Utilization of Information and Communication Technology (ICT) Resources

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Abstract

This research used the descriptive method to determine the level of utilization of Information and Communication Technology (ICT) Resources in District 4 Public Elementary Schools of Bayawan City Division, Negros Oriental, Philippines for SY 2019-2020. The quantitative data were gathered from 73 research respondents comprised of school heads, ICT Coordinators, and teachers. Also, the researcher conducted a survey questionnaire. Descriptive method was used in this study. The statistical tools used in the analysis of the data were percentage, mean, and weighted mean. The study found out that the level of utilization of Information and Communication Technology (ICT) Resources in the School System was "high" in terms of the following aspects: (a) equipment; (b) facilities; and (c) seminar and training activities. However, the difference in the level of utilization of Information and Communication Technology (ICT) Resources in the School System in the aforementioned areas are not significant according to variables of age, civil status, average family income, and highest educational attainment.

Keywords: *Information and Communication Technology (ICT), Resources, Utilization, Philippines*

I. INTRODUCTION

DepEd Order No. 78, series of 2010, DepEd Computerization Program (DCP) aims to provide public schools with appropriate technologies that would enhance the teacher-learning process and meet the challenges of the 21st Century. This program is in response to the computer backlog of public schools by providing them hardware and software, training on simple trouble shooting.

The worldwide integration of information and communication technology (ICT) into education has advanced significantly over the last two decades. People have always tried to use technology to meet their needs (De Lira & Niez, 2016), and today new technologies appear almost daily. Educators, community, government and local authorities all place great importance on integrating ICT advances into education. Much of the discussion concentrates on upgrading resources, rather than meaningfully integrating ICT in classrooms.

With the legal mandate of promoting the right of all citizens to take appropriate steps in making education accessible to all, the Department of Education (DepEd) is geared towards the transformation of education through the DepEd Computerization Program (DCP). Like other divisions in the Philippines, the Division of Bayawan City started the implementation of the DepEd Computerization Program (DCP) – a program that provides ICT infrastructures to both secondary and elementary schools. Researches generally collect data on inputs such as teachers, students, classrooms, and expenditures. The substantive issues on program implementation and evaluation were ignored.

With the abovementioned scenario, it is both timely and relevant that the Philippine government's efforts to address the underlying problems in the education system through the adoption of ICT be evaluated in order to find out whether or not such program is effective and efficient. Such is the motivation and interest of the researcher to evaluate the Level of Utilization of Information and Communication Technology (ICT) Resources in the District 4 Public Elementary Schools, Division of Bayawan City for SY 2019-2020.

II. METHODOLOGY

The study determined the level of utilization of Information and Communication Technology (ICT) Resources in District 4 Public Elementary Schools of DepEd-Bayawan City Division.

The study used the descriptive-correlational research design and a self-made questionnaire. Three analytical scheme were used, the descriptive, comparative and relational.

The respondents of the study were the school heads, ICT Coordinators, and Teachers of the different Public Elementary Schools of District 4, Bayawan City Division.

For the data gathering procedure, the self-made questionnaire is the main instrument used which undergone validation of experts and reliability testing analysis.

Different statistical tools were used to quantify all problems such as frequency and percentage, mean, and mann whitney u test.

III. RESULTS AND DISCUSSION

This section presents the result of the study and provides in-depth analysis and interpretation of data.

Table 1
Profile of the Respondents

Variable	Category	Frequency	Percentage
Age	younger (below 45 years old)	40	55.0
	older (45 years old and above)	33	45.0
	Total	**73**	**100.0**
Civil Status	single	18	25.0
	married	55	75.0
	Total	**73**	**100.0**
Average Family Monthly Income	lower (below 24,000)	35	47.5
	higher (24,000 and above)	38	52.5
	Total	**73**	**100.0**
Highest Education Attainment	Bachelor	35	47.5
	MA/CAR	38	52.5
	Total	**73**	**100.0**

Table 1 presents the profile of the respondents in terms of age, civil status, average family monthly income and highest educational attainment.

