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Research Article

Visual Learning-Style-Based Activities in Improving the Reading Comprehension Skills of Second-Year English Major Students

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ABSTRACT

This research paper aimed to investigate the effects of visual learning style-based activities on reading comprehension skills among 18 second-year English major students who are currently enrolled at the President Ramon Magsaysay State University-Castillejos Campus. The matching-only pretest-post-test research design, as a type of experimental design, was used to investigate the improvement of the respondents' reading comprehension skills after the integration of the intervention. The results show that the student's reading comprehension level was mostly "Independent" or 38.89% (7 out of 18) during the administration of the pre-test and increased by 66.67% (12 out of 18) during the administration of the post-test. The mean score of the respondents shows that they are in the "Instructional" level (19.83 or 66.11%) on the pre-test result which was improved during the post-test result in the "Independent" level (24.17 or 80.57%) respectively. The pre-test and post-test results on the reading comprehension of the respondents before and after the application of the visual learning style-based intervention show a significant correlation between the mean score ($t=4.32$, $p=2.11$) which is <0.05 alpha level, thus, the rejection of the null-hypothesis. Moreover, instructors may also allow their respective students to develop their reading comprehension skills beyond the given activities by supplying learning activities tailored to their needs, interests, and learning styles.

Keywords: *Experimental Design, Intervention, Reading Comprehension, Visual Learning Style-Based*

Introduction

Reading comprehension is a multifaceted process that is extremely important in one's life, a pathway to limitless possibilities, and a

wide-open gateway to better intellectual development. Furthermore, an individual's involvement in reading comprehension broadens his perspectives, elevates expectations, and

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improves the effectiveness of a pastime, business, trade, or career. Aside from what has been mentioned, reading is also a fundamental life skill and a necessary step for success in both school and life. Reading will become little more than identifying the letters in a word without comprehension. Therefore, authentic resources and interventions such as visual activities are required to improve the students' reading comprehension skills.

In addition, reading comprehension is the capacity to interpret written words cognitively by combining current information with prior knowledge. The crucial component of reading comprehension is understanding the meaning of the text, not just being able to read words on a page accurately (Lynch, 2020).

According to the Program for International Assessment (PISA), Filipino students around the age of 15 received a reading comprehension rating of 340 points in a 2018 global survey, which included 600,000 students from around the world. This score was lower than the average of 487 points. Consequently, out of 79 countries included in the survey, the Philippines ranked last in the said survey. Furthermore, the reading comprehension exam items were primarily drawn from informational literature. These 2 were more questions on the test that came from expository writings, such as informational texts, newspaper pieces, and other texts with a lot of content (Manaog, 2020).

Moreover, in the modern education system in the Philippines, it is often difficult for public and private teachers to assess the students' levels of knowledge and reading comprehension and select appropriate activities to engage all students in the class, especially when they prefer only one learning style which allows them to have an in-depth understanding of words and texts about a particular subject. In addition, applying the most appropriate pedagogical techniques that are tailored to students' learning styles plays a pivotal role in helping children develop those four language skills: reading, writing, listening, and speaking.

With the reviewed literature and studies, this research study proposes the use of visual learning-style-based activities as an effective methodology in enhancing and assessing the student's level of understanding of the body of

texts and information. Furthermore, this study will focus on strengthening second-year English major students' reading comprehension skills through the integration of visual learning-style-based activities and investigating the effectiveness of visual learning strategies in enhancing the capability of students to read with proper comprehension. The results of this study are expected to provide a new perspective and ideas in relation to the problems and difficulties encountered by both teachers and students and to also contribute to curriculum development studies, learning-teaching practices, and the literature in the field of language education.

Review of Literature

Differentiated Instruction

Differentiated instruction is a method of teaching that involves teachers adjusting and some changes to the curriculum and their delivery of lessons to maximize the learning for each student in the class (IRIS Center, 2021). Contrary to the widely held belief, this is not a single approach but rather a framework that teachers can use. When compared to standard evaluation, differentiated instruction assessment is unique. In a typical classroom context, the teacher would have a product (a quiz, project, or something comparable) to assess the level of understanding of the students regarding the topic covered.

According to Watson (2020), "The decision is crucial to the process," therefore students have a choice of how they will present their learning. To demonstrate their understanding, kinesthetic learners may opt to move, whereas visual learners may choose to make visual art or something similar. Furthermore, assessments that use differentiated learning strategies may consider the various levels of comprehension of each student. These would include how well they currently understand a subject, their unique learning styles, what motivates and engages them, what they are interested in and how they learn best, and how they have previously learned (NSW Education Standards Authority, 2021).

The use of differentiated instruction as a teaching strategy to increase engagement is a current hot subject in education. Researchers

and policymakers exhort educators to embrace diversity and modify their lessons to meet the varied learning requirements of their students (Schleicher, 2016; UNESCO, 2017).

