![Global Scientific JOURNALS]

INTEGRATING TECHNOLOGICAL ADVANCEMENTS IN SUPERVISORY MANAGEMENT: ENHANCING TEACHING AND LEARNING PROCESSES

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Abstract

This study explores the nexus between technological advancements and education, affirming Gerard Teves's emphasis on the enduring significance of human involvement in teaching and learning. It argues that technology should augment rather than replace teachers, with its effectiveness contingent upon the quality of teacher training. As education adapts to embrace shorter, more relevant content, aligned with students' needs, the study aims to evaluate teachers' proficiency in utilizing computer productivity tools to enhance the teaching-learning process.

The research begins by profiling respondents, focusing on demographic characteristics and prior computer training. Predominantly female, the majority of respondents hold Bachelor of Elementary Education degrees, with a significant portion having undergone computer-related training. Subsequently, the study meticulously assesses teachers' competency in various computer productivity tools, including basic operations, file management, and proficiency in Microsoft Office applications.

Findings reveal a generally high level of proficiency in basic computer operations and file management, but highlight areas for improvement, particularly in system maintenance and security. Challenges such as unstable internet connectivity and limited access to essential resources are identified as significant barriers to effective integration of technology in the classroom.

The study underscores the importance of ongoing professional development for teachers, advocating for continuous training to enhance technological proficiency and adapt to evolving educational paradigms. Recommendations include encouraging further education and training opportunities, improving system maintenance and security protocols, and advocating for better access to essential resources.

In conclusion, the study emphasizes the indispensable role of teachers in leveraging technology to enrich the teaching-learning experience. It calls for concerted efforts to support teachers' professional development and address the challenges hindering effective integration of technology in educational settings

Keywords: Classroom Technology, Digital Learning, Educational Technology, Integration of Technology, Pedagogical Innovation, Supervisory Management, Teacher Proficiency, Teacher Training,

Teaching-Learning Processes, and Technological Advancements

Introduction

Taking a deeper look at the dynamics of technological advancements and education, Gerard Teves still favors teachers over technology by saying: :At the core of ICT in teaching and learning processes is still human element. The view that technology is an end in itself is incorrect. The effectiveness of technological advancements is proportional to the quality of teacher training achieved." Likewise, content in today's education environment have changed into material that is short, fast, current, ICT-based and entertaining. Knowledge gained in schools must now be able to directly respond to the context of students' needs and problems.

Teaching in the classroom today with the advent of computer technology and the maximization of the computer productivity tools is seen as a potential value-added system to the teaching-learning environment.

When people think of technology, some visualize it as impersonal machines that dehumanize our experiences and equate names with numbers. This idea can certainly be true. Technological advancements as to Productivity tools are developed in the creative side of technology. Productivity tools such as word processors, databases, spreadsheets, and multimedia tools allow for individual expression. People bring information, and ideas to these tools. Individuals use productivity tools to organize, manipulate, shape, and ultimately present ideas in creative new ways.

According to Professor Pollard1 (2009), technology in education has implications on the learner as well as the teacher. What role does technology have for these two intertwined groups of people? There is a correlation between the positive effects on both the student and teacher related to academic performance and meaningful learning in the classroom. Combining education and technology creates a more stimulating learning environment. In order to accomplish higher order thinking skills such as critical and independent thinking, the application of technology and improved motivation and attitudes, technology must be integrated into the everyday curriculum.

Technological advances in education have been huge over the last 50 years. Twenty years ago, computers were not common inside the classroom. Imagine what students thought about using a word processor versus electric typewriter, word processors or even using the archaic manual typewriter. Today technology reaches well beyond the classroom to serve the needs of learners, rural inaccessibility or being home schooled have more options open to them to learn and investigate. Through internet connection students and teachers have a portal and connection to every part of the world.

