

Performance and Practices of Information Communication Technology (ICT) Coordinators in Irosin District

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Abstract

This study determined the performance and practices of Information and Communication Technology (ICT) Coordinators in Irosin District during the school year 2017-2018. This study employed descriptive method of research. A researcher-made questionnaire-checklist was utilized with items anchored on the sub-problems and enriched further by the readings. Unstructured interview was also used to gather data additional information or data for the purpose of this study. Results of the evaluation revealed that the performance of the ICT Coordinators as assessed by the school heads and themselves did not vary significantly. They belonged to very satisfactory level of performance. The performance of the ICT coordinators are not affected by their educational attainment, in-service training attended, length of service, and other ancillary functions. The extent of practice of the ICT Coordinators along system and school infrastructure, programs and projects, partnership and stakeholder management, policies and standards implementation, monitoring and evaluation, technical assistance to schools and integration in teaching and learning, program and project implementation is said to be highly practiced. Among the identified problems, the insufficient number of computers and the limited capability building activities are the problems commonly encountered by the ICT coordinators. Based on the result of the study, a strategic plan can be proposed to strengthen the performance and practices of elementary ICT Coordinators.

Keywords: Information and Communication Technology (ICT), ICT Coordinators, Performance, Practices

1. INTRODUCTION

People live in a constantly evolving digital world. Information and Communication Technology (ICT) has an impact on nearly every aspects of people's lives, from working to socializing, and playing to learning. The digital age has transformed the way young how people communicate, network, seek help, access information and learn. It is important to recognize that most young people now belong to online population, their access comes in varied from such as computers, social networks, emails, digital cards, televisions and mobile phones.

The Information and Communication Technology (ICT) can contribute to universal access to education, equity in education, the delivery of quality learning and teaching, teachers' professional development as well as to improve education management governance and administration provided that the right mix of policies, technologies and capacities are in place. United Nations Educational Scientific and Cultural Organization (UNESCO) takes a holistic and comprehensive approach to Information and Communications Technology in education. The program includes capacity building and policy advice for the use of technologies in education, particularly in emerging domains such as mobile learning ensuring that teachers have the skills necessary to use Information and Communication Technology in all aspects of their professional practice.

The Department of Education (DepEd) has created its Information and Communication Technology for Strategic Plan for 2016-2020. Its vision is "21st Century Education For All Filipinos, Anytime, Anywhere." This means establishing an Information and Communication Technology enabled education system that transforms students into dynamic lifelong learners and value-centered, productive and responsible citizens. Towards this goal, teachers are required to work for attainment of the Department of Education Information and Communication Technology Competency Standard. To assist them, a comprehensive professional development program for teachers was developed. This program was built on existing in-service training initiatives.

In addition , there is an need to set up Information and Communication Technology trust in implementing the K to 12 Basic Education Reform Program. According to former Department of Education Secretary Armin Luistro (2008) the use of Information and Communication Technology (ICT) in all learning areas is to encourage and promote greater engagement in

teaching-learning process and widen access to knowledge in order to enrich learning and developing skills. So, teachers are the key to achieving the vision of the K to 12 education program. With the said goal, there is a need to expand learning to include media and digital literacy. Thus, a teacher must be multi-literate to use various technologies in teaching.

As part of the legal mandate of promoting the right of all citizens to take appropriate steps in making education accessible to all, the Department of Education (DepEd) geared towards the transformation of education through the DepEd Computerization Program (DCP) which was stipulated in the DepEd Order No. 78, s. 2010 . The said program aims primarily to provide public schools with appropriate technologies that would enhance the teaching-learning process and meet the standards and challenges of the 21st century. Further, the objective of this program includes: provide computer laboratory packages to secondary schools, provide e-classroom to elementary schools, provide laptop units to mobile teachers, integrate ICT in the school system, raise the ICT literacy of learners, teachers, and school heads and reduce the computer backlog in public schools.

Along the different programs on the implementation of ICT in the field of education, the school head of every school assigned an Information and Communication Technology (ICT) Coordinators who will responsible on the various tasks, duties and responsibilities imposed to them. According to Division Memorandum No. 111, s. 2016 the school ICT Coordinators are expected to perform the duties and functions along ICT Systems and School Infrastructure Management. In the same manner, they are also in charge of the ICT Programs and Projects, Partnership and Management, ICT Policies and Standards Implementation, ICT Monitoring and Evaluation, Technical assistance to schools and ICT Programs as well as Projects Implementation.

In the same way, the Division Memo No. 62 s. 2014 states that the duties and responsibilities of the school ICT coordinators include: download/print online memorandum and other information, mentor Learners Information System (LIS) and Education Information System (BEIS) online encoding, maintain (reset) LIS/BEIS accounts (username and password) of the school personnel, provide technical assistance to school learners' committee, maintain inventory of all ICT equipment and to assist in the crafting of ICT development plan as part of the School Improvement Plan.

Furthermore, Division Memo No. 222 s. 2015 states that the ICT Coordinators must have adequate knowledge in MS Word, MS Excel, and MS Powerpoint, know how to surf in the internet and preferably with facebook and gmail account, willing to be trained in computer troubleshooting and basic networking and willing to extend time in the Learners Information System (LIS), Basic Education Information System (BEIS), Learning Resources Management and Development System (LRMDS) and other DepEd ICT-based Systems. Similarly, Kennewel, Parkinson , and Tanner (2000) state that ICT coordinators fulfill many different roles because the job of the ICT Coordinator is complex and demanding, only few roles are fulfilled into practice.

According to Lai and Pratt (2004) the profile of the ICT Coordinator should include up-to-date pedagogical-technological knowledge, awareness of the ethical and safety issues pertaining to computer use , and personal and professional willingness to use computer applications frequently in their own teaching and learning, so they will be a personal example for their colleagues. Consequently, Veer (2005) states that the progress of a country depends upon the quality of its teachers, and training is essential for every teacher. Trained teachers can do much more than the untrained teachers. Teachers need continuous program for the development on the field of education.

