Research Article

EFFECTS OF GRAPHIC ORGANIZERS ON VOCABULARY ACQUISITION, READING PERFORMANCE, AND ENGLISH LEARNING ATTITUDE OF GRADE 8 STUDENTS

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Abstract

The outward display of learners' struggles in advancing their literacy performance has been a grey spot in the pedagogical spectrum. Previous investigations emphasize that such difficulty is anchored by learners' inefficient vocabulary, reading performance, English learning attitude, and unemployment of interactive instructional strategies. This quasi-experimental study investigated the effect of graphic organizers (GOs) on vocabulary acquisition (VA), reading performance (RP), and English-learning Attitude (ELA). Two sections of grade 8 learners of a public school in Isabela, Philippines were randomly selected to serve as the control group and experimental group of the study. In a span of one month, the control group (n = 33) employed a conventional strategy in learning while the experimental group (n = 34) applied GOs. Pre and post-assessments of their Vocabulary Acquisition, Reading Performance, and English Learning Attitude were administered. The data were analyzed using descriptive and inferential statistics. A paired samples t-test revealed that the control group did not exhibit a significant increase in VA, RP, and ELA from pretest to posttest. Conversely, the experimental group demonstrated a noteworthy increase in VA, RP, and ELA between the pretest and posttest assessments. Analysis of covariance showed that the experimental group outperformed the control group in all the variables. The employment of GOs provided the respondents with substantial assistance in improving their VA, RP, and ELA, highly suggesting the use of GOs in instruction.

Introduction

Improving literacy performance is one of the greatest ordeals tackled by learners across the world. Its continuous deterioration demands an extensive application of pedagogical strategies that can aid in combatting the literacy challenges learners encounter, such as the employment of graphic organizers. Graphic organizers (GOs) are interactive strategies that assist learners in achieving comprehension. Lynch (2021) characterizes these as visual representations and diagrams helpful in determining and processing the relationships of the information presented among learners. Although this strategy has long been known, its integration into pedagogical processes is still less observed. Teevno and Raisini (2017) underscore the extensive dependence of teachers on the employment of conventional strategies for English instruction. Several instances were reported where teachers refused to integrate metacognitive strategies in facilitating their classes. This phenomenon is attributed to the continuous struggle of learners to advance their English performance, including their reading, vocabulary, and learning attitude (Ali & Zaki, 2019). Due to such pedagogical preferences, classroom interaction reportedly became passive and teacher-centered thus, the engagement of learners decreased and their learning was compromised.

Researchers have uncovered numerous advantages of GOs over conventional strategies in facilitating English instruction. For instance, Aprianto and Murapi (2020) affirm that GOs offer a substantial support for the linguistic and psychological development of learners by reducing language anxiety when acquiring information and expressing ideas as well as boosting learning interest and motivation. GOs are also claimed beneficial for scaffolding (Karimi et al., 2020), comprehension (Albufalasa, 2019; Batinga et al., 2020; Davoudi & Yousefi, 2020), vocabulary acquisition, and positive achievement emotion in English (Ilter, 2016). Evidence shows that learners who used GOs exhibited greater performance in the aforementioned areas than those who were confined to the employment of conventional strategies.

Subsequently, Programme for International Students Assessment (PISA) describes reading performance (RP) as the measurement of the ability of learners to process, comprehend, use, and reflect on written texts to achieve a certain goal (Organization for Economic Cooperation and Development, n.d.). This is exhibited when learners make sense of the text they read, process the information gathered, and relate these to the things they perceive around them. Relatively, Nordquist (2020) defines vocabulary acquisition (VA) as the process of learning new words from a specific language. The interconnection between these elements is widely recognized since VA is a primary component of excellent RP. In order for learners to comprehend and use certain information in authentic contexts, they must first be equipped with sufficient word knowledge. Raisinski and Padak (2017) notice a similar linkage of these elements from their assessment of learners from the United States of America. It was observed that even native English speakers encounter a huge difficulty in acquiring sufficient vocabulary knowledge. This demonstrates that reading engagement and communication contexts serve as the chief pillars for VA, rather than mere language orientation.

