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Computer Competence and Academic Achievement of Grade 6 Pupils in the Implementation of Blended Learning in the COVID Era

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Index Terms:

pandemic, digital literacy, mixed-mode learning, higher education

Abstract. The main objective of this study was to determine the correlation between learners' computer competence and their academic achievement in the context of blended learning during the COVID-19 pandemic. Utilizing the descriptive-correlational method of research, the study aimed to examine this connection to seek insights on how computer literacy affects academic performance in situations like this. The following are the major findings of the study: First, the learners have a moderate level of computer application competence. Second, the learners have shown excellent academic achievement. Third, the correlation analysis between adversity quotient and academic achievement of the learners did not indicate a significant negative correlation. These results imply that factors other than computer competence might be affecting academic achievement of learners. Adapting to new instructional delivery approaches amidst global pandemic is indeed difficult and based on the findings, the study concluded that the learners had limited knowledge and skills in computer applications, yet they demonstrated better academic performance than expected. Additionally, the study concluded that computer competence did not have a significant impact on the learners' academic achievement. However, improving computer competence could be a contributing factor to enhancing academic achievement. Thus, it is recommended for school administrations to provide sufficient materials and equipment to improve the computer skills of the learners. Furthermore, the level of academic performance of the learners has to be sustained or improved through the provision of better knowledge and skills sources; proper motivation and performance appraisal training workshops of the learners to boost their confidence and computer literacy that may expand their educational opportunities and enable them to easily adapt to the evolving educational landscape.

Introduction

The COVID-19 pandemic has brought about a significant shift in the education sector, with many institutions adopting blended learning models that combine online and in-person instruction. This shift has highlighted the importance of learners' computer competence in achieving academic success in blended learning environments. As such, this study aims to investigate the relationship between learners' computer competence and their academic achievement in the context of blended learning during seeking to improve the quality of blended learning in the COVID era. The developing world faces challenges in the development of effective innovation in teaching and learning, especially in the context of the COVID-19 pandemic. But with the aid of technology, the teaching and learning environment is embracing a number of innovations like blended learning. This innovative pedagogical approach has been embraced rapidly though it goes through a process. Oweis (2018) added that the current era is characterized by rapid changes resulting from scientific and technological advances, including information technology, which have become even more important in the context of the pandemic.

The education system must adapt to these changes in order to handle potential bigger issues like the abundance of knowledge and rise in student enrollment, which are often accompanied by teacher shortages and, in the worst-case scenario, a new pandemic. The globe has essentially become a small, interconnected village as a result of these advances in science and technology, which have also given rise to a variety of novel teaching and learning techniques including blended learning (BL) and e-learning, notably in the fields of research and self-development.

Blended learning (BL) refers to the combination of traditional face-to-face instruction with online learning, as defined by Graham (2013). Salama (n.d.) suggests that BL is a viable and scientifically sound alternative to e-learning, as it offers greater benefits, is more cost-effective, and allows for more advanced forms of learning. Garrison and Kanuka (2004) contended that Blended Learning (BL) refers to the integration of technology into traditional classroom settings to enhance efficiency. BL aims to create interactive learning experiences by combining teacher's role in a physical classroom with that in a virtual one. The technology used in BL is designed to improve student performance. Additionally, Graham (2013) suggested that BL systems are intended to enhance learning by integrating visual cues and educational concepts. The use of virtual environments acts to capture the attention of the audience involved while augmenting interactions between subject parties.

While blended learning (BL) is highly focused on promoting the goals of education for all (EFA), it is important to acknowledge that there are challenges that need to be addressed in its implementation. According to Dziuban et al. (2016), the United States is currently experiencing a growing educational divide between underserved students and those in communities with greater financial and technological resources (Williams, 2016). Ensuring equal access to education is a crucial requirement, especially for those in underserved communities (Arum et al., 2016).

The COVID-19 pandemic has compelled teachers to adopt blended learning, but there are several factors that may hinder the learning process. These factors include limited facilities at home and school, learners' lack of computer skills, limited access to the internet, limited knowledge of computers, learners' lack of interest, and a shortage of computer-based materials. As there is a growing need for learners to develop computer literacy, it is crucial to conduct extensive research on the actual level of learners' computer literacy and competency in local contexts. Therefore, this research is being conducted.

