

ASSESSMENT OF THE COMPUTER LITERACY SKILLS AMONG ELEMENTARY SCHOOL PUPILS IN ARGAO DISTRICT 1, ARGAO, CEBU, PHILIPPINES

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Abstract

In today's digital age, computer literacy has become a fundamental skill for pupils to excel. This study aimed to assess the Computer Literacy Skills among Elementary School Pupils in Argao District 1, Argao, Cebu, Philippines. The study utilized random sampling with 258 respondents selected through Slovin's formula at 5% margin of error. A questionnaire was used to assess the literacy of the respondents in various basic computer tasks. Data gathered were analyzed using descriptive statistics.

The findings indicate that the pupils have a moderate level of proficiency in basic computer skills, such as using the menu bar and scroll bar and identifying basic computer parts. The respondents have a high level of knowledge in most tasks, with the highest weighted mean on "Log-on and off the computer" (WM=3.48) and "Use a mouse right and left click menu function." However, the respondents showed a relatively low level of understanding of file extensions and differences between file types, with a standard deviation of 1.00. The high standard deviation of 1.11 in using a menu bar and scroll bar indicates that there is significant variability in the pupils' proficiency, with some pupils having a very good understanding, while others have a poor.

The findings suggest that the pupils possess a satisfactory level of competency in basic computer skills. However, certain areas, such as file management, require further attention and improvement. This study highlights the need to prioritize computer literacy education in elementary schools to help pupils develop the necessary skills to succeed in the contemporary digital era.

Keywords: basic computer skills, computer task, file management, level of proficiency, word processing)

INTRODUCTION

In today's rapidly evolving digital age, computer literacy has become an indispensable skill for pupils to succeed academically and professionally. With the integration of technology in education, pupils' learning outcomes have shown promising results, including improvements in cognitive and critical thinking skills [1]. However, not all schools have equal access to technology and resources, which poses a challenge in providing computer literacy education to their pupils. Recent reports from the National Center for Education Statistics [2] have revealed significant disparities in access to technology among schools in the United States. For instance, only 81% of schools in rural areas had high-speed internet, compared to 99% of schools in cities, and only 69% of schools in high-poverty areas had access to high-speed internet, compared to 89% of schools in low-poverty areas. These disparities can limit pupils' opportunities to learn basic computer skills and gain exposure to coding and programming, which can significantly affect their future success.

The rise of technology has transformed science into an essential tool for analyzing, exploring, and discovering new concepts and ideas [3]. As a result, it is crucial to equip individuals in information-based professions with up-to-date computer literacy skills. The use of technology can contribute to improving the quality of education [4]. It provides pupils with a strong foundation in the digital area, which is an essential skill in today's world.

In the Philippines, the education curriculum aims to help pupils become scientifically, technologically, and environmentally literate, creative, and productive community members (K to 12 Science Curriculum Guide, 2016). Being computer literate gives learners the opportunity to excel in a rapidly changing technological environment. According to references [5], pupils need to be digitally literate citizens. Evaluating pupils' digital skills is crucial, especially for science and technology teachers, to develop digitally literate pupils. However, in the case of Argao municipality, only a few studies have investigated pupils' literacy levels. This paper presents a case study of the top-performing elementary schools in Argao District 1, Cebu, Philippines, focusing on their efforts to enhance computer literacy education and its impact on academic excellence.

METHODOLOGY

The study was conducted in the Municipality of Argao, located in the island of Cebu, Philippines. The Department of Education identified three elementary schools in Argao District 1 with a good performance in computer literacy, namely, Argao Central Elementary School, Tulic Elementary School, and Langtad Elementary School. These schools were chosen as the study sites due to their level of performance in the entire district. A total of 258 respondents were selected using random sampling and determined through Slovin's formula at a 5% margin of error.

To gather data, a questionnaire was used to assess the computer literacy of the respondents in various basic computer tasks, such as using menu bars and scroll bars, opening and closing applications, and understanding file extensions. The questionnaire was designed based on previous studies on computer literacy assessment [6]. The participants' responses were then rated on a scale of expertise, from "knowing very little" to being an "expert."

Descriptive research method was employed in this study, and the data gathered from the respondents were analyzed using descriptive statistics. Descriptive statistics are commonly used in educational research to provide a summary of the data collected [7]. The findings of this study aim to provide insights into the level of computer literacy among elementary pupils in Argao District

RESULTS AND DISCUSSION

A. BASIC SKILLS

Based on the study's results (Table 1), it is evident that there is a moderate level of proficiency in the basic computer skills among pupils. Reference [8] emphasized that computer proficiency is essential in today's digital age as it is necessary for academic success and job opportunities. As stipulated in Table 1, the relatively high standard deviation of 1.11 indicates that there is significant variability in the pupils' proficiency, with some pupils having a very good understanding while others have a poor understanding of these features. The high standard deviation, indicating a significant variability in the pupils' proficiency, which could be attributed to pupil's computer literacy backgrounds gained at home. To improve pupils' computer literacy skills, educators should consider providing targeted instruction and practice opportunities for basic computer features such as the menu bar and scroll bar. This could

involve providing video tutorials or hands-on practice exercises. Additionally, integrating technology into the curriculum and providing opportunities for pupils to use technology for academic purposes can help improve their overall computer proficiency [9].

