Implementation of Information and Communications Technology at Naval State University

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Abstract

This study primarily aimed to evaluate the implementation of Information and Communications Technology at Biliran Province State University. Ability in technology implementation is essential during the learning process to ensure that students are not left behind in the era of digitalization. The implementation of this technology depends on the readiness of teachers regarding ICT knowledge, competencies, and confidence. The descriptive-correlational design was used to gather data on the profile of the faculty, technological competencies of the faculty, the extent of implementation of ICT at Biliran Province State University, problems encountered by the faculty in the implementation of ICT, and the feedback of the faculty in the implementation of ICT at Biliran Province State University during the school year 2017-2018. Most of the faculty are middle-aged, females, non-ICT, has a length of service of 5 years and below, has a master's degree, and have not attended training in ICT. The faculty has the competencies to use the technology for productivity, research, communication, presentation, and media purposes. On the other hand, there is a significant relationship between the technological competencies of the faculty and the extent of implementation of ICT and between the problems encountered by the faculty in the implementation of ICT and the extent of implementation of ICT. It is concluded that ICT was often implemented by the faculty at Biliran Province State University. It is hereby recommended that the training plan crafted by the researcher should be utilized to improve the teaching competencies of the faculty in the utilization of ICT at Biliran Province State University.

Keywords: *Implementation; information and Communication Technology; Technological competencies.*

INTRODUCTION

The implementation of Information and Communications Technology (ICT) is fast gaining prominence in the global arena nowadays. The use of ICT in teaching is relevant and functional in providing education to the learners that will assist them in imbibing the required capability for the world of work. In the current workplace, very few jobs do not require the use of skills in technology collaboration, teamwork, and information, which can be acquired with ICT.

Integrating ICT in education is an important agendum in all countries because in a world with rapid changes occurring every now and then, no country is willing to be left out (Abu-Obaideh, 2012). Lloyd (2005) highlighted that ICT has become an important component in education. In some schools, it is taught as a subject, while for the majority, it is only a teaching tool. ICT does wonders in the classroom, enhances the teaching-learning process, increases students' motivation,

and helps in the explanation of difficult concepts. Ramayah (2006) also emphasized that ICT provides access to a huge range of resources that are of high quality and relevance. Lua and Sim (2008) added that ICT is capable of widening the range of materials that can be used in teaching and learning to include text and still and moving images and sound. It also increases the variety of ways that materials can be used for the whole class and individual learning.

Some research suggests that there has been exponential growth in the use of ICT in education in developed countries. However, while ICTs are pervasive in developed countries, their use has been in a state of fluidity, and their integration into the school curriculum remains significantly immature in developing countries (Isaacs, 2007). Mallow (2009) and Olokoba et al. (2014) mentioned that teachers lack the skills and knowledge in the use of computers and software, which results in a lack of confidence in utilizing ICT tools for communication. More so, even when ICT facilities are available, it shows that teachers do not make use of these tools. At the Naval State University, most teachers leave teacher training institutions with limited ways; technology can be effectively used in professional practice. In this age of digitization, being able to effectively apply technology should be high on the list of what teachers at all levels in our education should know and be able to do in instructional transactions. Although the integration of ICT in the teaching and learning process benefits both students and teachers, its implementation is dependent on the teachers' readiness to integrate technology in order to be successful; thus, it is of utmost importance to look at teachers' readiness in terms of their ICT knowledge, competencies, and confidence towards the implementation of ICT.

This study primarily aimed to evaluate the implementation of Information and Communications Technology at Naval State University. Specifically, the study sought to find out:

1. Determine the profile of the faculty
2. Identify the technological competencies of the faculty in terms of productivity, research, communication, presentation, and media.
3. Determine the extent of implementation of ICT at Naval State University
4. Identify the problems encountered by the faculty in the implementation of ICT in terms of, availability of facilities and equipment, accessibility of ICT equipment, and confidence of faculty in utilizing ICT in teaching.
5. Determine the feedback of the faculty in the implementation of ICT at Naval State University.
6. Develop an Information and Communications Technology (ICT) training plan to enhance faculty performance