More so, Russel and Bradley (1997) state that the teachers' believed that more experience with computer was needed to feel competent in their use with the class. They compared the use of technology between novice and expert teachers. They found out those novice teachers were far less comfortable in their implementations that more experienced teachers who had no formal training with computers but a great deal of classroom experience.

This is strengthened by the results of local and international studies which have shown the superiority of using ICT in educational system. Based on the study of Netragaonkar (2015) , he found out that barriers in ICT education include the following: lack of qualified ICT personnel, cost of equipment, management's attitude, inconsistent electric power supply, and teachers' training curriculum. It is supported by the study of Dakich (2009) that access to reliable infrastructure, adequate technical support, and time pressures are still considered to be some of the most significant barriers to successful ICT integration in public schools. In the same way, Manaligod (2012) conducted a study about Integration of Information and Communication

Technology in Public Secondary Schools in Metro-Manila. Based on the findings the lack of hardware remains to be the most relentless and persistent. Relative to students population, the computer-to-student ratio is dismally at 1:63. Access to computers is limited to those taking computer education subjects. Most schools do not have computer maintenance due to lack or low budget. Almost half of the teachers never attended ICT-related training and most of the teachers do not use ICT in the classroom.

In addition, the study of Andoh (2012), Ghazi (2012) and Manolis (2011) underscored some of the factors that prevent teachers in using ICT such as lack of teachers' ICT skills, lack of teachers' confidence, lack of suitable educational software, limited access to ICT, rigid structure of traditional education systems, restrictive curricula, lack of training, power failure, lack of technical support, slow connectivity, lack of time, unsuitable curriculum, problematic access to equipment as well as the lack on immediate technical support..

A study on the use of ICT was done by Elpos (2014) to see how well it can be applied to the teaching learning process. Findings revealed that they utilized ICT resources to prepare instructional materials, improve professional skills, communicate, and find information. On the other hand, the paper also discussed some challenges attached it. Some resources were not utilized by the respondents due to some reasons. The scanner, multimedia projector, internet, and electronic mail are not available. The computer, printer and digital camera are not accessible when needed. The lack of knowledge in using spreadsheet, powerpoint, publisher, and educational software however, they cannot use word processing due to lack of time. In the same way, the paper of Caluza (2017) found out that most of the teachers have a basic knowledge on ICT and needs improvement. More trainings are needed for the teachers to integrate ICT in teaching and other related task assigned to them.

As such, teachers also need to equip themselves with skills in using ICT particularly the use of computers for them to immersed with the present curriculum. Hence, teachers must be computer literate not only on its basics but also in the advanced computer skills. These computers help teachers in their tasks in terms of preserving records, encoding documents, and browsing the internet. However, despite of the implementation of ICT of the DepEd, significant problems exist especially on the limited ICT training for teachers, lack of web access, problematic access to equipment, the frequent technical problems, as well as the lack of

immediate technical support that greatly affect the performance of ICT teachers and students academically.

As observed by the researcher, current ICT remains a large task even in Irosin District. Teacher- computer ratio is not yet improved, lacks infrastructure for connectivity and access to technologies like internet and other ICT resources, and lack of training among ICT Coordinators making the tasks difficult to perform. These existing problems served as barriers on the successful use of ICT in education.

Based on these premises, necessary actions should be made in the resolution of these widespread problems. Thus, the researcher came up with the idea of conducting a study that generally aims to determine the performance and practices of Information and Communication Technology (ICT) Coordinators in Irosin District.. Moreover, since ICT Coordinators are experiencing problems on the highlighted programs of DepEd along ICT, the researcher developed a strategic plan to resolve the concerns and issues and improve the performance and practices of ICT coordinators.

2. METHODOLOGY

The descriptive method of research was used. The respondents of the study are thirty-one (31) ICT Coordinators and thirty-one (31) school heads from all elementary schools in the District of Irosin. This study made use of a researcher-made questionnaire-checklist was utilized with items anchored on the sub-problems and enriched further by the readings. Unstructured interview was also used to gather additional information or data for the purpose of this study. There are two sets of questionnaires used. The first set is for ICT Coordinators and the second set is for the school heads. The questionnaire-checklist for ICT Coordinators has four parts. Part I deals on the profile of ICT Coordinators; Part II focuses on the level performance of ICT Coordinators; Part III deals on the practices of ICT Coordinators; and Part IV deals on the problems encountered by ICT Coordinators. Lastly, the questionnaire-checklist intended for school heads is mainly on the level of performance of ICT Coordinators. The researchers underwent several stages on the process of undertaking the study. First, the researcher made a questionnaire evaluated by his adviser and the panel members. The evaluators of questionnaire were asked to critique and comment on the form as well as the alternative responses especially

on some parts of the questionnaire. Grammatical construction and word usage were corrected. Based from the corrections, the preliminary copies were prepared for the dry run. Corrections based on dry-run were implemented in the preparation of the final copies of this research tool. The researcher sought the approval of the Public Schools District Supervisor of Bulan South for the dry run of the preliminary copy of the questionnaire in selected ICT Coordinators and School Heads on July 5, 2018. The dry run was conducted involving ten (10) ICT coordinators and ten (10) School Heads. All of them were not included as respondents in this study.

The researcher sought the approval from the Schools Division Superintendent of Sorsogon Province, Public Schools District Supervisor and School Heads of Irosin District to conduct and distribute the questionnaire to the respondents of this study. The administration of the questionnaires followed on July 25, 2018. It was then on July 31, 2018 when the questionnaires were retrieved from the respondents. After tallying the responses, the researcher submitted the result to the statistician for the statistical treatment.

3. RESULTS AND DISCUSSION

1. Profile of the ICT Coordinators

This section presents the profile of the ICT Coordinators in terms of their educational attainment, ICT-related trainings attended, length of service as ICT Coordinator, and number of ancillary functions being handled. To analyze and interpret the data, frequency count and percentage are used.

Educational Attainment. Table 1A shows the educational attainment of the ICT Coordinators.