Conversely, research has been conducted on the impact of blended learning on learners' academic achievement. Kenney and Newcombe (2011) discovered that blended learning resulted in higher average scores compared to non-blended learning environments. Garrison and Kanuka (2004) investigated the transformative potential of blended learning and observed an increase in course completion rates, improved retention, and higher student satisfaction. After comparing blended learning environments to determine differences in academic achievement, grade dispersions, and gender performance, no significant differences were found between the groups (Demirkol & Kazu, 2014). The research conducted in these studies influenced the current study on blended learning, which was conducted during the COVID-19 pandemic when many agencies and businesses were facing challenges. The aim of the study was to investigate the impact of blended learning on learners in this context.

Frequently, due to the impact of COVID-19, learners may possess computer competence but lack the necessary skills to complete tasks in blended learning, resulting in a performance gap. When learners consistently experience this gap between their current and required capacity, it indicates their inability to reach their full potential, which ultimately leads to lower academic achievement in online discussions, quizzes, PowerPoint presentations, video uploading, and other related activities in the learning process.

Computer competence is learned and therefore can be changed and improved. Hence, the results of this study will contribute to enhancing our understanding of the relationship between learners' computer competence and academic achievement, which can help them become more effective in overcoming challenges. This study holds significance as it evaluates the current situation of Grade 6 elementary learners of Ballay Integrated School. The data collected from this study can be utilized by the Department of Education to develop policies and programs for basic education schools that aim to enhance academic achievement, reduce drop-out rates, and promote the scholastic growth of learners for better education. Additionally, the study will identify the strengths and weaknesses of the learners, providing baseline data that can be used to manage and operate the school.

This study can serve as a foundation and future reference for researchers who wish to explore the role of computer competence as a criterion not only in academia but also in other areas related to the demands of the digital world. By examining the relationship between computer competence and academic achievement in blended learning during the COVID-19 pandemic, this study can provide valuable insights for future research in this field.

Finally, the researcher considers this study to be highly significant as it can serve as a foundation for conducting action research on blended learning. The researcher in this paper considered three primary guidepost groups, namely input, process, and output, as illustrated in the following process flow.

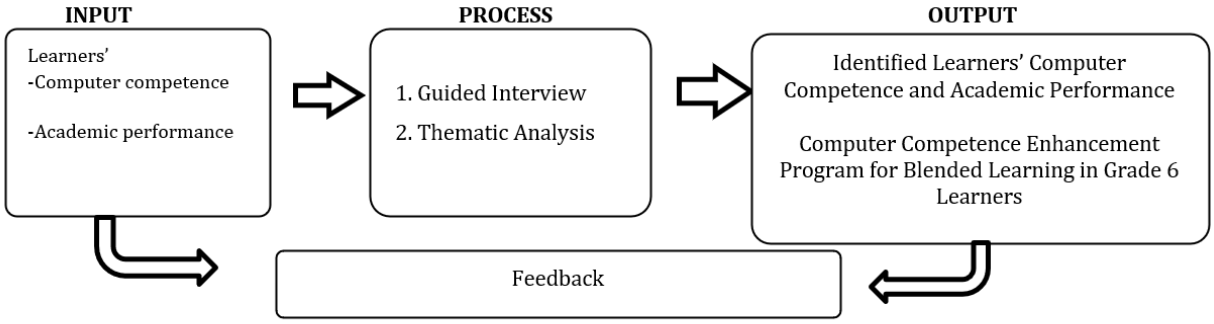

Figure 1. Paradigm of the study

Statement of the Problem

The primary aim of the study was to investigate the correlation between the computer competence of learners and their academic achievement.

Specifically, it aimed to address the following questions;

1. What is the level of computer competence of Grade 6 learners?
2. What is the level of academic performance of the Grade 6 learners?
3. What is the extent of relationship between computer competence and academic achievement of the Grade 6 learners?

Hypothesis

There is no significant relationship of between computer competence and academic achievement of the learners.

Scope and Limitation

This study was limited to examining the relationship between learners' computer competence and academic achievement in the context of blended learning during the COVID-19 pandemic. Specifically, learners' computer competence was defined as their proficiency in using computer applications commonly utilized in blended learning, such as word processing, spreadsheet, presentation, multimedia, web search engines, and communication applications. Meanwhile, the academic achievement of learners was assessed based on their performance in written quizzes, performance tasks, and quarterly tests.

The study was conducted in Ballay Integrated School with 21 grade 6 learners during the third grading period for the school year 2022-2023.