In terms of age, 40 or 55.0% were younger respondents with ages below 38 years old while 33 or 45.0% are older respondents with ages 38 years old and above. In terms of civil status, 18 or 25% are single and 55 or 75% are married respondents. For variable average family monthly income, 35 or 47.5% has lower income while 38 or 52.5% has higher income. With regards to highest educational attainment, 35 or 47.5% are bachelor's degree while 38 or 52.5% has MA and CAR.

Table 2
Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Equipment

	Items	Mean	Interpretation
1	Laptop is used for lesson preparations to create and present multimedia shows.	4.40	High Level
2	Personal or hand-held computers are used as personal organizers to manage files for delivering instruction.	4.13	High Level
3	Interactive boards are used for delivering presentations in order to share digital files related to the course.	3.90	High Level
4	Printers are networked for utilization in the classrooms, schools or work stations.	4.25	High Level
5	Projectors/ Televisions are used during class discussions and demonstrations to provide supplementary content materials.	4.22	High Level
6	Web or internet is used to look up reference information, to access portal and course, and to send and receive e-mail, and build and maintain websites.	4.45	High Level
7	Digital cameras are used to manage digital photos, and to share photographs and other digital materials.	4.22	High Level
8	Scanners are used to manage documents needed in delivering instruction through organizing files in digital format.	4.00	High Level
9	Audio and video resources are used to create, edit and present audios and videos, and to access online audio/video recordings of lectures.	4.02	High Level
10	Browser phones are used to access web-based services information and/or utilized for instant messaging/chat on the web to communicate/collaborate with other students in the course.	4.50	Very High Level
	Overall Mean	**4.21**	**High Level**

Table 2 shows the data on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment. As presented in the table, the obtained highest mean score of 4.50 was on item No. 10 which states "Browser phones are used to access web-based services information and/or utilized for instant messaging/chat on the web to communicate/collaborate with other students in the course" and interpreted as "very high level" while the lowest mean score of 3.90 was on item No. 3 which states "Interactive boards are used for delivering presentations in order to share digital files related to the course" interpreted as "high level". The overall mean score was 4.21 interpreted as "high level". This implies that respondents are capable of using ICT such as mobile phones to access information in delivering their lessons and utilizing all the available ICT equipment to ensure leaners will fully understand the lessons. But, still a need to equip teachers in using interactive boards delivering presentations in order to share digital files related to the course. According to Anyamene and Nwokolo (2013), Information and Communication Technology (ICT) have become key tools in educational methodology and curriculum delivery globally. The use of ICT offers powerful learning environments and can transform the learning and teaching process so that students can deal with knowledge in an active, self-directed and constructive way (Comighud, 2019; Pillado, Futalan, & Comighud, 2020; Comighud et. al, 2020).

Table 3

Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Facilities

	Items	Mean	Interpretation
1	There is an Information and Communication Technology (ICT) room in the school for teaching-learning purposes.	4.63	Very High Level
2	There are classroom facilities or significant number of rooms with available ICT resources to deliver ICT related lessons or instruction.	4.25	High Level
3	There is a school office with ICT resources to be used for administrative works.	4.35	High Level
4	There is a computer laboratory networked to share necessary information.	4.55	Very High Level
5	There are enough computer facilities and accessories for maintenance in my school.	4.10	High Level
6	There is an available internet connection in the school where teachers, students and administrative staff are connected.	4.50	Very High Level
7	There are display facilities or the presence of projector or ability to display audiovisual materials to be used in the teaching-learning process.	4.28	High Level
8	There are photocopy, fax, and scanning machines to be used in the school both for administrative and instructional purposes.	4.13	High Level
9	There is an administrative staff office with internet access to better organizational undertakings.	4.22	High Level
10	There is enough or sufficient electrical supply to support the utilization of ICT facilities in the school setting.	4.52	Very High Level
	Overall Mean	**4.35**	**High Level**

Table 3 reveals the results on the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities. As shown in the table, the obtained highest mean score of 4.63 was on item No. 1 which states "There is an Information and Communication Technology (ICT) room in the school for teaching-learning purposes." and interpreted as "very high leel" while the lowest mean score of 4.10 was on item No. 5 which states "There are enough computer facilities and accessories for maintenance in my school" interpreted as "high level". The overall mean score was 4.35 interpreted as "high level". This implies that there is an Information and Communication Technology (ICT) room in the school for teaching-learning purposes but due to the limited computers facilities and accessories lessons were not delivered on time. Teachers find ways and initiative to utilize all available ICT learning resources to ensure the delivery of instruction**.**