The result of the study implies that student performance in the basic skills of manipulating the computer varies among the pupils, but the situation was the same with the 3 identified study area. Moreover, the study identified some specific basic computer skills where some pupils excelled, such as scrolling the menu bar, identifying computer parts, and creating a new folder (Table 1). This information can be used to tailor instruction and focus on the areas where most pupils need improvement.

The result further implies that, improving pupils' computer literacy skills is vital for their academic success and future job opportunities. Educators should consider providing targeted instruction and practice opportunities, integrating technology into the curriculum, and understanding the impact of a student's background on their computer literacy skills.

B. Log-on and off the computer and mouse clicking

Table 1 presented below provides insight into the level of knowledge of respondents in various computer-related tasks. The findings suggest that the respondents have a high level of knowledge on most of the tasks, with the highest weighted mean being "Log-on and off the computer" (WM=3.48) and "Use a mouse right and left click menu function" (WM=3.35) indicating expertise in these areas. This finding is consistent with previous research on computer literacy, which suggests that individuals are generally proficient in basic computer tasks [10].

The result of the study was true to all the identified elementary schools. This implies that the student in Langtad, Argao Central, and Tulic Elementary School were knowledgeable on how to log-on and off of the computer, as well as of using the mouse in clicking the menu function in the computer. According to reference [11], knowing on how to log on and off a computer and in using to navigate a mouse are essential skills for anyone who wants to use a computer effectively. This skill would ensure that your work is secure, save time by getting your work faster, help you find what you're looking for more quickly and efficiently, make it easier to learn and use more complex programs and functions, improved job prospects, and make you a more competitive job.

C. Understanding the file type

The result of the study shows that the test on "Understanding the file extensions and differences of file type" skill of the pupils produce a weighted mean of 1.78. (WM=1.78) (Table 1). The mean score of 1.78 indicates that the individual has a relatively low level of understanding of file extensions and differences of file types. The standard deviation of 1.00 suggests that there is not a significant variation in the responses of individuals who took the same test. The result was true to all the pupils of the 3 identified school. Although the skills of the student in Tulic Elementary School was slightly higher as compared to the other school, but its variation was still negligible and all of them have little knowledge in this area. This finding highlights the need for further education or training to improve their knowledge and skills in this task. Previous research has also shown that lack of knowledge and skills in certain computer-related tasks can hinder individuals from effectively utilizing technology [12]).

Reference [13] implied further that it is important to have a good understanding of file extensions and file types as a skill in computer literacy to efficiently work with computers and digital files. Different file

types have different purposes and are compatible with different software and programs. For example, an HTML file is used for creating web pages, while a DOCX file is used for word processing.

The findings suggest that some respondents may face challenges in identifying the types of files they work with, potentially leading to errors when opening or editing them. Moreover, it appears that some respondents may lack familiarity with the software applications required to open specific file types. Recognizing the distinctions between these file types can aid individuals in selecting appropriate software and programs for managing them. Thus, providing additional training or resources may be necessary to enhance their knowledge and skills in this domain.

Generally, the study indicate that the respondents have a good understanding of basic computer tasks. However, the findings also suggest the need for continuous learning and skill development to stay abreast of changes in technology. This is consistent with the concept of lifelong learning, which emphasizes the importance of continuous learning and skill development throughout one's life [14].

TABLE I. BASIC COMPUTER LITERACY SKILLS OF THE PUPILS IN ARGAO DISTRICT 1 ELEMENTARY SCHOOL

Basic computer skills	WM	SD	DESCRIPTION
Log-on and off the computer	3.48	0.92	I am an expert
Open, Close applications	3.20	1.01	I know it very much
Identify the basic computer parts (e.g. Motherboard, Chipsets, CPU)	2.62	0.95	I know it very much
Use a menu bar and scroll bar	2.94	1.11	I know it very much
Use a mouse right and left click menu function	3.35	0.90	I am an expert
Rename file, folder, disk	2.62	1.35	I know it very much
Understand the difference between closing minimizing and maximizing windows	2.98	1.22	I know it very much
Drag and Drop	2.74	1.25	I know it very much
Make a new folder	2.24	1.16	I know it very little
Understand the file extensions and differences of file type (e.g. .gif, .jpg, .ppt, .html, .png, .docx)	1.78	1.00	I know it very little
Shut down a computer properly	3.27	1.04	I am an expert
Average Weighted Mean	2.84	1.08	I know it very much

CONCLUSION

After conducting a comprehensive study on the computer literacy skills of elementary school pupils in Argao District 1, Argao, Cebu, Philippines, this research has provided insightful information about the respondents' proficiency in various computer-related tasks. Based on the study's results, it can be inferred that the respondents possess a satisfactory level of competency in basic computer skills. However, certain areas, such as file management, require further attention and improvement.

These findings have critical implications for the educational system and society. As technology advances, computer literacy skills have become a vital aspect of modern-day living, and it is essential to ensure that pupils receive adequate training in this area. Including computer literacy programs in the

school curriculum and providing ample access to computer facilities can prepare pupils better for success in the 21st-century workplace.

Therefore, this study highlights the need to prioritize computer literacy education in elementary schools to help pupils develop the necessary skills to succeed in the contemporary digital era. Doing so makes it possible to bridge the gap between computer literacy and technology usage, ultimately enabling pupils to become more productive members of society.

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