Histories of technological developments have often shown links between innovations in industry and communications with improvements in educational methods. The proliferation and success of web based curriculum at all levels of education is just the latest example of the importance of technology to both students and teachers. The greater the reach of educational programs to a growing population of students via the internet continues to challenge educators, not only by adapting the latest technological enhancements in the traditional classroom to "distance learners", but also to discover additional ways for improving those students' educational experience overall. The computers unique ability to offer lessons in multimedia formats, and to provide a means for real time student/teacher dialogue and exchange already enriches online instruction,

but may only be the tip of the iceberg that emerging technologies will bring to the delivery of quality education in the new century.

Computer-based technology (CBT) can open doors to physically challenged learners that might not otherwise be available to them. It allows for student-centered learning and collaboration, individualized learning programs and more student independence. In a study in New South Wales Australia, of basic reading and mathematics skills they found CBT to be an effective tool in teaching; however, they also found that teachers were much more willing to incorporate CBT into their teaching than teachers of "non-special" students CITATION Cen09 l 1033 (Center for Applied Research in Educational Technology, 2005). Presently, classroom learning is increasingly dependent on the integration of technology thus enhancing learning. The current technology uses email systems, data processing and laptop audio/videos webinars.

Going into the 21st century educators need to define what role the computer will play in the students learning. Students can learn "from" computers-where technology used is essentially as tutors and serves to increase student's basic skills and knowledge; and can learn "with" computers-where technology is used a tool that can be applied to a variety of goals in the learning process and can serve as a resource to help higher order thinking, creativity and research skills (Associates, 2005). Productivity tools such as databases, spreadsheets, computer-assisted design, graphics programs, and multimedia authoring programs. These programs for creating computer-based presentations or lessons allow students to independently organize, analyze, interpret, develop, and evaluate their own work.

Today, technology is no longer a luxury - it is now the standard. Computer productivity tools must now form part of our Information technology preparedness. The majority of Filipinos who do not have the time, money and mental capacity to acquire these infinite amounts of knowledge will be at a disadvantage in this Information Age.

Former DepED Secretary, Jesli Lapus[7] in his keynote address during one of the capacity building workshops using the UNESCO - ICT in Education Toolkit for policy-makers, planners and practitioners at SEAMEO-INNOTECH, emphasized the fact that

"The emergence of new technologies that impact on how we share information has revolutionized the way we do things.

Through these new technologies, the world is now a smaller place, linking us with the rest of humanity at breakneck speed and providing us with opportunities that were inconceivable prior to the arrival of the golden age of computers, internet and telecommunication technologies."

The secretary advised the school managers, thus: "To meet the challenges of the 21st Century, we need to evolve from this teacher-led instructional model, where learners are mere consumers of information and knowledge to a learner-led personalized model, where learners are also producers of information and knowledge."

This study will assess the knowledge and skills of teachers on computer productivity tools and its integration in classroom teaching-learning. There is also the intention to describe the teachers respondents profile, their trainings preparation particularly in computer knowledge and skills, lesson planning, instructional material construction, strategies and approaches classroom management and instructional management prior to their teaching job, the problems encountered and the possible solutions or suggestions for improvement.

Statement of the Problem

This study aimed to describe the knowledge and skills of teachers on computer productivity tools and its integration to supervisory management in enhancing teaching and learning processes. It sought to answer the following questions:

Specifically, the following questions were answered:

1. What is the profile of the respondents in terms of?

1.1 age
1.2 sex,
1.3 civil status
1.4 educational qualification, and
1.5 computer trainings?

2. To what extent are the teachers knowledgeable and skilful about computer productivity tools in terms of?

2.1. basic computer operations
2.2. file management
2.3. system maintenance and security
2.4 Internet and emails
2.5. MSWord
2.6 MS Excel, and
2.7 MS PowerPoint

3. What problems were encountered by the respondents on the use of technological advancements and its integration in the classroom teaching learning processes?

4. What suggested measures offered by the respondents to solve the problems?

Scope and Delimitation

This study aimed to describe the knowledge and skills of teachers on computer productivity tools and its integration to supervisory management in enhancing teaching and learning processes in Balete Elementary School, Claveria, Masbate.