According to Heinich et al, (2014), a well designed 21st century eclassroom provides a conducive environment for learning. Students are more likely to be able to apply it to real life what they have practiced in simulated circumstances. Today technology has made teaching and learning easier through the application of ICT. Computer simulations are vital to teaching and learning especially science subjects. Simulation offer new educational environments, which aims to enhance teachers' instructional potentialities and to facilitate students' active engagement. In addition to that, according to Oluwatumbi (2015), the introduction of technology into the classroom has revolutionized teaching and learning process. The 21st century learning environment creates exciting learning for students to collaborate and learn at their own pace making them active participants in learning process (Comighud, 2019; Comighud et. al, 2020).

Table 4

Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Seminar or Training Activities

	Items	Mean	Interpretation
1	Planning and designing teaching-learning activities to foster students' engagement.	4.37	High Level
2	Developing new or modifying existing digital and/or non-digital learning resources.	3.85	High Level
3	Using the Internet or web to obtain information for instructional purposes.	4.32	High Level
4	Processing assessment and evaluating data and reports of students' progress and achievement.	4.20	High Level
5	Using ICT tools and resources are used to improve efficiency and professional practices.	4.32	High Level
6	Practicing social responsibility, ethical and legal use of ICT tools and resources.	4.38	High Level
7	Using ICT Resources for communication and research undertakings.	4.23	High Level
8	Using ICT Resources to further technological advancements.	4.28	High Level
9	Using email to foster communication with other teachers, students, parents and other stakeholders.	4.10	High Level
10	Using subject-specific software and participating in an online interactive discussion or bulletin board with students.	4.18	High Level
	Overall Mean	**4.22**	**High Level**

Table 4 displays the statistics on the level of utilization of information and communication technology (ICT) resources in the school system in the area of seminar or training activities.

As revealed in the table, the obtained highest mean score of 4.38 was on item No. 6 which states "Practicing social responsibility, ethical and legal use of ICT tools and resources" and interpreted as "high level" while the lowest mean score of 3.85 was on item No. 2 which states "Developing new or modifying existing digital and/or non-digital learning resources" interpreted as "high level". The overall mean score was 4.22 interpreted as "high level".

This implies that the respondents fully understand the uses ICT learning resources and their social responsibilities. They need to have a training and workshop on developing/modifying digital and non-digital learning resources for classroom instructions and assessment of learning.

According to Wodi (2014), since the ICT industry and e – classroom are very dynamic, there is the need for continuous aggressive training programs to catch up with frontiers of knowledge, creativity and innovation (Comighud & Arevalo, 2020).

In support for that, according to Bingimlas (2014), teachers always need technical assistance to provide appropriate manipulation of the up-to-date equipment in the new world of technology. Technical support allows access to e - classroom resources and then helps the successful integration of technology in the teaching process. Cox (2014) finally reported that the continuing need for further professional development of teachers enable them to understand the value of e - classroom to their curriculum and to their learners making them prepared to use it. Teacher training in the classroom use of modern technology helps increase teacher's efficiency in using e - classroom in education (Bingimlas, 2014). Training includes basic skills in using technology as well as the integration of those technologies into interactive and effective teaching. Bingimlas also suggested that increasing competence and improving E - classroom use could be done through self-training (Comighud, 2019; Pillado, Futalan, & Comighud, 2020; Comighud et. al, 2020).

Table 5

Difference in the Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Equipment According to Variable

Variable	Category	Mean	Mann Whitney U	p-value	Sig level	Interpretation
Age	Younger	4.22	195.0	0.934	0.05	Not Significant
	Older	4.20				
Civil Status	Single	4.20	148.5	0.962		Not Significant
	Married	4.21				
Average Family Monthly Income	Lower	4.20	186.0	0.713		Not Significant
	Higher	4.22				
Highest Educational Attainment	Bachelor	4.22	193.0	0.859		Not Significant
	MA/CAR	4.20				

Table 5 indicates the results in the difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment when the teachers are grouped and compare according to variables. As presented in the table, on variable age, the obtained Mann Whitney U test was 195.0 with a p-value of 0.934 which is greater than 0.05 level of significance, based on the results, it was interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to age" was accepted.