LITERATURE REVIEW

This study is anchored on the Theory of Constructivism by Jean Piaget. As a learning theory, Piaget (1965) explains how people acquire knowledge and learn. The theory suggests that humans construct knowledge and meaning from their experiences. Constructivism as an approach to teaching and learning is based on the premise that cognition (learning) is the result of mental construction. Knowledge is not received from the outside but by reflecting on one's experiences. By fitting new information with what we already know, we construct knowledge in our heads. Thus, we construct our own understanding of the world we live in. Piaget believes that people learn best

when they actively construct their own understanding. He emphasizes that learning is the process of adjusting mental models to accommodate new experiences.
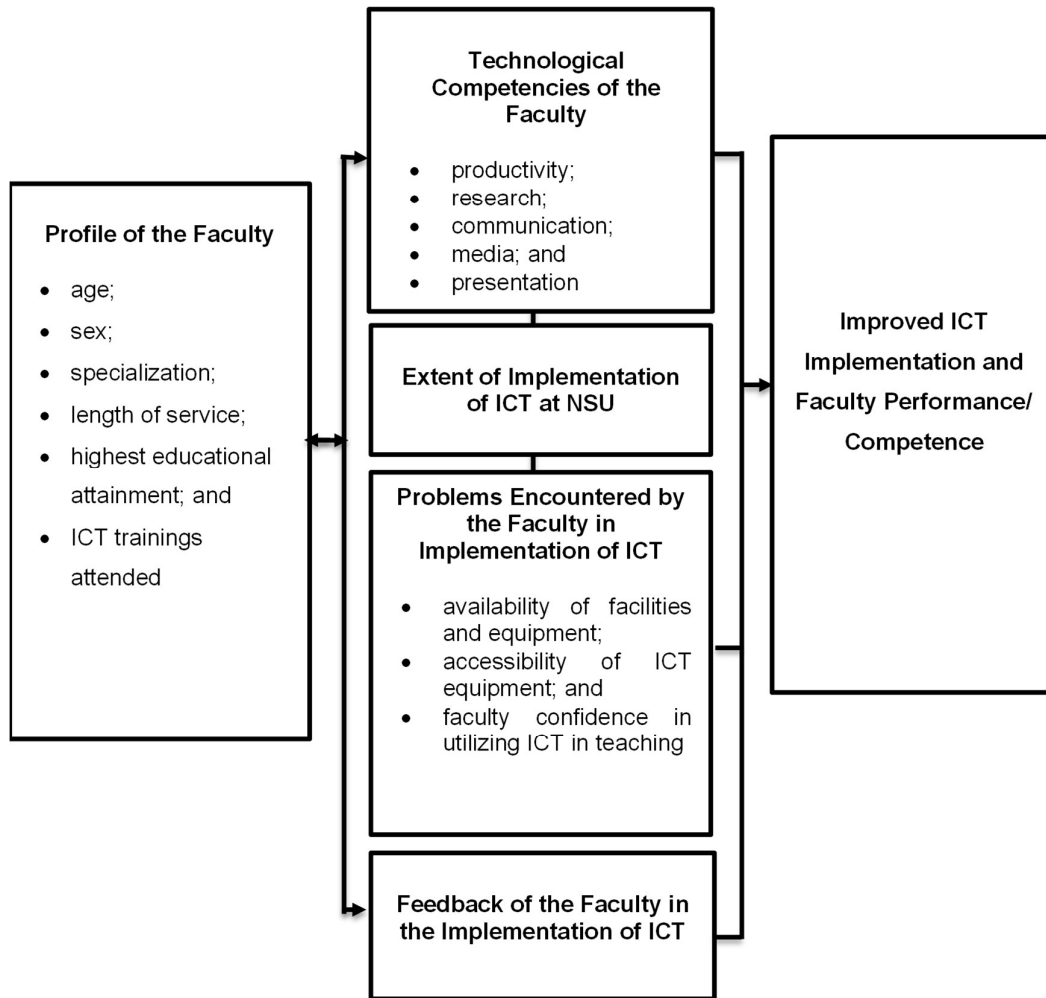

Figure 1. The Conceptual Framework of the Study

The purpose of this study in light of ICT implementation in the teaching-learning process is presented in Figure 1, which shows the diagrammatic representation of the interaction of the dependent and independent variables. The independent variables of the study include the profile of the faculty in terms of age, sex, specialization, length of service, highest educational attainment, and ICT training attended. The dependent variables; however, reflected the technological competencies of the faculty in terms of productivity, research, communication, presentation, and media; extent of implementation of ICT; problems encountered by the faculty in the implementation of ICT in terms of availability of facilities and equipment, accessibility of ICT equipment in utilizing

ICT in teaching, and confidence of faculty in utilizing ICT in teaching; and feedbacks of the faculty in the implementation of ICT at Naval State University.

As the output of the study, the researcher has developed an Information and Communications Technology training plan to enhance faculty performance.