Related Literature

In 2018, Oweis referenced Kinsara's (2009) study which aimed to examine the effects of a computer-based education strategy on the immediate and delayed academic performance of students in a Teaching Techniques course, in comparison to individual and traditional methods. The study was conducted on a sample of 90 students from the Teachers College at Umm Al-Qura, who were divided into three groups based on the type of treatment they received. In order to accomplish the study objectives, the researcher employed various tools including a computer education program, pre- and post-achievement tests to evaluate students' basic knowledge of the course, and categorizing students into three levels: low, medium, and high. However, the results indicated that there were no significant differences in the direct achievement of students in the Educational Techniques course. This lack of difference was attributed to the teaching method, the level of students' achievement, or the interaction between the two. The findings of the study indicated that the cooperative computer group outperformed both the individual and traditional computer groups, with statistically significant differences in favor of the cooperative computer group. Additionally, a significant difference was observed between the average performances of the individual computer group on the direct and deferred tests, while no significant differences were found between the average performances of students in the cooperative computer group on the direct and deferred tests.

In her analysis, Klimova (n.d.) assessed the effectiveness of the blended learning (BL) approach and its learning materials in a Business English course, and evaluated its efficacy in achieving learning outcomes in an international context. The study found that while the use of the BL approach did not show significant effectiveness in teaching Business English, students were still satisfied with the strategy and preferred it over traditional learning methods.

In 2010, Jeong-Bae Son and Robb conducted a study to assess the computer literacy of a group of Indonesian teachers of English as a foreign language (EFL) and to explore the factors that influenced their use of computers in the classroom. The study involved in-service EFL teachers from schools and universities in Indonesia. A questionnaire was given to the teachers, which included questions about their ownership and accessibility of computers, their ability to perform computer-based tasks, their personal and professional use of computers, and their interest in computer-assisted language learning. The study's results depict the Indonesian teachers' use of computers in their respective contexts and suggest that there is a need to enhance their online opportunities, skills, and competencies in using computers for teaching practices and professional development.

In 2018, Roszak and Kołodziejczak conducted a study to examine the skills and ICT competencies required by teachers to effectively teach in a blended learning environment and organize the learning process for university e-courses. The study identified several areas of particular importance, including the organization of learning materials, learning groups, knowledge evaluation, one-to-one communication, and communication with the learning group. The authors highlighted essential components necessary for the teaching process with an LCMS and emphasized the significance of this topic, especially for non-technical and non-IT-oriented universities. The authors of this paper have based their work on their experience in organizing and implementing blended learning at a medical university.

The study conducted by Kintu, Zhu & Kagambe (2017) aimed to evaluate the effectiveness of a blended learning environment by examining the relationship between student characteristics/background, design features, and learning outcomes. The primary objective was to identify the key predictors of blended learning effectiveness, with student characteristics/background and design features as independent variables and learning outcomes as the dependent variable. To collect data on student characteristics/background, design features, and learning outcomes, a survey was given to 238 respondents. The final semester evaluation results were used to measure performance outcomes. The study utilized various instruments, including the online self-regulatory learning questionnaire to gather data on learner self-regulation, the intrinsic motivation inventory to collect data on intrinsic motivation, and other self-developed instruments to measure other constructs. The results of the multiple regression analysis revealed that blended learning design features, such as technology quality, online tools, and face-to-face support, as well as student characteristics, including attitudes and self-regulation, were significant predictors of student satisfaction. These findings suggest that certain student characteristics and design features play a crucial role in predicting student learning outcomes in blended learning.

The present research found these studies to be valuable as they highlight the relationship between computer competence and academic achievement. After reviewing literature related to studies on computer competence and academic achievement, it was found that these studies aimed to explore the importance and impact of computer competence on human performance. While there were some similarities and differences between these studies and the current research, they provided valuable insights to the researcher on the concepts of computer competence and academic achievement.
The present study stands out from the reviewed studies in terms of research location, methodology, and respondents. This can be attributed to the influence of the COVID-19 pandemic, which has brought about changes in the educational sector and required the adoption of new research methods and approaches. Consequently, the current study may have considered factors that were not considered in previous studies due to the exceptional circumstances created by the pandemic.

