes of Graphic Organizer Group's Interview

Emerging Themes	Frequencies	Percentages
1.The participants believed that the Graphic Organizers improved their listening ability by helping them to a)Predict about what speakers will say b)focus on key words and select targeted information adequate to complete the given task c)To formulate speaker's idea as they attempted to fill the graphic organizers	53	60.91%
2.The participants believed that the graphic organizers facilitated new words learning by helping them to a)Increase word consciousness (an awareness and interest in words and their meanings b) Use the new words in meaningful exemplary sentences	48	55.17
3.They believed that the graphic organizer had to be modified. a) More space was needed to write within the graphic organizers. b) Their layouts were confusing.	29	33.33

The most obvious finding emerged from this study is that graphic organizers as instructional scaffolding techniques are advantageous when they are incorporated to different stages of listening comprehension phases. With a reduction in cognitive load, they have a potential for increasing comprehension of listening materials. In pre-listening phase, these visual tools might trigger the learners' background knowledge and in during- and post-listening phases, they facilitate deeper processing and predicting the upcoming information.

The second major finding of the study supports that the Involvement Load Hypothesis can be operationalized by using graphic organizers in L2 contexts. Graphic organizers lead to learners' active engagement and varying involvement load that are effective instruction for teaching vocabularies. Therefore, it can be concluded that graphic organizers improve vocabulary learning. To be more precise, they contribute to deeper input processing, enhancing L2 learners' working memory which is extremely limited, and ultimately encoding the information into long-term memory. In addition, concerning the participants' attitudes obtained through the interview, it can be inferred that L2 learners have a tendency towards utilizing graphic because they reduce dependencies on teachers.

The following pedagogical implications should be considered in the EFL programs. First, scaffolding techniques ought to be accessible in L2 curriculums. Hence, L2 curriculum developers have to design supportive tools which are tailored to students' needed and levels of proficiency. Teaching L2 skills with Ready-made tools like graphic organizers could also benefit teachers to scaffold their instruction and rigorously monitor their learners' progress. Last but not least, utilization of these visual aids assist L2 learners to efficiently organize listening input. A well-structured graphic organizer supports those L2 learners who cannot properly take notes while listening to fast-paced listening input.

Finally, some important limitations need to be considered. First, the efficacy of the graphic organizers was examined only on the learners with the same level of proficiency. Secondly, the study was limited to teacher-made graphic organizers that may ignore learners' creativity and preferences to construct their own graphic representations. Finally, some variables such as gender, learning styles, age, and affective factors did not properly address in this study.

Therefore, further research regarding the role of graphic organizers would be worthwhile. L2 learners with lower or higher listening proficiency levels could be subjects of future study. Further works also need to be done to determine efficacy of student-made organizers in compare to the teacher-made ones. More importantly, what is now needed is examining the effects of these scaffolding visual aids on English language learners with disabilities, such as a speech or language impairment, a visual impairment, an orthopedic impairment, autism, multiple disabilities, and emotional disturbance.

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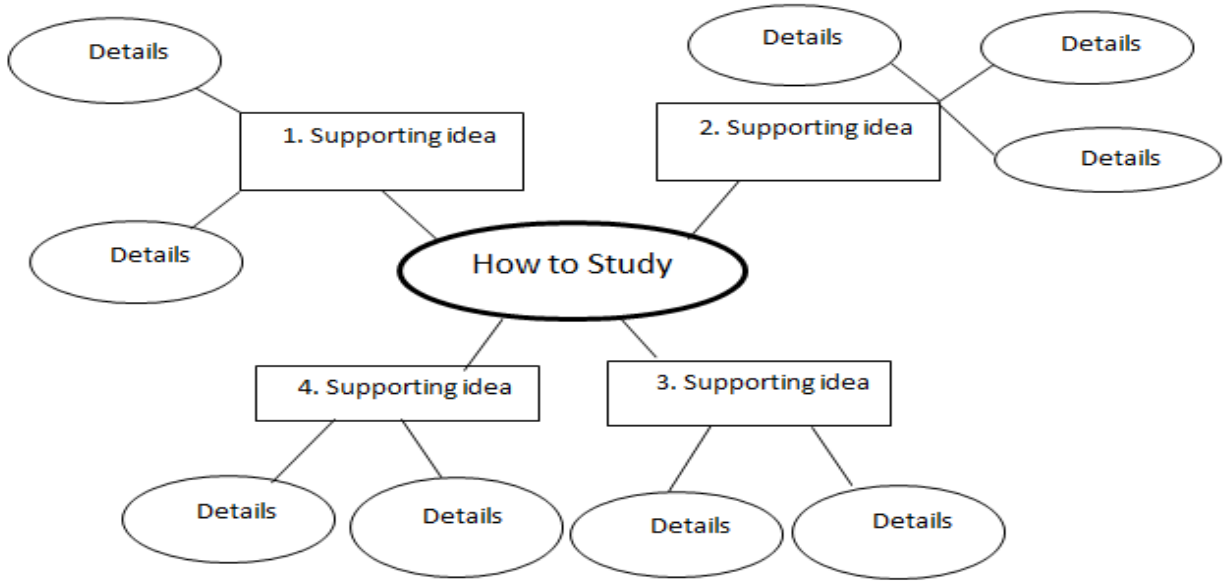
Appendix A
Graphic Organizer A



Appendix B
Graphic Organizer B

Her Discovery		The Reasons Made her away from the Scientific Community
	Mary Anning	
Dangerous Moments of her Life		The Reason the Speaker Admired her

His Actions against Child Slavery		The Outcomes of his Program
1. At age 6 2. At age 11 3. At age 26		
	Kailash Satyarthi	
Two Examples that Show He was Physically Attacked		
1. 2.		

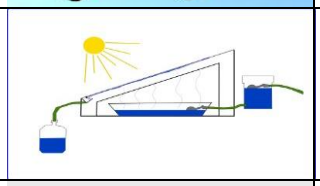
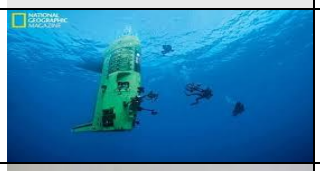
Her Actions as a biologist		Two Industries Reacted Badly to her Book
Her Book's Title/ Why did she Use such a Title?	**Rachel Carson**	The Speaker's Idea about These days

The Speaker is Apologetic because….		The Song *Imagine*
		1. Date of Release
	John Lennon	2. Its Content

Appendix C
Graphic Organizer C

What's in Name?
Sort of Nouns used as Names in the U.K.:
Names that Convey Feelings of Safety and Warmth:
A Tough Outdoorsy Name for Boys:
Two American Unusual Names:
The Reason that *Apple* is a Common Name:
The Story Behind the Beckham's Daughter's Name, *Harper*:
The Reason that the Speakers did not Keep Talking about Kardashian:

Appendix D
Graphic Organizer D

Invention	Image	Function
Wing Suit		
Solar Water Distiller		
Talk Gloves		
The Deep Sea Challenger Submarine		
Coat a Bottle Inventor		
Inside Cloud Maker		

Appendix E
Semi-structured Interview
Dear student,
Thank you for participating in the research. please take a few moments to answer the following questions as fully as you can.
1. Do you find using the graphic organizers helpful when you were listening to the audios? If so, how and why? If not, why not?
2. Do you believe your ability to learn new words of listening has improved? If so, how and why? If not, why not?
3. If you were to change one thing about the graphic organizers, what would it be?