TABLE 1A. Educational Attainment of the ICT Coordinators

Educational Attainment	F	%
Bachelor's Degree	6	19
with MA Units	22	71
Master's Degree Holder	1	3
with Doctorate Units	2	7
Total	31	100

It is reflected in the table that out of 31 ICT Coordinators , 22 or 71% of them have earned MA Units, 6 or 19% of the respondents have Bachelor’s Degree and 2 or 7% teachers have Doctorate Units. Meanwhile, ICT Coordinators with Masters Degree Holder have gained a total of 1 or 3%.

This implies that the ICT coordinators are continuously pursuing their professions to become more competent, upgraded and productive teachers not just in the utilization of ICT but in the field of teaching. This results could be verified in the statement of Lai and Pratt (2004) that the profile of the ICT coordinator should include up-to-date pedagogical-technological knowledge, awareness of the ethical and safety issues pertaining to computer use, and personal and professional willingness to use computer applications frequently in their own teaching and learning, so they will become a good personal example for their colleagues.

Level of ICT-Related Trainings Attended. Table 1B shows the levels of trainings on ICT attended by the ICT Coordinators.

TABLE 2B. Level of Trainings Attended by the ICT Coordinators

Level	F	%
Division	30	97
Regional	1	3
Total	31	100

The table indicates that the Division Level gained the highest training level attended by ICT Coordinators with a total number of 30 or 97% followed by Regional Level with a total of 1 or 3%.

This implies that ICT coordinators attended different trainings related to ICT in order to acquire additional learning that could contribute in upgrading their level of competence, become more proficient, and capable in performing their duties and responsibilities. This result could be verified in the statement of Veer (2005) that the progress of a country depends upon the quality of its teachers, and training is essential for every teacher. Trained teachers can do much more

than untrained teachers. Teachers need continuous program for the development in the field of education. The globalization of computer system made it compulsory for them to learn how to use the computer system in order to enhance effective teaching and learning in the school system.

Length of Service as ICT Coordinator. Table 1C shows the length of service of the respondents as ICT Coordinators. As reflected in Table 1C, 3-4 years in the length of service as ICT coordinator gained the highest total number of 15 or 48% out of 31 respondents. Meanwhile, 9 or 29% of them have 5 years and above while 7 or 23% of them have 2 years and below in the length of service as ICT Coordinator.

Table 1C. Length of Service as ICT Coordinator

Number of Years	F	%
2 years and below	7	23
3 – 4 years	15	48
5 years and above	9	29
Total	31	100

This findings imply that the length of service rendered as ICT coordinator is also a factor that affects the responsible performance of duties and responsibilities. The longer the length of service they have rendered, the more efficient and productive they become. In connection with these findings, Russel and Bradley (1997) pointed out that the teachers believed that they used more experience with computer to feel competent in its use in their classes. They compared the use of technology between novice and expert teachers. They found out that those novice teachers were far less comfortable in their implementations than the more experienced teachers even if they had no formal training with computers but only a great deal of classroom experience.

Number of Ancillary Functions Handled. Table 1D shows the distribution of the number of other functions handled by the ICT Coordinators. As observed in the table, teachers with a number of 6-8 functions got the lowest percentage of 4 or 13% . The teachers with a number of

3-5 functions got the highest total number of 22 or 71% . Meanwhile, 0-2 number of functions handled by ICT coordinators gained 5 or 16% only.

Table 1D. Number of Other Ancillary Functions Handled by ICT Coordinator

Number of Functions	F	%
0 – 2	5	16
3 – 5	22	71
6 - 8	4	13
Total	31	100

This implies that aside from their duties and responsibilities as ICT Coordinators, they could still perform other functions given by the school head. Furthermore, they can manage their time wisely to be able to do what is expected of them.

This findings could be supported in the statement of Kennewel, Parkinsons , and Tanner (2000) that ICT Coordinators fulfill many different roles. Because the job of the ICT coordinator is complex and demanding, only a few roles will be fulfilled in practice. However, it is still unclear which roles are currently being fulfilled by ICT coordinators in practice.

2. Level of Performance of the ICT Coordinators. Table 2 shows the level of performance of the ICT Coordinators as assessed by the school heads and the ICT Coordinators themselves.

Table 2. Level of Performance of ICT Coordinators

Assessor	Rating	Description
School Heads	4.12	Very Satisfactory
ICT Coordinators	4.20	Very Satisfactory

It can be noted from the table that the level of performance of ICT Coordinator as assessed by themselves fall within the description of *very satisfactory* level with a mean score of 4.20. On the

other hand the performance level of ICT Coordinators as assessed by the School Heads have a mean score of 4.12 and fall within the adjectival description of *very satisfactory*.

This implies that the ICT coordinators satisfactorily performed their duties and responsibilities. They strive and initiate to apply their knowledge and skills in using ICT particularly the utilization of computers for them to immersed with the present curriculum.

These were backed up by the study of Schreurs (2007) that the performance management should be a main concern of every school. Organizations are seeking new integrated systems that enable rapid changes through early identification of opportunities and problems , tracking of progress against plan, flexible allocation of resources to achieve goals, and consistent operations. Performance pinpoints the need to integrate strategy and key indicators of performance into management, and to exploit ICT to improve monitoring, management reporting, and decision making.

3. Differences between the Level of Performance of the ICT Coordinators as Assessed by the School Heads and the ICT Coordinators Themselves

Table 3 reveals the difference between the assessment of the school heads and the ICT Coordinators themselves on the latter's level of performance. It reveals that at 0.05 level of significance and 60 degrees of freedom, the computed t-value for independent sample is -0.625 that is within the critical value of ± 2.00 . Therefore, the null hypothesis cannot be rejected. Hence, there is no significant difference between the assessment of the school heads and the ICT Coordinators themselves on the latter's performance. This finding means that the two groups of respondents similarly assessed the performance of the ICT Coordinator.

