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INTEGRATION OF INFORMATION AND  
COMMUNICATION TECHNOLOGY (ICT) IN THE  
TEACHING METHODOLOGIES OF THE SELECTED  
FACULTY MEMBERS OF MSU MAIN CAMPUS : A  
POLICY RECOMMENDATION

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**Keywords**

*Information, Technology,  
Teaching, Policy*

**Abstract**

This research undertaking aimed to investigate contributions of Information and Communication Technology (ICT) integration in the Teaching Performance among the selected colleges as perceived by the faculty of Mindanao State University, Marawi City. This study is anchored on the Triple-E Framework of Liz Kolb which is a practical tool that measures the degree to which the technology in a lesson is helping students meet the learning goals. Faculty respondents were also asked on the effects of ICT integration in the classroom based on the Dimensions of Triple-E Framework. Significant insights were also gained from the perceptions and responses from students regarding their exposure to ICT tools as part of their learning process. Finally, the interpretation of data and responses that were gathered provided basis in generating ICT support facilities needed by the faculty members for the effective and efficient execution of their teaching methodologies for the betterment of their learners and the possible interventions of the University Administration of the ICT related development programs. The data from the survey yielded the diverse rankings of ICT tools that were integrated in their teaching methodologies. With a diverse frequency, they utilized technology in



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organizing text, images, audios, and videos through power point presentations in order to facilitate effective and efficient lecture and discussion for classroom interaction and enhancement. The data obtained from the survey identified the “Intermediate” Level of Literacy of the Integration of Information and Communication Technology (ICT) tools. Among the ranking of tools that they commonly utilized were: Personal Computer, Laptop, Printer, DLP Projector, Smartphones, Television Monitor while the most useful software were the Microsoft Office, Audios, Videos, Multimedia Players, Online Applications and resources as well as the Internet. Their knowledge and skills in ICT use determined their evaluation of the role of technology in achieving the learning objectives they aimed for the students which resulted among exceptional, strong and average connection. This implied the strong relevance of utilizing technology and the internet in helping their students maximize the achievement of their learning objectives. In describing their responses regarding ICT integration in the Teaching Methodologies, Students’ responses considered and gleaned from the Focus Group Discussion (FGD) and series of Interviews that were conducted with the group of students. Students identified themselves as ‘Millennials’ and the immense role of ICT is inevitable. They see technology as of the means to learn better. During the interview sessions, majority of them shared the importance and preference of ICT in the conduct of their classes while some were able to disclose it negative impact. Inevitably, most of them described it as very practicable in the teaching methodologies of their instructors and for them as a learners. They also made mention how the classroom became transformative with the advent of ICT tools integrated in the teaching methodologies of their educators. This study made an implication that the collaboration of technology and the faculty inputs would help maximize and attain the learning objectives that could facilitate authentic development to the learners. This study recommended the following: all the tertiary faculty members, especially those who did not integrate ICT into their teaching methodologies, to utilize ICT facilities through equipping their knowledge and skills on the use of ICT tools; faculty members should undergo advance trainings and engagement on the ICT-related development programs to be more effective in their teaching methodologies; all the faculty members to widen their perspective and dimension on the diversity of the use of ICT tools that can contribute to the acquisition and absorption of knowledge among the students by increasing their motivation and engagement in classroom activities; the university officials must initiate an effort to provide ICT facilities, interventions and development programs for ICT to supplement the noble vision of the university to be in international status; Indeed, ICT plays an important role in achieving the university visions through the provision of these facilities; University and college officials must invest in ICT facilities for the teaching methodologies of their faculty for the students to be diverse and competitive making them in an international standard; and lastly, all faculty members must be well-versed and equipped with the knowledge of ICT tools for them to incorporate in their teaching methodologies as the researcher truly believes that ICT unlocks the door to education and education unlocks the door to development.

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## 1. Introduction

Information and communication technology (ICT) embedded education and the entire humanity as more and more gadget is being introduced for used of mankind. Pedagogues and strategies in education to facilitate learning-teaching process are unfolding and teachers should accommodate the fast changing paced transformation brought about by information and communication technology otherwise they will be left behind. In other words teacher in the 21st century era must try to go with the new characteristics of the educator if they want a space in the arena of the professional world.