RESEARCH METHOD

Research Design

In this research, the descriptive-correlational design was used to collect and analyze the data obtained from all the respondents. It is considered appropriate for this study because it gives a better and deeper understanding of a phenomenon on the basis of an in-depth study, which provides the basis for improving ICT implementation and teachers' competence, leading to formulating an ICT training plan for the faculty of Naval State University. The researchers developed the questionnaire and finalized it before being distributed to the targeted group of respondents. A few sections of the questionnaire were designed specifically to address research objectives in regard to the implementation of Information and Communications Technology at the Naval State University. Therefore, the questionnaire was distributed to obtain the data from the respondents.

Population and Sampling

This study is focused on the implementation of Information and Communications Technology at Naval State University during the school year 2017-2018. The respondents were limited to 159 faculty members, and the data were limited to their profile and technological competencies, the extent of ICT implementation, problems encountered, and feedback of the faculty in the implementation of ICT at Naval State University.

Instrument

This research adapted and utilized the standardized survey questionnaire from previously conducted studies with slight modifications to suit the needs of the present study. The survey questionnaire serves as the main instrument in data gathering, which consists of five parts: Part I asked the respondents' profiles, which included their age, sex, specialization, length of service, highest educational attainment, and ICT training attended. Part II ensured validity and reliability. The questionnaire was slightly modified to answer the objectives of this study. This section asked about the technological competencies of the faculty in five areas such as productivity, research, communication, presentation, and media. Part III ascertains the extent of the implementation of ICT in teaching and learning processes. This was adapted along with Part II from the study of Lawrence and Veena (2014). Part IV asked about the respondents' problems encountered in the implementation of ICT as to the availability and accessibility of ICT facilities and equipment and the faculty's confidence in utilizing ICT in teaching. This instrument was adapted from the study of Eze & Aja (2014) and Alaharbi (2014). Part V determines the feedback of the faculty in the implementation of ICT. This was adapted from the study of Ghavifekr & Rosdy (2015).

Data Collection Procedure

The data gathering procedure essentially involved the following activities: construction, editing, and production of adequate copies of the questionnaire; asking permission from the OIC President to conduct the study; distributing and retrieving the survey questionnaires from the respondents in person; grouping and tabulating the gathered data; treating the data statistically with analysis and interpretations, and drawing out of implications, findings, conclusion, and recommendations.

Data Analysis Process

As soon as all data were in, these were collated, tallied, analyzed, and interpreted using a 5-point rating scale. Descriptive statistics such as frequency count, simple percentage, weighted mean, and standard deviation were used to determine the profile of the faculty, technological competencies of the faculty, the extent of implementation of ICT, problems encountered by the faculty in the implementation of ICT, and feedbacks of the faculty in the implementation. Analysis of variance (ANOVA) was also used in determining the relationship among the variables of the study.

FINDINGS AND DISCUSSION

The findings of this research will give the output needed by the researchers to answer the research questions.

Table 1. Demographic Profile of the Respondents

Characteristics		n	%
		159	**100**
Age	Early Adulthood (20 – 39)	134	84.3
	Adulthood (40 – 64)	125	15.7
Sex	Male	81	50.9
	Female	78	49.1
Specialization	ICT	32	20.1
	Non-ICT	127	79.9
Length of Service	5 years and below	95	59.7
	6 – 10 years	39	24.5
	11 – 15 years	193	11.9
	16 – 20 years	3	1.9
	Above 20 years	3	1.9
Highest Educational Attainment	AB/BS Holder	37	23.3
	MA/MS Units	67	42.1
	MA/MS Holder	25	15.7
	Ed. D./Ph. D. Units	20	12.6
	Ed. D./Ph. D. Holder	10	6.3
Attended ICT Training Course	Yes	62	39.0

No	97	61.0

Demographic Profile of the Respondents

Age. As shown in Table, 136 (85.6%) of the respondents belong to the middle age category with the age bracket of 20-45, while only one (0.6 %) belongs to the senior citizen category with the age bracket of 60 years old and above. Results show that in the university, most of the faculty are in middle age. This implies that most of the faculty who are performing instructions in the university are considered to be in the millennial generation; thus, they are capable of performing the 21st-century skills. This was corroborated in the study of Mayanja (2002) when he said that teachers whose age ranges from 21 – 40 years old are more capable of using ICT than any other age group. Sanni et al. (2010) further supported that in this age range, the utilization of ICT is more pronounced than that of their older counterpart.

Sex. It could be seen that 100 (62.9%) are females, while only 59 (37.1%) are males. Results reveal that there are more female faculty respondents than male, which could that female is dominant in the field of teaching.

Specialization. It could be observed that most of the respondents are non- ICT graduates, at 127 (79.9%), while 32 or 20 percent graduated with ICT specialization. The study exposed that there are only a few faculty who specialize in ICT. This implies a need for training on ICT teaching integration to maximize the utilization of available ICT facilities and equipment in the university.