The respondents included in the study are limited to the 7 teachers of Balete Elementary School , 1 ICT coordinator and 1 Teacher-in-charge, a total of 9 respondents covering SY 2022-2023.

The researcher who is currently the teacher in charge of Balete Elementary school, Claveria, Masbate, deliberately included the profile of the teacher respondents in terms of age, sex, civil status, educational qualification, and computer trainings, extent of teachers knowledge and skill about computer productivity tools in terms of basic computer operations, file management, system maintenance and security, Internet and emails, MSWord, MS Excel, and MS PowerPoint. Problems encountered by the respondents on the use of technological advancements and its integration in the classroom teaching learning processes and suggested measures offered by the respondents to solve the problems.

Gap Bridged by the Study

A survey on NCBTS conducted by the principal of a selected Elementary School revealed the need of teachers regarding use of computer technology in their classrooms. In another study on training need analysis of teachers, the need for computer training surfaced as the primary demand of teachers. Despite several computer trainings conducted in the city division, there are still a number of teachers who need the basic training to master the confidence to use technology in teaching.

The present study will help bridge the gap between teachers who are computer literate and computer-experts between ICT-advanced schools and ICT-backward schools, by serving as an assessment process on computer productivity tools in its integration to teaching-learning in the classroom

environment in a selected public elementary school.

Theoretical Framework

Studies and research conducted all over the world have confirmed the positive impact of using computer productivity tools and its integration in teaching – learning strategies in the classroom environment. The technology enables equal opportunity access to education and education resources across cultures, nationalities, race and gender. It addresses the need to produce a competitive knowledge-based workforce. Taking a deeper look at the dynamics of technology and education, Gerard Teves23 still favors teachers over technology by saying: :At the core of ICT in education is still human element. The view that technology is an end in itself is incorrect. The effectiveness of technology is proportional to the quality of teacher training achieved." Likewise, content in today's education environment have changed into material that is short, fast, current, ICT-based and entertaining. Knowledge gained in schools must now be able to directly respond to the context of students' needs and problems.

Three schools of thought support the framework of the researcher's theory. The concept of "Digital Native" and "Digital Immigrant" theory of Marc Prensky; Richard Mayer's Multimedia Learning Principles and Cognitive Load theory and Seymour Papert's Technology Integration in education Theory.

Marc Prensky, an American writer and speaker on education, coined the terms "digital native" and "digital immigrant" in the early 2000s. His theory emphasized the need to adapt education to the changing technological landscape and integrate technology effectively into the classroom.

Richard Mayer, a psychologist and education researcher, has extensively studied the effectiveness of instructional technology. His theory on multimedia learning principles and cognitive load theory has guided the development of effective technology-enhanced learning environments.

Seymour Papert, a professor of mathematics and education at the Massachusetts Institute of Technology (MIT), is considered one of the pioneers of technology integration in education. His theory on the Logo programming language in the 1960s demonstrated the potential of technology to empower students and transform the learning process.

These theories contributes significantly influencing the field of technology integration, providing a foundation for understanding the role of technology in education and other domains. Their concepts plays a vital role to shape the way an approach in technology integration, ensuring that technology is used effectively to enhance learning, productivity, and innovation.

The researcher, theorizes that integrating technological advancements in supervisory management is useful to level up skills and knowledge on the use of computer productivity tools to enhance teaching and learning processes.
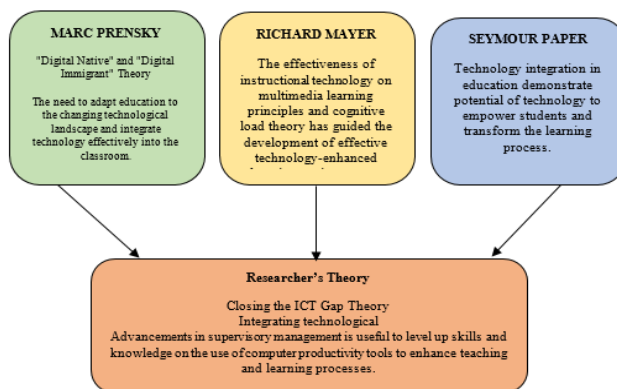

MARC PRENSKY

"Digital Native" and "Digital Immigrant" Theory

The need to adapt education to the changing technological landscape and integrate technology effectively into the classroom.

