

Vietnamese Intermediate-Level EFL Students' Perceptions of the Effects of the Instructor's Use of Persuasive Graphic Organizer on Speaking Performance

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Abstract—The current study elucidated Vietnamese intermediate-level EFL students' perceptions of the effects of the instructor's use of persuasive graphic organizer, a teaching scaffold for speaking, on speaking performance and self-efficacy during speaking practice. Three classes, comprising a total of 89 Vietnamese undergraduate students at intermediate level enrolled in a General English 4 course at a university, were purposively selected for the experimental phase. Participants completed persuasive graphic organizer in each speaking lesson as a scaffold to enhance their speaking performance. At the end of the training course, all participants completed a 36-item questionnaire covering seven dimensions related to the effectiveness of the graphic organizer on speaking performance. Results from the quantitative strand indicated that students demonstrated (i) a higher level of interest in the scaffold, (ii) a higher level of speaking self-efficacy, (iii) self-perceived effective use of the strategy as well as (iv) developing speaking skills. The last part of this paper will discuss the scaffold's utilization and impacts on Vietnamese EFL learners' language acquisition in a real classroom context.

Index Terms—intermediate level, persuasive graphic organizer, self-efficacy, speaking performance, Vietnamese EFL students

I. INTRODUCTION

Speaking is one of the principal objectives of learning English as a foreign language (EFL). It is widely recognized that speaking skills are essential in language acquisition and production (Hughes, 2011). For most EFL students, improving their speaking abilities is a primary focus in language learning (Pawlak & Waniek-Klimczak, 2015). According to Ur (2012), speaking competence is viewed as the ability to integrate all other types of knowledge, and 'people who know a language are referred to as "speakers" of that language' (p. 117). Possessing a certain level of speaking proficiency enables students to communicate effectively, present their ideas, and express their thoughts and feelings. Moreover, Westrup and Barker (2003) asserted that mastering speaking skills opens up opportunities for students, such as pursuing higher education, finding appropriate career paths, and obtaining promotions.

On the other hand, learning to speak is the most challenging skill, which requires learners to listen to their partners to comprehend the spoken communication and respond in the target language (Brown & Yule, 1983). In learning to speak, students faced considerable problems in terms of personal and linguistic features (Nguyen, 2024), social context, and environment, primarily conventional teaching approaches (Asratie et al., 2023; Chand, 2021).

In the general poll for teaching and learning English for Vietnamese EFL students in non-English classes, the instructor conducted surveys after finishing the General English modules for reflective teaching. The survey results showed that most students thought learning English, especially speaking skills, was complex. Most students cannot confidently communicate with each other in English, especially in the actual context of foreigners. The survey students indicated that they did not have opportunities to be exposed to classroom-based activities to develop their speaking competence.

In the context of higher education in South Vietnam, EFL students must complete four General English modules based on the Common European Framework of Reference for Languages (CEFR) in their training program. However, students can elect to take the CEFR-V test of the standards of level B1 English language proficiency (Nguyen, 2024). The construction of these General English modules is appropriate for the CEFR from pre-intermediate to intermediate levels. Nguyen (2024) also discovered the significant challenges Vietnamese EFL students faced in learning and meeting English language proficiency requirements.

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Graphic organizers are considered a critical approach for improving and developing the effects of language learning and teaching (Alshatti, 2012; Marzano et al., 2005; Onukaogu, 2012; Sam & Rajan, 2013; Uba et al., 2016). It is well recognized that graphic organizers are acceptable standard training approaches in language teaching and learning globally. Nevertheless, the intervention of graphic organizers was not applied and recognized in EFL classrooms in the actual context. Therefore, to improve the quality of teaching and learning speaking in non-English classes, the intervention of using persuasive graphic organizer was designed and applied to EFL students at intermediate level. It is hoped that the effectiveness of focusing on graphic organizers in improving and developing ideas for students' speaking abilities.

A few main objectives are posed to ascertain the effectiveness of the instructor's use of persuasive graphic organizer on speaking performance. Seven key points need to be considered after using this type of graphic organizer on speaking performance in terms of students' interests and motivation; self-efficacy towards learning to speak; self-evaluation; students' preference in speaking activities and techniques or strategies; students' self-efficacy towards B1 actual speaking tests; ideas generation, development, and presentation of students.

This study aims to improve speaking performance by descriptively examining Vietnamese intermediate-level EFL students' perceptions of the effects of the instructor's use of persuasive graphic organizer on speaking performance. The present study might provide a contemporary perspective on the effects of the graphic organizer on language education in the context of a higher educational institution in the Mekong Delta. Furthermore, the study's findings might also inform pedagogical decisions that enhance communicative competence of students in the context of Vietnam. Focused on the stated research aim, the specific research question addressed is as follows:

How does persuasive graphic organizer affect Vietnamese intermediate-level EFL students' perceptions of their speaking performance?

II. LITERATURE REVIEW

A. Overview of Graphic Organizers

According to Zwiers (2004), graphic organizers are also known as cognitive and concept maps or content webs. The function of graphic organizers is to provide a visual and kinetic display of information for students. These graphic organizers use geometric shapes or tables to figure out the relationship between information.