In the Philippines, the result of the PISA in 2018 reveals that the RP of Filipino learners dropped two levels below the average of their overall English performance (OECD, 2018). Their limited vocabulary knowledge

and poor reading comprehension skills were considered major factors that led to their poor achievement in English. Falculan (2017) specifies analyzing word parts, using context clues, applying connotation and denotation, and interpreting figurative language as prime components that contribute to the learning difficulties displayed by the learners. Their huge reliance on dictionaries and adults is also evidently observed. Apolonio (2021) exposes that the inappropriateness of grammar instructions embodies a huge contribution to the continuous struggle of Filipino learners to develop English competence. Urbano, Gumangan, Gustilo, and Capacete (2021) emphasize the inability of learners to apply appropriate techniques for information and word processing resulting to their deteriorating literacy performance, especially in VA and RP. The authors further suggest the application of metacognitive strategies and the creation of a reading and writing syllabus which shall be incorporated into the curriculum.

Casil-Batang and Malenab-Temporal (2018) describe English Learning Attitude (ELA) as the interest and participation displayed by the learners toward the subject which they categorized into cognitive, behavioral, and affective. The authors highlight that the English achievement of the learners greatly depends on their learning attitude. Although Filipino learners possess a debatably positive ELA, authors note that they still have learning reservations prompted by fear of mistakes and humiliation. Navarrete (2019) likewise explains the correlation between the English-learning attitude, reading, and vocabulary development of Filipino learners. These elements are considered primary determiners of good academic performance. However, the gap between the attitude and English performance of Filipino learners calls for an intensified application of varied reading activities namely: predicting, activating prior knowledge, using GOs, and setting meaningful learning purposes.

Another characteristic strongly associated with the English learning attitude of Filipino learners is their outward overestimation of vocabulary knowledge. According to Santillan and Daenos (2020), Filipino learners perceive themselves as fully equipped with vocabulary. However, their actual performance is significantly lower than their expected performance. Ong (2021) likewise asserts that the ELA should be recognized and provided with equal attention to transform the instruction into an effective and productive course.

Albufalasa (2019) magnifies the strong impact of GOs in strengthening reading comprehension, specifically for narrative texts. The researcher asserts that the employment of GOs in reading generally increases motivation. It is likewise observed that GOs assist learners in comprehending passages and gaining important information (Dayamanti, 2019). Findings reveal that GOs are very useful, especially in forming comprehensive summaries of passages read by the learners. Although Qi and Jiang (2021) support this claim, the authors still emphasize that using GOs may become very complicated and ineffective, especially when the learners are not fully aware of their types and appropriate uses. This signifies that the insufficiency of learners' knowledge of GOs prevents them from maximizing its assistance and effectiveness for excellent RP. Mei (2018) also notes that despite the huge assistance provided by GOs, learners still exhibit low RP and consider it very time-consuming. The author further criticizes the heavy reliance of teachers on traditional approaches in facilitating reading instruction.

Relative to VA, GOs are deemed helpful in decoding unfamiliar concepts. These are suitable for formulating a concrete understanding of unknown words and reducing the cognitive loads encountered by the learners during text and information processing (Karimi et al., 2020). This is parallel to the report of Mojaverian et al. (2022) that GOs provide dual-coding assistance through visual and linguistic representations. This strategy is considered more effective in advancing the learners' vocabulary knowledge than conventional modalities. Similarly, Gatco and Hajan (2019) observe that the use of metacognitive strategies like GOs significantly increased VA and improved the comprehension skills of the learners. However, these claims contradict the findings of Reed et al., (2018) that word-structure approaches such as GOs are insufficient for decoding important concepts and unfamiliar words when not accompanied by other comprehension strategies. This instance displays the limitations of the employment of GOs for VA.