TABLE 3. Differences between the Level of Performance of the ICT Coordinators as Assessed by the School Heads and the ICT Coordinators Themselves

Statistical Bases	Statistical Analyses
Level of Significance	0.05
Degrees of Freedom	60
Critical t-value	± 2.00

Computed t-value	-0.625
Decision on Ho	Do not Reject
Conclusion	Not Significant

This only shows that the ICT Coordinators' performance truly assessed themselves and perform effectively their functions and duties along ICT Systems given to them. It is therefore important that teachers must continuously improve the skills and competencies through trainings related to ICT Programs so as to perform their responsibility effectively and efficiently, thus, improve the quality of learning, enhance the quality education, and improve educational planning and management .

As stressed by Veer (2005), McDonald (1998) and Ungar (2017) state that teachers need continuous program for the development in the field of education on learning how to use the computer system. This finding is substantiated by Caubang (2015) in his study that teachers teaching Computer Course need to attend more in-service trainings to update themselves of the latest advancement technology, particularly the use of computers in education.

4. Relationship between the Profile of the Respondents and their Self-Assessed Level of Performance.

Table 4 shows the relationship between the profile of the ICT Coordinators and their level of performance. At 0.05 level of significance and 2 degrees of freedom, the critical value of chi-square test for independence for educational attainment is 5.991, which is higher than the computed chi-square value of 0.157. Hence, the null hypothesis cannot be rejected. Therefore, there is no significant relationship between the educational attainment of the respondents and their level of performance. This means that the educational qualification of the respondents does not affect their performance as ICT Coordinator.

Similarly, for length of service, the computed chi-square value of 3.560 is within the critical value of 9.488 at 0.05 level of significance when the degrees of freedom is 4. With this, the null hypothesis is accepted. Thus, there is no significant relationship between the length of service of the respondents and their level of performance as ICT Coordinator. This means that length of service of the respondents as ICT Coordinator has nothing to do with their performance.

Table 4. Relationship Between the Profile of the ICT Coordinators and Their Level of Performance

Statistical Bases	Statistical Analyses		
	Educational Attainment	Length of Service	No. of Functions
Level of Significance	0.05	0.05	0.05
Degrees of Freedom	2	4	4
C-value	0.070	0.320	0.320
Degree of Relationship	Very small	moderately small	moderately small
Critical χ^2 value	5.991	9.488	9.488
Computed χ^2 value	0.157	3.560	3.476
Decision on Ho	Do not Reject	Do not Reject	Do not Reject
Conclusion	Not Significant	Not Significant	Not Significant

Moreover, for number of functions handled by the respondents, the computed chi-square value of 3.476 is within the critical value of 9.488 at 0.05 level of significance when the degrees of freedom is 4. With this, the null hypothesis is accepted. Thus, there is no significant relationship between the number of functions of the respondents and their level of performance as ICT Coordinator. This means that number of functions of the respondents as ICT Coordinator has nothing to do with their performance.

The findings showed that the profile of the respondents do not affect their performance as ICT Coordinators. This only means that educational attainment, trainings attended related to

ICT, length of service as ICT Coordinator and the number of ancillary functions given to them are not just the basis to effectively perform the various programs of ICT but most importantly on personal and professional willingness such as resourcefulness, curiosity, creativity and readiness to use computer applications. Thus, teachers must exert their efforts and commitments on their work in spite of their various duties to help in the institutionalization of ICT Program.

These findings were substantiated by the study of Abdulraham (2012) that teachers need to become more prepared and ready to exploit the opportunities offered by the computers and continuously search for more creative uses of computer in the field of teaching. More so, According to Lai and Pratt (2004) and Manolis (2011), personal and professional willingness, teachers' positive ICT attitudes, greatly contributed to a positive ground on which ICT can be successfully and meaningfully implemented in schools.

5. Extent of Practice of ICT Coordinators

This sections show the extent of practice of the ICT Coordinators along system and school infrastructure management, programs and projects, partnership and stakeholder management, policies and standards implementation, monitoring and evaluation, technical assistance to schools, program and project implementation. Weighted mean was used to analyze and interpret the data.

A. System and School Infrastructure Management. Table 6A reveals the extent of practice of the respondents along system and school infrastructure management.

As reflected in succeeding Table 5A, all the practices along System and School Infrastructure Management fall within the description of *highly practiced* with an over-all weighted mean of 4.12. Indicator number 7 which is Coordinates with the School Property Custodian in the inventory of all school ICT equipment got the highest mean of 4.39 and indicator number 2 which is Assists in preparation of the School Improvement Plan (SIP) or Annual Implementation Plan (AIP) got a lowest weighted mean of 3.84.

TABLE 5A. System and School Infrastructure Management

Indicators	Weighted Mean	Description
1. Assists in managing and maintaining	4.00	highly practiced

the school technology infrastructure.		
2. Assists in preparation of the School Improvement Plan (SIP) or Annual Implementation Plan (AIP).	3.84	highly practiced
3. Ensures maintenance and utilization of School E- Classroom including equipment such as laptop, projectors and speakers among others.	4.13	highly practiced
4. Report problems and concerns about ICT packages on school to the supplier and SDO unit.	4.26	highly practiced
5. Manages the DCP package and other information system implemented by the DepEd and other ICT related concerns in the school.	4.19	highly practiced
6. Ensures the functionality and efficacy of the ICT facilities are utilized and shall sustain the teaching and learning process in school.	4.03	highly practiced
Coordinates with the School		
7. Property Custodian in the inventory of all school ICT equipment.	4.39	highly practiced
Overall Weighted Mean	4.12	highly practiced

Likewise, assists in managing and maintaining the school technology infrastructure, Ensures maintenance and utilization of School E- Classroom including equipment such as laptop, projectors and speakers among others, Reports problems and concerns about ICT packages on school to the supplier and SDO unit, Manages the DCP package and other information system implemented by the DepEd and other ICT related concerns in the school and Ensures the functionality and efficacy of the ICT facilities are utilized and shall sustain the teaching and

learning process in school fall to the description of *Highly Practiced* with a weighted mean of 4.00, 4.13, 4.26, 4.19 and 4.03 respectively.