Research Methodology

Research Design

The research employed a correlational study design and utilized closed-ended questionnaires to collect numerical data. Prior to and after data collection, the validity and reliability of the questionnaire were taken into consideration. To test the clarity of the questions, a small sample of participants (ten learners randomly selected) from one grade of Ballay Integrated School was used before the actual research project. The results showed that the questionnaire was 79 percent reliable, indicating that the questions were clear and easily understood by the learners. By testing the questionnaire beforehand, the researcher was able to eliminate any potential contamination of the questionnaire that may have occurred if it was given to the participants in the actual study. The key aspect of creating a research questionnaire is to ensure that it is valid, reliable, and clear, as emphasized by Richards and Schmidt (2002). While closed-ended questionnaires are more efficient due to their ease of analysis, open-ended questions can lead to a greater level of discovery, according to Gillham (2000). In the proposed research, the reliability was addressed by providing a detailed elaboration of every aspect of the study,

including the rationale, design, data collection, analysis, and results. This approach ensured that the study was conducted in a rigorous and transparent manner, which enhances the credibility and trustworthiness of the findings.
The researcher utilized this method to determine the computer competence of the learners and establish any correlation between their computer skills and academic achievement.
The respondents of the study consisted of twenty-one (21) Grade 6 learners of Ballay Integrated School. The school is located at Ballay, Kabayan, Benguet.

Participants

This part contained the specific process which will be undertaken during the study.

Grade	Female	Male	Total
Grade 6	12	9	21

Table 1. The participants of the research

The research catered all the Grade 6 learners of Ballay Integrated School as the respondents, thus total enumeration was utilized.

Data Collection

The collection of data in this study was conducted in accordance with research standards. The researcher initially sought permission from the School Head of Ballay Integrated School to conduct the study, which included administering questionnaires, conducting interviews, and reviewing school records, particularly the general weighted average of the sixth-grade students in the previous grade level. Once approval was granted, the respondents were given an orientation on the content and mechanics of the questionnaires, and the Computer Competence Questionnaire was administered. After the respondents finished answering the questionnaires, the researcher collected them. To validate the responses in the closed-ended questions, an interview was conducted with the respondents. Due to the pandemic, online interviews were conducted through video calls and phone calls to comply with the minimum health standards set by the Municipal Inter-Agency Task Force. The academic performance of the learners was based on their general weighted average for the third grading of the school year 2022-2023, which will be obtained from the records of the class adviser.

The following data gathering tool was used in this research:

Computer Competence Questionnaire. It is a self-assessment tool that gauges an individual's proficiency in utilizing different features commonly utilized in blended learning. It covers competencies in word processing applications, spreadsheet applications, presentation applications, multimedia applications, web search engines, and communication applications.

The reliability of the Computer Competence Questionnaire will be evaluated by administering it to 10 grade 6 students from Ballay Integrated School who are not involved in the study. Furthermore, convergent validity will be utilized to establish the validity of the instrument. As per Williams (2003), a test or questionnaire is deemed valid if it measures what it is intended, designed, and used to measure.

Academic Grading System for Elementary. The Department of Education has created an academic performance rating system to evaluate the learners' performance during a specific period. This system is composed of three components, namely Written Works, Performance Tasks, and Quarter Test, with percentage allocations of 25%, 50%, and 25%, respectively. The academic performance of learners is determined by computing the general weighted average after two grading periods. Since this instrument is officially used by the Department of Education to evaluate the academic performance of learners, it is considered valid and reliable.

Data Analysis

For the quantitative analysis. The Statistical Package Software for Social Sciences (SPSS) was utilized to analyze and process the survey data.

Weighted Mean. The purpose of using this was to assess the computer competence and academic performance of the students.

Pearson Product Moment Correlation (r). The purpose of using this was to determine the correlation between adversity quotient and academic performance.

The computer competency of learners was evaluated and recorded, which included their proficiency in word processing, spreadsheet, presentation, multimedia, web search engines, and communication applications.

A 4-point scale was utilized to assess the students' computer competency, and the results were presented below. The scale was broken down into relative values to achieve an optimal outcome.

Relative value	Statistical limit	Descriptive value	Meaning
4	3.26-400	Very Competent (VC)	The learner has the more adequate knowledge and skills for using general computer applications, language-specific software programs and Internet tools and use it very confidently.
3	2.51-3.25	Moderately Competent (MC)	The learner has the enough or average knowledge and skills for using general computer applications, language-specific software programs and Internet tools and used it confidently.
2	1.76-2.50	Slightly Competent (SC)	The learner has the less knowledge and skills for using general computer applications, language-specific software programs and Internet tools with less confident.
1	1.00-1.75	Not Competent (NC)	The learner has no knowledge and skills for using general computer applications, language-specific software programs and Internet tools.