Minaabad (2017) further claims that the effectiveness of GOs relies heavily on the sufficiency of learners' background knowledge, reading and writing skills, and their ability to process large amounts of information. When students are not equipped with sufficient schema and vocabulary, their capacity to process and comprehend information becomes limited thus their struggle is still evident despite the consistent application of GOs. Navarrete (2019) explains that employing GOs may become overly mechanical. Rather than forming a concrete understanding of the concepts presented, learners are pressured to fill the empty spaces of the organizers hence the ultimate learning goal is not realized. Moreover, Alfares (2019) claims that this strategy is time-consuming and difficult for learners, especially those with low language proficiency and confidence. This can be linked to the observation of Souisa (2020) where GOs are found ineffective in boosting the attitude of the learners. Other difficulties that learners may encounter with this strategy is rooted in their unfamiliarity with its types and uses (Qi & Jiang, 2021) and the teachers' failure to combine it with other metacognitive strategies (Reed et al., 2018). This implies that when GOs are not frequently applied and learners are not fully equipped with its variations and uses, they may still struggle in acquiring and processing information.

A deviation in the perception and attitude of the learners with using GOs for English instructions is disclosed by Aprianto and Syarifaturrahman (2020). Evidence shows that learners with good English proficiency exhibit a positive attitude and increased performance while those with low proficiency consider it moderately effective and their performance and learning attitude remain unchanged. This indicates the drawback of GOs in improving the learners' performance and learning attitude, especially those with low proficiency.

There has been an outward observation of learners' struggle in improving their VA, RP, and the attitude that they display toward English learning. Despite the employment of several remediations, these components continuously deteriorate over recent years. Moreover, the apparent preference of teachers for conventional strategies as highlighted by Teevno and Raisini (2017) despite the introduction of modern trends and interactive activities remains refutable in advancing the literacy performance and English-learning attitude of the learners.

Consequently, the conflicting findings of the present literature (i.e., Albufalasa, 2019; Mei, 2018; Mojaverian, et al., 2022; Aziz, et al., 2018) spark deliberations in determining the actual contribution of GOs to the improvement of learners' VA, RP, and ELA. Hence, further investigation is essential in settling differences and gaps among previous studies. The comparison between the application of conventional teaching strategy and GOs will determine which mode is more effective in improving VA, RP, and ELA of learners. Recommendations shall likewise be drawn from the present study to further upgrade the English instruction and performance of learners.

Research Questions

The current research aims to explore the effect of using GOs on grade 8 learners' VA, RP, and ELA by conducting a pretest-posttest quasi-experiment comparing two groups of subjects (control and experimental). Specifically, this research seeks answers to the following:

1. Is there a significant increase in the scores of the control group and the experimental group in VA, RP, and ELA from the pretest to the posttest?

2. Is there a significant difference between the posttest scores of the control group and the experimental group in VA, RP, and ELA while controlling for entry traits (pretest scores)?

3. What is the satisfaction level of the experimental group with using GOs that develop VA, RP, and ELA?

Research Methodology

This study employed a pretest-posttest quasi-experimental design to test the effect of using GOs in VA, RP, and ELA. A quasi-experiment design is ideal for studying the cause-and-effect relationship between variables in their natural setting (Thomas, 2020). Two sections of grade 8 learners were selected as participants hereby referred to as the control and experimental groups. The control group sustained the application of the conventional strategy which has been constantly employed in their previous English classes. The experimental group was exposed to the employment of GOs. Pre- and post-assessments were conducted on both groups to measure their VA, RP, and English learning attitude relative to their respective interventions.

Participants of the Study

Two sections of grade 8 students from a public school in the province of Isabela, Philippines were selected employing the purposive sampling technique as participants of this quasi-experimental study. Their sections were adopted and maintained as their groupings for the interventions. The first section consisting of 33 students served as the control group which sustained the application of conventional strategy for their vocabulary, reading, and English learning attitude. The other section composed of 34 students functioned as the experimental group which maximized the employment of GOs. Both groups received the same pre- and post-assessments on vocabulary acquisition, reading performance, and English learning attitude. The profile information of these two groups as to age, gender, and ethnicity are shown in Table 1.