This implies that there is proper coordination between ICT Coordinator, School Property Custodian and School head to ensure the availability, accountability and functionality of ICT equipment. It is supported by the statement of Tilson (1994) that "Technology, if applied approximately, can be a great assistance in providing high quality education. The use of technologies can be considered in the context of two overarching purposes-to provide high quality instruction quickly and to manage the project as efficiently and effectively as possible. Each of these two purposes can be broken down into subdivisions: (1) instruction-which includes delivery of instruction to learners and improving the quality of learning, (2) management- includes improving the quality of instruction materials, reducing the time to prepare materials, facilitating research and evaluation, improving communications, strengthening program management.

Likewise, Division Memorandum No. 111, s. 2016 states that the school ICT Coordinators are expected to perform the duties and functions along ICT Systems and School Infrastructure Management, ICT Programs and Projects, Partnership and Stakeholder Management, ICT Policies and Standards Implementation, ICT Monitoring and Evaluation, Technical Assistance to Schools/District Integration of ICT in School Governance, teaching and Learning and ICT Program and Projects Implementation.

B. ICT Programs and Projects. Table 5B reveals the extent of practice of the respondents along ICT programs and projects. It can be viewed from the table that the over-all weighted mean of practices along ICT Programs and Projects is 4.33 and fall within the description of highly practiced.

Specifically, practices on Helps integrate ICT in teaching and learning, Supports programs and projects implemented at the school learning centers, Spearheads in the implementation of ICT Literacy via school LAC session, Maintains the effective use of the e-classroom and monitor the utilization of other ICT equipment such as laptop, projector and speakers among others and Provides assistance and/or facilitate in the early accomplishment of different ICT related DepEd Programs like LRMS, e-Class Record, DepEd Email Account, eHRIS and other alike fall

within the description of *highly practiced* with a mean of 4.42, 4.06, 3.97, 4.19, and 4.45 respectively.

On the other hand, practices on Helps updates the Learners Information System (LIS), Enhanced Basic Education Information System (EBEIS), Enterprise Human Resource Information System (e-HRIS) and other information system that requires online transactions having weighted mean of 4.68 and Maintains school LIS/EBEIS/EHRIS account (username and password and mentor LIS/EBEIS/EHRIS online encoding gaining 4.55 falls within the description of *very highly practiced*. Based on the findings, this implies that the ICT programs and projects were properly disseminated and implemented in the school to ensure proper utilization of ICT in teaching and learning.

It is backed up by the statement of Schreurs (2007) that the implementation of ICT in schools requires a vision on ICT use in school, the formulation of clear strategic goals and the planning and organization of the use of ICT in school. He added that the pursued goals are those points we want to reach for the teachers by setting up ICT use in the school. The performance management should be a main concern of every school. Organizations are seeking new integrated systems that enable rapid changes through early identification of opportunities and problems, tracking of progress against plan, flexible allocation of resources to achieve goals, and consistent operations. Performance pinpoints the need to integrate strategy and key indicators of performance into management, and to exploit ICT to improve monitoring, management reporting, and decision making.

TABLE 5B. ICT Programs and Projects

Indicators	Weighted Mean	Description
1. Helps integrate ICT in teaching and learning.	4.42	highly practiced
2. Supports programs and projects implemented at the school learning centers.	4.06	highly practiced
3. Helps update the Learners Information System (LIS),	4.68	very highly practiced

Enhanced Basic Education Information System (EBEIS), Enterprise Human Resource Information System (e-HRIS) and other information system that requires online transactions.		
4. Spearheads in the implementation of ICT Literacy via school LAC session.	3.97	highly practiced
5. Maintains the effective use of the e-classroom and monitor the utilization of other ICT equipment such as laptop, projector and speakers among others.	4.19	highly practiced
6. Maintains school LIS/EBEIS/EHRIS ACCOUNT (username and password and mentor LIS/EBEIS/EHRIS online encoding.	4.55	very highly practiced
7. Provides assistance and/or facilitate in the early accomplishment of different ICT related DepEd Programs like LRMDS, e-Class Record, DepEd Email Account, eHRIS and other alike.	4.45	highly practiced
Overall Weighted Mean	4.33	highly practiced

This finding is also supported by the statement of Reodique (2016) that the DepEd started the DepEd Computerization Program (DCP). The goal of the program is to provide schools with the

technological and IT devices they could be used like computer packages. According to press release of DepEd as of December 2016, a total of 53, 785 DCP packages have been delivered to schools. It is also worthy to mention the development of a learning resource portal where students and teachers will have access to digitized educational materials.

C. Partnership and Stakeholder Management. Table 5C reveals the extent of practice of the respondents along partnership and stakeholder management. As provided in the table, two (2) of the practices were identified to be within the description of highly practiced. These are: Disseminates different information, programs and projects through social media and other means of communication with a weighted mean of 3.68 and Disseminates the School Report Card (SRC) to stakeholders twice a year gaining 4.16.

Meanwhile some of the practices along Partnership and Stakeholder Management were considered to be *practiced*. 3.39 on Reviews ICT related MOU/MOA and contracts with private organizations, SUCs, LGUs and/or Public/Private schools and Establishes and maintains strong working relationships with government agencies, corporate foundations, non-profit organizations, and non-government organizations in the implementation of ICT programs and projects in the basic education sector; Moreso, 3.13 on Conducts training related to ICT with the help of external stakeholder; 3.10 on Engages and maintains strong working relationships with government agencies, corporate foundations, non-profit organizations, and non-government organizations in the implementation of ICT programs and projects in the basic education sector; and 3.26 on Educates parents and other stakeholders the new trends of technology brings by ICT. Based on the findings, this imply that in partnering with stakeholders, We must consider theirs context- discerning strengths, challenges, opportunities and chart paths to move from current reality to desired outcomes.