RICHARD MAYER

The effectiveness of instructional technology on multimedia learning principles and cognitive load theory has guided the development of effective technology-enhanced

SEYMOUR PAPER

Technology integration in education demonstrate potential of technology to empower students and transform the learning process.

Researcher's Theory

Closing the ICT Gap Theory
Integrating technological
Advancements in supervisory management is useful to level up skills and knowledge on the use of computer productivity tools to enhance teaching and learning processes.

Figure. 1 Theoretical Paradigm

Conceptual Framework

According to Canezal, (2015) Researchers and practitioners in the field define educational technology as the process of applying tools and materials rather than a collection of machines and devices; it is a combination of the processes and tools involved in addressing educational needs and problems, with emphasis on applying the most current tools: computers and their related technologies.

The former Education Secretary Fe R. Hidalgo[21] acknowledged the need for ICT when she issued a caveat to educators that:

"At the heart of this new Paradigm of Living is information. Never has information been so powerful as it is today. And the future, it seems, will become more and more dependent on how we can harness the awesome power of information and use it to improve our daily lives. In the end, those who can effectively control and utilize information will become new masters of the species."

Bringing technology into the classroom creates pressure for change. The best teaching techniques in a technology-enhanced classroom differ greatly from traditional classrooms. "To be effective and enduring, change must be systemic because learning environments are systems. When you change one part, you must adapt the whole to co-exist with this change. Otherwise, the system will reject the change…This is a core tenet of systemic change: lasting reform comes not through any individual change, but through a network of interrelated changes with effects throughout your systems" (Hirumi[26]).

The teachers of the 21st century must be global-minded and multi-skilled. They are no longer the primary sources of information, but guides to information sources. They need technology to perform their roles under the new paradigm of living.

Figure 4 shows the conceptual paradigm, where the system shows the input-process-output (I-P-O) model. The input variables include the respondents profile educational preparation and trainings and the productivity tools, the process includes observation, survey questionnaires, interview, data gathering, presentation, analysis and interpretation of the data and the expected output the improved instruction, integrating technological advancements in supervisory management: enhancing teaching and Learning processes.
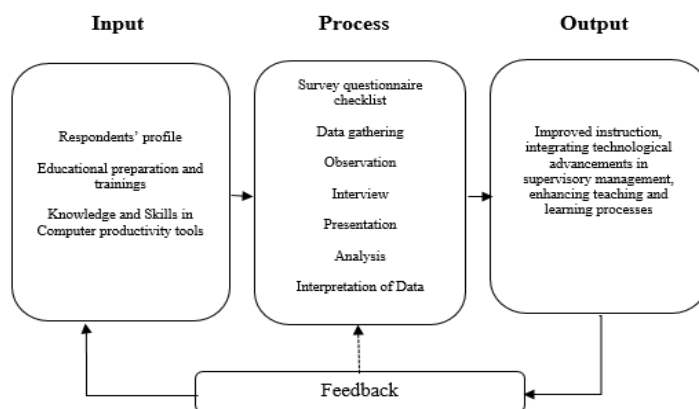

Figure 2. Conceptual Paradigm

Findings

These are the significant findings of the study:

1. As to age and sex distribution of the respondents there are three {3} or 33.333 % are male and six {6} or 66.666% are female a total of nine (9) or 100 %. As to age profile. There is only one {1} or 11.111belong to % age bracket of 56 years old and above, three {3} or 33.333% belong to the bracket of 45-55 years old and majority 0r five{5} or 55.333% belong to bracket 34-44 years old a total of 100%.

