



Quality of Visual Aids and The Engagement of Learners in the Teaching and Learning Process

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The main purpose of the study was to determine the quality of visual aids and the engagement of learners inside the classroom. Descriptive quantitative research was designed to measure the quality of visual aids and the engagement of learners in the teaching and learning process, with 37 students under the grade 10 at Gov. Felicisimo T. San Luis Integrated Senior High School as respondent. A survey questionnaire through google forms was used to gather the needed data to find out the relationship between the quality of visual aids and the engagement of learners in the teaching and learning process. The questionnaire provided insight into the learners' opinions and experiences with visual aids in English subjects. The researchers found out that there is a significant relationship between the quality of visual aids and the engagement of learners of grade 10 students at Gov. Felicisimo T. San Luis Integrated Senior High School. The researchers'

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recommendation was to focus on conducting more training and professional development for teachers. Schools can organize workshops, seminars, or training sessions to educate teachers on the use of visual aids. These are based on the results of the study, which show that the quality of visual aids highly relationship with the engagement of learners, as well as on the data gathered from the learners' perceptions and experiences of visual aids in English subjects.

Keywords: Quality of visual aids; engagement of learners.

1. INTRODUCTION

Instructional aides help students to better understand long explanations written in texts. The learning process is simulated and motivated through visual objects and images used in visual aids. It could be any technique that makes the learning process more convenient, real, and interactive. Images such as bars, graphs, and data presented in the form of tables can be easily understood because the images can easily be enlarged, whereas, in traditional texts, the images remain in their printed size, which can make comprehension more difficult.

Curriculum is changing, and it involves more interactive activities than simple textbook reading. The assistance of visual aids has the potential to help students learn even the toughest of concepts more quickly. Thus, visual aids have become an important way of disseminating information and are considered a helpful technique to be adopted at all levels of education [1,2].

The mere use of visual aids, however, does not guarantee effective lesson delivery, or effective learning. It is the teacher's careful and skillful handling of visual materials that increases the value of such aids in an enabling learning. Teachers are often unsuccessful in using visual aids in real world practice due to a range of factors such as failure to identify individual characteristics of the learners and develop visual aids congruent to learners' learning styles. It is therefore critical for teachers to become familiar with different types of visual aids and how they can be used properly in a manner that students' understanding can be improved [3-5].

Visual aids are resources that make a topic or direction more understandable or clear, such as pictures, models, charts, maps, videos, slides, and real objects, etc.). Visual aids assist educators in creating, describing, relating, and associating ideas and concepts in order to make the learning experience more engaging, enjoyable, and efficient. Some of the benefits of

visual aids for teaching and learning include: Helping inspire students to study more effectively. The great educationist Comenius has well said, the foundation of all learning consists in representing clearly to the senses and sensible objects so they can be appreciated easily.

Visual aids in education, especially animations do have great potential. However, it does not suggest that there are no disadvantages. When visual aids are not helpful for learning, it is frequently because of bad design, inappropriate audience presentation, or the improper kind of visual aids being used by the teacher for the subject. This study was conducted in order to determine the quality of the visual aids and the engagement of the learners in the teaching and learning process. This will serve as a guide on how teachers can improve the teaching and learning process with the use of effective visual aids.

1.1 Objectives

1.1.1 The study

(1) Determined the quality of visual aids as perceived by the respondents in terms of student-centeredness, lesson-focus, simplicity, visibility, attractiveness and consistency. (2) Described the level of engagement of learners in the teaching and learning process in terms of communication instruction, motivation, and learning retention (3) Determined whether there is a significant relationship between the quality of visual aids and the engagement of learners in the teaching and learning process.

2. MATERIALS AND METHODS

2.1 Design

In this study, the researchers used the descriptive research method in conducting the study. It is to ensure that the evidence obtained enables the researchers to effectively address the research problem as unambiguously as

possible. In social sciences research, obtaining evidence relevant to the research problem generally entails specifying the type of evidence needed to test a theory, to evaluate a program, or to accurately describe a phenomenon [6]. Through this research method, the researchers provided secure, reliable, accurate, and correct information and data necessary to determine whether the visual aids engaged the learners in the teaching and learning process.

2.2 Participants

The researchers used one section of Grade 10 at Gov. Felicisimo T. San Luis Integrated Senior High School. It has 37 students, and all of them served as respondents.