On variable civil status, the obtained Mann Whitney U test was 148.5 with a p-value of 0.962 which is greater than 0.05 level of significance, hence, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to civil status" was accepted.

With regards to variable average family monthly income, the obtained Mann Whitney U test was 186.0 with a p-value of 0.713 which is greater than 0.05 level of significance, for that, it was interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to average family monthly income" was accepted.

Further, on highest educational attainment, the obtained Mann Whitney U test was 193.0 with a p-value of 0.859 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to highest educational attainment" was accepted. This implies that the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment when the teachers are grouped and compared according to age, civil status, average family monthly income and highest educational attainment do not vary.

Table 6

Difference in the Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Facilities According to Variable

Variable	Category	Mean	Mann Whitney U	p-value	Sig level	Interpretation
Age	Younger	4.34	184.5	0.717	0.05	Not Significant
	Older	4.37				
Civil Status	Single	4.30	125.0	0.428		Not Significant
	Married	4.37				
Average Family Monthly Income	Lower	4.30	139.0	0.096		Not Significant
	Higher	4.40				
Highest Educational Attainment	Bachelor	4.33	178.5	0.564		Not Significant
	MA/CAR	4.37				

Table 6 exhibits the results in the difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities when the teachers are grouped and compare according to variables.

As revealed in the table, on variable age, the obtained Mann Whitney U test was 184.5 with a p-value of 0.717 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to age" was accepted.On variable civil status, the obtained Mann Whitney U test was 125.0 with a p-value of 0.428 which is greater than 0.05 level of significance, hence, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to civil status" was accepted.

With regards to variable average family monthly income, the obtained Mann Whitney U test was 139.0 with a p-value of 0.096 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to average family monthly income" was accepted.Further, on highest educational attainment, the obtained Mann Whitney U test was 178.5 with a p-value of 0.564 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to highest educational attainment" was accepted.

This implies that the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities when the teachers are grouped and compared according to age, civil status, average family monthly income and highest educational attainment do not differs.

Table 7

Difference in the Level of Utilization of Information and Communication Technology (ICT) Resources in the School System in the Area of Seminar or Training Activities According to Variable

Variable	Category	Mean	Mann Whitney U	p-value	Sig level	Interpretation
Age	Younger	4.24	180.5	0.638	0.05	Not Significant
	Older	4.21				
Civil Status	Single	4.17	116.5	0.288		Not Significant
	Married	4.24				
Average Family Monthly Income	Lower	4.28	144.5	0.130		Not Significant
	Higher	4.17				
Highest Educational Attainment	Bachelor	4.23	190.0	0.794		Not Significant
	MA/CAR	4.21				

Table 7 presents the statistics in the difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of seminar or training activities when the teachers are grouped and compare according to variables.

As shown in the table, for variable age, the obtained Mann Whitney U test was 180.5 with a p-value of 0.638 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to age" was accepted.

On variable civil status, the obtained Mann Whitney U test was 116.5 with a p-value of 0.228 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to civil status" was accepted.

With regards to variable average family monthly income, the obtained Mann Whitney U test was 144.5 with a p-value of 0.130 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to average family monthly income" was accepted.

Further, on highest educational attainment, the obtained Mann Whitney U test was 190.0 with a p-value of 0.794 which is greater than 0.05 level of significance, thus, interpreted as "not significant". Therefore the hypothesis that states "there is no significant difference on the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment according to highest educational attainment" was accepted. This implies that the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities when the teachers are grouped and compared according to age, civil status, average family monthly income and highest educational attainment do not vary.

IV. CONCLUSIONS

Based on the findings of the study, the following conclusions were made:

Since, the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment was interpreted as "high level". It was also noted that on item "Interactive boards are used for delivering presentations in order to share digital files related to the course" was the lowest mean obtained. It is therefore concluded that teachers greatly utilized the available ICT equipment in their classroom instructions. Interactive boards were sometimes not available.

