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Implementation of DepEd Computerization Program (DCP): It's Influence to Teachers' Information and Communication Technology (ICT) Literacy and Instructional Competence

[1]Donna B. Gabion, PhD, [2]Armando E. Gabion, Jr., PhD

Guimaras State College

Buenavista, Guimaras

Abstract: **This study was designed to gather data on the Implementation of the Department of Education (DepEd) Computerization Program and its influence to teachers' information and communication technology (ICT) Literacy and instructional competence in the Schools Division of Guimaras, Philippines in School Year 2018-2019. The respondents of the study were two hundred seventy –seven (277) randomly selected Kindergarten to Grade VI Teachers in the ten (10) districts of the Schools Division of Guimaras. The Descriptive method was use as the research design in the study. The researcher used researcher made questionnaire and was validated and tested for reliability prior to actual administration. The statistical tools used were Frequency Count, percentages, mean, t-test, Analysis of Variance (ANOVA) and Pearson's r. Results revealed that Majority of the teachers were female, 41 years old and above, married, with 16 years and below length of service and Bachelor's degree holder with MA units. The extent of implementation of DepEd computerization program as a whole was (M = 2.85) Moderately Implemented, when classified according to sex, the male was (M = 2.75) Moderately Implemented and the female was (M = 2.86) Moderately Implemented. As to age, the young was (M = 2.91)Moderately Implemented and the old was (M = 2.79) Moderately Implemented. As to civil status the single was (M = 2.92) Moderately Implemented, the married was (M = 2.79) Moderately Implemented and the widow was (M = 3.47) Highly Implemented. As to educational attainment the bachelor's degree was (M = 3.11) Highly Implemented, the BS with MA units was (M = 2.83)Moderately Implemented, the master's degree was (M = 2.64) Moderately Implemented and the MA with Ph. D. units was (M = 2.49)Moderately Implemented. As to length of service, the Short was (M = 3.01)Highly Implemented and the Long was (M =2.68) Moderately implemented. The level of ICT literacy of teachers as a whole was (M = 3.80) Literate, when classified according to sex, the male was (M = 3.86) Literate and the female was (M = 3.79) Literate. As to age, the young was (M = 3.95) Literate and the old was (M = 3.65) Literate. As to civil Status, the single was (M = 3.97) Literate, the married was (M = 3.76)Literate and the widow was (M = 3.76) Literate. As to educational attainment, the bachelor's degree was (M = 3.66)Literate, the BS with Ma units was (M = 81)Literate, the Master's degree was (M = 3.78)Literate and the MA with Ph.D. units was (M = 4.34) High Literate. As to Length of Service, the Short was (M = 4.00)Literate and the Long was (M = 3.59)Literate. The level of instructional competence as a whole was (M = 3.94) highly competent, when classified according to sex, the male was (M = 4.07) highly competent and the female was (M = 3.92) highly competent. As to age, the young was (M = 4.09) highlycompetent and the old was (M = 3.79) highly competent. As to civil Status, the single was (M = 4.07) highly competent, the married was (M = 3.94)highly competent and the widow was (M = 3.43) highly competent. As to educational attainment, as to length of service, the 16 years and below was (M = 4.08)highly competent and the 17 years and above was (M = 3.80)highly the bachelor's degree was (M = 3.84)highly competent, Bachelor's degree with MA units (M = 3.96) highly competent, the Master's degree was (M = 3.87)highly competent and the MA with Ph. D. units was (M = 4.24) very highly competent. There was a significant difference in the extent of implementation of DepEd computerization program among teachers when classified according to length of service**

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(t=2.518, p = 0.012). However,there were no significant differences in the extent of implementation of DepEd computerization program when teachers were classified according to sex, (f=0.488, p = 0.626), age (t=0.888, p = 0.375) civil status (f=2.731, p = 0.067)and educational attainment (f=1.779, p = 0.151).There were significant differences in the ICT literacy among teachers when classified according to age (f=3.902, p = 0.000), length of service (t=5.340, p = 0.000) and educational attainment (f=2.831, p = 0.039). There were no significant differences in the ICT literacy among teachers when classified according to sex (t=0.502, p = 0.616) and civil status (f=1.802, p = 0.167). Therewere significant differences in the level of instructional competence among teachers when classified according to age (t=4.432, p = 0.002), length of service (t=4.172, p = 0.000) and civil status (f=6.602, p = 0.000). There were no significant differences in the level of instructional competence among teachers when classified according to sex (t=1.253, p = 0.211) and educational attainment (f=1.540, p = 0.204). There were significant relationships in the extent of implementation of DepEd computerization program and ICT literacy (pr=0.276, p = 0.000) among teachers and ICT literacy and instructional competence (pr=0.512, p = 0.000). There were no significant relationships in the extent of implementation of DepEd computerization program and instructional competence (pr=0.028, p = 0.643)