2.3 Data Collection and Analysis

The researchers made a survey questionnaire through a Google Form that was disseminated to a particular section of grade 10 learners at Gov. Felicisimo T. San Luis Integrated Senior High School. The questionnaire was divided into two parts. (1) Quality of visual aids, which has six variables; and (2) Engagement of learners, which has three variables. Each variable has five statements to determine the relationship between the quality of visual aids and the engagement of the learners in the teaching and learning process.

3. RESULTS AND DISCUSSION

The major findings of the study were presented in the following order: the quality of visual aids used by English teachers, the level of engagement of learners using visual aids, and the significant relationship between the quality of

visual aids and the engagement of learners in the teaching and learning process.

Table 1 presents the quality of visual aids used by English teachers. This study presents the weighted mean for all indicators of quality used. As shown in Table 1, all statements were found to have a high level of quality based on the students' responses. Although all are interpreted as high, student-centeredness got the highest mean score ($M = 3.65$, $SD = 1.34$), which indicates that the majority of English teachers focused on the student-centeredness of visual aids. On the other hand, the lowest mean ($M = 3.54$, $SD = 1.21$) was obtained by simplicity. This means that the simplicity of the visual aids was not observed effectively, which resulted in the lowest perception by the students.

Overall, the results showed that teachers have high-quality visual aids ($M = 3.59$, $SD = 1.31$). This means that every time teachers used visual aids, they considered the six (6) qualities that are helpful in crafting effective teaching aids as well as they used efficient visual aids to engage their learners and convey complex information easily.

These findings are similar to the study of Oxfordshire.gov.uk (n.d.) [7] that the visual aids are a way of supplementing information which is supplied verbally with visual information. They can be used to accomplish a range of goals. Furthermore, visual strategies may take a range of formats including signs, symbols, objects of reference, photographs and writing, or a combination of the above. The needs and skills of the individual should determine the size, format, quantity and complexity of the information being communicated.

Table 1. Quality of visual aids

Quality of Visual Aids	WM	SD	V.I
Student-Centeredness	3.65	1.34	High
Lesson Focus	3.56	1.33	High
Simplicity	3.54	1.21	High
Visibility	3.61	1.33	High
Attractiveness	3.58	1.29	High
Consistency	3.57	1.37	High
Overall	3.59	1.34	High

* 5.00-4.50 Very High, 4.49-3.50 High, 3.49-2.50 Moderately High, 2.49-1.50 Poor, 1.49-1.00 Very Poor

Table 2. Engagement of learners

Engagement of Learners	WM	SD	V.I
Communication Instruction	3.44	1.26	Moderately High
Motivation	3.71	1.22	High
Learning Retention	3.51	1.21	High
Overall	3.55	1.23	High

*5.00-4.50 Very High, 4.49-3.50 High, 3.49-2.50 Moderately High, 2.49-1.50 Poor, 1.49-1.00 Very Poor

Table 2 presents the engagement of learners by English teachers. This study presents the weighted mean for all indicators of quality used.

Motivation and learning retention were found to have a high level of engagement based on the students' responses. However, communication instruction is interpreted as moderately high. On the other hand, motivation got the highest mean score ($M = 3.71$, $SD = 1.22$), which indicates that the learners are motivated with the use of visual aids. And the lowest mean ($M = 3.51$, $SD = 1.21$) was obtained by learning retention. This means that learning retention was not observed effectively, which resulted in the lowest perception by the students.

Overall, the results showed that learners are highly engaged in visual aids ($M = 3.55$, $SD = 1.23$). This means that every time teachers used visual aids, they considered the quality of materials that would engage the learners.

These findings are similar to the study of Kinder (n.d.) [8] which he recommends using visual aids and explains that visual aids could be any technique that makes the learning process more convenient, real, and interactive.

Table 3. Illustrates the relationship between quality of visual aids and the engagement of learners in the teaching and learning process.

Student-centeredness is highly correlated to communication instructions with an r-value of 0.89. It has a p-value of 0.00 which is less than the level of significance (0.05) hence the null hypothesis is rejected. Therefore, the relationship between student-centeredness and communication instructions is significant. Further, student-centeredness is highly correlated to motivation with 0.85. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between student-centeredness and motivation is significant. and student-centeredness is highly correlated to learning retention with 0.81. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between student-centeredness and learning retention is significant.

Lesson focus is highly correlated to communication instructions with an r-value of

0.80. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between lesson focus and communication instructions is significant. Further, lesson focus is highly correlated to motivation with 0.82. It has a p-value of 0.00 which is less than the level of significance (0.05) hence the null hypothesis is rejected. Therefore, the relationship between lesson focus and motivation is significant. and lesson focus is highly correlated to learning retention with 0.81. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between lesson focus and learning retention is significant.