TABLE 5C. Partnership and Stakeholder Management

Indicators	Weighted Mean	Description
1. Reviews ICT related MOU/MOA and contracts with private organizations, SUCs, LGUs and/or	3.39	Practiced

Public/Private schools.		
2. Establishes and maintains strong working relationships with government agencies, corporate foundations, non-profit organizations, and non-government organizations in the implementation of ICT programs and projects in the basic education sector.	3.39	Practiced
3. Disseminates different information, programs and projects through social media and other means of communication.	3.68	highly practiced
4. Disseminates the School Report Card (SRC) to stakeholders twice a year.	4.16	highly practiced
5. Conducts training related to ICT with the help of external stakeholder.	3.13	Practiced
6. Engages and maintains strong working relationships with government agencies, corporate foundations, non-profit organizations, and non-government organizations in the implementation of ICT programs and projects in the basic education sector.	3.10	Practiced
7. Educates parents and other stakeholders the new trends of technology brings by ICT.	3.26	Practiced
Overall Weighted Mean	3.44	Practiced

This finding is substantiated by the statement of Diculen (2008) that computer technology has reached popularity in all sectors of society. She stresses that in the Philippines, computer literacy

has been one of the thrusts of the government through the Department of Education and some private institutions. And at present many schools, community and other government offices are now using computer in the delivery of communications.

D. Policies and Standards Implementation. Table 5D reveals the extent of practice of the respondents along policies and standards implementation.

It can be gleaned in the table that the extent of practices on Ensures alignment of school policy standards with the national and regional policies and standards for basic education, Sets standards and policies pertaining to ICT in basic education and governance, Ensures users' completion with the ICT policy, standards, guidelines and procedures fall within the description of *highly practiced* with a mean of 3.90, 3.71 and 3.55 respectively.

TABLE 5D. Policies and Standards Implementation

Indicators	Weighted Mean	Description
1. Ensures alignment of school policy standards with the national and regional policies and standards for basic education.	3.90	highly practiced
2. Sets standards and policies pertaining to ICT in basic education and governance.	3.71	highly practiced
3. Devises, implements and monitors the ICT policy in line with the whole school policy.	3.45	Practiced
4. Implements school awareness campaign on appropriate information and physical security measures for the effective operation and support of ICT facilities and services.	3.45	Practiced
5. Ensures users' completion with the	3.55	highly practiced

ICT policy, standards, guidelines and procedures.		
Overall Weighted Mean	3.61	Highly Practiced

On the other hand, the extent of practices on Devises, implements and monitors the ICT policy in line with the whole school policy and Implements school awareness campaign on appropriate information and physical security measures for the effective operation and support of ICT facilities and services having weighted mean of 3.45 falls within the description of *practiced*.

It implies that the ICT coordinators applied such policies and standards by transpiring the goals and objectives into action. It is supported by the statement of Bonifacio (2013) that developing these standards is a decision making process that will dictate how Filipino students and teachers will acquire ICT concepts and skills to help them achieve the greater benefits of learning.

E. Monitoring and Evaluation. Table 5E reveals the extent of practice of the respondents along monitoring and evaluation. It can be viewed from the table that the over-all weighted mean of practices along Monitoring and Evaluation is 3.60 and fall within the description of highly practiced.

Specifically, practices on Helps M & E system and tools on ICT, Recommends findings, Oversees all aspect of ICT in school and take initiative diagnostics and recommendations to ensure the ICT resources are effectively utilized, and Ensures all the documents of DCP Packages are available fall within the description of *highly practiced* with a mean of 3.71, 3.52, 3.55, and 4.06 respectively.

TABLE 5E. Monitoring and Evaluation

Indicators	Weighted Mean	Description
1. Helps M & E system and tools on	3.71	highly practiced

ICT.		
2. Recommends findings.	3.52	highly practiced
3. Oversees all aspect of ICT in school and take initiative diagnostics and recommendations to ensure the ICT resources are effectively utilized.	3.55	highly practiced
4. Monitors and evaluates the impact of ICT programs on education performance indicators.	3.35	Practiced
5. Assesses effects of ICT programs on school performance.	3.42	Practiced
6. Ensures all the documents of DCP Packages are available.	4.06	highly practiced
Overall Weighted Mean	3.60	highly practiced

Moreover, Monitors and evaluates the impact of ICT programs on education performance indicators having weighted mean of 3.35 and Assesses effects of ICT programs on school performance gaining 3.42 falls within the description of *practiced*. This implies that the application of ICT can positively impact student and teacher knowledge, skills and attitudes. Through monitoring and evaluation, it can contribute changes in teaching practices, school innovation and community services.

The finding is supported by the statement of Kozma (2005) that there are three main issues considered in terms of the impact of ICTs in education :(a) student outcomes such as higher scores in school subjects or the learning of entirely new skills needed for a developing economy; (b) teacher and classroom outcomes such as development of teachers' technology skills and knowledge of new pedagogical approaches, as well as improved attitudes toward teaching; and (c) other outcomes such as innovativeness in schools and increased access of community members to adult education and literacy.

F. Technical Assistance to Schools. Table 5F reveals the extent of practice of the respondents along technical assistance to schools.

As provided in the table, the extent of practices along Technical Assistance to School belonged to the adjectival description of *highly practiced* with an over-all weighted mean of 3.92. It is also indicated that most practices fall within the description of *highly practiced*.

TABLE 5F. Technical Assistance to Schools/Integration in Teaching and Learning

Indicators	Weighted Mean	Description
1. Helps capacitate school on ICT implementation.	3.81	highly practiced
2. Helps identify ICT needs or requirements.	3.94	highly practiced
3. Helps recommend measures to address ICT needs.	3.87	highly practiced
4. Shares technology updates to other ICT Coordinators.	3.81	highly practiced
5. Provides technical assistance to peers, learners and school heads with regard to the integration of ICT in teaching and learning.	4.00	highly practiced
6. Coordinates with District ICT and Division IT Officers on the monitoring and evaluation of ICT programs and Projects to ensure effective feedback and collaboration.	4.06	highly practiced
7. Works in coordination with the Division ITO and other School ICT Coordinators with regards to the	3.97	highly practiced

implementation of division ICT and ICT related programs.		
8. Takes charge in training teachers and staff in integrating ICT in education.	3.48	Practiced
9. Helps/assists teachers that need help in online transaction.	4.32	highly practiced
Overall Weighted Mean	3.92	highly practiced

Specifically, these are : 3.81 on Helps capacitate school on ICT implementation and Shares technology updates to other ICT Coordinators; 3.94 on Helps identify ICT needs or requirements; and 3.87 on Helps recommend measures to address ICT needs. Furthermore, the extent of practices along, Provides technical assistance to peers, learners and school heads with regard to the integration of ICT in teaching and learning, Coordinates with District ICT and Division IT Officers on the monitoring and evaluation of ICT programs and Projects to ensure effective feedback and collaboration, Works in coordination with the Division ITO and other School ICT Coordinators with regards to the implementation of division ICT and ICT related programs and Helps/assists teachers that need help in online transaction fall within the description of *highly practiced* gaining 4.00, 4.06, 3.97 and 4.32 respectively.