Since, the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities was interpreted as "high level". It was also found out that on item "There are enough computer facilities and accessories for maintenance in my school" was the least mean obtained. It is therefore concluded that there were limited computer facilities and accessories for maintenance. Teachers must find ways to utilized available ICT facilities to ensure delivery of instructions.

In addition, the level of utilization of information and communication technology (ICT) resources in the school system in the area of seminar or training activities was interpreted as “high level”. It was also seen that on item “Developing new or modifying existing digital and/or non-digital learning resources” was the lowest mean obtained. It is therefore concluded that, teacher utilized seminar and training activities to enhance their professional skills in ICT. Likewise, teachers should attend workshops on the developing new and modifying digital or non-digital learning resources for classroom instructions.

Moreover, when the teachers were grouped according to age, civil status, average family monthly income and highest educational attainment the level of utilization of information and communication technology (ICT) resources was high.

Further, the level of utilization of utilization of information and communication technology (ICT) resources when the teachers were grouped according to age, civil status, average family monthly income and highest educational attainment do not differs.

V. RECOMMENDATIONS

In light of the results and conclusions, the following are recommended.

Since, the level of utilization of information and communication technology (ICT) resources in the school system in the area of equipment was interpreted as “high level”. It was also noted that on item “Interactive boards are used for delivering presentations in order to share digital files related to the course” was the lowest mean obtained. It is therefore recommended that, teachers should be trained in using software and internet based programs that will enable them to enhance their knowledge and skills in ICT.

Since, the level of utilization of information and communication technology (ICT) resources in the school system in the area of facilities was interpreted as “high level”. It was also found out that on item “There are enough computer facilities and accessories for maintenance in my school” was the least mean obtained. It is therefore recommended that, Educational Planners must design intervention strategies that would enable educators use ICT in the classroom. Teachers should be sensitized through seminars and workshops on the need to maximally utilize available e-learning technologies in schools. Efforts should be made by the Department of Education and other stakeholders in education (parents, non-governmental agencies, etc) to make adequate provision for computers and other necessary accessories required for e-learning.

In addition, the level of utilization of information and communication technology (ICT) resources in the school system in the area of seminar or training activities was interpreted as “high level”. It was also seen that on item “Developing new or modifying existing digital and/or nondigital learning resources” was the lowest mean obtained. It is therefore recommended that school heads should increase trainings and seminar opportunities in schools that will enable teachers to comply with activities and classroom pedagogies in compliance with the National ICT Policy.

Proposed Information and Communication Technology (ICT) Integration Program

Rationale

In the 21st century, the literate is increasingly expected to use computer technology to access and manipulate information. Knowing how to manage electronic information from an ever-widening array of resources and in proliferating formats is essential. To be fully prepared to function productively in a technology-oriented society, teachers must develop not only fundamental computer skills but also proficiency in using a variety of technology tools to solve problems, make informed decisions, and generate new knowledge. The development of these skills, as in other basic areas of knowledge, is the responsibility of the schools.

This chapter presents the ICT integration program proposed by the researcher for the improvement of the delivery of instructions in District 6, Division of Bayawan City. The proposed ICT integration program was based in the results of the research study. Area of equipment, facilities and seminar or training activities were assessed in the study to determine the utilization of ICT resources.

This proposed information and communication technology integration program seeks to suggest activities, seminars and trainings that will contribute to increase of quality of instruction.

Areas of Concern	Findings	Objectives	Programs/ Activities	Time Frame	Budget	Persons Involved	Success Indicator
Equipment	Interactive boards are used for delivering presentations in order to share digital files related to the course" was the identified as the lowest mean obtained.	Teachers should be trained in using software and internet based programs that will enable them to enhance their knowledge and skills in ICT	Seminar and Workshop on the Use of ICT software and internet based programs	April	MOOE	Education Program Specialist for ICT, ICT school coordinators, teachers, school head	95% of the teachers are equip in the use of ICT
Facilities	It was also found out that the lowest mean was on item "There are enough computer facilities and accessories for maintenance in my school"	Teachers should be sensitized through seminars and workshops on the need to maximally utilize available e-learning technologies in schools.	Training on the effective use of available ICT facilities.	May	MOOE	ICT Coordinators Teacher School Head	90% of teacher will enhance their knowledge in the effective use of ICT facilities
Seminar or Training Activities	It was also seen that the lowest mean obtained was on item "Developing new or modifying existing digital and/or non-digital learning resources"	Increase trainings and seminar opportunities in schools in ICT that will enable teachers to enhance their knowledge and skills	Various Training and Seminar on ICT and related thereto.	Every quarter	MOOE	ICT Coordinators Teacher School Head	100% attendance