We can find various types of graphic organizers in the literature review of graphic organizers. They include charts, story maps, key ideas, and detail charts, cause and effect diagrams, Venn diagrams, flow diagrams, sequence charts, concept maps, big question maps, circle organizers, discussion maps, and so forth (Alshatti, 2012; Bellanca, 2007; Fisher & Schumaker, 1995; Merkley & Jeffries, 2000; Uba et al., 2016).

B. Criteria for Designing and Choosing Graphic Organizers

As Baxendell (2003) described, three core criteria exist for selecting graphic organizers for a particular purpose.

Coherence. This is the first criterion of graphic organizers. The design of the graphic organizers aims to help students avoid distractions in their learning. It means they are encouraged to engage in the lesson and increase their educational motivation. Additionally, the graphic organizer has to present the connections between essential information.

Creativity. The construction of graphic organizers should be innovative to attract students' interest in learning. The requirements of graphic organizers also meet the aesthetic features for the learning of learners.

Consistency. To ensure reliability and dependability, graphic organizers should be standardized and consistently used in the classroom. This standardization means they should align with the cognitive abilities of the target students.

In conclusion, when designing or selecting one type of graphic organizer for students learning, it is crucial to consider the three mentioned criteria.

C. Evidence of the Effects of Graphic Organizers on Language Learning

Graphic organizers contribute to the variety of multimedia input for the learning of learners. For that reason, graphic organizers are considered a visual aid source indicating the key information items in the text and the hierarchical relationships between these items for learners. Related studies showed the positive effects of graphic organizers on learners' learning performances. These studies have yielded evidence that graphic organizers support students improve their learning. First, Liou and Li (2024) unveiled the effects of computerized graphic organizers (CGOs) on the composition tasks of EFL learners. In particular, students perceived a significant improvement in reading and writing performance thanks to CGOs. Therefore, these students showed a more positive perception of learning composition class with graphic organizers. In learning a text with a graphic organizer, students enhanced their retention of inter-concept relations compared with students who learned from a text followed by a similar text (Robinson & Kiewra, 1995). From the results of this study, graphic organizers are highly recommended to be integrated into a text that supports students learn more organized relations. In the study of Uba et al. (2017), the effect of graphic organizers contributes to the understanding of prose fiction of students in English as a second language (ESL) context.

McCrudden et al. (2009) further emphasized the positive effects of a particular graphic organizer (i.e., causal diagram) for achieving holistic causal comprehension. Apparently, graphic organizers greatly facilitate students' information selection and organization process. From this vein, students can achieve a good understanding of their learning. On the

other hand, students are limited in selecting and organizing the information within the scope of a readymade graphic organizer. Students actively select and organize information in the process of learning under the teachers' instruction about applying a self-generated graphic organizer. Colliot and Jamet (2018a) also reported the positive effects of graphic organizers on learning improvement of learners. The point of the study is similar to the results of McCrudden et al.'s (2009) study. It showed that self-generated graphic organizers support students' comprehension performance, which was measured through transfer questions.

On the other aspects related to types of language learners, Miranda (2011) conducted a study to investigate the effects of graphic organizers on reading comprehension of one student with a learning disability. Results showed that graphic organizers help improve reading comprehension of this learner. Similarly, Kim et al. (2007) and Manoli and Papadopoulou (2012) claimed that using graphic organizers helps learners with disability improve their reading comprehension. With a focus on the genre of persuasive writing, related studies provided conclusive evidence about the effects of graphic organizer instruction on the persuasive writing of students with disabilities (Unzueta & Barbeta, 2012) and students with autism (Bishop et al., 2015). Similarly, Yavani (2018) also demonstrated the effects of graphic organizers on writing improvement and raised students' positive perceptions about its effects. From a broader perspective, Baghbadorani and Roohani (2014) revealed that strategy-based instruction is an effective classroom-based practice in raising competence in persuasive writing.

In terms of short-term and long-term memory enhancement, graphic organizers are viewed as a tool for improving students' short-term and long-term memory since they assist them in manipulating ideas and support them in summarizing concepts (Donn & Gimenez, 1995; Gallavan & Kottler, 2007). Tang (1992) revealed that graphic organizers might facilitate learners' second language acquisition. However, Jiang and Grabe (2007) mentioned a lack of graphic organizers for second language acquisition learners.

With the role of the instructor, Ponce et al. (2018) investigated the effects of an interactive graphic organizer integrating PowerPoint lessons on student engagement and generative learning in schools of 152 fourth-grade students. Results from the study showed that students were likely to engage in classroom activities by asking more questions. Interestingly, students who were learned with the graphic organizers outperformed in both memory and comprehension tests.

To sum up, the effects of graphic organizers on language learning in the EFL context are well established with different types of learners. It contributed to the development of learners at various levels involving input comprehension, reading comprehension, the quality of writing, retention, and second language acquisition. With the new perspective, the present study aims to unravel Vietnamese intermediate-level EFL students' perceptions of the effects of the instructor's use of persuasive graphic organizer on speaking performance.

D. Related Studies on Effects of Graphic Organizers on Speaking Performance

Empirical studies demonstrated that using graphic organizers facilitates learners' speaking abilities. First, Hajar (2019) implemented an intervention of graphic organizers to help students generate ideas in speaking. This study bridges the gap in students' speaking improvement. Two main research instruments were used to evaluate students' speaking improvement and perceptions of learning to speak, including two tests and a questionnaire. Results showed that students received an improvement in generating ideas for their speaking performance. Furthermore, students also expressed positive responses in using graphic organizers to learn to speak.