Length of Service. As gleaned from the Table, 95 (59.7%) of faculty have teaching experience of 5 years and below, and 3 or 1.9 percent have teaching experience of 16 to 20 years and 20 years and above. Results reveal that most of the faculty is new in the teaching career since most of them have been teaching for less than 5 years.

Highest Educational Attainment. It could be seen that more than one-third (1/3) or 42.1 %are master's degree holders, while only 10 (6.3%) are doctorate degree holders. Result reveals that most faculty members are pursuing their post-graduate studies for better performance.

ICT Training Attended. It could be noted that 97 (61%) of the faculty did not undergo an ICT training course, while 62 (39%) attended ICT training. This study reveals that most of the faculty do not have ICT training. Results imply that training on ICT is ideal in order for the faculty to utilize the available ICT resources for enhanced teaching and learning.

Technology Competencies of Teachers

This section highlights the basic technological competencies of the faculty in five areas of competency, such as productivity, research, communication, presentation, and media.

Productivity. The weighted means range from 3.95% to 4.01%, interpreted as moderately competent. It has an average weighted mean of 3.96%, still interpreted as moderately competent. The indicator "produce and manage learning documents" got the highest weighted mean of 4.01%, while the indicator "utilize technology tools in creating communities of practice" got the lowest weighted mean. Both are interpreted more competent since all the indicators have the same interpretations. Results reveal that the faculty have the competence in using the technology as a productivity tool, which helps them produce learning materials that enhance their teaching and

learning process. It further shows that faculty are competent in using technology in the crafting of digital representation of educational information.

Research. It obtained weighted means ranging from 3.84%to 3.87% and an average weighted mean of 3.86; all interpreted as more competent. Three of four indicators got the highest weighted mean, such as: "use effective online search strategies," "evaluate and compare online information and sources," and "explore existing and emerging technology to acquire additional content and pedagogical knowledge;" while "save and cite online information and sources." The results expose that faculty are competent in using technology for research, such as choosing appropriate research tools, evaluating sources of information, and citing online resources.

Communication. The weighted means range from 3.37% to 4.12%. The indicator "communicate using digital tools" got the highest weighted mean of 4.12%, interpreted as more competent, while the indicator "model collaborative knowledge construction in the face-to-face and virtual environment" got the lowest weighted mean of 3.37%, interpreted as competent. Results show that faculty are more competent in using the technology as a communication tool compared to that initiating the technology for collaborative knowledge construction in physical and virtual environments.

Presentation. It obtained weighted means ranging from 3.61% to 4.09% and an average weighted mean of 3.87, all interpreted as more competent. The indicator "deliver digital multimedia presentations" got the highest weighted mean of 4.09%, while "apply relevant technology tools for classroom activities has the lowest weighted mean of 3.78%, being interpreted as more competent. Results show that faculty are competent in using technology to present and deliver digital presentations.

Media. The weighted means range from 3.74% to 3.97%, with an average weighted mean of 3.87%, all interpreted as more competent. The indicator "capture and edit images, audio, and video" has the highest weighted mean, while the indicator "differentiate instruction with digital media" has the lowest weighted mean. Results show that the faculty perceives technology as media that enhances their teaching through the production of digital experiences for students and evaluation using technology.

In summary, all the variables had the interpretation of more competent, with average weighted means ranging from 3.70% to 3.96%. It obtained an overall average weighted mean of 3.85%, also interpreted as more competent. Results reveal that the faculty in the university have technological competencies. This implies that they have the competency to use the technology for productivity, research, communication, presentation, and media purposes.

Table 2. Technology Competencies of Teachers

Basic Technology Competencies of Teachers	WM	SD	Interpretation
Productivity			
Produce and manage learning documents	4.01	.879	Moderately Competent
Analyze quantitative data	3.96	.909	Moderately Competent
Organize information graphically	4.04	.989	Moderately Competent

Basic Technology Competencies of Teachers	WM	SD	Interpretation
Develop digital learning resources to enhance teaching and learning	3.95	.955	Moderately Competent
Utilize technology tools in creating communities of practice.	3.82	1.01	Moderately Competent
AWM	**3.96**		**Moderately Competent**

Research	WM	SD	Interpretation
Use effective online search strategies	3.87	1.02	Moderately Competent
Evaluate and compare online information and sources	3.87	1.01	Moderately Competent
Save and cite online information and sources	3.84	.991	Moderately Competent
Explore existing and emerging technology to acquire additional content and pedagogical knowledge.	3.87	.975	Moderately Competent
AWM	**3.86**		**Moderately Competent**