Table 1 Frequency and percent distribution of the respondents as to age, gender, and ethnicity

Profile	Category	Control Group		Experimental Group	
		N	%	n	%
Age	13 y/o	21	63.6	16	47.1
	14 y/o	11	33.3	18	52.9
	15 y/o	1	3.0	-	-
Gender	Male	15	45.5	14	41.2
	Female	18	54.5	20	58.8
Ethnicity	Ilocano	21	63.6	24	70.6
	Ybanag	10	30.3	9	26.5
	Tagalog	2	6.1	1	2.9
Total		33	100.0	34	100.0

Research Instruments

The pretest and posttest instruments for the control group contained a thirty-item multiple-choice vocabulary test modified from Parson et al. (2021). It is categorized into easy, average, and difficult encompassing the Grade-8 Word Lists from the Department of Education Learning Resource (Department of Education, 2020a, 2020b, 2020c) to ensure the appropriateness of the vocabulary test for the participants. To measure the RP of the respondents, the next part of the questionnaire covers a short passage with ten–item comprehension questions adopted from Coombs (2017). The two reading passages were lifted from the Grade 8 English Self-Learning Module and the questions are anchored on the Most Essential Learning Competencies specified by the Department of Education (2020c). Since the English lesson under the Grade 8 curriculum features Afro-Asian Literature, the reading passages used originated in the Africa and Asia regions. These are in full length as transpired from the Grade 8 learning module to guarantee its congruence and appropriateness for the respondents. The last part presents a 10-item five-point Likert scale on the English learning attitude of the control group. This scale was modified from Abidin, Pour-Mohammadi, and Alzwari (2012).

The questionnaire for the experimental group embodies a vocabulary test modified from Miranda (2011) likewise categorized into easy, average, and difficult. The vocabulary items were similar to the control group's which is based on the Grade 8 Word Lists accessed from the Department of Education Learning Resource. However, the respondents generated the word meanings using GOs. Moreover, similar passages and comprehension questions were used in assessing the RP of the experimental group who also utilized GOs in presenting their answers. The GOs used in assessing the RP of the respondents were anchored in the studies of Almahi (2015) and Albufalasa (2019). Similarly, a 10-item five-point Likert instrument similar to that of the control group was provided to assess the English learning attitude of the experimental group. Finally, another 10-item five-point Likert instrument was crafted to gauge the experimental group's satisfaction with

using GOs for reading and VA. The respondents used the following Likert scale points in rating their English satisfaction with the effect of GOs on their VA, RP, and ELA: *5 – Strongly Agree; 4 – Agree; 3 – Neutral; 2- Disagree; and 1- Strongly Disagree.* As the vocabulary items and reading passages were contextualized, the validity of these instruments was scrutinized and established through the help of two knowledgeable individuals, one in English and one in research.

Data-gathering Procedures

The permission of the school principal and the English teachers was sought in conducting the study. Participants were provided with a brief orientation and consent forms were accomplished to signify their willingness to participate in the study. A pretest for VA, reading, and English-subject attitude was administered to both samples prior to their differentiated treatments for one month, following the four-hour-a-week virtual session scheme. Instructions and answering procedures were discussed to guide the respondents in accomplishing the instrument. During the treatment, the control group was taught explicitly where word meanings were directly stated and the passages were read by the teacher. Their English lesson was likewise teacher-dominated. On the contrary, the experimental group utilized GOs for the formation of word meanings and text processing. The English instruction was also facilitated by employing GOs. After their respective treatments, both groups have undergone a post-test to determine the effect of the interventions provided.