Table 2. Ccomputer competency Scale

The academic performance of the students was evaluated and recorded, which included three areas: written works, performance tasks, and quarter tests.

Further, an overall rating was provided, which was based on the following description:

Academic performance score range	Verbal interpretation	Meaning
90-100	Outstanding	Consistently demonstrates desired outcome / performance. Mastered the competency of all the learning area.
85-89	Very Satisfactory	Generally, demonstrates desired performance; important continues to occur as expected. Closely approximating mastery of the competency of all the learning area.
80-84	Satisfactory	Exhibits desired performance as expected, on-going direction/assistance is necessary; additional effort toward improvement is needed. Moving towards the mastery of the competency of all the learning area.
75-79	Fairly Satisfactory	Rarely exhibits desired performance; considerable improvement is needed; serious deficiencies exist that need immediate attention. Low mastery of the competency of all the learning area.

74 and below	Did not Meet Expectations		Never exhibits desired performance; considerable improvement is needed; serious deficiencies exist that need immediate attention. Very low mastery of the competency of all the learning area.

Table 3. Academic Performance Scale

To determine the level of correlation, the following rating system was utilized.

Pearson's Coefficient Correlation	**Degree of Relationship**
.90 - 1.00	Very High
.70 - .89	High
.40 - .69	Moderate
.20 - .39	Low
0 - .19	Very Low

Table 4. Interpretation Guide for Pearson's Correlation Level

Results and Discussion

This chapter provides a discussion, examination, and explanation of the collected data in relation to the issues presented in the research.

Computer Competence of Grade 6 Learners

The level of computer competence of the learners was assessed based on the Computer Applications dimensions, which comprise word processing applications, spreadsheet applications, presentation applications, multimedia applications, web search engines, and communication applications.

Computer Competence	**Mean**	**Verbal Interpretation**
Word processing applications	1.82	Slightly Competent (SC)
Spreadsheet applications	1.76	Slightly Competent (SC)
Presentation applications	1.76	Slightly Competent (SC)
Multimedia applications	1.88	Slightly Competent (SC)
Web search engines	2	Slightly Competent (SC)
Communication applications	2.53	Moderately Competent (SC)
OVERALL MEAN	**1.96**	**Slightly Competent (SC)**

Table 5. Level of Computer Competence of Grade 6 Learners

Table 5 shows the level of computer competence of grade 6 learners of BIS. The data displays that the average mean for the computer proficiency of grade 6 learners is 1.96, which can be interpreted as slightly competent. This implies that most of the learners in grade 6 have limited knowledge, skills, and confidence in using general computer applications, language-specific software programs, and internet tools. There are several reasons to consider for this outcome. Firstly, not many learners have access to computers at home, and even today, not every household has at least one computer. This is particularly true for families with low income who prioritize buying basic necessities over purchasing a set of computers. During the interview, one of the respondents mentioned that they do not have access to gadgets and computers at home due to financial constraints. This is a common situation among the learners, as most of them come from indigent families whose main source of livelihood is agriculture. According to Rideout and Katz (2016), the primary reason why some families do not have home computers or internet access is that they cannot afford it, and discounted internet programs are only available to a few. The study also found that 40% of parents without a home computer and 42% without home internet access cited the high cost as the main reason for not having these items. The number of people who cited high cost as the main reason for not having home computers or internet access is three times higher than those who said they do not need internet access (13%) and almost twice as many as those who do not need a computer (22%). However, despite the availability of discounted internet programs for lower-income families, only 6% of those with incomes below 185% of poverty have ever signed up for low-cost internet access.

The second reason for the limited computer competency of learners is the lack of Information and Computer Technology (ICT) equipment and materials in schools. It has been observed that schools in rural areas lack complete learning materials for ICT. During the study, one of the learners mentioned that they never had hands-on learning for computers in their subject areas. According to Angara-Castillo (2016), even in schools that are fortunate enough to have new computers, learners may not be able to learn from them because they are not given hands-on activities. Some schools have computer subjects in their curriculum, but the quality of instruction is inadequate. This is because the school curriculum is not fully implemented, and although the subject exists, the IT classes are not executed. Umali (2019) explained that the decision to include a comprehensive and strategic digital literacy plan in the Philippine education system coincided with the revision of the K-12 curriculum, which occurred around 2013 or 2014. However, the distribution of ICT equipment had already been ongoing before that. The issue was that the ICT devices were being delivered without a clear understanding of why it was being done. The agency was performing a task blindly, without any knowledge or understanding of the purpose of the equipment.

