School Preparedness in the Integration of Information and Communication Technology (ICT) as Correlates to K to 12 Teachers Competencies and Teaching Effectiveness in City Schools Division of Puerto Princesa District I

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***Abstract*: The study was conducted determine the school administrators' preparedness in the integration of ICT as correlates to K to 12 teachers' competencies and teaching effectiveness in Puerto Princesa District I.**

It was conducted to 12 school administrators and 157 teachers from six public elementary schools in Puerto Princesa District I. Descriptive research design particularly the survey method was used. The researcher-made survey questionnaire was used in data gathering and it was analyzed through descriptive statistics.

The findings revealed that the elementary school administrators' preparedness in the integration of ICT according to use of technology in the school; providing the technology infrastructure and viable instructional strategy were assessed by administrators and teachers as "somewhat evident" However, both of them assessed the administrators' role as technology leader as"evident."

Meanwhile, the administrators were assessed the K to 12 teachers' competencies in terms of application of technology in the class as "somewhat evident" and teachers assessed themselves as "not evident" with regards to computer literacy administrators and teachers assessed the teachers as "not evident." However, both of them were "somewhat evident" as to the access to various types of technology.

The study also revealed that administrators and teachers "evident" on the teaching effectiveness of K to 12 teachers in terms of demonstrates skills in the use of technology in teaching and learning and utilization of technology to enhance teaching and learning.

The elementary school administrators' preparedness in the integration of ICT in terms of use of technology in the school; providing the technology infrastructure and viable instructional strategy influence the teachers' application of technology in the class.

Accordingly, the elementary school administrators' preparedness in the integration of ICT as to the use of technology in the school and providing the technology infrastructure do not affect the K to 12 teachers' competencies in terms of computer literacy. The elementary school administrators' preparedness in the integration of ICT as to the use of technology in the school and providing the technology infrastructure do not affect the K to 12 teachers' competencies in terms of access to various types of technology but it was influenced by viable instructional strategy and administrators' role as technology leader.

The teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of demonstrates skills in the use of technology in teaching and learning was affected by the viable instructional strategy and administrators' role as technology leader but it was not affected by use of technology in the school and providing the technology infrastructure.

Meanwhile, the teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of utilization of technology to enhance teaching and learning was affected by providing the technology infrastructure, viable instructional strategy and administrators' role as technology leader but it was not affected by the use of technology in the school.

Further, the administrators and teachers had similar perceptions as to the preparedness in the integration of ICT, teachers' competencies and teaching Effectiveness of K to 12 Teachers in Puerto Princesa District.

I. BACKGROUND OF THE STUDY

The technology came first and the school administrator as technology leader came later. Preparation experiences for the administrator's role as technology leader may be absent or fragmented. Often technology knowledge and skills are learned by doing. The role of the principal has evolved from being primarily that of a building manager to that of an instructional and curricular leader and, more recently, to that of a technological leader (Marcial, 2011).

Technological leadership is emerging within the increasingly diversified educational leadership world. Schools striving to excel in the information age need leaders that are well versed in the potential and in the pitfalls of information and communication technology.

In relation to the K to 12 Curriculum the government

began to place emphasis on investment in the application of information technology in education. The new curriculum emphasizes the development of basic technological skills. Ability to use information technology has become one of the new objectives of the K to 12.

Although, technology enhancement had been conducted but not participated by most schools. Such an activity is to strengthen school principals' technological leadership, establish future vision, and improve teachers' technological competence through technological leadership, in order to effectively guide the establishment and management of technology facilities, encourage and support teachers to put technology into teaching practice, and cultivate the ethical literacy for technology application.

In addition, elementary school administrators can implement the promotion of information education policies and integrate the planning of school information technology with development, operation, and management-related issues.

It is hoped that the training workshop can be used to provide the directions for understanding school information environment and integrating information technology with teaching and teachers' professional development. Therefore, we can see that the concept of technological

leadership has already taken root and has begun to grow in the field of education in the study locale. The development of methods to effectively put technological preparedness into practice to improve teaching and learning in schools is a critical issue to be highlighted by the school administrators.