    1.2 As to educational qualification of the respondents, A total of   nine (9) teacher respondents, including the Teacher –in- charge, six {6} or 66.67 % are holders of Bachelor of Elementary Education, one {1} or 11.11% is a holder of {Completed Academic Requirements} CAR in MAED and   two {2} or 22.22% are holders of Master of Arts in Education {MAED}. A total of 100%. All of them are aligned to teach in elementary level.

    1.3 On question have you taken any computer related trainings? Eight {8} or 88.89% answered yes and only one {1} or 11.11   % answered no. A total of 100 %. It means majority have undergone computer related trainings.

2. As to the extent of teachers knowledge and skills in integrating technology advancements in supervisory management in enhancing teaching and learning processes in terms of? Basic computer operations, There are six indicators and all these six indicators got the same verbal interpretation of knowledgeable. The first indicator, can log-on, log-off, open, use and close programs on my own got a weighted mean of 4.66 rank 1, indicator , Can adjust a monitor (resize, change display properties got a weighted mean of 4.44   rank 2, indicator, can use a mouse to "drag" an item got a weighted mean of 4.30   rank 3 indicator, Can use the functions of the left and right mouse buttons. got a weighted mean of 4.11 rank 4, indicator, Can identify what an "icon" is and what to do with it got a weighted mean of 3.88 rank 5 and the last indicator , Can run program on a CD, DVD or removable drive (USB), got a weighted mean 3.77 .Al the six indicators got a verbal interpretation of knowledgeable.

    2.1 As to file management, there are seven indicators. Indicator, knows how to search for a file in the computer got a weighted mean of 4.43 rank 1 with verbal interpretation of knowledgeable, indicator, knows how to copy documents from a hard disk to a CD or removable drive (USB) and vice versa. got a weighted mean of 4.3 rank 2 with verbal interpretation of knowledgeable, indicator, knows how to save file to a desktop folder, hard drive or disk got a weighted mean of 4.28 rank 3 with verbal interpretation of knowledgeable, indicator, knows how to create a folder got a weighted mean of 4.23 rank 4 with verbal interpretation of knowledgeable, indicator, knows the acceptable form for a filename got a weighted mean of 4.13 rank 5 with a verbal interpretation of knowledgeable, indicator, knows how to remove unwanted files, empty the recycle bin and   restore items sent to the recycle bin got a weighted mean of 4.08 rank 6 with verbal interpretation of knowledgeable and last indicator knows how to create a shortcut on the desktop got a weighted mean of 4.0 rank 7 with verbal interpretation of

knowledgeable. The overall average weighted mean is 4.21 the verbal interpretation is knowledgeable.

2.2 As to System maintenance and security, there are six indicators. Indicator. Knows what computer practices put a risk for virus infection got a weighted mean of 2.85 rank 1 with verbal interpretation of moderately knowledgeable, indicator, Understands how programs and data differ and how they are organized, stored and accessed got a weighted mean of 2.66 rank 2 got a verbal interpretation of fairly knowledgeable, indicator, Can perform basic system maintenance using system tools (e.g., scan disk, disk clean-up, disk defragmenter).got a weighted mean of 1.89 rank 3 with verbal interpretation of fairly knowledgeable, indicator, Knows how to use and maintain an up-to-date anti-virus program to check programs and files for viruses got a weighted mean of 1.79 rank 4 with verbal interpretation of fairly knowledgeable, indicator, Knows what to do if the computer is infected with a virus., got a weighted of 1.76 rank 5 with verbal interpretation of fairly knowledgeable and the last indicator, Can identify, connect rj45 internet cable, got a weighted mean of 1.45 rank 6 and the verbal interpretation is needs improvement The overall weighted mean is 2.66 and the verbal interpretation of fairly knowledgeable.