Keywords: **Computerization Program, Literacy ad Instructional Competence, Teachers Information.**

1. INTRODUCTION

Rationale

Today, computers play a big role in education especially in developing countries. The Philippine government has been committed to bring the educational system into a modernized status, particular, on basic education, in its effort to make each and every student at par with other students of neighboring developed countries. This is because in today's economy, the capability to utilize and produce information and to transform it into knowledge and vast array of goods and services is very essential to social and growth economy. Along with this effort are the continuous curricular changes and amendments, reorientation, teachers training and investment in school facilities and infrastructures, one of which is geared towards the vision of equipping each public school with the modern computer and other information and communication (ICT).

In this rapidly changing technological age, understanding of computers and how they operate is becoming more and more essential. Person without computer knowledge will be considered primitive in the light of present day standards. That is why a literate person must also be a computer literate. To thrive the digital economy, students will need digital age proficiencies. It is important for the educational system to make parallel changes in order to fulfill its mission in society, such as the preparation of learners for the world

2. REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents literature studies, concepts and researchers relevant to the study. It presents topics about DepEd computerization Program (DCPICT and instructional competence of teachers (Briones, 2018).

Conceptual Literature

On Computerization Program of DepEd

With the legal mandate of promoting the right of all citizens to take appropriate steps in making education accessible to all. The Department of Education is geared towards the transformation of education through the DepEd computerization Program (DCP). The DepEd Computerization Program (DCP) aims to provide public schools with appropriate technologies that would enhance the teaching –learning process and meet the challenges of the 21st century. This program shall respond shall respond to the computer backlog of public schools by providing them hardware and software and training on simple trouble shooting, which provides ICT packages to public schools that the responsive to the needs of the K-12 curriculum, and integrates ICT in the teaching and learning process, raises the ICT literacy of pupils, student ratio, teachers and school heads and improves the replacement cycle of ICT packages of ICT and Computers Office Tasks and ICT Computers. Nowadays, regular office work needs to extend outside the physical environment of the office.

3. METHODOLOGY

This chapter present the research design, respondent of the study, data gathering instrument, validity and reliability of instrument, data gathering procedure, data analysis and statistical tools.

Research Design

This study employed the descriptive method of research to determine the status of DepEd Computerization Program and its influence to teacher's ICT Literacy and instructional competence. Descriptive research involves the description conditions, recording, analysis and interpretation of the condition that exist. It involves some types of comparison or contrast and attempts to discover relationships between existing non-manipulative variables (Borro, 2015). It is a method that is explanatory and designed to gain more information and greater insight into the phenomena under study. (http: www.research proposals for health professionals. Com/descriptive research) retrieved February 16, 2016

Respondents of the Study

The respondents of the study were the Kindergarten to Grade VI teachers, ICT coordinators and school heads randomly selected from the ten (10) schools district in the Schools Division of Guimaras, Philippines who were recipient of DCP program for School Year 2018-2019. The teachers assessed the

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents, analyses, and interpret the data todetermine the extent of implementation of DepEd computerization program, teachers' ICT literacy and instructional competence in the Schools Division of Guimaras for the School Year 2018-2019.

Profile of Teachers When Classified according to Sex, Age Civil Status Length of Service and Educational Attainment

To determine the profile of the teachers when classified according to sex, age, civil status, length of service and educational attainment, the researcher used frequency count and percentages.

Table 2 shows that when the respondents were classified according to sex, 30 or 10.8 percent were male and 247 or 89.2 percent were female.

As to age, 136 or 49.1 percent were young (41 years old and below) and 141 or 50.9 percent were old (42 years old and above). As to civil status 47 or 17 percent were single, 216 or 78 percent were married, and 14 or 5.0 percent were widow.