Significance of the Study

There are many studies had been made to determine the computer literacy of teachers and use of technology in the general classroom settings, but only few studies have looked upon the significant role of the school principals to initiate and promote technology use among their teachers.

One of the significance of this study is to bring greater awareness of the technological literacy through technology use and for technology integration and how they influence a change in the teaching and learning environment to support technology as a tool or instructional strategy and school reform effort Additionally, it sought to identify the strategies and tools that principals use to lead technology integration as they relate to a change in teacher pedagogy and to investigate what changes occur as a result of technology integration.

On the broadest scope, this study is significant because it seeks to further our understanding of what successful components, of management and leadership for seamless technology integration in today's schools, are necessary. The concepts are worth studying in order to learn how to better prepare our educational leaders for technology integration.

Findings provide information that examines the relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers' competencies and teaching effectiveness. Ideally, results help educational leaders develop programs that integrate these constructs as a part of K to 12 Curriculum.

Statement of the Problem

This study aimed to determine the school administrators' preparedness in the integration of ICT as correlates to K to 12 teachers' competencies and teaching effectiveness in Puerto Princesa District I. Specifically, it sought to answer the following aspects of the main problems:

1.What describe the elementary school administrators' preparedness in the integration of ICT according to:

a. use of technology in the school.
b. providing the technology infrastructure.
c. viable instructional strategy; and
d. administrators' role as technology leader?

2.What is the level of assessment on the K to 12 teachers' competencies in Puerto Princesa District I in terms of:

a. application of technology in the class;
b. computer literacy; and
c. access to various types of technology?

3.What is the level of assessment on the teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of:

a. demonstrates skills in the use of technology in teaching and learning; and
b. utilization of technology to enhance teaching and learning?

4.Is there a significant relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers competencies in Puerto Princesa DistrictI?

5. Is there a significant relationship between the elementary school administrators' preparedness in the integration of ICT and teaching effectiveness of K to 12 teachers in Puerto Princesa District I?

6. Is there a significant difference in the perception of teachers and the elementary school administrators towards the preparedness in the integration of ICT?

7. Is there a significant difference in the level of assessment of the school administrators and teachers on the K to 12 teachers' competencies in Puerto Princesa District I?

8. Is there a significant difference in the level of assessment of the school administrators and teachers on the teaching effectiveness of K to 12 teachers in Puerto Princesa District I?

Scope and Limitation of the Study

The elementary school administrators' preparedness in the integration of ICT was limited on the use of technology in the school; providing the technology infrastructure; viable

instructional strategy and principals' role as technology leader.

Moreover, the assessment on the K to 12 teachers' competencies was limited on the application of technology in the class, computer literacy and access to various types of technology.

Further, the assessment on the teaching effectiveness was assessed according to demonstrates skills in the use of technology in teaching and learning and utilization of technology to enhance teaching and learning.

The locale and population were limited only to the school principals and teachers of six (6) public elementary schools in Puerto Princesa District I namely: Don Ramon Roces Memorial Elem. School, East Central School, Gregorio Oquendo Memorial School, Mauricio Reynoso Sr. Memorial Elementary School, Puerto Princesa Pilot Elem. School and West Central School.

II. METHODOLOGY

This chapter presents the locale of the study, research design, and respondents of the study, sampling procedure, instrumentation, data collection procedure and treatment of data.

Locale of the Study

This study was conducted in six (6) public elementary schools in Puerto Princesa District I namely: Don Ramon Roces Memorial Elementary School, East Central School, Gregorio Oquendo Memorial School, Mauricio Reynoso Sr. Memorial Elementary School, Puerto Princesa Pilot Elementary School and West Central School. The Figure 2 illustrated the Map of Puerto Princesa City showing the location of the school respondents.

Research Design

The descriptive research design was used to determine the elementary school administrators' preparedness in the integration of ICT; assessment of teachers' competency and assessment on the teaching effectiveness of elementary teachers in using technology.