Another factor to consider is the teachers' proficiency in teaching computer literacy to learners. Sometimes, teachers prioritize other subjects such as agriculture, entrepreneurship, home economics, and industrial arts. According to Angara-*Castillo (2016), in cases where there is a computer class, the issue lies with the teachers who are themselves computer* illiterate. This is because they were educated under a traditional curriculum and were not given proper training for computer instruction. This highlights the need for funding to be allocated for training teachers who will handle computer subjects, especially for those living in remote areas.

According to Cristobal (2015), illiteracy in individuals is caused by various factors that are often interconnected, creating significant obstacles for those affected. For example, individuals born into underprivileged families with parents who have limited formal education are more likely to be illiterate or experience significant learning difficulties. This phenomenon is referred to as intergenerational transmission of illiteracy.

Academic Achievement of Grade 6 Learners

The rating of academic achievement is composed of three parts: (1) written works, (2) performance tasks, and (3) quarter test. These components are allocated different percentages, with 25% for written works, 50% for performance tasks, and 25% for the quarter test.

Overall academic performance descriptive rating	Mean score	Number of respondents	Percentage of the respondents
Outstanding	90-100	7	33.33
Very Satisfactory	85-89	9	42.86
Satisfactory	80-84	5	23.81
Unsatisfactory	75-79	0	0
Poor	74 and below	0	0
Total		21	100
Mean Score:	**88.59 (Very Satisfactory)**		

Table 6. Overall level academic achievement of the Grade 6 Learners

Table 6 presents the overall level academic achievement of the learners. The majority of the learners (42.86%) received a very satisfactory rating, 33.33% scored outstanding and 23.81% achieved a satisfactory rating. The computed mean of 88.59 supports these findings, indicating that learners generally demonstrate the desired level of performance, and important progress continues to occur as expected. Additionally, there is a close approximation of mastery of the competency of all the learning areas.

The learner demonstrates very satisfactory in their overall academic achievement because they have the knowledge, skills and proper attitude. Their knowledge enables them to comprehend and analyze situations, and apply logical approaches to solve tasks. Additionally, they possess skills in developing effective study habits, devising solutions to academic challenges, and managing class activities and reports. These competencies collectively contribute to their overall academic success.
The learners' academic performance can also be linked to their self-efficacy, which refers to their belief in their ability to gather the necessary motivation, resources, and strategies to meet the demands of their teachers. As Kanfer and Kantrowitz (2012) suggest, successfully completing a task leads to feelings of satisfaction, self-efficacy, and mastery. Additionally, Scotter (2010) as cited by Sonnentag et al. (2012) notes that learners may be motivated to accomplish tasks due to the potential for promotion, recognition, and awards that come with high performance.

Furthermore, learners have achieved very satisfactory performance by recognizing their individual strengths and interests, understanding the time limitations they face, acknowledging their talents, skills, and learning needs, and fostering a positive learning attitude. Competent learners prioritize self-development, possess effective learning and management skills, and are dedicated to maintaining good learning habits. They learn to overcome negative self-beliefs, unconscious behaviors, and habits that hinder success, and gain a better understanding of their potential to achieve their desired level of performance.

Similarly, Portin and Knapp (2009) argue that learners who prioritize quality learning tend to have improved work performance. They also contribute to defining and promoting high expectations, addressing problems and fragmented efforts, and directly engaging with their support group. Other studies have been conducted that report similar findings to the present study.

Poyongan (2011) discovered that the respondents in her study achieved a very satisfactory level of performance, indicating that they were committed to their role as learners. She explained that individuals who are dedicated to their work will try to improve and perform to the best of their abilities. This finding is similar to the present study, as the respondents also reported enjoying the learning process, which led to more effective performance.

Computer Competence and Academic Achievement

The study found a correlation between Computer Competence and academic achievement, and the direction and strength of this relationship were identified. The significance of this correlation was also determined to determine whether to accept or reject the null hypothesis.