As to educational attainment, 51 or 18.4 percent were bachelor's degree, 183 or 66.1 percent were BS with MA unit holders, 34 or 12.3 percent were master's degree holders and 9 or 3.2 percent were MA with Ph.D. units.

As to length of service, 139 or 50.2 percent spent 16 years and below (short) and 138 or 49.8 percent spent 17 years & above (long) years in service.

4. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents, the summary, conclusions and recommendations of the study on the status of DepEd Computerization Program and its influence among public elementary school teachers Information and Communication Technology (ICT) Literacy and instructional competence in the Schools Division of Guimaras, Philippines for School Year 2018-2019.

Summary of the Study

The study determined the extent of implementation of DepEd computerization program, teachers' ICT literacy and instructional competence in the Schools Division of Guimaras for the School Year 2018-2019. The respondents of the study were the elementary grade teachers in the Schools Division of Guimaras, they were classified according to categories of variables such as sex, age, civil status, educational attainment and length of service. The researcher-made-questionnaires on the extent of implementation of DepEd computerization program, teachers ICT literacy and instructional competence were used in gathering the data from the respondents. The questionnaire had undergone validity and reliability using the Cronbach Alpha.

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SUMMARY MATRIX

IMPLEMENTATION OF DepEd COMPUTERIZATION PROGRAM (DCP); IT'S INFLUENCE TO TEACHERS' INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) LITERACY AND INSTRUCTIONAL COMPETENCE

Statement of the Problem	Statistical Tools	Findings	Conclusions	Recommendations
1.What is the Profile of teachers when classified according to age, civil status, educational attainment and length of service?	Frequency Count	Majority of the teachers were female, 41 years old and above, married, with 16 years and below length of service and Bachelor's degree holder with MA units. The extent of implementation of DepEd computerization program as a whole was (M = 2.85) Moderately Implemented, when classified according to sex, the male was (M = 2.75) Moderately Implemented and the female was (M = 2.86) Moderately Implemented. As to age, the young was (M =		1.The DepEd Central Office should maintain and replace computer and should give more emphasis maintenance of their units if damage and even add the number computer allocation per school for high implementation of the program. The school should get authorized service providers partner to respond in times of ICT trouble as part of the guarantee of continues access to the internet. 2.The authorized service providers partner of DepEd should response immediately in times of trouble as part of the conditions in the contract. 3.The DepEd Central office should provide funds for training of teachers to enhance their skills in media technology to be able to prepare quality instructional materials, such as graphs and work with simple formula in excel. 4.The DepEd Central Office should a lot time in curriculum for the ICT Coordinators and teachers to hands on instruction to pupils on the use of computers as part of cooperative learning during the teacher's delivery of instruction. 5.The school heads should conduct in-service trainings on the use of computers to equip teachers with knowledge on ICT integration in the curriculum and to

				capacitate and use of ICT resources and tools in teaching in order enhance ICT literacy and instructional competence of teachers, 6.The Local Government Units through the Local School Board should provide e-classrooms or computer room. 7.The School Parent, Teachers Association (PTA) should help maintain and safeguard ICT equipment for the benefit of future users. 8.The researcher recommends parallel studies that deals with Computerization program, information, communication, technology (ICT) and instructional competence in a wider scale in order to support the findings of the study.
2.What is the extent of the implementation of DepEd Computerization Program when taken as an entire group when classified according to age, gender, civil status, educational attainment and length of service?	Mean	The extent of implementation of DepEd computerization program as a whole was (M = 2.85) Moderately Implemented, when classified according to sex, the male was (M = 2.75) Moderately Implemented and the female was (M = 2.86) Moderate Implemented.	There was a moderate extent of implementation of DepEd computerization program in the Schools Division of Guimaras, when classified according to sex, age, civil status, educational attainment and length of service were all moderately implemented.	
3 What is the level of ICT Literacy of teachers when taken as an entire group, and when classified according to age, gender, civil status, educational attainment and length of service?	Mean	The level of ICT literacy of teachers as a whole was (M = 3.80) Literate, when classified according to sex, the male was (M = 3.86) Literate and the female was (M = 3.79) Literate. As to age, the young was (M = 3.95) Literate and the old was (M = 3.65) Literate. As to civil Status, the single was (M = 3.97) Literate, the married was (M = 3.76) Literate and the widow was (M = 3.76) Literate. As to educational attainment, the bachelor's degree was (M = 3.66) Literate, the BS with Ma units was (M = 81) Literate, the Master's degree was (M = 3.78)	The teachers were literate in the Information Communication Technology, when classified according to sex, age, civil status educational attainment and length of service	