Meanwhile only one (1) of the practices was identified to be within the description of *practiced* which is Takes charge in training teachers and staff in integrating ICT in education gaining 4.16 weighted mean. This implies that the ICT coordinators practiced and provided full assistance to peers, learners and school heads with regards to ICT technical problems.

This finding is backed up by Division Memo No. 62 s.2014 that the duties, responsibilities of a School ICT Coordinators include :a. Download/print online memo and other information; b. Mentor LIS/EBEIS online encoding; c. Maintain(reset) LIS/EBEIS accounts (username and password) of the school personnel; d. Provide technical assistance to the school LR committee; e. Maintain inventory of all school ICT equipment ;f. and Assist in the crafting of ICT development

plan as part of the School Improvement Plan. Likewise, Senator Escudero (2003) highlights the use of computer in the educative process in the House Bill No. 632. It is an act to integrate a computer education program into the educational system and for other purposes, for pursuing the objectives in achieving goals for better quality education.

The result is also supported by the statement of DepEd Sec. Armin Luistro (2013) on the use of Information and Communication Technology (ICT) in all learning areas. It serves as encouragement as means of promoting greater engagement in teaching-learning process and widening access to knowledge that will enrich learning and developing skills. So, teachers are the key to achieving the vision of K to 12 education program. With this there is a need to expand learning to include media and digital literacy. Thus, a teacher must be multi-literate to use various technologies in teaching.

In the same manner, Bonifacio (2013) states that integrating Information and Communication Technology (ICT) into teaching and learning has become a great concern for many educators in developing countries like the Philippines. ICT must be used and taught in powerful and meaningful ways. With rapid development, educators should find ways to integrate technology in the learning process. ICT should not drive education rather educational goals and needs must drive its use in schools. Targeting holistic growth for learners is a crucial factor in realizing the need to develop ICT curriculum standards for K-12 schools in the Philippines.

G. Programs and Projects Implementation. Table 5G reveals the extent of practice of the respondents along programs and projects implementation.

TABLE 5G. Programs and Projects Implementation

Indicators	Weighted Mean	Description
1. Helps in making school plans on programs and projects aligned with the division, regional and national PPs.	3.74	highly practiced
2. Helps in the implementation of the PPs in the school.	3.68	highly practiced

3. Takes care of all the online/offline DepEd ICT related programs and projects.	4.03	highly practiced
4. Helps in curriculum implementation and classroom integration.	3.81	highly practiced
5. Commits and responsible in implementing ICT programs and projects in their own school.	4.06	highly practiced
Overall Weighted Mean	3.86	highly practiced

It can be viewed from the table that all the listed practices along Programs and Project Implementation belonged to the adjectival description of *highly practiced* in which the extent of practices on Commits and responsible in implementing ICT programs and projects in their own school got the highest weighted mean of 4.06 and practices on Helps in the implementation of the PPs in the school having lowest weighted mean of 3.68. Meanwhile, Helps in making school plans on programs and projects aligned with the division, regional and national PPs, Takes care of all the online/offline DepEd ICT related programs and projects, and Helps in curriculum implementation and classroom integration got a weighted mean of 3.74, 4.03, and 3.81 respectively.

Based on the findings, this implies that the ICT program and projects were implemented, realized, and put into actual practices. This finding is substantiated by DepEd Order No. 78, s. 2010 or the DepEd Computerization Program (DCP). This program aims primarily to provide public schools with appropriate technologies that would enhance the teaching-learning process and meet the standards and challenges of the 21st century. Further, the objective of this program include: 1) provide computer laboratory packages to secondary schools; 2) provide e-classroom to elementary schools; 3) provide laptop units to mobile teachers; 4) integrate ICT in the school system; 5) raise the ICT literacy of learners, pupils, students, teachers, and school heads; and 6) reduce the computer backlog in public schools.

6. Problems Encountered by the ICT Coordinators in Managing their Functions

Table 6 gives the necessary data on the problems encountered by the ICT Coordinators in managing their functions. Provided also are the sum of ranks and the final rank.

It can be viewed from the table that among all the listed problems encountered by the ICT Coordinators in managing their functions, Insufficient number of computers got the 1st rank with a sum of rank of 98 and Enough time in utilizing computers got the 10th or last rank with a sum of rank of 227 among the challenges faced by the respondents. ICT coordinators do not have ample trainings related to ICT ranked two (2) with sum of rank of 99; There is an inadequate maintenance of hardware ranked (3) with a sum rank of 122; E-Classroom is not enough to accommodate all the learners ranked four (4) with sum of rank of 130; and absence of infrastructure for connectivity and access to technologies like internet and other ICT resources ranked five (5)with sum of rank of 132.

Meanwhile, no immediate technical support is given to ICT coordinators ranked six (6) with sum of rank of 145 ; ICT coordinators have multiple ancillary functions assigned by the school head ranked seven (7)with sum of rank of 191 ; Some teachers lack self-confidence in using ICT ranked eight (8) with sum of rank of 199 ; and Pedagogical knowledge on technology is insufficient among ICT teachers ranked nine (9) with sum of rank of 224.

These identified problems implied that the respondents encountered different circumstances in the implementation of ICT computerization programs and projects that affects their performance and practice as ICT coordinators.