Second, Nabilah et al. (2022) implemented a study about the effects of the graphic organizer technique in teaching storytelling on students' speaking ability. The aims of this study include (i) examining levels of speaking competence before and after the intervention and (ii) investigating the effects of the graphic organizing technique in storytelling on speaking ability of students. Data was collected through two tests, pre-test and post-test. Results showed that the students' speaking test scores were low and fair before using the graphic organizer in storytelling. By contrast, students had a better improvement in their scores on speaking tests after the intervention. From the results, pedagogical implications suggest that graphic organizers should be incorporated into speaking classrooms for students at a basic level. Additionally, students are encouraged to self-generate graphic organizers on students' speaking learning performance.

Finally, Saindra and Mutiarani (2018) conducted a study related to using the graphic organizer for students' improvement of speaking skills. The primary purpose of the study is to examine if the graphic organizer is an effective technique for improving students' speaking ability. Participants included 22 students from a high school. This is an experimental study using a pretest-posttest design. An oral test was employed to measure students' speaking ability. Results showed that the students' post-oral test scores were higher than pre-oral ones. It demonstrated that the graphic organizer is an effective technique for enhancing students' speaking ability.

Until now, nevertheless, there have been few studies on the intervention of graphic organizers on speaking performance and self-efficacy in learning to speak for learners in the EFL context of Vietnam. Therefore, implementing the intervention of a particular form of graphic organizer for dealing with a speaking task may bridge the gap in the literature for this background.

III. METHODOLOGY

A. Participants

Participants included 89 Vietnamese EFL students at intermediate level, aged 18-21. Of these participants, 77.5% were female. Many, though not the majority, were from the Mekong Delta, sharing similar social, cultural, demographic, and economic backgrounds. At the time of the study, all participants were in the second year of a four-year bachelor's program at a public university in the Mekong Delta, Vietnam. The participants were purposively selected from three non-English classes: Class 1 with 33, Class 2 with 21 and Class 3 with 35 students. They were majoring in Primary Education, Electrical Engineering, Early Childhood Education, Accounting, Marketing Management, and Musicology. The gender ratio did not influence the study results; all participants were guided by the same instructor under similar intervention conditions.

The training was conducted over four weeks in each class at the university. In the first session, the instructor introduced the graphic organizer scaffold, applied to the second task of the speaking test. The participants were informed of the study's primary purpose and signed consent forms. Table 1 shows the detailed schedule of the course.

TABLE 1
THE SCHEDULE OF THE COURSE

Class	Course	N	Time
1	General English 4	33	Wednesday afternoon (from 1.00 p.m. to 4.40 p.m.)
2		21	Thursday morning (from 7.00 a.m. to 10.40 a.m.)
3		35	Friday morning (from 7.00 a.m. to 10.40 a.m.)

B. Questionnaire

One main research instrument, a questionnaire, was used to find the answer to the research question. A questionnaire with a five-point Likert scale: (1) *Strongly Disagree*, (2) *Disagree*, (3) *Agree to Some Extent*, (4) *Agree*, and (5) *Strongly Agree* was designed comprising seven dimensions to evaluate the effectiveness of the instructor's use of persuasive graphic organizer on Vietnamese EFL students' speaking performance. All items in seven relevant Clusters were adapted from previous studies mentioned in the literature review, respectively, including (a) students' interests and motivation; (b) students' self-efficacy towards learning to speak; (c) students' self-evaluation; (d) students' preference in speaking activities and (e) techniques or strategies; (f) students' self-efficacy towards B1 actual speaking tests; (g) ideas generation, development, and presentation of students.

The version of the questionnaire was written in both English and Vietnamese because the study participants were Vietnamese EFL students at intermediate level in non-English classes. Table 2 presents the seven Clusters to evaluate the effects of the instructor's use of persuasive graphic organizer on speaking performance of EFL students. These evaluations were comprised of the appropriate adaptation of the previous studies in the literature review.

TABLE 2
THE COMPONENTS OF THE QUESTIONNAIRE

Cluster	Item	Evaluation
1	1 to 6 (6 items)	Students' interest and motivation in speaking lessons
2	7 to 12 (6 items)	Students' self-efficacy towards learning to speak
3	13 to 16 (4 items)	Students' self-evaluation of their effectiveness in speaking performance
4	17 to 20 (4 items)	Students' preference in learning activities in speaking lessons
5	21 to 23 (3 items)	Students' preference in terms of speaking techniques or strategies
6	24 to 27 (4 items)	Students' self-efficacy towards B1 actual speaking tests
7	28 to 36 (9 items)	Ideas generation, development, and presentation in students' speaking performance

Note. The seven Clusters were evaluated through the intervention of persuasive graphic organizer in each speaking lesson in the classroom.

At the end of the course, 89 students from three classes were asked to complete the questionnaire on Google Forms. In the first phase, the researchers provided detailed instructions on completing the questionnaire on this platform. The students were facilitated in a comfortable and quiet environment to complete the questionnaire within 20 minutes. After completing all the items in the questionnaire, students were asked to submit them.