It is once said that: Information and Communication Technology (ICT) unlocks the door to education while education unlocks the door to development. Therefore, Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering its basic skills and concepts of as part of the core of education (Villanueva, 2018).

Through this, the importance of technology in providing good quality education cannot be taken for granted. For one, Philippines has a reputation for being world-class ICT hub in Asia, a status that have to be uphold. Moreover, Philippines has become a major investment destination for business process outsourcing (BPO). As a matter of fact, it is the third largest BPO destination next to India and Canada. It is therefore imperative for the country to continuously advance technology by at least introducing it to the classroom and to the teaching methodologies of a tertiary educator to push the nation forward.

In the country, Philippines has been dubbed as the social media capital of the world, and the numbers continue to prove it. According to the latest statistics from “We Are Social, 2018”, Filipinos now spend the most time online using ICT facilities compared to the rest of the world. In the Asia Pacific, Philippines spend the most time on social media sites, averaging 3.4 hours every day. However, misuse and disuse of these sites continue to proliferate.

These phenomena provide basis for the integration of ICT in all degrees and courses which is a realization of Republic Act No. 9054 and Article XIV section 15 of the 1987 Philippine Constitution which states that: “science and technology are recognized as essential to national and regional progress and development.” Thus, in 2011, the Department of Science and Technology launched the Philippine Digital Strategy (PDS). It has a vision of: “A digitally empowered, innovative, globally competitive and prosperous society where everyone has reliable, affordable and secure information access in the Philippines. A government that practices accountability and excellence to provide responsive online citizen-centered services. A thriving knowledge through public-private partnership” (Reyes, 2006). Correspondingly, House Bill No. 53 was introduced by Honorable Alfredo B. Benitez to institutionalize the implementation of the Cyber Education Program, creating Cyber Education Development and Management Corporation and appropriating funds therefor. One of the objectives is to achieve higher standards of education and bring about significant improvements in the performance of students through the utilization of ICT.

In the effective implementation of the curriculum, Information and Communication Technology (ICT) indubitably plays a vital role. The modern way of life of Filipinos in these times is so much dependent



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on technological advances. ICT is fast transforming economies, social processes, and the education sector. Thus, the government is seriously committed to integrate ICT in education by mounting series of initiatives which are aligned to the Sustainable Development Goals (SDGs) and Education for all global thrust.

In this study, emphasis is given to the selected faculty members of Mindanao State University-Marawi City. Hence, this study determined the contribution of Information and Communication Technology (ICT) Integration on the teachers' methodologies among the selected colleges as perceived by the faculty of Mindanao State University, Marawi City.

## 2. Review Of Related Literature

This chapter presents the discussion of the related literature that are related to this endeavor. It also explores different studies and researches that contribute to the body of knowledge that were useful in providing scholarly interpretation and analysis gathered through the conduct of this study.

### 2.1 Behaviorism in Educational Technology

Behaviorism has seen the Teaching Machine Phase, the Programmed Instruction Phase and the Systems Approach to Instruction. The teaching machine was, in essence, a box that sat on student desks that each individual student could use to record answers to certain prompted questions (Villanueva, 2018). Skinner (1958) as cited in the study of Villanueva (2018) entitled an assessment on the integration of ICT into English Language Teaching on the English Department, MSU Main Campus, provides background information about the teaching machines and called them "devices which arranged optimal conditions for self-instruction." He stated that "Sidney L. Pressey designs several machines for the automatic testing of intelligence and information, which will encourage the student to take an active role in the instructional process." Similarities can be seen between the Teaching Machine and much of today's instructional computer software, designed for reinforcing student behavior. Computers and software are, in essence, much more complex versions of the Teaching Machine, which leads to the conclusion that many of the roots of Behaviorism have come along into present day educational scenarios. The concepts behind the Teaching Machine and modern-day computer gaming software, for example, are fundamentally equal (Ebert, 2009 as cited by Villanueva, 2018).

### 2.2 Skills of a 21<sup>ST</sup> Century Educators

This study is anchored on the following ideas that are useful for understanding knowledge acquisition and development in the domain of working with Information and Communication Technology. It is founded in the tenets of Behaviorism and Constructivism which anchored on 21<sup>ST</sup> century skills of a teacher which are categorized into four (4), namely: 1) Communication skills, 2) learning and innovation skills, 3) Life and career skills, and 4) Information and Communication Skills. A teacher must possess them in order to survive in this 21<sup>st</sup> century and be able to contribute to the development of the 21<sup>st</sup> century skills (Villanueva, 2018).