Communication	WM	SD	Interpretation
Communicate using digital tools	4.12	.944	Moderately Competent
Collaborate online for learning	3.74	1.06	Moderately Competent
Publish learning resources online	3.48	1.06	Moderately Competent
Model collaborative knowledge construction in the face-to-face and virtual environment	3.37	1.14	Competent
Collaborate with peers, colleagues, and stakeholders to access information in support of professional learning	3.79	.983	Moderately Competent
AWM	**3.70**		**Moderately Competent**

Media	WM	SD	Interpretation
Differentiate instruction with digital media	3.74	1.05	Moderately Competent
Capture and edit images, audio, and video	3.97	1.00	Moderately Competent
Produce digital multimedia educational experiences	3.86	1.08	Moderately Competent
Evaluate digital and non-digital learning resources in response to students' diverse needs.	3.81	1.05	Moderately Competent
Use technology tools to create new learning opportunities to support communities of learners	3.85	1.03	Moderately Competent
AWM	**3.85**		**Moderately Competent**

Presentation	WM	SD	Interpretation

Basic Technology Competencies of Teachers	WM	SD	Interpretation
Create effective digital presentations.	4.06	.909	Moderately Competent
Deliver digital multimedia presentations	4.09	.884	Moderately Competent
Employ new media devices for learning	3.61	1.04	Moderately Competent
Manage technology-assisted instruction in an inclusive classroom environment	3.79	1.04	Moderately Competent
Apply relevant technology tools for classroom activities	3.78	1.11	Moderately Competent
AWM	**3.87**		**Moderately Competent**

The extent of Implementation of ICT at Naval State University

The extent of implementation of ICT at Naval State University was evaluated as always implemented, often implemented, seldom implemented, rarely implemented, and never implemented.

The Table shows that among the 35 indicators, "deliver the lesson using appropriate digital tools or applications" obtained the highest weighted mean of 3.74, described as often implemented. Meanwhile, the indicator "utilized smart devices for building the positive relationships between teachers and students" got the lowest weighted mean of 3.11, interpreted as seldom implemented. The Table also indicates that in the extent of implementation of ICT, the average weighted mean is 3.55, interpreted as often implemented.

Results show that ICT is implemented by the NSU faculty in their teaching by delivering lessons with appropriate tools and applications. However, using technology to build relationships between teachers and students is seldom implemented by the faculty. This implies that faculty implements appropriate digital resources to enhance their teaching and further implies that ICT is utilized to build a network between teachers and students in relation to teaching and learning needs enhancement.

Table 3. The extent of Implementation of ICT at Naval State University

Indicators	WM	SD	Interpretation
Discuss national ICT policies affecting classroom practices	3.48	1.02	Seldom Implemented
Implement ICT policies in teaching-learning	3.66	.927	Often Implemented
Incorporate ICT policies in the design and implementation of teaching-learning activities	3.65	.956	Often Implemented
Discuss ICT concepts, principles, and theories in various teaching-learning processes	3.60	1.02	Often Implemented
Use technology tools in the assessment processes.	3.68	1.07	Often Implemented
Select digital and non-digital learning resources in reference to the student's learning preferences.	3.64	1.04	Often Implemented

Indicators	WM	SD	Interpretation
Revise digital and non-digital learning resources in response to the varied needs of students	3.53	1.03	Often Implemented
Produce digital learning material designed to enhance teaching-learning.	3.55	1.08	Often Implemented
Integrate ICT in teaching plans that require learners to connect the content of the lesson to society.	3.71	.916	Often Implemented
Design a technology-enhance lesson to support learning	3.72	.949	Often Implemented
Deliver the lesson using appropriate digital tools or applications	3.74	1.01	Often Implemented
Assist students in reflecting on their own learning using technology tools.	3.62	1.04	Often Implemented
Use varied teaching strategies like project-based learning that integrate technology tools to support thinking and collaboration	3.65	1.04	Often Implemented
Initiate flexible learning through online communications (synchronous/ asynchronous modality)	3.48	1.07	Seldom Implemented
Perform basic troubleshooting and maintenance of technology tools and systems	3.36	1.09	Seldom Implemented
Use productivity and other tools in everyday work	3.64	1.00	Often Implemented
Make technology tools-based instructional materials to improve student learning.	3.67	1.04	Often Implemented
Produce ICT-based teaching and learning tools in collaboration with students	3.53	1.04	Often Implemented
Propose or recommend technology and policy innovations related to promoting continuous learning among students.	3.50	1.04	Often Implemented
Facilitate a flexible learning environment that enhances collaboration with the use of technology tools	3.55	1.03	Often Implemented
Lead group activities using technology tools.	3.58	1.08	Often Implemented
Use technology tools to search for, manage, analyze, integrate and evaluate information that can be used to support professional learning.	3.66	1.04	Often Implemented
Evaluate technology resources in terms of appropriateness, quality, usability, accessibility, and cost-effectiveness.	3.56	1.06	Often Implemented
Use technology tools to collaborate and share resources among communities of practice	3.63	1.06	Often Implemented
Identify educational sites and portals suitable to their subject area	3.64	1.09	Often Implemented
Join Online expert and learning communities	3.40	1.06	Seldom Implemented