2.3 As to Internet and Emails: In internet skills, there are four indicators, first indicator, can use a browser (Mozilla Firefox, Google Chrome), got a weighted mean of 3.44 rank 1 with a verbal interpretation of moderately knowledgeable. Indicator, can easily save a site (bookmark) on the web to return later without having to re-enter the entire address got a weighted mean of 3.28 rank 2 with verbal interpretation of moderately knowledgeable. Indicator, can identify the difference between a "search engine" (e.g. Google), subject directory (e.g. Yahoo) and a meta-search tool (e.g., Dogpile) and knows when it is most advantageous to use one over the other got a weighted mean of 3.05 rank 3 with verbal interpretation of moderately knowledgeable, indicator, can move data located on the web to the desktop or save it to a folder got a weighted mean 2.75 rank 4 with verbal interpretation of fairly knowledgeable. The subtotal Average Weighted Mean is 3.13 and the verbal interpretation is moderately Knowledgeable.

For the Email skills, there are seven indicators, indicator has an active e-mail account got a weighted average mean of 3.51 rank 1 the verbal interpretation is Moderately Knowledgeable, indicator can comfortably set up google classroom for online synchronous class got a weighted mean of 3.46 rank 2 the verbal interpretation is Moderately Knowledgeable , indicator knows how to download and upload files got a weighted mean of 3.28 rank 3 the verbal interpretation is Moderately Knowledgeable, indicator knows how to attach files or documents in email documents got a weighted mean of 3.18 rank 4 the verbal interpretation is Moderately Knowledgeable, indicator Knows how to compose, send, reply to and forward e-mail messages got a weighted mean of 3.15 rank 5 the verbal interpretation is Moderately Knowledgeable , indicator can connect Bluetooth speakers or amplifiers got a weighted mean of 3.11 rank 6 the verbal interpretation is Moderately Knowledgeable, indicator can convert internet downloaded pdf file to a text file. Got a weighted mean of 2.13 rank 7 and the verbal interpretation is Fairly Knowledgeable. The subtotal Average Weighted Mean is 3.12

the verbal interpretation is Moderately Knowledgeable.   The total Average Weighted
Mean is 3.13 and the overall verbal interpretation is Moderately Knowledgeable.

2.4 As to productivity tool MSWord, there are eight indicators. Indicator   knows how to
create a new document got a weighted mean of 4.50 rank1 with verbal interpretation of
Knowledgeable, indicator knows how to create a table in a word processing document
got a weighted mean of4.48 rank2 Knowledgeable, indicator Knows how to use a mouse
to "drag" a block of text. Got a weighted mean of 4.45 rank3 with verbal interpretation
of knowledgeable   indicator knows how to insert graphics and other files (spreadsheets,
other   documents) into a document. got a weighted mean of4,44 rank 4 the verbal
interpretation is Knowledgeable indicator   Knows how to insert and remove or modify
margins, tabs, headers, footers page numbers and line spacing in the word processor got
a weighted mean of 3.83 rank5 with verbal interpretation of   Knowledgeable
indicator Knows how to insert graphics and other files (spreadsheets, other documents)
into a document got a weighted mean of 4,44 rank 4 with verbal interpretation of
Knowledgeable indicator Knows how to "save as" in order   to change the format
of the document being saved from one type of word processing program to another got
a weighted mean of .   3.30 rank7 the verbal interpretation is Moderately Knowledgeable
indicator knows how to edit, copy, cut and paste a block of text got a weighted mean of
3.18 rank 8 with verbal interpretation Moderately Knowledgeable. The total Average
Weighted Mean is 3.95 and the verbal interpretation is Knowledgeable.