This is also consistent to a knowledge based society, or "21<sup>st</sup> century society" in which its members, through [Lifelong learning](#), share innovations and expertise within a community of experts and non-



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experts, in the spirit of apprenticeship. This results in a network of knowledge which is created, shared, used and protected by the network itself. Knowledge is used to inform and improve ourselves and others both culturally and materially, with the goal of building a sustainable society. 21st Century Learning skills are skills necessary in a knowledge-based society, such as information and communication skills (including information processing and research tools), thinking and problem solving skills (including using technological tools such as spreadsheets to solve problems and think creatively) and interpersonal and self-directional skills (such as e-learning and collaboration). Educational assessment, according to the British Columbia Ministry of Education, is the "process of gathering evidence of what a student knows, understands, is able to do and is working towards." In a knowledge-based society, with its network of both technology and people, current assessment tools require upgrading to ensure that learners are prepared for a rapidly changing and ever-connected community, society and world. It is important to understand the culturally significant values that are currently driving the need for knowledge and to consider the direction of the greater society before generating tools to measure the progress of learners in that society. In order to do that we must consider the needs of a 21st century learner in a knowledge-based society (Warschauer, 2004).

### 2.3 Pedagogical Benefits of ICT

The Philippines along with other developing countries in Asia, Africa, and South America are generally interested in educational technology, particularly in ICT, hoping that their educational systems reap the pedagogical benefits associated with it such as the following:

- (i) Drill and practice or tutorial software, for example, individualizes instruction and provides students with immediate feedback;
- (ii) Students can proceed at their own pace;
- (iii) Internet connectivity enables students to access remote sources of information;
- (iv) It exposes them to diverse expert opinions and makes them aware that they are part of a global community;
- (v) There is evidence that multimedia learning environments, simulations, and computer-based laboratory analysis tools foster superior math, science, and language skills;
- (vi) Researchers characterize the ICT-infused classroom as highly interactive learning environments;
- (vii) Communication and collaboration between and among students, teachers, and outside experts occurs through formal presentations, cooperative learning activities, and informal dialogue in large groups, small groups, or on a one-on-one basis;
- (viii) Finally, some researchers believe that ICT fosters self-direction. Students learn to initiate their own learning by asking probing questions and seeking out answers using a variety of resources (Wang & Woo, 2007).

### 2.4 Behaviorism and Constructivism

Behaviorism and Constructivism are two of the predominant educational theories that form the basis of many of today's educational technology tools in the classroom (Ebert, 2009). These provide substantial bases in the exploration of the impact of ICT integration in teaching.

John Watson coined the term Behaviorism which refers to the process of conditioning where an array of stimulus-response connections is built, and more complex behaviors are learned by building up



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series or chains or responses. Behaviorism has seen the Teaching Machine Phase which is a very basic version of what educational software and computers can accomplish now (Brown, 1941).

Constructivism is led by the ideas of Jean Piaget (1955) and his theories of the four childhood stages of development. The theories of construction are founded on the belief that “the child, at first directly assimilating the external environment to his own activity, later, in order to extend this assimilation, forms an increasing number of schemata which are both more mobile and better able to inter-coordinate (as cited by Villanueva, 2018).

Sociocultural constructivism gives emphasis on dialogue that participants engage in as a means of collaboration and negotiation of meaning to reach a new understanding. This process allows the learner to internalize what is being taught. And thus, they become an active part in shaping the learning environment (Nahme, 2000). Therefore, instruction needs to provide opportunities for participation in a community of learners that learn through authentic tasks (as cited by Villanueva, 2018).

Technology assists teachers in promoting more constructivist and engaged learning experiences; therefore, it is necessary to look at how teachers are trained in using technology and the change in thinking that needs to occur if they are to rid of the barriers that keep technology from being used to its fullest potential within schools (Sgarioto, 2011).and problem solving skills. Supplementing curriculum with web-based education, if designed appropriately, promotes learning in context. Critical thinking skills, and emphasizes “real-life” problem solving skills (as cited by Villanueva, 2018).