On the other hand, the correlational research was used to analyze the relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers' competency and teaching effectiveness.

Population of the Study

The respondents of the study were the school administrators and ICT Coordinators and selected teachers at public elementary schools in Puerto Princesa District I namely: Don Ramon Roces Memorial Elementary School, East Central School, Gregorio Oquendo Memorial School, Mauricio Reynoso Sr. Memorial Elementary School, Puerto Princesa Pilot Elementary School and West Central School.

Treatment of Data

To assess the elementary school administrators' preparedness in the integration of ICT; level of assessment on elementary teachers' competency; level of assessment on the teaching effectiveness of elementary teachers in using technology the mean and weighted mean were employed.

On the other hand, to determine the relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers' competencies and effectiveness the Pearson Product Moment Correlation Coefficient r was used.

III. RESULTS AND DISCUSSION

Elementary School Administrators' Preparedness in the Integration of ICT as Perceived by the Administrators and Teachers

Table 1 presents the elementary school administrators' preparedness in the integration of ICT as perceived by the administrators and teachers as to the use of technology in the school.

It reveals that elementary school administrators' preparedness in the integration of ICT as to the use of technology in school was somewhat evident by both administrators and teachers (3.5 and 3.20).

This means that the elementary school administrators' preparedness in the integration of ICT in terms of providing the technology infrastructure is reflected on what they convey to the teachers for the integration of ICT in school.

Further, ICT is minimally used by the teachers based on their assessment they not convinced that ICT used are fully implemented in school.

According to Marcial (2010) technology has been an integral part of education since the beginning of organized schools. However, educators have been using various forms of technologies within classrooms for decades. Teacher used textbooks, chalkboards, radio, film, and television as forms of educational technologies.

In terms of providing the technology infrastructure the elementary school administrators' preparedness in the integration of ICT was somewhat evident by both the administrators and teachers (2.90 and 2.90).

The data reveal that in terms of providing the technology infrastructure the school administrators and the teachers are a big part in the integration of ICT to have good outcome in providing technology infrastructure at school.

Eaton-Kawecki (2010) found that principals and assistant principals "view technology as very important in their schools and that it is significantly important for teachers to learn technology as a curriculum tool. He stated that principals and other school leaders must accept the challenge

to create supportive conditions which will foster innovative uses of computers.

The elementary school administrators' preparedness in the integration of ICT as perceived by the administrators and teachers in terms of viable instructional strategy.

In terms of viable instructional strategy was somewhat evident by both the administrators and teachers (2.98 and 2.98).

It implies that the elementary school administrators clearly elucidated to the teachers their goals and targets to improve instructional strategies in ICT integration in their respective classes.

It was supported by the result of the study by Hopson (2008) that schools with the highest technology use shared the characteristic of a strong, enthusiastic principal. She also noted that these principals also supported their convictions about technology by allocating resources and scheduling staff development for teachers.

Blake (2010) suggested that school administrators are not prepared for their emerging role in technology and that their lack of understanding in this area sometimes create barriers to changeand improvement.

The elementary school administrators' preparedness in the integration of ICT as perceived by the administrators and teachers in terms of administrators' role as technology leader.

It also reveals that elementary school administrators' preparedness in the integration of ICT in terms of administrators' role as technology leader was evident by both the administrators and teachers with weighted mean of 4.11 and 4.10, respectively.

This implies that the school administrators do their best to become good technology leader and role model.

The study of Jetton (2007) found that the schools that integrated ICT in the most constructive way were those where "the principals shared an unwavering vision that ICT had the potential to improve student learning. These principals also portrayed passionate commitment to providing appropriate ICT professional staff development for their staff members. The principal's role changes as s/he leads technology integration.