Indicators	WM	SD	Interpretation
Use resources from relevant mailing lists and online journals	3.49	1.04	Seldom Implemented
Evaluate and compare useful and credible web resources to be shared with other students.	3.52	1.06	Often Implemented
Active membership in local and global learning communities to maintain access to creative applications of technology that help enhance student learning.	3.31	1.09	Seldom Implemented
Discuss safety issues in obtaining resource materials from local area network-based and the internet	3.40	1.09	Seldom Implemented
Comply with intellectual property laws, including the fair use of educational content	3.49	1.07	Seldom Implemented
Institute mechanisms to ensure child online safety and prevent cyberbullying	3.44	1.03	Seldom Implemented
Practice standard netiquette in sharing and utilizing shared materials among learning communities	3.57	1.03	Often Implemented
Provide support to learners' digital culture and behaviors	3.55	1.08	Often Implemented
Utilized smart devices for building positive relationships between teachers and students	3.11	1.16	Seldom Implemented
AWM	**3.55**		**Often Implemented**

Problems Encountered by the Faculty in the Implementation of ICT

The problems encountered by the faculty in the implementation of ICT are categorized in terms of availability of facilities and equipment, accessibility of ICT equipment, and confidence of faculty in utilizing ICT in teaching.

Availability of Facilities and Equipment. As shown in Table 4, the availability of facilities and equipment indicates a range of weighted means from 1.81-3.70, and an average weighted mean of 2.78 is interpreted as sometimes available. From the identified ICT equipment/tools, laptop computers are identified as often available, while internet services and radio cassette players are identified as not available based on their weighted mean of 3.70 and 1.81, respectively.

Results indicate that there are available laptop computers for teachers' utilization in their classes; however, they find internet services and radio cassette players to be not available for use in teaching within the university. This implies that most teachers have their own laptop computers for use in their instruction, which could imply that internet services should be available for use by the faculty to further enhance their instruction. Moreover, the use of radio cassette players is obsolete since faculty can do it with their laptop computers.

Accessibility of ICT Equipment. The accessibility of ICT equipment indicates weighted means ranging from 1.82-3.61. LCD/data projector and screen were identified as often accessible with the highest weighted mean of 3.61, while internet services and overhead projector got the lowest weighted mean of 1.82, interpreted as not accessible.

The result shows that the faculty has no problem with the accessibility of the LCD projector but has encountered problems with the accessibility of the internet services and overhead projector. This implies that there are available LCD projectors for use in instructions by the faculty;

however, the internet services that faculty can access for information is a problem in the university. Further, the result implies that the university has modern technologies, for it has neither available nor accessible overhead projector.

   Confidence of Faculty in Utilizing ICT in Teaching. As shown in the table, the confidence of faculty in utilizing ICT in teaching indicates weighted means ranging from 2.99-4.81, and an average weighted mean of 4.22 is interpreted as more confidence.

   Among the indicators, "using word processors (MS Word)" got the highest weighted mean of 4.81, interpreted as very confident, while "designing a webpage or personal site" got the lowest weighted mean of 2.99, interpreted as confident. Results show that teachers are confident in using ICT in teaching but are limited only to its basic features. On the other hand, utilizing ICT to design a webpage or personal site shall be enhanced. This implies that the faculty has enough confidence to utilize ICT's basic features but is limited in the advanced features.