Simplicity is highly correlated to communication instructions with an r-value of 0.80. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between simplicity and communication instructions is significant. and simplicity is highly correlated to motivation with 0.79. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between simplicity and motivation is significant. Further, simplicity is highly correlated to learning retention with 0.81. It has a p-value of 0.00 which is less than the level of significance (0.05) hence the null hypothesis is rejected. Therefore, the relationship between simplicity and learning retention is significant.

Visibility is highly correlated to communication instructions with an r-value of 0.88. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between simplicity and communication instructions is significant. Further, visibility is highly correlated to motivation with 0.87. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between visibility and motivation is significant. And visibility is highly correlated to learning retention with 0.85. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between visibility and learning retention is significant.

Table 3. Relationship between quality of visual aids and engagement of learners in the teaching and learning process

Variables		r-value	Interpretation	p-value	Analysis
Student-Centeredness	Communication Instructions	0.89	Highly Correlated	0.00	Significant
	Motivation	0.85	Highly Correlated	0.00	Significant
	Learning	0.81	Highly Correlated	0.00	Significant
	Retention				
Lesson Focus	Communication Instructions	0.80	Highly Correlated	0.00	Significant
	Motivation	0.82	Highly Correlated	0.00	Significant
	Learning	0.81	Highly Correlated	0.00	Significant
	Retention				
Simplicity	Communication Instructions	0.80	Highly Correlated	0.00	Significant
	Motivation	0.79	Highly Correlated	0.00	Significant
	Learning	0.81	Highly Correlated	0.00	Significant
	Retention				
Visibility	Communication Instructions	0.88	Highly Correlated	0.00	Significant
	Motivation	0.87	Highly Correlated	0.00	Significant
	Learning	0.85	Highly Correlated	0.00	Significant
	Retention				
Attractiveness	Communication Instructions	0.87	Highly Correlated	0.00	Significant
	Motivation	0.84	Highly Correlated	0.00	Significant
	Learning	0.80	Highly Correlated	0.00	Significant
	Retention				
Consistency	Communication Instructions	0.88	Highly Correlated	0.00	Significant
	Motivation	0.80	Highly Correlated	0.00	Significant
	Learning Retention	0.79	Highly Correlated	0.00	Significant

$\alpha = 0.05$

Attractiveness is highly correlated to communication instructions with an r-value of 0.87. It has a p-value of 0.00 which is less than the level of significance (0.05) hence—the null hypothesis is rejected. Therefore, the relationship between attractiveness and communication instructions is significant. Further, attractiveness is highly correlated to motivation with 0.84. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between attractiveness and motivation is significant. And attractiveness is highly correlated to learning retention with 0.80. It has a p-value of 0.00 which is less than the level of significance (0.05) hence—the null hypothesis is rejected. Therefore, the relationship between attractiveness and learning retention is significant.

Consistency is highly correlated to communication instructions with 0.88. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship

between consistency and communication instruction is significant. Further, consistency is highly correlated to motivation with 0.80. It has a p-value of 0.00 which is less than the level of significance (0.05) hence the null hypothesis is rejected. Therefore, the relationship between consistency and motivation is significant. And consistency is highly correlated to learning retention with 0.79. It has a p-value of 0.00 which is less than the level of significance (0.05) which means that the null hypothesis is rejected. Therefore, the relationship between consistency and learning retention is significant.

4. CONCLUSION

Based on the findings of the study, the following conclusion is drawn:

There is a significant relationship between the quality of visual aids and the engagement of learners in the teaching and learning process of Grade 10 students' of Gov. Felicisimo T. San Luis Integrated Senior High School.

5. RECOMMENDATIONS

Based on the summary of the findings and conclusion drawn, the following are hereby recommended:

The researcher recommends conducting additional research and platform testing that will significantly affect how the students present themselves. Students with different learning preferences can benefit from a wide variety of tools and techniques from this study, just as teachers of different academic subjects can.

It is further recommended to the Department of Education to conduct more training and professional development. Schools can organize workshops, seminars, or training sessions to educate teachers on the effective use of visual aids. These sessions can cover topics such as design principles, technology integration, and strategies for engaging students through visual materials.

CONSENT

The informed consent form was disseminated before the students answered the questionnaire to assure that they were aware of their rights as respondents.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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