According to Avery, McKenna, and Schuchardt (2000), integrating technology can create authentic learning experiences that lead students from simply manipulating a mouse to using technology to develop higher order thinking.

### 3. Research Methodology

This chapter deals with the different research methodologies of the study, which includes the research design, Locale of the study, the research respondents of the study, sampling techniques, data gathering procedures and the statistical instrument. These are all essential in order to obtain the data needed and analyzed it to extract and glean answers to the inquiries identified in this study.

#### 3.1 Research Design

This study made use of cross-sectional survey using qualitative-descriptive approach in the interpretation of data. The study described characteristics that exist among students in terms of their responses regarding ICT exposure and its contribution to the quality of teaching among the selected colleges as perceived by the faculty of Mindanao State University. Analyses of the gathered data were categorized into the contributions of ICT and to draw the ICT support facilities in MSU and its interventions for the faculty.

#### 3.2 Locale of the study

Mindanao State University was the locale of the study. This is commonly referred to as MSU - Main Campus is a public coeducational institution of higher education and research in the Islamic city



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of [Marawi, Philippines](#). Founded in 1961, it is the flagship and the largest campus of the Mindanao State University System.

Mindanao State University (MSU) was established on September 1, 1961 through RA 1387, as amended, was the brain child of the late Senator Domocao A. Alonto, as one of the government's responses to the so-called "Mindanao Problem".

Specifically, the research study was being conducted among the top 3 most populated colleges in terms of student population during the Academic Year 2018-2019 according to the data generated from the College of Information Technology (CIT), these are: College of Public Affairs (CPA), College of Business Administration and Accountancy (CBAA) and College of Agriculture (COA).

### 3.3 Respondents of the Study

The study was conducted among the top three (3) colleges in terms of student population in the academic year 2018-2019, namely: College of Public Affairs (CPA) which has a total of One Thousand Twenty Eight (1028) student population, College of Agriculture (COA) which has a total of Nine Hundred Ninety Seven (997) student population; and College of Business Administration and Accountancy (CBAA) which has a total of Eight Hundred Seventy Six (876) student population.

The sixteen (16) identified faculty respondents identified Thirty-Two (32) subjects and sections that involved a total of Four Hundred Eighty Five (485) officially enrolled students who were given the survey questionnaire and participated in the conduct of Focus Group Discussion (FGD) and series of interviews.

### 3.4 Data Gathering Procedure

In order to get the profile of the respondents, a survey questionnaire was administered to the selected colleges of Mindanao State University-Marawi City, namely: College of Public Affairs (CPA), College of Agriculture (COA), and College of Business Administration and Accountancy (CBAA). The survey also served as an evaluation of technology tools that were integrated into their lessons.

The teacher respondents were given a list of the subjects/courses they taught during the semester and were asked to identify the subjects and sections where they used and integrate ICT in their lessons. Those subjects identified were the basis in conducting the survey questionnaire for the student respondents of this study. From this survey, selected students under the faculty members were chosen as participants in the conduct of Focus Group Discussions (FGD). The FGD conducted among students was determined by the faculty who identified the participants based on their scholastic performance in their preliminary examination/requirements.

For the Faculty respondents, they were interviewed individually depending upon their free time and availability. The interview was conducted among the sixteen (16) faculty respondents of the selected colleges (CPA, COA and CBAA) in the 2nd semester of the academic year 2018-2019 to elicit answers about their perceptions regarding the use of Information and Communication Technology (ICT) in their classroom sessions. Using the modified Questionnaire of Villanueva (2016), questionnaire was used as an instrument in order to investigate the linkage between the ICT used by the teachers and the learning goals that they identified in their lectures. Lastly, answers from the utilized instruments and responses that were gathered from the Focus Group Discussion (FGD) were



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consolidated and analyzed in order to present the relevant contribution of ICT and to draw possible support services needed by the faculty of MSU and the MSU interventions for the provisions of training and ICT related programs for the faculty.

### 3.5 Research Instruments

To achieve credibility and reliability of the findings in this study, several methods, tools and instruments were employed for validation of results and analyses.