In the second phase, 89 questionnaires were computerized from Google Forms and systematized into the table in Excel. After that, Statistical Package for the Social Sciences (SPSS) version 25 was used to calculate the reliability coefficient with $\alpha = .973$, which is relatively reliable (see Table 3).

TABLE 3
THE RELIABILITY OF THE QUESTIONNAIRE

Cronbach's Alpha	N of Items
.973	36

C. A Design of Persuasive Graphic Organizer for Dealing With the Speaking Task

In the fourth module of General English, students have to deal with two speaking tasks in their speaking test. The first part of the test is social interaction. In this part, a list of four questions related to topics that they have learned in the course. For each appropriate answer to the question, students will achieve 1.0 point. The total score of this part is 4.0. The second part of the test is a solution discussion. Every speaking lesson, the instructor delivered a handout of a situation with three options. Students had to decide on the best option and provide reasons for their choice. Students had one minute to prepare and two to three minutes to start their speaking performance. The total score for this task is 6.0. The criteria for speaking assessment of two parts will be based on evaluating of the CEFR.

Focused on the structure of the speaking test in the course of General English 4, an approach of using a graphic organizer was designed for the second speaking part. This graphic organizer was created by the authors and was known as persuasive graphic organizer adapted from the theory of Hameed (2023). In his presentation related to graphic organizers, a persuasion map is one of the forms of graphic organizers that were mentioned. The persuasion map is defined as an interactive graph that supports learners in connecting their arguments for a persuasive essay, speech, debate, thesis topic, etc. Thus, the markers of persuasion maps need to identify learners' reasons and clarify their examples, evidence, or factors to support their argument.

The model of the persuasive graphic organizer was designed to improve speaking performance of students in terms of generating and transferring ideas. The model will be described as follows:

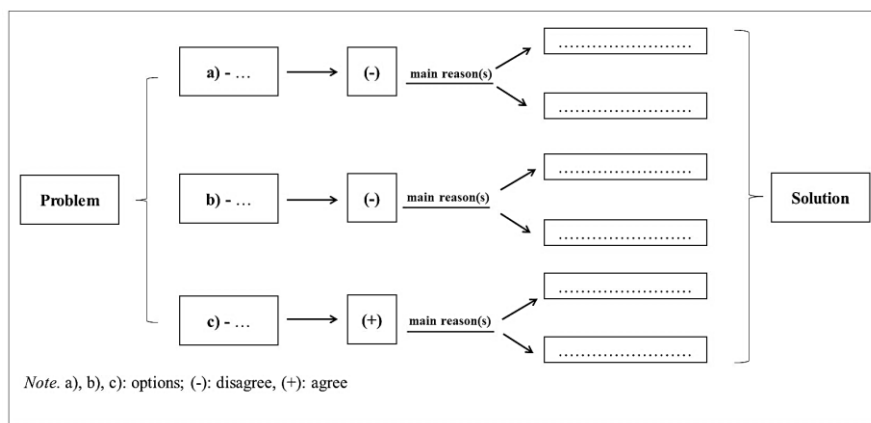


Figure 1. The Model of Persuasive Graphic Organizer Compiled by the Authors, Adapted From Hameed (2023), Used for Ideation in the Speaking Preparation Stage (see Table 5 for Specific Situations)

Figure 1 shows the model of persuasive graphic organizer for the second speaking task (situation discussion). Look at the graphic organizer; there are three options for dealing with the situation discussion. Options A and B present the decision for being not the best option with the symbol of [-]. The two options will be presented first. Then, students will give evidence or reasons why they think they are not the best option. Students have to provide at least one reason or evidence for their choice. The third option, Option C, expresses that this is the best choice or solution for the situation with the symbol of [+]. Similarly, students also have to give reasons or evidence for this choice. The core purpose of this graphic organizer is to help students follow their ideas generation and presentation visually and critically. The purpose of this form of graphic organizer is to encourage EFL learners to be confident in expressing their ideas at this level.

D. A Course Assessment of General English 4 at University

In the university context, all non-English class students must complete four General English courses in their training program. However, students can select to take the CEFR-V test of the standards of level B1 English language proficiency (Nguyen, 2024). All General English courses were designed to meet the criteria of CEFR-V. Table 4 below shows the assessment of General English 4 at School.