Table 4. Problems Encountered by the Faculty in the Implementation of ICT

Variables			
Availability of Facilities and Equipment	**WM**	**SD**	**Interpretation**
Laptop Computer	3.70	1.07	Often Available
desktop computer	2.35	1.34	Rarely Available
Internet services	1.81	1.19	Rarely Available
Tablets	3.53	1.08	Often Available
LCD/Data projector and screen	3.60	1.15	Often Available
Printers	3.25	1.24	Sometimes Available
Scanners	2.79	1.21	Sometimes Available
Digital cameras	2.93	1.29	Sometimes Available
Speakers	2.39	1.43	Rarely Available
Television set (Smart TV)	2.36	1.34	Rarely Available
CD\DVD\VCD	3.65	1.24	Often Available
Photocopier machines	2.74	1.46	Sometimes Available
Overhead projector	1.86	1.11	Rarely Available
Radio cassette player	1.81	1.17	Not Available
Electronic Typewriter	2.89	1.46	Sometimes Available
AWM	**2.78**		**Sometimes Available**
Accessibility of ICT Equipment	**WM**	**SD**	**Interpretation**
Laptop Computer	3.49	1.12	Often Accessible
desktop computer	2.30	1.31	Sometimes Accessible
Internet services	1.82	1.15	Not Accessible
Tablets	3.36	1.17	Sometimes Accessible
LCD/Data projector and screen	3.48	1.23	Often Accessible
Printers	3.23	1.29	Sometimes Accessible
Scanners	2.59	1.23	Rarely Accessible
Digital cameras	2.81	1.26	Sometimes Accessible
Speakers	2.33	1.38	Rarely Accessible
Television set (Smart TV)	2.33	1.37	Rarely Accessible
CD\DVD\VCD	3.61	1.33	Often Accessible
Photocopier machines	2.66	1.54	Sometimes Accessible
Overhead projector	1.82	1.14	Not Accessible
Radio cassette player	1.89	1.26	Rarely Accessible

Variables			
Electronic Typewriter	4.77	.597	Very Accessible
AWM	**2.83**		**Sometimes Accessible**

Teachers' Confidence to Utilize ICT in Teaching	WM	SD	Interpretation
Basics of Computer Operations. (using keyboard, mouse, etc.	4.77	.597	Very Confident
Managing files (delete, save, transfer or move)	4.74	.608	Very Confident
Using a word processor (MS Word)	4.81	.553	Very Confident
Use spreadsheet processor (excel program)	4.29	.861	Very Confident
Creating, using, and manage database (MS Access program)	3.66	1.13	More Confident
Create and design presentation (PowerPoint presentation or slide show)	4.63	.688	Very Confident
Combining files from different resources (sound or video files) in creating presentations.	4.13	1.00	More Confident
Producing learning software	3.23	1.33	Confident
Using PowerPoint software	4.41	.906	Very Confident
Searching for saved data on a hard disk and other storage devices (Flash drives, optic disks, disk drives .etc)	4.49	.818	Very Confident
Using data show basis on PC as a projection tool	3.99	1.16	More Confident
Using different design programs (Photoshop, etc.)	3.52	1.30	More Confident
Deleting or editing pictures, animations, or movies.	3.86	1.16	More Confident
Using digital camera	4.14	1.06	More Confident
Internet browsing	4.57	.846	Very Confident
Searching for information on the internet	4.67	.709	Very Confident
Downloading files from the internet	4.67	.707	Very Confident
Using chatrooms and a (Facebook, Twitter, etc)	4.53	.817	Very Confident
Publishing personal blog	3.23	1.36	Confident
Designing webpage or personal site	2.99	1.41	Confident
AWM	**4.22**		**More Confident**

Feedback of the Faculty on the Implementation of ICT

The feedback of the faculty in the implementation of ICT was assessed whether they strongly agree, agree, uncertain, disagree, or strongly disagree. Table 5 shows the feedback of the faculty on the implementation of ICT. As revealed, it has an average weighted mean of 4.53, interpreted as strongly agree. Among the 15 indicators, "I think the use of ICT improves the quality of teaching" obtained the highest weighted mean of 4.77, interpreted as strongly agree. Meanwhile, the indicator, "students make no effort for their lesson if ICT is used in teaching," got the lowest mean of 4.22, interpreted as agree. Results expose that the faculty perceived that ICT implementation in teaching improves their quality of teaching, thus allowing students to have more effort in their activities. This implies that ICT really improves the quality of education if it is effectively implemented in the teaching and learning process.

Table 5. Faculty Feedback/Opinion on the Implementation of ICT

Variables			
Indicators	**WM**	**SD**	**Interpretation**
I feel confident learning new computer skills	4.72	.628	Strongly Agree
I find it easier to teach by using ICT	4.58	.732	Strongly Agree
I am aware of the great opportunities that ICT offers for effective teaching	4.68	.630	Strongly Agree
I think that ICT-supported teaching makes learning more effective	4.72	.594	Strongly Agree
The use of ICT helps teachers to improve teaching with more updated materials	4.75	.573	Strongly Agree
I think the use of ICT improves the quality of teaching.	4.77	.553	Strongly Agree
I think the use of ICT helps to prepare teaching resources and materials	4.75	.571	Strongly Agree
The use of ICT enables the students to be more active and engaging in the lesson.	4.72	.539	Strongly Agree
I have more time to cater to students' needs if ICT is used in teaching.	4.59	.629	Strongly Agree
I can still have effective teaching without the use of ICT	4.23	.914	Agree
I think the use of ICT in teaching is a waste of time.	4.37	1.03	Strongly Agree
I am confident that my students learn best without the help of ICT.	4.22	1.06	Agree
Classroom management is out of control if ICT is used in teaching.	4.29	1.06	Strongly Agree
Students pay less attention when ICT is used in teaching	4.30	1.08	Strongly Agree
Students make no effort for their lesson if ICT is used in teaching.	4.22	1.03	Agree
AWM	**4.53**		**Strongly Agree**