2.5 As to Computer productivity tool: MS EXCEL, There are eight indicators. Indicator
knows how to create a simple spreadsheet with rows, columns and headings. Got a
weighted mean of 3.58 rank1 the verbal interpretation is Moderately Knowledgeable.
Indicator knows how to insert and delete rows and columns got a weighted mean of 3.40
rank 2 the verbal interpretation is Moderately Knowledgeable, indicator knows how
to enter, edit, format and delete the contents of cells got a weighted mean of 3.28 rank
3 the verbal interpretation is Moderately Knowledgeable, indicator Knows how to use
the Format Cells menu option to format numbers, align cell content, change fonts and
add borders and patterns got a weighted mean of 3.25 rank 4 the verbal interpretation
is Moderately Knowledgeable, indicator Knows how to move and scroll through a
spreadsheet got a weighted mean of 3.20 rank   5   the   verbal   interpretation   is
Moderately Knowledgeable, indicator Knows how to write or create a formula (e.g.,
using SUM, AVERAGE functions) got a weighted mean of   2.73 rank 6 the verbal
interpretation   is Fairly Knowledgeable. Indicator can move from one worksheet to
another worksheet. Got a weighted mean of 2.61 rank 7 the verbal interpretation is Fairly
Knowledgeable indicator knows how to select a range of spreadsheet rows and columns
and create a chart, bar graph, pie graph, table, and line graph got a weighted mean of
2.10 rank 8 the verbal interpretation is Fairly Knowledgeable. The total Average
Weighted Mean is 3.02 and the overall verbal interpretation is Moderately
Knowledgeable.

2.6 As to Computer productivity tool: MS POWERPOINT. There are seven indicators
Knows how to create presentations using wizards, design templates or blank layouts got
a weighted mean of 3.75 rank1 the verbal interpretation is Moderately Knowledgeable.

Indicator knows how to edit, change text fonts, add bullets or numbers to slide   content got a weighted mean of 3.64 rank 2 the verbal interpretation is Moderately Knowledgeable. Indicator knows how to include tables and charts in the slides got a weighted mean of 3.21 rank 3 the verbal interpretation is Moderately Knowledgeable. Indicator knows how to run a slide show got a weighted mean of.3.10 rank 4 the verbal interpretation is Moderately Knowledgeable. indicator knows how to add objects (e.g. clip art, pictures, video clips) to the   slide show got a weighted mean of 3.08 rank5the verbal interpretation is Moderately Knowledgeable, indicator knows how to create, modify slides using standard layouts and designs got a weighted mean of 2.98 rank 6 the verbal interpretation is Moderately Knowledgeable indicator knows how to add animations and transitions to slides got a weighted mean of 2.03 rank7 the verbal interpretation is Fairly Knowledgeable. The total Average Weighted Mean is 3.11 and the overall verbal interpretation is moderately knowledgeable.

3. As to Problems met, there are eight indicators. Indicator unstable internet connectivity got a weighted mean of 4.77 rank 1 with verbal interpretation of Very Much Serious, followed by indicator No stable electricity with a weighted mean of 4.76 rank 2 the verbal interpretation is Very Much Serious followed by indicator   Limited Computer productivity tools software with a weighted mean of 3.88 rank 3 the verbal interpretation is Much Serious followed by indicator limited Computers got a weighted mean of 3.79 rank 4and the verbal interpretation is Much Serious then followed by indicator limited printer / scanner got a weighted mean of 3.63 rank 5 the verbal interpretation is serious, indicator limited wide screens got a weighted mean of 2.76 rank 6 the verbal interpretation is Serious, indicator Limited microphones and loudspeakers got a weighted mean of 2.74 rank 7 the verbal interpretation is Fairly Serious , indicator limited projectors got a weighted mean of 2.72 rank 8 and the verbal interpretation is Fairly Serious. The total average weighted mean is 3.63 and the overall verbal interpretation is Serious.