Although differentiated education is a well-known idea, instructors find it challenging to understand how it should be implemented in their classes (Van Casteren et al., 2017). According to a recent study, teachers do not always tailor their lessons to the needs of their students in different nations (Schleicher, 2016). A recent meta-analysis and review study of varied instruction techniques in elementary school demonstrates that, when properly applied, differentiated instruction holds some promise for enhancing student results (Deunk et al., 2018). These findings, however, could not be immediately applicable to secondary education because, in contrast to primary school, secondary education involves teachers teaching several courses in a context that is quite different (Van Casteren et al., 2017).

Reading Comprehension

According to (Kalangi, Liando and Maru, 2019), "reading comprehension is a multifaceted interaction which implies that reading means understanding or comprehending the meaning of printed words and materials". According to Moge (2019), "In reading comprehension, the reader does not only read in order to get the idea and the message, but also to interpret, to decode, and to evaluate the reading materials". In addition, Tangiduk, Samola and Rorimpandey (2021), stated that "reading comprehension is a systematic and analytic process of addressing and decoding words, sentences, and texts that are connected to one another". Reading comprehension does not only mean understanding and remembering the messages and meanings that all phrases in the texts intend to convey. However, it is different from the students' construction of the meaning that texts channel to the readers. (Tatipang et al, 2021).

The Simple View of Reading, a theory on early reading comprehension, proposes that reading challenges are founded on two sources of variability: word reading and language un-

derstanding (Oakhill, Cain & Elbro, 2019). According to modern literacy standards, reading comprehension is said to be the essence of reading since it describes the process of extracting meaning from a written piece. Students must be able to self-modify, self-manage, and self-monitor to become strategic readers who can pick information from the text, construct logic, and incorporate critical thought into the text while reading. Students must be supplied with a diverse range of reading and writing activities, including excellent reading comprehension skills, in this case (Alfallaj, 2017).

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Visual Learning Style

In the visual learning style learners learn best by seeing information. Charts, videos, images, diagrams, and other forms of visual materials help those learners to be adaptive to class materials and to absorb them to generate new learnings (Carlton, 2021). Visual learners mostly depend on visual information, and they have certain characteristics in their learning processes that help them acquire knowledge. Since the visual presentation is engaging, learning materials including photos, graphs, charts, diagrams, and videos are used (Oluremi, 2015).

Visual materials have emerged as the best method for instruction and learning, especially for primary school students. Arumperes, Liando, and Rorimpandey (2018) stated that "media is a medium utilized to promote the students' acquisition of English." In addition, students need visuals for them to easily remember and learn the English language. According to Mantiri, Pelengkahu, and Tuerah (2019), "visual materials enable students to be interactive in the classroom and develop better connections with the other students in the classroom" Through the use of images, the teacher will be

able to provide students the opportunity to enhance their comprehension skills and more towards improving other areas of their education. Props (such as pictures) are frequently used in reading as a pre-organizer to assist with reading added information in text.

Lynch (2020) suggests that teachers can support students' learning effectively by simply providing concise, visual explanations and activities of the subject that are explicit and can easily be understood and explained both orally and visually. To promulgate better reading comprehension, the use of anchor charts, illustrations, diagrams, and reference materials should be included as some of the teaching approaches and activities that enormously play a pivotal role in the teaching and learning process.

Providing students with access to a video clip if needed and appropriate can also add more understanding of the subject.

Purpose of the Study

This research study focused on improving the second-year English major students' reading comprehension skills by integrating visual learning-style-based activities. This study was expected to obtain all the imperative information and data that sought to answer the crucial questions as follows:

1. What is the respondents' level of reading comprehension skills before and after conducting the intervention?
2. Do second-year English major students demonstrate improvement in their reading comprehension skills after the intervention?
3. Is there a statistically significant difference between the reading comprehension skills scores of the students before and after the integration of visual learning-style-based activities?

Hypothesis Testing

The following statement is the hypothesis that was assessed in this study:

Ha: There is a significant difference between the reading comprehension pre-test and post-test results of second-year English major students.

Scope of the Study

This study focused on improving the reading comprehension skills of second-year English major students at President Ramon Magsaysay State University- Castillejos Campus through the application of visual learning-style-based activities. An experimental, matching-only pre-test-post-test research design was utilized in this research study, providing a systematic plan of the study that permits an accurate assessment of the respondents' reading comprehension skills and their improvement after the intervention. This study intended to use three sets of self-constructed visual learning-style-based activities and an adapted 30-item pre-test/post-test as the research instruments that were used to gather all the needed data and produce the possible research findings. This research study was conducted with 18 second-year English major students who are currently enrolled and studying at President Ramon Magsaysay State University- Castillejos Campus in the fall semester of the academic year 2021-2022.