Data Analysis

The research data was analyzed with the aid of Microsoft excel and IBM SPSS v. 22. The distribution of the respondents according to age, gender, and ethnicity category was gauged using frequency (n) and percent (%). Normality and homogeneity of variance assumptions were checked using Kolmogorov-Smirnov and Levene's test, respectively. The difference between the pretest scores and posttest scores of the control group (and the experimental group) was tested using a paired samples t-test. Moreover, the difference between the posttest scores of the control group and experimental group was investigated using an analysis of covariance (ANCOVA) in order to statistically control for entry traits (pretest scores). Statistically eliminating the subjects' entry traits was a vital step to avoid bias in comparing post-test scores, because the subjects were not randomly assigned based on their VA, RP, and attitude. Exact probability (p) values were presented and reported to facilitate a better decision and interpretation of the inferential statistics i. e., a difference exists when the p value is less than or equal to .05 (because there is at least 95% confidence level). On the other hand, a difference does not exist when p is greater than .05 (because the confidence level is less than 95%). Effect sizes were calculated using Partial eta squared (η^2) and were interpreted based on Cohen's (1988) guidelines i. e., small if .01, medium if .06, and large if .14.

The experimental subjects' level of satisfaction with utilizing GOs was assessed using descriptive statistics particularly mean (*M*) with standard deviation (*SD*). The mean scores were given descriptions according to the five-point scales as shown below:

Mean	Item Description	Total Description
1.00 to 1.49	Strongly Disagree	Very dissatisfied
1.50 to 2.49	Disagree	Dissatisfied
2.50 to 3.49	Neutral	Neither dissatisfied nor satisfied
3.50 to 4.49	Agree	Satisfied
4.50 to 5.00	Strongly Agree	Very Satisfied

Ethical Consideration

Informed consent was sought from the School Head, English teachers, and parents for the participation of the learners in this study. Primarily, the aforementioned individuals were oriented on the purpose of this study, the procedures to be undertaken, and the duration of its conduct. The data collected from the respondents were treated with utmost confidentiality to ensure that the findings are free from external influences.

Results and Discussion

Table 2 shows that the scores of the control group in VA (t = - 1.191; p > .24), reading (t = 1.819; p < .07), and ELA (t = .501; p > .62) did not increase from pretest to posttest. The control group's test scores reflect their struggle to improve their reading and vocabulary skills with their employment of the conventional strategy.

Table 2 Paired samples t-test of the pre- and post-test scores of the control group in VA, RP, and ELA

Variable	Test	M	SD	t (32)	P
Vocabulary Acquisition	Pretest	12.87	5.72	-1.191	.242
	Posttest	14.09	6.11		
Reading Performance	Pretest	3.63	2.90	1.819	.078
	Posttest	2.93	2.63		
English Learning Attitude	Pretest	35.93	5.41	.501	.620
	Posttest	35.36	5.78		

The findings further support the criticism of Ali and Zaki (2019) on the linkage of conventional strategies to the learners' low level of VA. The absence of modern and comprehensive strategies is considered the primary factor in the unchanged performance exhibited by the respondents in the control group. Consequently, the unchanged RP exhibited by the control group during the pretest and post-test is also parallel to other research findings (Teevno & Raisini, 2017; Falculan, 2017). This implies that the passive and conventional strategies employed hardly contributed to the improvement of the respondents' RP.

On the other hand, Table 3 displays that the scores of the experimental group in VA ($t = -4.03$; $p < .001$), reading ($t = -3.13$; $p < .004$), and ELA ($t = -6.33$; $p < .001$) had increased significantly from pretest to posttest. The magnitudes of difference between their pretest scores and post-test scores in these traits were all large considering the calculated partial eta squared amounting to 33.02%, 22.83%, and 54.81%, respectively (Cohen, 1988).

Table 3 Paired samples t-test of the pretest and posttest scores of the experimental group in VA, RP, and ELA

Variable	Test	M	SD	t (33)	P	η^2
Vocabulary Acquisition	Pretest	16.08	5.26	- 4.034	.000	.3302
	Posttest	20.05	6.59			
Reading Performance	Pretest	3.41	2.47	- 3.125	.004	.2283
	Posttest	4.91	3.05			
Attitude toward English subject	Pretest	36.29	4.55	- 6.327	.000	.5481
	Posttest	42.32	4.80			