First, the study utilized a baseline survey questionnaire which composed of four (4) parts: Part 1 dealt with the Information and Communication Technology (ICT) tools integrated in the teaching methods, Part 2 dealt with the Level of Literacy of the Integration of Information and Communication Technology (ICT) tools, Part 3 dealt with the Way/s on how ICT tool is being used in the classroom and Part 4 dealt with the effects of ICT integration in the classroom using the Triple-E Framework.

Secondly, for the evaluation of the contribution of the ICT tools in relation to achieving learning goals, the Triple E Framework tool was adapted from the study of Villanueva (2018) since the researcher applied needed modifications in order to elicit the needed answers. The rubric is composed of nine questions that could be answered in three (3) numerically valued options of No (1), somewhat (2), and Yes (3). The total points accumulated were interpreted based on ranges that were categorized as: Exceptional Connection, Strong Connection, Average Connection and Low Connection. Using these evaluation tools from the Triple E Framework facilitated the investigation on the connection between the technology used by the teachers and the learning goals that they identified in their lessons. The responses were recorded for statistical analysis and were reinforced through Focus Group Discussion (FGD) and personal interviews.

Lastly, the guide questions for Focus Group Discussions (FGD) were used to validate the items and questions in the rubrics and assessment tools that were used. In this method, the respondents were asked questions and they were encourage to openly describe and explain answers regarding their perceptions and evaluations. The FGD is a method that reinforces the enrichment of other possible significant data.

All these instruments were utilized in the conduct of the data gathering to ensure that all possible data were collected.

### 3.6 Statistical Treatment

After all the necessary data were gathered, the results of the survey were subjected to statistical analysis in order to logically quantify the individual and corporate performance of the teachers of the selected colleges as perceived by the faculty members of Mindanao State University-Marawi City.

The collected data were analyzed with the use of frequency, percentage and weighted mean guided by the following formula:

**Percentage Distribution:** This is used for the data on the distribution of the respondents responses on each category asked in the survey questionnaire and FGD.

**Weighted Mean:** This is used to get the average respondents responses in each category of the survey instruments statements indicator.



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#### 4. Data Presentation, Analysis And Interpretation Of Findings

This chapter provides the answers to the problems identified in the study. A thorough discussion covers the presentation, analysis and interpretation of all the data gathered by the researcher in order to elucidate the answer sought in the inquiries of this study.

##### **Part 1. Information and Communication Technology (ICT) Tools Integrated into the Teaching Methods of the Faculty**

Part 1 shows the ranking of ICT tools that were integrated in their teaching methodologies. With a frequency of One Hundred Four (104), Laptop was of the highest ranking (1) in usage in terms of integrating in the teaching methodologies. This means that the faculties are engaged in dealing with their teaching methodologies with the aid of Laptop specially in preparing their lessons and activities inside the class. Second in ranking (2) with a frequency of One Hundred One (101) is the use of 'Internet and the 'Microsoft Office (Word, Excel, Publisher and Power Point) ; the access to the rich and diverse materials and information that the Internet can provide help shape the information that can be applied and instructed to the students.

Similarly, it was asserted on the study of Rachmawati and Johancynthia (2010) as they have learned that ICT based learning the role of teachers were significantly changed from transferring of knowledge into facilitating of learning, from a main source person to be a manager of learning. Other challenge is also addressed to head teachers in encouraging teachers to implement ICT based learning in order to improve students capability and skills.

In addition, Villanueva (2018) concluded that knowledge in ICT tools is a determinants in achieving the learning objectives they aimed for the students which resulted between exceptional and strong connection. This implied the strong relevance of utilizing technology and the internet in helping their students maximize the achievement of their learning goals.

##### **Part II. Level of Literacy of the Integration of Information and Communication Technology (ICT) tools**

Part 2 shows the frequency distribution, percentage, total number of responses, weighted mean and the verbal interpretation of the respondents' responses based on their Level of Literacy of the Integration of Information and Communication Technology (ICT) tools. They were asked to categorize their responses as 'Basic', 'Intermediate' and, 'Advance'. As reflected in the table, with a weighted mean (from the order of highest to lowest) of 2.08 (Intermediate), Microsoft office came first in terms of the literacy of usage; this means that the respondents were commonly using the ICT software and lead to their proper orientation on the common use of the said tool. It was followed by the following ICT tools with its corresponding weighted means which fall on the "Intermediate" level of literacy, respectively: Android Phone (1.98), Internet (1.96), Television Monitor (1.95), Laptop (1.95), Digital Still Cameras (1.88), Personal Computer (1.85), Printer (1.83), Multimedia (1.79), Digital Light Processing (DLP)/Projector (1.77), and scanner (1.76). These ICT tools were commonly used by the respondents that might lead to their 'Intermediate' level of literacy.