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APPENDICES

Survey Instrument

Utilization of Information and Communication Technology (ICT) Resources

Part I: Profile of the Respondents

Name (Optional) _____
Age:_____ Civil Status: _____
Average Monthly Family Income:_____
Highest Educational Attainment: _____

Part II. Questionnaire Proper

Utilization of Information and Communication Technology (ICT) Resources

Instruction: Please check the number that indicates the level of utilization of Information and Communication Technology (ICT) Resources in your school. Please refer to the guide below in choosing your option. It is important that you honestly answer each item. Please do not leave any item unchecked. Rest assured that your individual information will be treated with strict confidentiality.

Code	Interpretation
5	always
4	often
3	sometimes
2	rarely
1	almost never

A. Equipment	5	4	3	2	1
What is the level of utilization of the following ICT Equipment:					
1. Laptop is used for lesson preparations to create and present multimedia shows.					
2. Personal or hand-held computers are used as personal organizers to manage files for delivering instruction.					
3. Interactive boards are used for delivering presentations in order to share digital files related to the course.					
4. Printers are networked for utilization in the classrooms, schools or work stations.					
5. Projectors/ Televisions are used during class discussions and demonstrations to provide supplementary content materials.					
6. Web or internet is used to look up reference information, to access portal and course, and to send and receive e-mail, and build and maintain websites.					
7. Digital cameras are used to manage digital photos, and to share photographs and other digital materials.					
8. Scanners are used to manage documents needed in delivering instruction through organizing files in digital format.					
9. Audio and video resources are used to create, edit and present audios and videos, and to access online audio/video recordings of lectures.					
10. Browser phones are used to access web-based ser information and/or utilized for instant messaging/ch the web to communicate/collaborate with other stu in the course.					

B. Facilities	**5**	**4**	**3**	**2**	**1**
What is the level of utilization of the following ICT Facilities:					
1. There is an Information and Communication Technology (ICT) room in the school for teaching-learning purposes.					
2. There are classroom facilities or significant number of rooms with available ICT resources to deliver ICT related lessons or instruction.					
3. There is a school office with ICT resources to be used for administrative works.					
4. There is a computer laboratory networked to share necessary information.					
5. There are enough computer facilities and accessories for maintenance in my school.					
6. There is an available internet connection in the school where teachers, students and administrative staff are connected.					
7. There are display facilities or the presence of projector or ability to display audiovisual materials to be used in the teaching-learning process.					
8. There are photocopy, fax, and scanning machines to be used in the school both for administrative and instructional purposes.					
9. There is an administrative staff office with internet access to better organizational undertakings.					
10. There is enough or sufficient electrical supply to support the utilization of ICT facilities in the school setting.					

C. Seminar or Training Activities	5	4	3	2	1
What is the level of utilization of the following ICT Seminar and Training Activities:					
1. Planning and designing teaching-learning activities to foster students' engagement.					
2. Developing new or modifying existing digital and/or non-digital learning resources.					
3. Using the Internet or web to obtain information for instructional purposes.					
4. Processing assessment and evaluating data and reports of students' progress and achievement.					
5. Using ICT tools and resources are used to improve efficiency and professional practices.					
6. Practicing social responsibility, ethical and legal use of ICT tools and resources.					
7. Using ICT Resources for communication and research undertakings.					
8. Using ICT Resources to further technological advancements.					
9. Using email to foster communication with other teachers, students, parents and other stakeholders.					
10. Using subject-specific software and participating in an online interactive discussion or bulletin board with students.					

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