The significant increase in the performance of the experimental group reflects the positive effect of GOs in advancing the reading and VA of the respondents as well as their English-subject attitude which jive with the conclusions of previous studies (Qi & Jiang, 2021; Carantes & Delos Reyes, 2021; Uba et al., 2017). This finding affirms the claim of Karimi et al. (2020); Batinga, et al. (2020); Aprianto and Murapi (2020); and Davoudi and Yousefi (2020) that the assistance provided by GOs helped the experimental group in acquiring more vocabulary and reducing the anxiety and difficulty they encounter in text processing. Connectively, GOs were found beneficial in boosting their RP which is congruent to the findings of Albufalasa (2019). The autonomy given to the respondents in text-processing using GOs encouraged them to be actively engaged and fervent in comprehending the texts they read.

Connectively, the observable increase in the ELA displayed by the experimental group negates the claims of Souisa (2020). During the one-month employment of GOs, it was observed that the experimental group have shown greater interest and participation in English instruction. The result likewise demonstrates that GOs assist in eliminating negative emotions that respondents usually encounter thereby causing a decrease in their interest and motivation. The result of the post-attitude assessment also proves that the anxiety of the experimental group was reduced and their English learning attitude improved with the employment of GOs. This phenomenon corresponds to the research findings of Ilter (2016) and Navarrete (2019).

As shown in Table 4, there was sufficient evidence that the experimental group outscored the control group in all dimensions including VA ($F = 25.17$; $p < .001$), RP ($F = 28.04$; $p < .001$), and ELA ($F = 6.48$; $p < .013$) after their entry traits (measured by their pretest scores) were controlled. The teaching method (whether to use GOs or not) could explain a large amount of variance in VA and RP amounting to 28.2% and 30.5%, respectively, while it also recorded a moderate impact on ELA, $\eta^2 = 9.2\%$.

The test scores of the control and experimental groups signify the advantage of using GOs over conventional strategies as previously noted by Cabrejas and Chavez (2019), and Wang, et al. (2019). It was found that GOs improve the information-processing skills of the learners thereby advancing their reading and VA as claimed by other researchers (Gatcho and Hajan, 2019; Batinga, et al., 2020; and Uba, et al., 2017). The difference underscored likewise suggests that GOs enforced a more significant increase than conventional strategies in the reading, VA, and English-subject atittude of the control and experimental groups. Thus, it can be deduced that GOs are more effective than the conventional strategies for VA, RP, and ELA.

Table 4 ANCOVA between the posttest scores of the control group and the experimental group while controlling for their pretest scores

Variable	Group	Unadjusted		Adjusted		F	P	η^2
		M	SD	M	SE			
Vocabulary Acquisition	Control	14.09	6.11	15.09	.96	25.172	.000	.282
	Experimental	20.05	6.59	19.08	.95			
Reading Performance	Control	2.66	2.76	2.59	.42	28.043	.000	.305
	Experimental	4.91	3.05	4.97	.42			
English Learning Attitude	Control	35.36	5.78	35.42	.88	6.477	.013	.092
	Experimental	42.32	4.80	42.26	.87			

As reflected in Table 5, the experimental subjects generally reported positive thoughts and a feeling of satisfaction (*M* = 3.89) with the use of GOs in reading, VA, and English class which correlates with the study of Coombs (2017) and Campoverde Lopez (2020). It displays that respondents perceived GOs as helpful in eliciting greater interest (*M* = 4.05), comprehension (*M* = 3.91), and logical thinking (*M* = 3.82).