Table 1. Elementary school administrators' preparedness in the integration of ICT as perceived by the administrators and teachers

Variables	Administrator	Descriptive Rating	Teacher	Descriptive Rating
Use of technology in the school.	3.05	Somewhat evident	3.20	Somewhat evident
Providing the technology infrastructure.	2.90	Somewhat evident	2.90	Somewhat evident
Viable instructional strategy	2.98	Somewhat evident	2.98	Somewhat evident
Administrators' role as technology leader	4.11	evident	4.10	evident

Legend:

4.51-5.00	Strongly evident
3.51 – 4.50	evident
2.51 – 3.50	Somewhat evident
1.51 – 2.50	Not evident
1.00 – 1.50	Strongly not evident

Level of Assessment on the K to 12 Competencies in Puerto Princesa District I

Table 2 shows the level of assessment on the K to 12 competencies in Puerto Princesa District I as perceived by the school administrators and teachers.

The administrators and teachers have different assessment on the K to 12 competencies in terms of application of technology in the class. The administrators assessed their teachers as somewhat evident (3.42) while, the teachers assessed themselves as not evident (2.42).

It implies that teachers are hesitant in the integration of ICT in teaching. Only few of them apply technology in the class.

In the study of Becker (2006) he found several factors have been identified that affect teachers' technology competencies. He identified the age and gender of the teacher was not statistically significant, while subject area assignment, grade level assignment, technology training received, and access to computers have an effect on a teacher's technology competencies. Research also appears to point out while teachers are using technology personally more often; they have yet to actually truly integrate it into their classroom instructional strategies.

The level of assessment on the K to 12 competencies in Puerto Princesa District I in terms of computer literacy was assessed by administrators and teachers as not evident (2.48 and 2.47).

As supported by the research of Marcial (2011) showed that computer literacy is an important component in having the ability to successfully and confidently use technology. Acquiring the skills to use instructional technology in the classroom is a necessity in today's society. It helped teachers develop a better understanding of technological applications, as can attending workshops or taking classes that deal with using technology in the classroom.

The level of assessment on the K to 12 competencies in Puerto Princesa District I in Terms of access to various types of technology was somewhat evident by both the administrators and teachers (2.62 and 2.60).

This implies that teachers are not exposed to various types of technology. It also connotes that teacher are not knowledgeable to different ICT tools and equipment that can be used in teaching.

Anderson and Dexter (2005) also indicated that the technological leadership of the school principal has a key influence on the effectiveness of technology utilization by teachers in educational.

The level of assessment on the effectiveness of K to 12 teachers in Puerto Princesa District I in terms of demonstrating skills in the use of technology in teaching and learning was evident by both the administrators and teachers (4.13 and 4.10).

It implies that teachers demonstrate skills in the use of technology in teaching and learning as they know the nature and operations of ICT systems and apply to teaching and learning. They also demonstrate proficiency in the use of computers to support teaching and learning.

According to Marcial (2011) since technology will integrate itself throughout society in ever increasing ways, teachers have a need to develop technological skills. The second promise of technology then deals with teachers' use of technology. If teachers are to integrate technology into their teaching, they must feel efficacious about using it.

Variables	Administrator	Descriptive Rating	Teacher	Descriptive Rating
application of technology in the class	3.42	Somewhat evident	2.42	Not evident
terms of computer literacy	2.48	Not evident	2.47	Not evident
viable instructional strategy	2.98	Somewhat evident	2.98	Somewhat evident
use of technology in teaching and learning	4.13	evident	4.10	evident

Legend:

4.51-5.00	Strongly evident
3.51 – 4.50	evident
2.51 – 3.50	Somewhat evident
1.51 – 2.50	Not evident
1.00 – 1.50	Strongly not evident

Level of Assessment on the Effectiveness of K to 12 Teachers in Puerto Princesa District I

Table 3 presents the level of assessment on the teaching effectiveness of K to 12 teachers in Puerto Princesa District I as perceived by the school administrators and teachers in terms of demonstrating skills in the use of technology in teaching and learning.

The level of assessment on the effectiveness of K to 12 teachers in Puerto Princesa District I in terms of demonstrating skills in the use of technology in teaching and learning was evident by both the administrators and teachers (4.13 and 4.10).