Hypothesis Testing

As depicted in Table 6, age, sex, specialization, length of service, highest educational attainment, and ICT training attended obtained p-values of .819, .818, .754, .506, .917, and .191, respectively. These p-values were less than .05, which means that there is no sufficient evidence that these profile variables are linearly associated with the extent of implementation of ICT at Naval State University. Thus, the hypothesis, which states that there is no significant relationship between the profile of the faculty and the extent of implementation of ICT at Naval State University, is accepted.

Table 6. Relationship Between the Demographic Profile of the Respondents and their Extent of Implementation of ICT at Naval State University

Characteristics		Extent of Implementation		F-test	p-value
		AWM	SD		
Age	Early Adulthood	3.57	.891	.052	.819
	Adulthood	3.53	.851		
Sex	Male	3.58	.876		
	Female	3.55	.894	.053	.818

Characteristics		Extent of Implementation		F-test	p-value
		AWM	SD		
Specialization	ICT	3.61	.956	.099	.754
	Non-ICT	3.55	.866		
Length of Service	5 years and below	3.52	.861	.834	.506
	6 – 10 years	3.66	.972		
	11 – 15 years	3.74	.866		
	16 – 20 years	2.92	.579		
	Above 20 years	3.24	.567		
Highest Educational Attainment	AB/BS Holder	3.62	.855	.237	.917
	MA/MS Units	3.49	.904		
	MA/MS Holder	3.55	.961		
	Ed. D./Ph. D. Units	3.67	.712		
	Ed. D./Ph. D. Holder	3.64	1.07		
Attended ICT Training Course	Yes	3.72	.890	1.672	.191
	No	3.46	.870		

Table 7 discloses the relationship between the technological competencies of faculty and the extent of implementation of ICT, obtaining a correlation of .619, indicating a strong positive relationship. The p-value was .000, which indicates a highly significant relationship. This implies that the technological competencies of faculty is directly associated with the extent of implementation of ICT at Naval State University.

Table 7. Relationship Between Basic Technology Competencies of Teachers and their Extent of Implementation of ICT in Naval State University

Variable	N	M	SD	r	p-value
Technology Competencies	159	3.84	.804	.619**	0.000
Extent of Implementation	159	4.25	.716		

** Correlation is significant at the 0.01 level (2-tailed)

As gleaned in Table 8, the problems encountered by the faculty obtained an r-value of .634 and a p-value of 0.000. This means that there is sufficient evidence that the problems encountered by the faculty are linearly correlated with their extent of implementation. Thus, the hypothesis, which states that there is no significant relationship between the problems encountered by the faculty in the implementation of ICT and the extent of implementation of ICT is rejected.

Table 8. Relationship Between Problems Encountered by the Faculty and their Extent of Implementation of ICT in Naval State University

Variable	N	M	SD	r	p-value
Problems Encountered	159	3.26	.724	.634**	0.000
Extent of Implementation	159	4.25	.716		

CONCLUSION

This study primarily aimed to evaluate the implementation of Information and Communications Technology at Naval State University. The findings indicated that most of the faculty are middle-aged, females, non-ICT and have a length of service of 5 years and below, with masteral units, and have not attended training in ICT. The faculty has the competencies and confidence in utilizing ICT for productivity, research, communication, presentation, and media purposes in their teaching process. Based on the findings, it can be concluded that ICT was often implemented by the faculty at Naval State University. The following are the recommendations based on the results of the study:

1. The university shall provide wide opportunities for ICT training to all faculty for them to be updated on the latest developments in the integration of ICT in teaching.
2. The university shall implement policies on the maximum implementation of ICTs in teaching and learning to ensure that available resources are utilized and guarantee quality education to its students.
3. The university shall provide the necessary ICT equipment and facilities and internet services that are readily available and accessible to all faculty to further enhance the teaching and learning activities in the classroom.
4. The university shall send faculty to training regarding ICT implementations in the teaching-learning process, so that they will earn confidence in teaching with ICT and impart skills to students with learning activities supported with ICT.
5. It is recommended that the proposed training plan as an output of this study be implemented as a guide for the different trainings about ICT for faculty.
6. It is strongly recommended that further study be conducted to validate the results of this study and to find out the effectiveness of the training plan.

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