This is consistent to the survey conducted by the Department of Science and Technology (DOST) where they identified that few teachers had fear of the technology and had closed mindset and



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nonappreciation of ICT education; and lack of resources and availability that lead to lack of fundamental knowledge on its application.

Similarly, it was postulated on the study of Rosnaini and Ismali (2010) where they revealed on their study that majority of the teachers had moderate basic ICT knowledge and skills and perceived ICT positively. Formal ICT training and ICT experiences influence the teacher's knowledge, skills and attitude. Therefore, teachers especially the older ones and normally with more teaching experiences need to be identified, and provided with specially designed training programs, in various forms of ICT courses and workshops.

### **Part III. Ways to Use Information and Communication Technology (ICT) Tools in the Classroom**

Part 3 shows the order in which the faculty respondents uses ICT tools in different ways. The sixteen (16) items list reveals the degree with which the task were done from the most frequent to the least frequent one. Eighty-Nine (89) or 86% of the respondents uses ICT tools in their teaching methodologies on the following ways such as 'the production of text using a word processing programs' [Item 1]; 'Use E-mails to communicate with others' [Item 2]; and 'Organize computer files in folders and subfolders [Item 7].

The ICT tools that were ranked according to their frequency of usage clear indicated relevance in improving and transforming the quality of instruction that faculty of the selected colleges were imparting among their learners.

The data show the relevance and importance of ICT technologies for the tertiary faculty. Through authoring, educators are able to tailor software programs either by inserting new texts or by modifying the activities. Authoring runs on a spectrum from set programs which allow slight modification (e.g., inclusion of new texts) to complex authoring systems... authoring systems allows educators to design their own multimedia courseware. These can take a lot of time and effort to master, and are most often used by true enthusiasts (Warschauer, 1996 as cited by Villanueva, 2018). Utilizing ICT significantly contributed to the acquisition and absorption of knowledge among the students by increasing their motivation and engagement in classroom activities. Particularly, a computer with internet connectivity provides the learner an opportunity to connect with other people and provides them ready access to data.

### **Part IV. Effect of ICT Integration in the Classroom using the Triple-E Framework**

The One Hundred Four (104) total faculty respondents also made an evaluation on the effects and usefulness of ICT tools using the Triple-E Evaluation Rubric by Liz Kolb (2014). As reflected in the table above, Eighty (80) of them or 76.9% declares an exceptional connection of Information and Communication Technology in achieving the learning goals they have set for their classes. Twenty-One (21) or 20.2% substantiated the strong connection of using ICT in their teaching methodologies while the remaining Three (3) or 2.9% discloses an average use of the ICT tools.

This means that majority of the respondents acknowledge the importance and benefits of integrating ICT tools in the teaching methodologies in order to efficiently and effectively execute the learning goals among their subject instruction. One of the respondents declares how the students enjoyed multimedia and audio visual presentation much more they would enjoy in the class because it was something new to them. She also added that in order for the university to realize its vision to be in



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international status, the university officials must initiate an effort to provide ICT facilities for the realization of that vision as it plays an important role in achieving the university vision through the provision of these facilities.

#### **Part V. Student Responses in the Integration of ICT in class**

The succeeding table reflects the summary of responses that were gathered from the students during the Focus Group Discussion (FGD) and series of Interviews conducted by the researcher. Data gathered were classified between positive and negative feedback and categorized based on the Three (3) dimensions of Triple-E Framework Technology Evaluation. This also includes the realizations and remarks of the students that contributed to the provision of recommendations.

In the dimension of “Engagement”, majority of the students affirmed that the use of ICT tools contributes to the holistic understanding of lectures in the class especially with the aid of such facility that provides more engaging participation among the students. Visual presentation and graphics catch the attention of the learners to be more active in terms of learning with the help of the Audio-Visual Presentation.