Conclusions
The following conclusions were deduced from the findings:
1. As to age and sex distribution of the respondents there are three {3} or 33.333 % are male and six {6} or 66.666% are female a total of nine (9) or 100 %. As to age profile. There is only one {1} or 11.111belong to % age bracket of 56 years old and above, three {3} or 33.333% belong to the bracket of 45-55 years old and majority 0r five{5} or 55.333% belong to bracket 34-44 years old a total of 100%.
    1.1 As to educational qualification of the respondents, A total of   nine (9) teacher respondents including the Teacher –in- charge, six {6} or 66.67 % are holders of Bachelor of Elementary Education, one {1} or 11.11% is a holder of {Completed Academic Requirements} CAR in MAED and   two {2} or 22.22% are holders of Master of Arts in Education {MAED}. A total of 100%. All of them are aligned to teach in elementary level.
    1.2 On question have you taken any computer related trainings? Eight {8} or 88.89 % answered yes and only one {1} or 11.11 % answered no. A total of 100 %. It means majority have undergone computer related trainings.

2. As to the extent of teachers' knowledge and skills in integrating technology advancements in supervisory management in enhancing teaching and learning processes in terms of Basic computer operations, Al the six indicators got a verbal interpretation of knowledgeable.

    2.1 As to File management, the overall average weighted mean is 4.21 the verbal interpretation is knowledgeable.

    2.2 As to System maintenance and security, the overall weighted mean is 2.66 and the verbal interpretation of fairly knowledgeable.

    2.3 As to Internet and Emails the total Average Weighted Mean is 3.13 and the overall verbal interpretation is Moderately Knowledgeable.

    2.4 As to productivity tool MS Word, The total Average Weighted Mean is 3.95 and the verbal interpretation is Knowledgeable

    2.5 As to Computer productivity tool: MS EXCEL,. The total Average Weighted Mean is 3.02 and the overall verbal interpretation is Moderately Knowledgeable.

    2.6 As to Computer productivity tool: MS POWERPOINT. The total Average Weighted Mean is 3.11   and the overall verbal interpretation is Moderately Knowledgeable.

3. As to Problems met, of the eight indicator   Limited Computer productivity tools software, limited Computers, limited printer / limited wide screens , Limited microphones and loudspeakers, limited projectors Indicator unstable internet connectivity followed by indicator No stable electricity found to be Very Much Serious   The total average weighted mean is 3.63 and the overall verbal interpretation is Serious.

Recommendations

The following were the recommendations:

1. Teacher respondents be encouraged to attend classes in graduate school, attend seminars, workshops and trainings related to knowledge and skills in integrating technology advancements in supervisory management in enhancing teaching and learning processes

2. Since the result of computer operation knowledge and skills is verbally interpreted as knowledgeable, it is recommended to be maintained or be improved.

    2.1 File management skills from knowledgeable be raised to high knowledgeable or better.

    2.2 System maintenance and security frequent and updated trainings be provided from fairly knowledgeable be raised to highly unwedgeable or better.

    2.3 Internet and Emails, from Moderately Knowledgeable be raised to highly knowledgeable or better.

    2.4. MS Word, from Knowledgeable be raised to highly knowledgeable or better.

    2.5 MS EXCEL, from Moderately Knowledgeable be raised to highly knowledgeable or better.

    2.6 MS POWERPOINT from Moderately Knowledgeable be raised to highly knowledgeable or better.

3. On Problems met. Appropriate and immediate action be taken into consideration particularly Indicators unstable internet connectivity and indicator No stable electricity found to be Very Much Serious need to be acted upon immediately with urgency.

4. Regular monitoring of teachers.

5. Result of the study be disseminated to all concerns especially to school heads or administrators of the school.

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ACKNOWLEDGMENT

DEDICATION

This Study is wholeheartedly dedicated to the Researcher's family, who have been the source of inspiration and strength, providing endless guidance and support, as well as continual moral, spiritual, and emotional support. Additionally, this work is dedicated to Dr. Violeta B. Monticalvo for the personal sacrifices made to accommodate the Researcher's needs and provide guidance during challenging times. Dr. Monticalvo's mentorship and encouragement have not only enhanced the research but also profoundly impacted the Researcher's personal growth and development as a researcher. Above all, this work is dedicated to Almighty God, who consistently provides strength, knowledge, and wisdom in all endeavors.

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