TABLE 4
THE ASSESSMENT OF GENERAL ENGLISH 4 AT UNIVERSITY

Course description	Assessment	
	Formative Assessment	Summative Assessment
Course: General English 4 Course Book: Hashemi, L. & Thomas, B. (2010). <i>Cambridge English: Objective PET</i> . Cambridge University Press. Level: Intermediate level	<p>- <i>A Midterm Paper-Delivered Test (Language Skills: Listening, Reading, and Writing)</i></p> <p>Listening Section: Three parts with 20 items (4.0 marks) In this section, students will hear two times. Part 1: Multiple choices (7 items; 1.4 marks) Part 2: Multiple choices (7 items; 1.4 marks) Part 3: Correct or Incorrect (6 items; 1.2 marks)</p> <p>Reading Section: Two parts with 15 items (3.0 marks) Part 1: Correct or Incorrect (10 items; 2.0 marks) Part 2: Multiple choices (5 items; 1.0 mark)</p> <p>Writing Section: Two parts (3.0 marks) Part 1: Sentence transformation (5 items; 1.0 mark) Part 2: Write an email at least 100 - 120 words (suggested questions) (2.0 marks)</p> <p>- <i>A Speaking Test (2 parts)</i> Part 1: Social interaction (4 questions; 4.0 marks) Questions elicited from the themes of units 23 to 30 in the course book.</p> <p>Part 2: Situation Discussion (6.0 marks) Students are provided a situation and three options (solutions) for dealing with the situation. Students have to provide reasons or evidence for the best option (solution) Students have two to three minutes to talk in this part.</p>	<p>- <i>A Computer-Delivered Test of Four Language Skills (Listening, Reading, Writing and Speaking)</i></p> <p>Listening Section: Three parts with 20 items (10.0 marks) In this section, students will hear two times. Part 1: Multiple choices (7 items; 3.5 marks) Part 2: Multiple choices (7 items; 3.5 marks) Part 3: Correct or Incorrect (6 items; 3.0 marks)</p> <p>Reading Section (30 minutes): Three parts with 25 items (10.0 marks) Part 1: Correct or Incorrect (10 items; 4.0 marks) Part 2: Multiple choices (5 items; 2.0 marks) Part 3: Multiple choices (10 items; 4.0 marks)</p> <p>Writing Section (45 minutes): Two parts (10 marks) Part 1: Sentence transformation (8 items; 4.0 marks) Part 2: Write an email at least 100 - 120 words (suggested questions) (6.0 marks)</p> <p>Speaking Section: (10.0 marks) Part 1: Social interaction (4 questions; 4.0 marks) Questions elicited from the themes of units 23 to 30 in the course book.</p> <p>Part 2: Situation Discussion (6.0 marks) Students are provided a situation and three options (solutions) for dealing with the situation. Students have to provide reasons or evidence for the best option (solution) Students have two to three minutes to talk in this part.</p>

Regarding the assessment of the General English 4 course, the content and format of both formative and summative assessments are similar. However, the scale for scoring the test is different. The score scale for the summative test is divided into small parts, representing separate language skills.

E. Research Design

Although the participants came from three different classes, they were assumed to be at the same level-intermediate. The reason is that they all followed a similar General English course at this university. Therefore, students had identical conditions for the intervention. The other research features were also considered carefully, including level, format, activities, and assessment.

The teaching material utilized in the current study consisted of some printed papers of persuasive graphic organizer. The printed papers of the persuasive graphic organizer were used in four speaking lessons. A series of the four situations were selected from based-topic suggestions of the Vietnamese Standardized Test of English Proficiency (VSTEP) in Vietnam. This test was designed and developed within the scope of the National Foreign Languages Project of the Ministry of Education and Training of Vietnam (the NFLP). The purpose of the test is an assessment of English language proficiency from CEFR B1 to C1 levels (Nguyen, 2024).

The course instructor provided a three-option situation and a detailed introduction to persuasive graphic organizer while dealing with the second speaking task in each speaking lesson in class:

1. The instructor spent the first 10 minutes guiding students in analyzing the speaking situation by giving self-questions as scaffolding and specific explanations (if necessary).
2. The instructor asked students to review the persuasive graphic organizer to brainstorm ideas.
3. Students had 15 minutes to complete this graphic organizer.

After completing the graphic organizer, students were asked to work in pairs. This activity aims to share and listen to their peers' speaking performance. Table 5 shows a detailed plan for the intervention of persuasive graphic organizer.

TABLE 5
A DETAILED PLAN FOR THE INTERVENTION OF PERSUASIVE GRAPHIC ORGANIZER

Time	Experiments (n=89)	Steps for the intervention
The first speaking lesson (4 periods)	Experiment 1	
	You're going to talk about something for two to three minutes. I'm going to describe the situation to you. Situation 1: A group of people is planning a trip from Danang to Hanoi. Three means of transport are suggested including by train, by plane, and by coach. Which means of transport do you think is the best choice? Give reasons to support your ideas.	- All students are given a three-option situation and persuasive graphic organizer. - The instructor guides students in analyzing the situation and gives explanations (if necessary).
The second speaking lesson (4 periods)	Experiment 2	
	You're going to talk about something for two to three minutes. I'm going to describe the situation to you. Situation 2: Your cousin is the best student of the class this year. His parents are thinking about a present, there are three options: a laptop, a holiday, or some money. Which option would you suggest her? Give reasons to support your ideas.	- The instructor asks students to look at the persuasive graphic organizer and then gives students five minutes to think. - The instructor asks students to complete the graphic organizer within 15 minutes.
The third speaking lesson (4 periods)	Experiment 3	
	You're going to talk about something for two to three minutes. I'm going to describe the situation to you. Situation 3: You have a Sunday evening out with your friends. There are three suggestions: seeing a movie, going shopping or singing karaoke. Which one would you choose? Give reasons to support your ideas.	- After finishing the completion, a few students are asked to write their work on the board. - The students will perform their speaking presentation for two to three minutes. - Students will have a specific time to practice their speaking.
The fourth speaking lesson (4 periods)	Experiment 4	
	You're going to talk about something for two to three minutes. I'm going to describe the situation to you. Situation 4: A student wants to do a part-time job where he can practice his English. There are three options for you to choose: a job at a souvenir shop, a job at a travel agency, a job at a take-away shop. Which job would be best for him? Give reasons to support your ideas.	- Finally, the students will receive feedback from their peers and the instructor using the rubrics provided by the instructor.