Methods

The researchers employed a pre-test/post-test experimental design to investigate the improvement of 18 second-year English major students' reading comprehension skills through the integration of visual learning-style-based activities, supplying a systematic framework that allows exact assessment of the variables in this study. A 30-item questions examination was used before and after the use of the visual learning style-based activities. The instrument was validated by 5 language teachers to check the consistency and reliability of the test questions.

On the other hand, the researchers used purposive sampling (Kelly, 2010) as the sampling technique and method that allowed researchers to infer pieces of information and data about the total number of the population based on the results from a subset of the population, without exerting time in investigating every individual. Furthermore, it is a method for discovering and selecting cases that will make the most efficient use of the limited research resources available (Rivers, 2018).

The data obtained in this study by the researchers from the selected respondents was analyzed using statistical tools such as

frequency and percentage, mean, standard deviation, dependent t-test, and Likert scale.

Result and Discussion

Level of Reading Comprehension Skills

Table 1. Reading Comprehension Skills Result on the Pre-test and Post-test

Reading Comprehension Level	Before		After	
	f	%	f	%
Independent	7	38.89	12	66.67
Instructional	5	27.78	5	27.78
Frustration	6	33.33	1	5.56
Total	18	100	18	100

Legend: 58 and below (Frustration); 59 to 79 (Instructional); 80 to 100 (Independent)

The table presents the result of the assessment made by the researchers on the level of reading comprehension skills of second-year English major students. In the pretest result, a majority (7 out of 18 or 38.89%) of the students were in the "Independent" level which has increased (12 out of 18 or 66.67%) on the post-

test results which is equivalent to the same level. Meanwhile, some students were on the "Instructional" level (5 out of 18 or 27.78%) which resulted in the same result on the post-test. Lastly, the "Frustration" level of students (6 out of 18 or 33.33%) has decreased in the post-test result (1 out of 18 or 5.56%).

Improvement of Reading Comprehension Skills

Table 2. Reading Comprehension Skills based on the result of the Pre-test and Post-test

Test	Mean	%	Reading Comprehension Level
Pre-test	19.83	66.11	Instructional
Post-test	24.17	80.57	Independent

Legend: 58 and below (Frustration); 59 to 79 (Instructional); 80 to 100 (Independent)

Table 4 shows the mean, percentage distribution, and level of reading comprehension skills of the respondents based on the results of the pre-test and the post-test. As shown in Table 4, the respondents got a cumulative mean of 19.83 in the pre-test which is equivalent to 66.1% of the total number of items classified under the instructional level. On the other hand, the respondents received a cumulative mean of 24.17 in the post-test which is equivalent to 80.57% and categorized under the independent level. The overall result of the tabular

presentation implies that the student's reading comprehension skills improved from the instructional level to the independent level. This result supports the research paper of Zul Astri and Isnaeni (2018) which implies that the student's reading comprehension skills using the visual activities/materials have improved and have a significant effect on the reading comprehension skills of the learners. Furthermore, visual learners have improved the ability in English reading comprehension after being given the material.

T-test results on the difference between the Reading Comprehension Skills before and after the application of Visual Learning-Style-Based Activities

Table 3. Dependent T-test on the Pre-test and Post-test Result

Test	Mean	SD	t	P
Pre-test	19.83	5.70	4.32	2.11
Post-test	24.17	3.11		

*Significant at $p < .05$ alpha level

The reading comprehension pre-test and post-test results provided in Table 5 above were analyzed using the dependent t-test for two correlated samples. As Table 5 shows, the reading comprehension pre-test and post-test results revealed statistically significant differences ($p < 0.05$) between the scores of the respondents in the pre-test and post-test, showing that the pre-test and post-test results are statistically different from each other.

This also implies that the intervention applied by the researchers—the visual learning-style-based activities, improved the reading comprehension skills of the respondents. This result is aligned with the research study of Brandon (2021) which states that the instructional materials are effective in improving students' reading comprehension in heterogeneous classrooms.

The findings revealed that after conducting experimental research to investigate whether the teaching material was effective in improving students' reading comprehension, the teaching material had high effects in improving the reading comprehension of the students. This indicated that the student's achievement in reading comprehension by applying the instructional materials had a significant improvement for all the learning styles namely visual, auditory, and kinesthetic learning styles.

Conclusions

In conclusion, the second-year English major students' reading comprehension level shows an "Instructional" level before the application of the visual learning-style-based intervention and has increased to "Independent" after the application of the intervention. The integration of visual learning-style-based activities improved the reading comprehension skills of second-year English major students. Furthermore, the results show that the application of the intervention activity improves the student's performance using a visual learning activity.

The instructors were encouraged to identify the student's preferred learning styles to align the activities with their dominant learning styles. The instructors should allow their respective students to develop their reading comprehension skills beyond reading comprehension activities by supplying learning activities tailored to their needs, interests, and learning styles.

Overall, the result of the pre-test has a significant difference from the result of the post-test indicating that the application of the intervention activity was successful. By incorporating visuals in the instructional materials being used by the teachers may improve the performance of the students in their subjects.

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