Table 5 Descriptive statistics of the experimental group's satisfaction level with using graphic organizers

Indicators	M	SD	Description
1. Graphic organizers help me increase my interest in learning English.	4.05	1.01	Agree
2. Graphic organizers provide a huge help in understanding word meanings.	4.29	.83	Agree
3. Graphic organizers provide a huge help in achieving reading comprehension.	3.91	1.05	Agree
4. Graphic organizers are easier to construct when I am aware of the meaning of the words.	3.79	1.14	Agree
5. Graphic organizers reduce the difficulties I encounter in learning English.	3.70	1.16	Agree
6. Graphic organizers help me strengthen my logical thinking.	3.82	.75	Agree
7. Graphic organizers help me increase my vocabulary retention.	3.79	1.00	Agree
8. Graphic organizers assist me in organizing the main ideas from a given text.	3.79	1.06	Agree
9. Graphic organizers help me identify the most important details of the text.	3.97	1.05	Agree
10. Graphic organizers are easy to construct.	3.79	.94	Agree
Total	**3.89**	**.56**	**Satisfied**

The result affirms that there is an outward satisfaction among the experimental group in constructing GOs easily (M = 3.79). This does not agree with the statements of Alfares (2019) and Rahat and Rahman (2020) that GOs are very time-consuming and difficult to use. The satisfaction level identified is further linked and reflected in the improved VA, RP, and ELA of the experimental group toward the English subject. This also implies that when the respondents are satisfied with their English engagement and RP, their attitude and reading achievement would likely increase. Hence, this study strongly supports Navarrete (2019) in suggesting that teachers should depart from depending on conventional strategies and adopt the use of GOs and other metacognitive strategies.

Findings

The result of the current study reveals the magnitude of the difference between the performance of the control and experimental groups relative to VA, RP, and ELA. Evidence displays that the respondents who were treated with GOs acquired more vocabulary than those who sustained the application of conventional strategies. Moreover, GOs provided an avenue for the experimental group to maximize their schema in decoding unfamiliar words. It activated their critical and creative skills by forming an association between their background knowledge and unknown concepts. This suggests that GOs are effective tools in assisting learners in forming word meanings and decoding unfamiliar terms.

Conversely, the experimental group exhibited a greater improvement in RP than the control group as embodied by the pretest and posttest administered. The GOs intervention undertaken by the experimental group provided greater assistance in noting important details and achieving text comprehension. GOs were likewise beneficial in simplifying the details and creating a structured representation of information gathered from the passages. Additionally, the visual representations were proven helpful in retaining important information for a relatively longer duration. This is exhibited during the reading assessment where the experimental group recalled the details of the text read easier and faster than the control group.

Similarly, the use of GOs largely improved the ELA of the respondents. Evidence stipulated that the active engagement of the respondents in text processing and formation of word meaning perpetuated a greater interest and positive behavior in using GOs. Their autonomy in manipulating their schema during the learning process contributed to their increased positive behavior. Alternatively, the passive application of conventional strategies discouraged the control group from being actively involved during the instruction. Their low engagement prevented them from exploring their schema and comprehension skills hence resulting in their unimproved VA, RP, and ELA. Generally, this study affirms that a positive attitude can be generated from the students when their RP and VA progressively increase likewise when an active intervention is employed.

Conclusions

The underscored difference measured from the VA, RP, and ELA of the control and the experimental groups signify the effectiveness of GOs over the constant employment of conventional strategies for literacy

instruction. It enables the learners to maximize their schema for the formulation of word meanings and assists them in text comprehension. Their active engagement in using GOs during the instruction likewise helps in shaping their positive behavior toward the English subject. Ultimately, the formation of visual illustrations and the identification of relevant information for unfamiliar concepts enables the learners to improve their critical and creative thinking skills through the use of GOs.

Suggestions

The significant improvement on the VA, RP, and ELA of grade 8 learners calls for the consistent employment of graphic organizers to ensure their continuous advancement. To maximize its effect, learners must be equipped with the other structures and uses of GOs. Moreover, teachers should: (1) depart from the heavy employment of conventional strategies; (2) adopt the consistent use of GOs in facilitating the reading, vocabulary, and English instructions; (3) develop instructional innovations involving the creative employment of GOs; and (4) craft contextualized GOs to further improve the English performance and attitude of the learners. Additionally, educational administrators should initiate and support the conduct of training workshops to expand teachers' awareness of the varieties, purposes, and uses of GOs, especially for reading and VA. Finally, further studies should be conducted involving the employment of graphic organizers to other components of English such as composition, grammar, and speech.

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