TABLE 6.Problems encountered by the ICT Coordinators

PROBLEMS	Sum of Ranks	Final Rank
1. ICT coordinators have multiple ancillary functions assigned by the school head.	191	7
2. There is insufficient number of computers.	98	1
3. The E-Classroom is not enough to accommodate all the learners.	130	4
4. There is an absence of infrastructure for connectivity and access to	132	5

technologies like internet and other ICT resources.		
5. ICT coordinators do not have ample trainings related to ICT.	99	2
6. Some teachers lack self-confidence in using ICT.	199	8
7. No immediate technical support is given to ICT coordinators.	145	6
8. There is no enough time in utilizing computers.	227	10
9. Pedagogical knowledge on technology is insufficient among ICT teachers.	224	9
10. There is an inadequate maintenance of hardware.	122	3

These results were further supported by the findings of Netragaonkar [22] about issues in ICT Education: Barriers, Problems and Role of Teachers in ICT Education. He examined the issues related with ICT such as computers, internet connectivity, PDA, RIM pager, high definition televisions, teleconferencing, cellular mobiles, WIFI, Distance Learning via internet and explored the information and role of teachers in promoting the ICT education and barriers in implementing the ICT education.

In the same way, Charalambous and Karagiogi (2008) studied about Information and Communication Technology In-service Training for Teachers in Dahar: Cyprus in perspective. Based on the result of their studies, they indicated that the majority of teachers are shown to lack an ICT training background while the approach to training appears piecemeal, focused mostly on off-site training and oriented towards the acquisition of basic computer skills. However, teachers report that they prefer school-based courses, as well as courses that focus on the pedagogical dimension of ICT integration. Based on the outcomes, a national plan for teacher training in ICT is proposed, focusing on coherence, availability, efficiency and diversification.

7. Proposed Strategic Plan for ICT

Based on the findings of the study, a strategic plan on the performance and practices of Information and Communication Technology (ICT) is hereby proposed.

I. RATIONALE

As part of the legal mandate of promoting the right of all citizens to take appropriate steps in making education accessible to all, the Department of Education (DepEd) is geared towards the transformation of education through the DepEd Computerization Program (DCP) which was stipulated in the DepEd Order No. 78, s.2010. This program aims primarily to provide public schools with appropriate technologies that would enhance the teaching-learning process and meet the standards and challenges of the 21st century. Further, the objective of this program include: 1) provide computer laboratory packages to secondary schools; 2) provide e-classroom to elementary schools; 3) provide laptop units to mobile teachers; 4) integrate ICT in the school system; 5) raise the ICT literacy of learners, pupils, students, teachers, and school heads; and 6) reduce the computer backlog in public schools.

In order to strengthen the implementation of the program, a strategic plan is hereby proposed which may be implemented starting the school year 2018-2019. This plan is classified into seven which include systems and school infrastructure management, ICT programs and projects, partnership and stakeholder management, policies and standards implementation, monitoring and evaluation, technical assistance to schools integration of ICT in school governance, teaching and learning, programs and projects implementation and others.

With ICT, District of Irosin has its own autonomy on decision-making involving public schools district supervisor, school heads, teachers, internal and external stakeholders. It helps the whole district as partners for school growth and development through their cooperation in all school's undertakings.

Based on the findings, conclusions and recommendations of the study conducted for this purpose, a proposed strategic plan may strengthen the performance and practices of ICT Coordinators. Presented in matrix form, the strategic plan included the following items: Key Result Area, Specific Objectives, Activities, Time Frame, Persons Involved, Funding Requirements/Annual Budget and Expected Output.

II. General Objective

To regenerate the performance and practices of Information and Communication Technology (ICT) Coordinators in Irosin District.

III. Specific Objectives

1. Help in preparation of the School Improvement Plan (SIP) or Annual Implementation Plan (AIP).
2. Spearhead in the implementation of ICT literacy via school LAC session.
3. Uphold strong working relationships with government and non-government organizations in the execution of ICT programs and projects in the basic education sector.
4. Implement school awareness campaign on appropriate information and physical security measures for the effective operation and support of ICT.
5. Monitor and evaluate the impact of ICT programs on education performance indicator.
6. Take charge in training teachers and staff in integrating ICT in education.
7. Assist in the implementation of the Program and Projects in the school.
8. Attend trainings related to ICT.
9. Report problems and concerns about ICT packages.

4. CONCLUSION AND RECOMMENDATION

Majority of the respondents are educationally qualified, and are able to perform multiple tasks despite of the inadequate attendance to capability building activities; The school heads and the ICT Coordinators themselves gave similar assessment on the performance of the latter; The performance of the ICT Coordinators as assessed by the school heads and themselves did not vary significantly; The performance of the ICT coordinators are not affected by their educational attainment, in-service training attended, length of service, and other ancillary functions. Generally, the extent of practice of the ICT Coordinators along system and school infrastructure management, programs and projects, partnership and stakeholder management, policies and standards implementation, monitoring and evaluation, technical assistance to schools, program and project implementation is said to be highly practiced. More so, the insufficient number of computers and the limited capability building activities are the problems commonly encountered

by the ICT coordinators; and a strategic plan can be proposed to strengthen the performance and practices of elementary ICT Coordinators.

Teachers must continue to improve their professional development by continuing pursuing graduate studies and attending trainings and seminars in all levels. Teachers must continually grow in knowledge, skills and competencies, and expertise particularly on the different practices related to ICT Programs to improve their performance as ICT Coordinator. ICT teachers and school heads must utilize the researcher-made questionnaire as a tool to monitor their ICT skills and competencies. Teachers must exert their efforts and commitments on their work in spite of their various duties to help on the institutionalization of ICT program. ICT Coordinators must implement effectively and efficiently all the different activities and practices to support the implementation of ICT programs and projects. The Department of Education (DepEd) must provide sufficient ICT resources particularly computers in all school learning system for the successful implementation and institutionalization of ICT Programs and System in the basic education sector. The Department of Education (DepEd) should address the problems of the ICT programs through the implementation of the proposed strategic plan in the District through utilization and further adoption to address problems to improve ICT. A similar study to validate the results of the present study may be conducted in other districts or division.

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