IV. RESULTS

A. The Reliability of the Questionnaire Clusters

Table 6 provides the results related to the reliability of seven Clusters with 36 observed items from the questionnaire.

TABLE 6
THE RELIABILITY OF THE QUESTIONNAIRE CLUSTERS

Clusters	Indicators	Observed items	Reliability	
			Cronbach's Alpha (α)	Cronbach's Alpha Based on Standardized Items
1	Students' interests and motivation in speaking lessons	6	.813	.816
2	Students' self-efficacy towards learning to speak	6	.885	.885
3	Students' self-evaluation of their effectiveness in speaking performance	4	.846	.849
4	Students' preference in learning activities in speaking lessons	4	.857	.858
5	Students' preference in terms of speaking techniques or strategies	3	.791	.794
6	Students' self-efficacy towards B1 actual speaking tests	4	.921	.921
7	Ideas generation, development, and presentation in students' speaking performance	9	.945	.946

B. Students' Perceptions of Persuasive Graphic Organizer and the Use of Persuasive Graphic Organizer on Speaking Performance

A descriptive Statistics Test calculated the mean score of the overall questionnaire and that of each Cluster. The One Sample T-test followed this to evaluate whether the mean scores were significantly different from the level of the scale (i.e., 2.5). The results are shown in the following Tables.

TABLE 7

THE DESCRIPTIVE STATISTICS OF STUDENTS' PERCEPTIONS OF PERSUASIVE GRAPHIC ORGANIZER AND THE USE OF PERSUASIVE GRAPHIC ORGANIZER ON SPEAKING PERFORMANCE

	N	Min.	Max.	Mean	Std. Deviation
Overall	89	1.46	5.00	3.83	.57
Cluster 1	89	1.50	5.00	4.00	.56
Cluster 2	89	1.00	5.00	3.90	.64
Cluster 3	89	1.50	5.00	3.84	.61
Cluster 4	89	1.00	5.00	3.81	.68
Cluster 5	89	1.33	5.00	3.79	.66
Cluster 6	89	2.00	5.00	3.66	.76
Cluster 7	89	1.22	5.00	3.80	.67

As shown in Table 7 and Table 8, the mean score of the overall questionnaire was $M = 3.83$, which was significantly higher than the average score (2.5) ($t = 21.68$; $df = 88$; $p = .00$). This indicated that students, in general, had a positive perception of persuasive graphic organizer and the use of persuasive graphic organizer in speaking lessons.

TABLE 8

THE RESULTS OF ONE SAMPLE T-TEST ON STUDENTS' PERCEPTIONS OF PERSUASIVE GRAPHIC ORGANIZER AND THE USE OF THE PERSUASIVE GRAPHIC ORGANIZER ON SPEAKING PERFORMANCE

	t	df	p
Overall	21.68	88	.00
Cluster 1	24.88	88	.00
Cluster 2	20.41	88	.00
Cluster 3	20.51	88	.00
Cluster 4	18.06	88	.00
Cluster 5	18.33	88	.00
Cluster 6	14.35	88	.00
Cluster 7	17.53	88	.00

All seven Clusters gained high mean scores over average, and all those differences were statistically significant. Cluster 1, which identified Vietnamese EFL students' perceptions of their interests and motivation in speaking lessons, reached the highest mean score of ($M = 4.00$, $SD = .56$). It was apparent that the students were intensely interested in learning speaking lessons with this form of graphic organizer. In terms of students' self-efficacy towards learning to speak in Cluster 2, the mean score stood in the second position in the questionnaire which was fairly high ($M = 3.9$, $SD = .64$). Students' self-evaluation of their effectiveness in speaking performance with the intervention of persuasive graphic organizer gained the mean score of ($M = 3.84$, $SD = .61$). Additionally, the students also had a more positive perception of preference in learning activities and speaking component development in speaking lessons which gained $M = 3.81$, $SD = .68$ and $M = 3.80$, $SD = .67$, respectively. Students' preference in terms of speaking techniques or strategies in the speaking context represented by Cluster 5 is lower ($M = 3.79$, $SD = .66$); nevertheless, it remained significantly high above average ($t = 18.33$; $df = 88$; $p = .00$). Specifically, Cluster 6, which investigated students' self-efficacy towards B1 actual speaking tests, gained the lowest mean score ($M = 3.66$, $SD = .76$). However, this score was significantly higher than the mid-level of the scale (2.5) ($t = 14.35$; $df = 88$; $p = .00$). This result indicated that students had not enough confidence in dealing with tasks in B1 actual speaking test albeit the fondness of persuasive graphic organizer and its use. In summary, the line graph below shows Vietnamese intermediate-level EFL students' perceptions of the effects the instructor's use of persuasive graphic organizer on speaking performance (see Figure 2).