It implies that teachers demonstrate skills in the use of technology in teaching and learning as they know the nature and operations of ICT systems and apply to teaching and learning. They also demonstrate proficiency in the use of computers to support teaching and learning.

According to Marcial (2011) since technology will integrate itself throughout society in ever increasing ways, teachers have a need to develop technological skills. The second promise of technology then deals with teachers' use of technology. If teachers are to integrate technology into their teaching, they must feel efficacious about using it.

The level of assessment on the teaching effectiveness of K to 12 teachers in Puerto Princesa District I as perceived by the school administrators and teachers in terms of utilization of

technology to enhance teaching and learning.

The level of assessment on the teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of utilization of technology to enhance teaching learning was evident by both the administrators and teachers (3.98 and 3.99).

It implies that teachers utilized technology to enhance teaching and learning. They know various technology and instructional materials appropriate for specific learning area. They have adequate and appropriate instructional materials for the learners and the learning objectives. Further, they use ICT in the development of instructional materials.

According to Andres (2007) for teachers to effectively integrate technology into the classroom, they must have easy access to various types of technology. Certain types of technology were widely available for teachers use, meaning the various types of technology were located in the classroom or were easily accessible within the building. These include videotape, television, desktop computer, CD-ROM, internet, email, printer, and video camera.

Variables	Administrator	Descriptive Rating	Teacher	Descriptive Rating
Demonstrating skills in the use of technology in teaching and learning.	4.13	Evident	4.10	Evident
Utilization of technology to enhance teaching learning	3.98	Evident	3.99	Evident

Legend:

4.51-5.00	Strongly evident
3.51 – 4.50	evident
2.51 – 3.50	Somewhat evident
1.51 – 2.50	Not evident
1.00 – 1.50	Strongly not evident

Relationship between the Elementary School Administrators' Preparedness in the Integration of ICT and K to 12 Teachers' Competencies in Puerto Princesa District I

Table 4 shows the relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers' competencies in Puerto Princesa District I in terms of application of technology in the class, computer literacy and access to various types of technology.

This implies that elementary school administrators' preparedness in the integration of ICT in terms of use of technology in the school; providing the technology infrastructure and viable instructional strategy influence the teachers' application of technology in the class but it was not affected by the administrators' role as technology leader.

This implies that elementary school administrators' preparedness in the integration of ICT as to the use of technology in the school and providing the technology infrastructure do not affect the K to 12 teachers' competencies in terms of computer literacy, but it was influenced by viable instructional strategy and administrators' role as technology leader.

This implies that elementary school administrators' preparedness in the integration of ICT as to the use of technology in the school and providing the technology infrastructure do not affect the K to 12 teachers' competencies in terms of access to various types of technology, but it was influenced by viable instructional strategy and administrators' role as technology leader.

Table 4. Relationship between the elementary school administrators' preparedness in the integration of ICT and K to 12 teachers' competencies in Puerto Princesa District I in terms of the given variables

Application Of Technology In The Class			
Variable	**Pearson r**	**P-value**	**Decision**
Use of Technology in the School	0.238**	0.002	Ho: Reject
Providing the Technology Infrastructure	0.817**	0.000	Ho: Reject
Viable Instructional Strategy	0.594**	0.000	Ho: Reject
Administrators' Role as Technology Leader	-0.010	0.898	**Ho: Accept**

Computer Literacy			
Variable	**Pearson r**	**P-value**	**Decision**
Use of Technology in the School	-0.029	0.707	Ho: Accept
Providing the Technology Infrastructure	-0.005	0.948	Ho: Accept
Viable Instructional Strategy	0.246**	0.001	Ho: Reject
Administrators' Role as Technology Leader	-0.246**	0.001	Ho: Reject
access to various types of technology			
Variable	**Pearson r**	**P-value**	**Decision**
Use of Technology in the School	-0.127	0.099	Ho: Accept
Providing the Technology Infrastructure	-0.062	0.421	Ho: Accept
Viable Instructional Strategy	0.242**	0.001	Ho: Reject
Administrators' Role as Technology Leader	-0.187*	0.015	Ho: Reject

