UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN PUPILS' ACADEMIC PERFORMANCE

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Abstract: This study primarily determined the influence of the utilization of In formation and Communication technology to Pupils Academic Performance at Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon. It specifically , it sought to answer the following questions: 1.) What is the extent of utilization of information and communication technology (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon?

2.) What is the level of pupils' academic performance when they are categorized as; Outstanding, Very Satisfactory, Satisfactory, Fairly Satisfactory, and Poor.

3.) Is there a significant relationship between the level of pupils' academic performance and the extent of utilization of information and communication (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon?

Keywords: Information and Communication Technology, Academic Performance.

1. INTRODUCTION

The development of information and technology has given impetus to the innovative teaching and learning approaches to equip students with **the 21st century skills and competencies**. ICT in educational institutions opens the worldwide accessibility to learning which is anchored on the tenets "ICT utilization is driven by knowledge economy" with a decisive goal of improving learning and contribute students' performance in line with the K to 12 Basic Education Curriculum through the information and communication technology (ICT) amalgamation in the curriculum in all levels of the Philippine basic education.

The framework of this study is bounded on the context of legal and philosophical underpinnings pursuant to **section 10 of Article XIV** of the Philippine Constitution and Sections 1 and 2 of **Republic Act 10844** which institutionalizes information and technology in the Philippines and mandates that "science and technology are essential for national development and progress; the state shall give priority to research and development, invention, innovation, and their utilization; and, the integration and use of information and communication technology (ICT) in public elementary and secondary schools in the Philippines for the purpose of improvement in teaching and learning processes.

The application of information and communication technology (ICT) in public school contributes in the development of new all-inclusive economy which makes all information easily available and obtainable anywhere and everywhere in the cyber community.

Carillo, et al (2019) espoused that utilization of information and communication technology have found to have positive effect on the academic achievement of students in almost all subject or learning areas. Further, it was inferred that ICTs are generally accepted as modern instrumental too that enables educators modify the teaching methods they utilized I order to enhance pupils' learning interest.

In a similar investigation, Bedeleh and Sheela (2011) inferred that the changing global environment is taking at rapid pace in the world which necessitates the schools and educational system to change the conventional methods of learning because the millennials are more interested in learning through the use of cyber technology which is usually called the digital technologies such as computers and internet.

Further, Ando (2012) pointed out that educational institutions may utilize ICT to enrich the students with skills and knowledge for the 21st century, such that it can add to worldwide accessibility to education, broadcasting of quality teaching learning programs, educators' professional growth and to help in obtaining a more effective educational management.

Subsequently, Yuen, et al (203) posited that ICT improves the standard of education by encouraging learning through ongoing discussion, delayed time discussion, directed instruction, self-learning, critical thinking, data seeking and analysis (Yuen, Law & Wong, 2003). Utilization of ICT can enhance outcomes, instruction, administration and create important abilities in the underprivileged groups, and at the same time influence educational instruction and research process.

Studies and researches revealed that information and communication technology (ICT) has contributed to the progress of students' cognitive skills in the national scale, however, there is no investigation conducted in the provincial level which ascertains the influence of ICT to the academic achievements of pupils considering the limited accessibility of the gadgets and internet connectivity in the area.

It is based on the afore-said circumstance that the researcher is motivated to conduct this study to find out the effectiveness of information and communication technology in improving pupils' academic achievement.

2. THEORETICAL/CONCEPTUAL FRAMEWORK

The concept of the study is anchored on the study of **Carillo, et al (2019)** who espoused that utilization of information and communication technology have found to have positive effect on the academic achievement of students in almost all subject or learning areas. Further, it was inferred that ICTs are generally accepted as modern instrumental too that enables educators modify the teaching methods they utilized I order to enhance pupils' learning interest.

The paradigm of the study is guided by the **Constructivist Theory** by Seymour (1980). This theory proved computers as useful in higher learning. Papert's view of the importance of motivational engagement of the learner contrasts sharply with Skinner's who although recognizing this influence, consider it unnecessary for instruction.