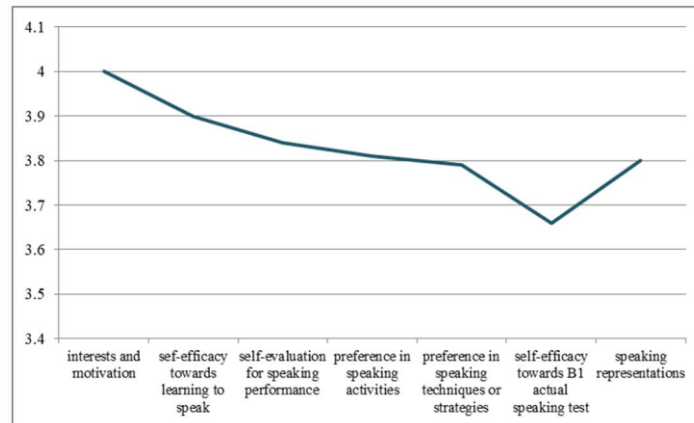


Figure 2. Vietnamese Intermediate-Level EFL Students' Perceptions of the Effects of the Instructor's Use of Persuasive Graphic Organizer on Speaking Performance

(a). *Students' Interests and Motivation in Speaking Lessons*

Students' perceptions of the effectiveness of using persuasive graphic organizer on their interests and motivation in speaking lessons gained the highest mean score. This result proved that students fondly used this graphic organizer form in their speaking lessons. In other words, students had interests and engaged their motivation in learning speaking in each lesson with the graphic organizer. In particular, some items in the first Cluster express students' interest and motivation in speaking lessons. Students believed they wanted to improve their speaking competence ($M = 4.17$, $SD = .88$). Moreover, students thought the graphic organizer supported them more in speaking learning ($M = 4.04$, $SD = .83$). Besides, students thought they were motivated to learn to speak. Students thought they were encouraged to speak more, gaining a similar mean score of $M = 3.95$ with $SD = .76$ and $SD = .68$, respectively. Based on the intervention of the form of the graphic organizer, students were interested in speaking class ($M = 3.93$, $SD = .80$).

(b). *Self-Efficacy Towards Learning to Speak*

All items in this Cluster were designed to examine students' perceptions of the effects of the form of the graphic organizer on their process of learning to speak. Overall, Vietnamese B1 students also had high self-efficacy towards learning to speak with the overall mean score ($M = 3.90$, $SD = .64$). In particular, students thought that their amount of vocabulary and phrases about various themes had been improved through applying the graphic organizer in speaking lessons ($M = 4.07$, $SD = .77$). Additionally, students thought learning to speak with this form of graphic organizer could help them widen their topical knowledge ($M = 4.03$, $SD = .81$). Interestingly, after the intervention of this form of graphic organizer in each speaking lesson, students believed they needed to know more about various types of graphic organizers to help them improve their speaking learning ($M = 3.93$, $SD = .86$). Students' critical thinking could also be developed through scaffold ideas when learning to speak with persuasive graphic organizer ($M = 3.92$, $SD = .81$). This point should be considered when designing graphic organizers for developing speaking ideas of students.

(c). *Students' Self-Evaluation of Their Effectiveness in Speaking Performance*

This Cluster was designed to evaluate the speaking performance of students based on the effects of persuasive graphic organizer. Students' level of self-evaluation of their effectiveness in speaking performance also received a positive perception. Mainly, students thought that their speaking performance was improved through learning speaking with the integration of this form of the graphic organizer, which gained a mean score of ($M = 3.95$, $SD = .73$). In terms of topical knowledge related to speaking topics about various fields, students had a considerable extension ($M = 3.89$, $SD = .64$). Furthermore, students also had a perspective of score improvement in their speaking performance ($M = 3.84$, $SD = .75$).

(d). *Students' Preference in Learning Activities in Speaking Lessons*

The highlight of students' preference for learning activities in speaking lessons was also perceived at a high level. Specifically, students had a favor in listening to their peers' speaking performance and gave their feedback ($M = 4.69$, $SD = .64$). For the time of speaking practice; students liked to practice speaking skills with the form of the graphic organizer ($M = 4.50$, $SD = .73$).

(e). *Students' Preference in Terms of Speaking Techniques or Strategies*

Persuasive graphic organizer is considered a speaking technique. Therefore, various aspects of other speaking techniques or strategies were exploited in this Cluster. Students expressed a preference for other speaking techniques or strategies that might assist them in improving their speaking performance. Looking at details, students thought they were able to apply this form of graphic organizer to other language skills for their learning ($M = 3.83$, $SD = .72$). In

addition, students were curious to find out more techniques or strategies that interested them in learning to speak ($M = 3.79$, $SD = .84$).

(f). *Students' Self-Efficacy Towards B1 Actual Speaking Tests*

In this Cluster, students seemed to face challenges with B1 actual speaking tests. Therefore, this Cluster gained the lowest mean score. However, students perceived a positive self-efficacy towards B1 actual speaking tests. There is clear evidence that students claimed that after learning to speak with the graphic organizer, students performed better in speaking parts of the B1 speaking test ($M = 3.75$, $SD = .82$). Moreover, students had a good preparation for the B1 actual speaking test which gained the mean score ($M = 3.71$, $SD = .82$). Thanks to the assistance of the graphic organizer, students could manage the time to speak with the time allotted of the B1 actual speaking test ($M = 3.70$, $SD = .84$).