Legend: * Significant at $\alpha = 0.05$
** Significant at $\alpha = 0.01$

Relationship between the Elementary School Administrators' Preparedness in the Integration of ICT and Teaching Effectiveness of K to 12 Teachers in Puerto Princesa District I

Table 5 presents the relationship between the elementary school administrators' preparedness in the integration of ICT and teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of demonstrates skills in the use of technology in teaching and learning.

It reveals that the use of technology in the school and providing the technology infrastructure are not correlated to the teaching effectiveness of K to 12 teachers in terms of demonstrates skills in the use of technology in teaching and learning but the viable instructional strategy and administrators' role as technology leader are highly correlated.

This shows the relationship between the elementary school administrators' preparedness in the integration of ICT and teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of utilization of technology to enhance teaching and learning.

It reveals that providing the technology infrastructure; viable instructional strategy and administrators' role as technology leader are correlated to the utilization of technology to enhance teaching and learning but the use of technology in the school is not correlated.

Lo (2009) discussed the current state, differences, and correlations of principals' technological leadership and teachers' teaching effectiveness and also found a significant positive correlation; principals' technological leadership can effectively predict teachers' teaching effectiveness.

Table 5 Relationship between the elementary school administrators' preparedness in the integration of ICT and teaching effectiveness of K to 12 teachers in Puerto Princesa District I in terms of the given variables

Use of Technology in Teaching And Learning.			
Variable	**Pearson r**	**P-value**	**Decision**
Use of Technology in the School	-0.131	0.090	Ho: Accept
Providing the Technology Infrastructure	-0.005	0.946	Ho: Accept
Viable Instructional Strategy	0.246**	0.001	Ho: Reject
Administrators' Role as Technology Leader	-0.419**	0.000	Ho: Reject
Utilization of Technology to Enhance Teaching And Learning			
Variable	**Pearson r**	**P-value**	**Decision**
Use of Technology in the School	-0.071	0.361	Ho: Accept
Providing the Technology Infrastructure	-0.166*	0.031	Ho: Reject
Viable Instructional Strategy	-0.290**	0.000	Ho: Reject
Administrators' Role as Technology Leader	-0.330**	0.000	Ho: Reject

Legend: * Significant at $\alpha = 0.05$
** Significant at $\alpha = 0.01$

Significant Difference in the Level of Assessment of the School Administrators' and Teachers on the K to 12 Teachers Competencies in Puerto Princesa District I

The null hypothesis was accepted at 0.05 level of significance that there is no significant difference in the perception of teachers and the elementary school administrators towards the preparedness in the integration of ICT.

It was supported by higher P-values for the application of technology in the class (0.990>0.05), computer literacy (0.988>0.05) and access to various types of technology (0.819>0.05) than 0.05 level of significance.

It implies that teachers and the elementary school administrators' have similar perceptions towards the preparedness in the integration of ICT in terms of application of technology in the class, computer literacy and access to various types of technology.

Table 7. Significant difference in the perception of teachers and the elementary school administrators towards the preparedness in the integration of ICT

Variable		Mean	Standard Deviation	t-value	df	P-value	Decision
Application of Technology in the Class	Administrators	2.42	0.31312				H_O: Accept
	Teachers	2.42	0.30013	-0.013	167	0.990	
Computer Literacy	Administrators	2.48	0.49237	0.015	167	0.988	H_O: Accept
	Teachers	2.47	0.47215				
Access to Various Types of Technology	Administrators	2.62	0.35548	0.229	167	0.819	H_O: Accept
	Teachers	2.60	0.35807				

Legend: * Significant at a = 0.05

** Significant at a = 0.01

Significant Difference in the Level of Assessment of the School Administrators and Teachers on the Teaching Effectiveness of K to 12 Teachers in Puerto Princesa District I

Table 8 presents the significant difference in the perception of the teachers and the elementary school administrators towards the preparedness in the integration ICT.