In this view, the learners as active participants are involved in structuring their own learning experiences. Papert's work with Piaget who emphasized the way in which knowledge is structured using computers are organized as well as how the learners' own perception of their prior experiences perform the knowledge structure. Thus, the importance of how a learner relates new experiences to existing knowledge becomes paramount.

Ali, et al (2013) pointed out that the utilization of information and communication technology resources in the classroom provides teachers and students to operate, store, control and retrieve data other than to promote self-regulated and active learning. This proves that the technology provides benefits in teaching learning processes.

Further, Sharma (2013) revealed that information and communication technology plays a vital role in day-to-day activities, including education especially now that the world is experiencing a pandemic. Educational agencies mandated that a shift should be done in the mode of learning delivery from face to face classes to blended learning to ensure safety among learners and educators. Blended learning includes modular, radio-based instruction, television and online learning.

The widespread belief that ICT can and will empower teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to student-centered, and that this transformation will result in increased learning gains for students, creating and allowing for opportunities for learners to develop their creativity, problem-solving abilities, informational reasoning skills, communication skills, and other higher-order thinking skills (World Bank, 2005). This clearly suggests that by integrating technology in teaching creates a learner-centered learning environment.

The conceptual model in figure 1 shows the interplay between the dependent and the independent variables of the study.

Schema of the Study

Independent Variable   **Dependent Variable**

UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY   **PUPILS' ACADEMIC PERFORMANCE**
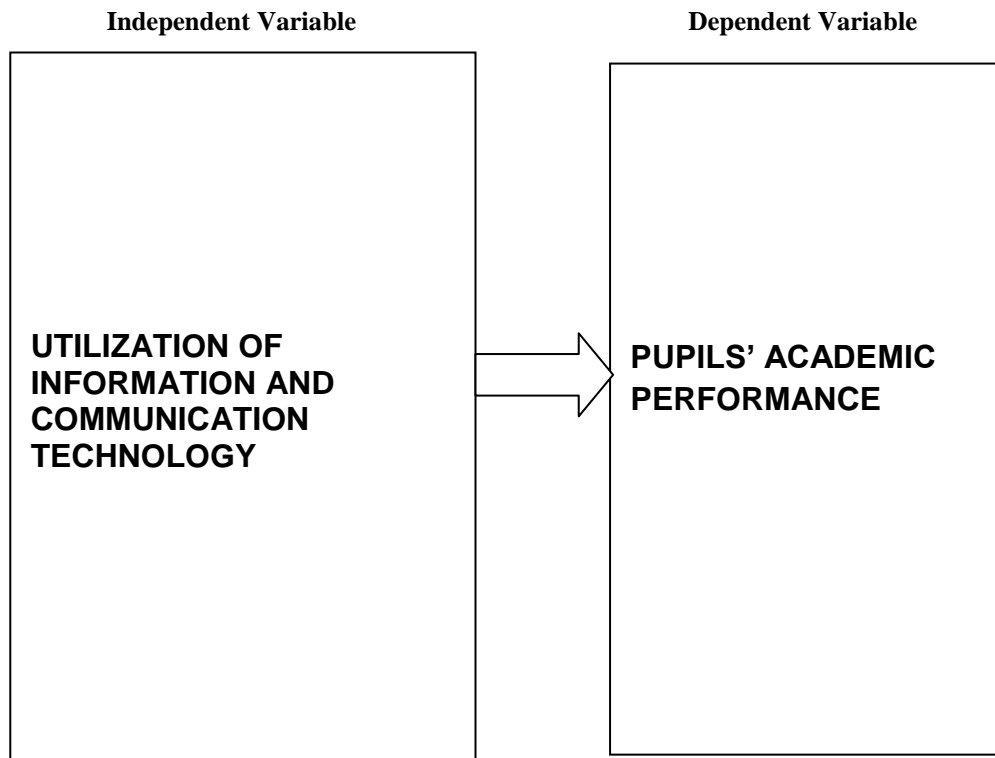
Figure 1 Schematic diagram showing the interplay between the dependent and   independent variables.