		Literate and the MA with Ph.D. units was (M = 4.34) High Literate. As to Length of Service, the Short was (M = 4.00) Literate and the Long was (M = 3.59) Literate.		
4.What is the level of instructional competence among teachers when taken as an entire group, and when classified according to instructional competence when the respondents are classified according to age, gender, civil status, educational attainment and length of service?	Mean	The level of instructional competence as a whole was (M = 3.94) highly competent, when classified according to sex, the male was (M = 4.07) highly competent and the female was (M = 3.92) highly competent. As to age, the young was (M = 4.09) highly competent and the old was (M = 3.79) highly competent. As to civil Status, the single was (M = 4.07) highly competent, the married was (M = 3.94) highly competent and the widow was (M = 3.43) highly competent. As to educational attainment, as to length of service, the 16 years and below was (M = 4.08) highly competent and the 17 years and above was (M = 3.80) highly the bachelor's degree was (M = 3.84) highly competent, Bachelor's degree with MA units (M = 3.96) highly competent, the Master's degree was (M = 3.87) highly competent and the MA with Ph. D. units was (M = 4.24) very highly competent.	The teachers were literate in the Information Communication Technology, when classified according to sex, age, civil status educational attainment and length of service	
5.Are there significant differences in the extent of the implementation of DepEd computerization program and when classified according to age, gender, civil status, educational attainment and length of service?	t-test, Anova	There was a significant difference in the extent of implementation of DepEd computerization program among teachers when classified according to length of service (t=2.518, p = 0.012). However, there were no significant differences in the extent of implementation of DepEd computerization program when teachers were classified according to sex, (f=0.488, p = 0.626), age (t=0.888, p = 0.375) civil status (f=2.731, p = 0.067) and educational attainment (f=1.779, p = 0.151).	There was a significant difference in the extent of implementation of DepEd computerization program among DepEd teachers when classified according to length of service, However, there were no significant differences in the extent of implementation of DepEd computerization program of teachers when classified according to sex, age, civil status and educational attainment.	
6. Is there a significant difference in the level of ICT Literacy among teachers when classified according to age, gender, civil status, educational attainment and length of service?	t-test, Anova	1.There were significant differences in the ICT literacy among teachers when classified according to age (f=3.902, p = 0.000), length of service (t=5.340, p = 0.000) and educational attainment (f=2.831, p = 0.039). 2.There were no significant differences in the ICT literacy among teachers when classified	1.There were significant differences in the ICT literacy among teachers when classified according to age, length of service and educational attainment. 2.There were no significant differences in the ICT literacy among teachers when classified	

		according to sex (t=0.502, p = 0.616) and civil status (f=1.802, p = 0.167).	according to sex and civil status.	
7.Is there a significant difference in the level of instructional competence among teachers as classified according to age, gender, civil status, educational attainment and length of service?	t-test, Anova	1.There were significant differences in the level of instructional competence among teachers when classified according to age (t=4.432, p = 0.002), length of service (t=4.172, p = 0.000) and civil status (f=6.602, p = 0.000). 2.There were no significant differences in the level of instructional competence among teachers when classified according to sex (t=1.253, p = 0.211) and educational attainment (f=1.540, p = 0.204).	1.There were significant differences in the level of instructional competence among teachers when classified according to age, length of service and civil status. 2.There were no significant differences in the level of instructional competence among teachers when classified according to sex and educational attainment.	
8.Is there a significant difference in the level of instructional competence among teachers as classified according to age, gender, civil status, educational attainment and length of service?	Pearson's r	1.There were significant relationships in the extent of implementation of DepEd computerization program and ICT literacy (pr=0.276, p = 0.000) among teachers and ICT literacy and instructional competence (pr=0.512, p = 0.000). 2.There were no significant relationships in the extent of implementation of DepEd computerization program and instructional competence (pr=0.028, p = 0.643)	1.There were significant relationships in the extent computerization program and ICT literacy among teachers and ICT literacy and instructional competence. 2.There were no significant relationships in the extent computerization program and instructional competence.	

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