It reveals that P-values for demonstrates skills in the use of technology in teaching and learning (0.567>0.05) and utilization of technology to enhance teaching and learning (0.748>0.05) are higher than 0.05 level of significance.

The higher P-values accept the null hypothesis that there is no significant difference in the perception of teachers and the elementary school administrators towards the preparedness in the integration of ICT.

The acceptance of the null hypothesis implies that teachers and school administrators had similar point of view towards the preparedness in the integration of ICT in terms of utilization of technology to enhance teaching and learning and demonstrates skills in the use of technology in teaching and learning.

Table 8 Significant difference in the perception of teachers and the elementary school administrators' towards the preparedness in the integration of ICT.

Variable		Mean	Standard Deviation	t-value	df	P-value	Decision
Demonstrates Skills in the Use of Technology in Teaching and Learning	Administrators	4.13	0.14848	0.574	167	0.567	H_o: Accept
	Teachers	4.10	0.14119				
Utilization of Technology to Enhance Teaching and Learning	Administrators	3.98	0.10299	-0.322	167	0.748	H_o: Accept
	Teachers	3.99	0.10007				

IV. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, conclusions and recommendations of the study.

Summary

This study aimed to determine the school administrators' preparedness in the integration of ICT as correlates to K to 12 teachers' competencies and teaching effectiveness in Puerto Princesa District I.

It was conducted to 12 school administrators and 157 teachers from six public elementary schools in Puerto Princesa District I. Descriptive research design particularly the survey method was used. The researcher-made survey questionnaire was used in data gathering and it was analyzed through descriptive statistics.

The findings revealed that the elementary school administrators' preparedness in the integration of ICT according to use of technology in the school (3.05 and 3.20); providing the technology infrastructure (2.90 and 2.90) and viable instructional strategy (2.98 and 2.98) were assessed by administrators and teachers as "somewhat evident." However, both of them assessed the administrators' role as technology leader (4.11 and 4.10) as "evident."

Meanwhile, the administrators were assessed the K to 12 teachers' competencies in terms of application of technology in the class as "somewhat evident" and teachers assessed themselves as "not evident" with regards to computer literacy administrators and teachers assessed the teachers as "not evident" (2.48 and 2.47). However, both of them were "somewhat evident" as to the access to various types of technology (2.62 and 2.60).

The study also revealed that administrators and teachers "evident" on the teaching effectiveness of K to 12 teachers in terms of demonstrates skills in the use of technology in teaching and learning (4.13 and 4.10) and utilization of technology to enhance teaching and learning (3.98 and 3.99).

Findings revealed that the P-values obtained for use of technology in the school (0.002<0.01); providing the technology infrastructure (0.000<0.01) and viable instructional strategy (0.000<0.01) are lower than 0.01 level of significance while, the P- value for administrators' role as technology leader (0.898>0.05) is higher than 0.05 level of significance.

Accordingly, the P-values for elementary school administrators' preparedness in the integration of ICT in terms of use of technology in the school (0.707>0.05) and providing the technology infrastructure (0.948>0.05) are higher than 0.05 level of significance while, the P-values obtained for viable instructional strategy (0.001<0.01) and administrators' role as technology leader (0.001<0.01) are lower than 0.01 level of significance.

The study revealed that the P-values for elementary school administrators' preparedness in the integration of ICT in terms of use of technology in the school (0.099>0.05) and providing the technology infrastructure (0.421>0.05) were higher than

0.05 level of significance while, the P-values obtained for viable instructional strategy (0.001<0.01) and administrators' role as technology leader (0.015<0.01) were lower than 0.01 level of significance.

It was also revealed that the use of technology in the school and providing the technology infrastructure were not correlated to the teaching effectiveness of K to 12 teachers in terms of demonstrates skills in the use of technology in teaching and learning but the viable instructional strategy and administrators' role as technology leader were highly correlated.