3.   STATEMENT OF THE PROBLEM

The study aimed to ascertain the effect of information and communication technology to pupils' academic performance in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon for the 2020-2021.

Specifically, the study sought to answer the following questions:

1.) What is the extent of utilization of information and communication technology (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon?

2.) What is the level of pupils' academic performance when they are categorized as;

    2.1. Outstanding

    2.2. Very Satisfactory

2.3. Satisfactory

2.4. Fairly Satisfactory

2.5. Poor

3.) Is there a significant relationship between the level of pupils' academic performance and the extent of utilization of information and communication (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon?

Research Hypothesis

Problems 1 and 2 are hypotheses free. Problem 3 was tested at 0.05 level of significance, where the hypothesis will be stated in a null form:

Ho1: There is no significant relationship between the level of pupils' academic performance and the extent of utilization of information and communication technology (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon.

4. RESEARCH DESIGN

The study will utilize the descriptive research design. Descriptive research according to Calderon, et al (2012) is a fact-finding inquiry or investigation. It was employed to develop a thorough knowledge of the primary causes of the given situations.

In addition, descriptive design as an inquiry used an in-depth analysis of the problem which data collection methods include, but not limited to the survey questionnaire and the like.

Subsequently, descriptive research design will be utilized to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics. This method measures variables through the use of quantifiable or finite data and the analysis will be based on generated information from statistical tools. This method was also used in an inquiry with larger population.

Successively, descriptive data gathering procedures comprise different types of gathering information such as, but not limited to, the use of adapted survey questionnaires.

Summary

This study was undertaken to look into the impact of utilization of information and communication technology in pupils' academic performance.

Specifically, this study sought to: (1) determine the extent of utilization of information and communication technology (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon; (2) assess the level of pupils' academic performance when they are categorized as outstanding, very satisfactory, satisfactory, fairly satisfactory, and poor; and (3) test the relationship between the level of pupils' academic performance and the extent of utilization of information and communication technology (ICT) resources in Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon. This study employed a descriptive survey research method which included a quantitative approach in collecting data through questionnaire. A modified questionnaire was used in this study. Pearson Product Moment Correlation Coefficient tool was used to test the significant relationship between the level of pupils' academic performance and the extent of ICT utilization.

5. FINDINGS

In the context of this study, the following were the study findings, which enhanced the discussion.

1. Generally, the respondents verbally described as **most of the time** on the extent of utilization of ICT. On one hand, the respondents rated **always** that they utilize electronic such as CP, laptop and desktop computers for instructional purposes. Conversely, the respondents described as **never** in the indicator that the respondents utilize Google Classroom for instructional and learning purposes.

2. Majority of the respondents were rated **outstanding** in academic performance. On the contrary, among the pupil respondents, only few were rated **fairly satisfactory** level in their academic performance.

3. The findings revealed that the respondents' extent on utilization of information and communication technology (ICT) showed slight relationship to the level of pupils' academic performance as indicated by their significance level of probability value.

6. CONCLUSIONS

Based on the gathered data and result of statistical analysis of the study, the researcher concluded that:

1. The select teachers of Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon on most occasion integrate ICT in instructional purposes, and other similar activities. Similarly, the teachers found it very important to use electronic gadgets for instructional purposes. Further, the teachers did not consider the utilization of Google Classroom for instructional and learning.

2. Most of the pupils of Mabunga Elementary School in Baungon 1 District in the Division of Bukidnon are very good in terms of learning achievement. Contrarywise, only few got an average level in terms of academic performance.

3. It can be concluded that the extent on utilization of ICT and the level of pupils' academic performance were all found to be significant. Therefore, the pupils' academic performance and the utilization of ICT are slightly correlated. The pupils who used ICT for learning, are most likely perform better and motivated.

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