(g). *Ideas Generation, Development, and Presentation in Students' Speaking Performance*

This Cluster also had a positive perception of Vietnamese EFL students. It meant that in speaking representations, students had a positive perception of using the graphic organizer on ideas generation, development, and presentation in their speaking performance. In the stage of ideas generation, students generated more ideas with the support of the graphic organizer ($M = 3.92$, $SD = .79$). Regarding idea development, students could develop their ideas for speaking ($M = 3.84$, $SD = .92$). Furthermore, students could summarize and indicate the relationships between the ideas delivered from their speaking performance ($M = 3.84$, $SD = .96$). In the stage of speaking presentation, students knew how to start their speech when looking at the graphic organizer ($M = 4.03$, $SD = .77$). In terms of ideas arrangement, students could arrange their ideas logically by learning speaking with the graphic organizer ($M = 4.00$, $SD = .93$). As a result, students thought they could remember the ideas better when they concentrated on the graphic organizer ($M = 4.00$, $SD = .89$).

V. DISCUSSION

The results found in the present study confirmed the research aim. The present study's results provide a global understanding of the scaffold's positive effects on learning to speak of EFL learners. Moreover, the study has also suggested that assistance in the form of the graphic organizer can help EFL students improve their speaking performance.

Regarding learning engagement, students gained a more positive perception of interests and motivation in speaking lessons. This finding is congruent with Hajar (2019), Liou and Li (2024), and McCrudden et al. (2009), in which students gave positive responses with the intervention of graphic organizers on their speaking learning. In addition, students also showed a higher level of self-efficacy towards learning to speak and self-evaluation of their effectiveness in speaking performance.

Examining specific components of the questionnaire, students reported they preferred speaking activities with this instructional scaffold of graphic organizer in each speaking lesson. The result of students' preference for the scaffold transparently confirms previous studies (McCrudden et al., 2009; Ponce et al., 2018; Yavani, 2018). The evidence may contribute to the understanding of an effective approach to teaching speaking based on the intervention of graphic organizers as an ideation tool. In relation to the students' improvement of their memory competence and expression of ideas, students also showed a higher self-efficacy in learning to speak with the assistance of persuasive graphic organizer. The result aligns with the studies (in reference to Donn & Gimenez, 1995; Gallavan & Kottler, 2007; Robinson & Kiewra, 2015).

In the aspects of language improvements (i.e., speaking achievement), the result of the present study is similar to relevant studies (Colliot & Jamet, 2018a; Kim et al., 2007; Manoli & Papadopoulou, 2012; McCrudden et al., 2009; Miranda, 2011; Mutiarani, 2018; Nabilah et al., 2022). However, there are not yet many empirical studies on the effects of scaffolds of graphic organizers for EFL speaking context (see further Alaei et al., 2019).

Students in the present study also highly perceived the role of the scaffold as an effective learning technique. In other words, these students believed this graphic organizer scaffold was appropriate for improving their speaking performance. Thus, this point proved that the positive results of graphic organizers were considered consistent throughout studies of instructional approaches in language education. The finding contributes to enriching the literature review on the utilization of graphic organizers in language learning (see Ponce et al., 2018).

Considering the newfangled point of the present study, the Cluster, in relation to students' self-efficacy towards actual B1 speaking tests, received the lowest level. Students did not believe they were significantly more confident in performing speaking skills in the tests with the support of persuasive graphic organizer. It may be from the fact that the nature of summative assessment is different from that of formative assessment in the process of classroom learning. More specially, there could be a gap between teaching in the classroom and summative assessment of the final test (see further Samaie & Valizadeh, 2023).

In summary, the results of the questionnaire survey of the present study revealed students' positive perspectives on the effects of a form of graphic organizer on their speaking performance. These results provided consistent evidence for using graphic organizers for language improvement and learning engagement in EFL contexts.

VI. CONCLUSION

A sizable body of literature advocates using graphic organizers in language teaching and learning. Graphic organizers effectively trigger students' engagement and confidence in their language learning. The present study provides Vietnamese intermediate-level students' perceptions of the effects the instructor's use of persuasive graphic organizer on their speaking performance. Based on the foundation from prior pertinent studies worldwide, seven dimensions related to students' perceptions of the effects of graphic organizers on language science and education are explored and analyzed using a quantitative approach from the questionnaire. Results show that students positively perceive the impact of persuasive graphic organizer on speaking performance with various points. Specifically, students achieve the highest mean score for the dimension of their interests and motivation in speaking lessons. Furthermore, they also have high perceptions of self-evaluation for speaking performance and activities. In addition, the speaking representations of students are also improved dramatically.

Interestingly, students do not believe they are significantly more confident in performing their B1 actual speaking test with the intervention of persuasive graphic organizer. However, in general, students positively perceive the effects of the selected form of graphic organizer in terms of their speaking performance and self-efficacy during their speaking practice. In conclusion, the present study provides evidence, at a descriptive level, on how EFL students perceive the effects of the scaffold within the process of learning to speak.

A limitation of the present study is that persuasive graphic organizer was used to intervene with students. Therefore, further research can consider integrating various types of graphic organizers into speaking intervention. Furthermore, the empirical effects of the scaffold should also be examined in terms of other speaking genres and how the scaffold should be designed to meet academic content requirements. Specifically, students' speaking performance should be empirically examined through speaking tests at two moments before and after the intervention. In future studies, students' speaking tests should be scored by two raters for the greater reliability of the results.

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