Moreover, providing the technology infrastructure; viable instructional strategy and administrators' role as technology leader were correlated to the utilization of technology to enhance teaching and learning but the use of technology in the school was not correlated.

Findings also revealed that the P-values obtained for the use of technology in the school (0.355>0.05); providing the technology infrastructure (0.979>0.05); viable instructional strategy (0.944>0.05) and administrators' role as technology leader (0.944>0.05) are higher than 0.05 level of significance.

Further, the teachers and the elementary school administrators had similar perceptions towards the preparedness in the integration of ICT in terms of application of technology in the class, computer literacy and access to various types of technology. They had also similar point of view towards the preparedness in the integration of ICT in terms of utilization of technology to enhance teaching and learning and demonstrates skills in the use of technology in teaching and learning

Conclusion

Based on the findings the following conclusions were drawn:

1. The elementary school administrators' preparedness in the integration of ICT in terms of providing the technology infrastructure is reflected on what they convey to the teachers for the integration of ICT in school. The ICT was minimally used by the teachers based on their assessment they not convinced that ICT used were fully implemented in school. The school administrators and the teachers are a big part in the integration of ICT to have good outcome in providing technology infrastructure at school. The elementary school administrators clearly elucidated to the teachers their goals and targets to improve instructional strategies in ICT integration in their respective classes. They do their best to become good technology leader and role model.
2. The teachers were hesitant in the integration of ICT

in teaching. Only few of them apply technology in the class. It implies that teachers are less computer literate. They need to develop and trained on the aspects of basic knowledge of computers and technical aspects of computers. They were not exposed to various types of technology. It also connotes that teacher are not knowledgeable to different ICT tools and equipment that can be used in teaching.

3. The teachers demonstrated skills in the use of technology in teaching and learning as they know the nature and operations of ICT systems and apply to teaching and learning. They also demonstrated proficiency in the use of computers to support teaching and learning. They utilized technology to enhance teaching and learning. They know various technology and instructional materials appropriate for specific learning area. They have adequate and appropriate instructional materials for the learners and the learning objectives. Further, they use ICT in the development of.

Recommendation

The researcher recommends the following to improve the ICT integration of the teachers in their respective classes.

For the DepEd

1. Conduct trainings and seminars to the elementary teachers about ICT used and new teaching strategies in using modern technology in the class.
2. Many schools in the City Division of Puerto Princesa have lack or no available of different ICT facilities and equipment. These are very important in the delivery of learning under the K to 12 Curriculum. The DepEd is the responsible in providing all of these.
3. The school must have IT expert or ICT teacher that can supervise teachers with regards to problems on ICT used arise in school.

For the School Administrators

1. Send your teacher to various trainings and seminars about ICT used.
2. .Make it sure that the computer software versions are current, its selection based on teacher input, and routinely used by teachers.
3. Include in the MOOE the technology development of the school.
4. Make it sure that computer machines in school are connected to the internet and other devices such as printer, LCD projector and CD/DVD Room.
5. The school's technology plan contains the periodic and on-call maintenance for instructional technologies used for classroom teaching.
6. Make it sure that software is applicable to what they are covering in class and appropriate for current classes and important for required/anticipated future skills.

For the Teachers

1. A comprehensive scope and sequence addressing technology is available for all pupils, by grade and subject content area.
2. Teachers should use presentation hardware to present lessons/units; create multimedia presentations using a scanner; digital camera and video camera.
3. The teachers should use the computer for word processing; creation of databases, spread sheets and presentations.
4. The teachers should use various technologies to support classroom instruction and know the different internet research tools available to use.
5. The teachers must have access to a television, DVD/VCR, scanner, laptop computer and presentation software.
6. The teachers should have an adequate amount of technology for the number of pupils in their classes.

For the Researcher/ Future Research

1. Present this study to the Division Office and sent a copy of executive abstract to the school respondents.
2. The future researcher can use this study as basis for the related study to be conducted.

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