		Overall Academic Performance mean – 88.59
Overall Computer Competence mean – 1.96	R	-0.303600093**
	Significant Level	
	Remarks	Negative Low Negative Correlation

Table 7. Correlation between Computer Competence and Academic Achievement
** correlation is significant at alpha .01 level

Table 7 displays the correlation coefficients that were obtained between overall computer competence and academic achievement. The results show that there is a weak negative correlation between these two variables. Additionally, the correlation coefficient of -0.3036 between overall computer competence and overall academic achievement is statistically significant at the .01 level. This leads to the acceptance of the null hypothesis, which states that there is no significant correlation between the two variables. Therefore, it can be concluded that computer competence has a low negative impact on overall academic achievement.

The results indicate that there is no relationship between overall computer competence and the performance of learners in terms of the teaching and learning process, learning outcomes, and learning environment. Furthermore, the low negative

correlation between overall computer competence and overall academic achievement suggests that computer competence is not a significant factor that affects academic achievement. Therefore, it can be concluded that other factors may have a more substantial impact on academic achievement than computer competence.

It is important to consider other factors that may contribute to the high performance of learners, such as intelligence quotient, emotional quotient, and motivation. These factors may have a significant impact on a person's academic achievement. It is worth noting that individuals are not only rational beings but also emotional and active creatures. They have the ability to perceive their life as a problem and make decisions based on their thoughts and feelings. Ultimately, an individual's life depends on how they perceive it, feel about it, and act upon it.

It is worth considering that many learners have a high adversity quotient (AQ), which has enabled them to improve their academic performance despite not having access to educational gadgets and having limited knowledge of technology. Stoltz (1997) suggests that individuals with a higher AQ possess inner strength, energy, and resourcefulness, which allows them to cope with setbacks, mergers, new strategies, major change initiatives, new technologies, and downsizing. Additionally, Warner (2009) notes that being resilient enables individuals to resist stressful experiences that may impact their job productivity, remain focused, deal with multiple demands, and stay calm and composed. Therefore, having a high AQ may be a significant factor that contributes to the success of learners. According to Johnson (2005), it is logical to assume that resilience is a necessary trait for success in a position that involves facing adversity. Bartone (2003) further explains that individuals with a high adversity quotient (AQ) or hardiness tend to believe that they can control or influence events and are committed to their activities, relationships, and self. They recognize their own values, goals, and priorities in life. Additionally, individuals with high hardiness tend to interpret stressful events in a positive and constructive manner, viewing them as a challenge and an opportunity for learning. This personality dimension may be relevant to leader development and good performance. Therefore, having a high AQ or hardiness may be a crucial factor in achieving success in challenging positions.

In addition, learners demonstrate a strong dedication to continuous improvement and possess a comprehensive understanding of the change process. They are also capable of learning creatively with others to address emerging issues. They view themselves as change agents and work collaboratively with others to enhance their academic performance. In summary, learners exhibit a proactive approach to change and are willing to work with others to achieve their goals.

Further, a significant factor contributing to the success of learners is their determination and focus on overcoming challenges in their lives and in school. Clifton & Badal (2014) explain that individuals with high determination exhibit a tenacious pursuit of their goals. They are proactive in identifying opportunities, taking initiative, and persisting in the face of obstacles. Their focus is on achieving success, and they refuse to accept defeat. Therefore, the determination and focus of learners may be a crucial factor in their ability to overcome challenges and achieve success.

The study supports the conclusions of Mbaeze, Ukwandu, and Anugu (2010), who found no correlation between computer literacy and learners' academic performance. However, the study disagrees with the findings of Oviawe and Oshio (2011), who discovered that computer facilities significantly contribute to effective teaching and learning, resulting in better academic performance among learners. Similarly, the study conducted by Aitokhuehi & Ojogho (2014) suggests that co-educational secondary schools with computer-literate learners perform slightly better academically than single-sex schools in Esan West Local Government Area of Edo State, Nigeria.

Conclusions and Recommendations

This study concludes that the level of computer competence has no influence on the overall academic achievement. The learners generally demonstrate desired performance; important continues to occur as expected. However, the findings indicate that the learners have limited proficiency in using general computer applications, which highlights the need to enhance their knowledge, skills, and confidence in this area. Thus, there is a need to enhance their computer competence.

It is recommended for school administrations to provide sufficient materials and equipment necessary to improve the computer skills of the learners. As to the level of academic performance of the learners, it has to be sustained or improved through the provision of better knowledge and skills source; proper motivation and performance appraisal training-workshop to learners. Additionally, other research studies can be conducted focusing on the same research problem but with variables such as motivation, culture and practices.

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Appendices

No appendices are included in this article.