For the dimension of “Enhancement”, they perceived ICT tools as helpful in improving and enhancing their knowledge through the skills that can be enhanced with the help of the ICT tools. It enhanced their understanding in the class since it reinforces supplementary lectures. They shared that it was easier for them to understand when they used videos and audios that they can easily understand. It also enhances their communication skills through the help of software dictionaries as they learned various language variations. They also imparted that they can be effective in their chosen courses with the help of ICT as it provides understanding and horizon to reflect on the society to where they are not yet familiar. It also gives them an idea on the real-world society by the introduction made possible with the help of ICT facility in the form of video and audio presentation.

For the “Extension” of their learning, they considered the reality of lectures and reflect on the real-world setting. It can help them secure their future with the advance information that may be accessed through the internet, one shared that with technology, they have more exposure and exploration of the world unlike when using the traditional way of teaching (e.g. Manila Papers) where the listeners get bored. The teaching methodologies become more participative and reflective through the video and

audio presentation. They also shared that they can become an effective public speaker with the advance ICT technology like the audio recording. Some also shared that they can no longer be ignorant to the other countries since access to the information from those countries is easier with the help of Internet. Generally, they believed that with the advent of ICT tools in the teaching methodologies of their instructors and professors, learning can be more relevant and reflective to the society.

#### **Part VI. Generated ICT Support Facilities/Interventions for the MSU Faculty**

The responses from the study provided perspective on the support facilities on Information and Communication Technology (ICT) needed by the faculty and the relevant and the possible interventions that the university could assist for the effective and efficient teaching methodologies of their faculty force. This prompts the faculty respondents to evaluate and reflect the means in which he/she can maximize learning for students so that they are able to achieve the learning goals and skills that are significant in preparing them to the workforce for the future success of each individual that



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will lead to organizational development. Hence, from the findings of this study justifies the ICT support Facilities needed by the faculty and the possible interventions and assistance that the university could provide for them to be efficient and effective in their teaching methodologies.

First, is budget allocation for the provision of Information and Communication Technology (ICT) Facilities and its facility development in each colleges. ICT is not a replacement in the absence of Teacher but a supplement for the efficient and effective installment of knowledge to the students through the help of ICT tools. It is also declared in the policy of the state to work towards the advancement of the quality of education in the country through the adoption of Information and Communication Technology (ICT) as a tool in the teaching and learning process to enable students to achieve students to achieve higher standards of learning. Likewise, the state shall also utilize ICT education in the development of its human resources.

Second, is the Advance training of faculty member on the use of Information and Communication Technology (ICT) tools with proper management of its usage for a holistic learning. Technology may enhance learning but without the teacher's proper administration and guidance on its usage, learners may be opted to learn varied information and sometimes unreliable information from the internet that do not necessarily develop guided and organized hierarchy of learning. As mentioned by Villanueva (2018), it must be emphasized that ICT tools do not only provide models for instruction but should be valued based on their capacity to elevate learning acquisition through engaging students for interaction, enhancing learning beyond the teacher's input, and extending learning so that students acquire life skills that are beneficial in their personality development and future career. Utilizing technology in this context would most likely transform students to become critical thinkers who are adept at socializing and interacting with others. Apparently, as reflected in the findings of the study, the over-all weighted mean gathered show a majority responses of "Intermediate" level of literacy which needs to be level up in order for the faculty to be more effective and engaging in the calling noble profession. With these, training for the advance knowledge of ICT is yet but necessary.

Relative to this principle are the revelations in the investigations of Davies (2018) as cited by Villanueva (2018) which affirmed that integrating ICT materials into the curriculum and frequency of exposure of the students to ICT were mentioned as keys to success and ICT was also perceived as having a beneficial effect on pupil's critical and listening skills. It was then pointed out that ICT can go beyond drill-and-practice, offering access to authentic materials on the Web and the opportunity for authentic communication.

This is consistent with the study of Doak (2009) as cited by Villanueva (2018) which found that students are so engrossed in the use of technology outside of the classroom which meant that they obviously valued it. It was then logical to say that if technology were integrated into the classroom, the learning environment was more relevant to the student population.

## 5. Recommendations

Based on the findings and implications of this study, the following recommendations were drawn:

First, since this study found out the immense role of Information and Communication Technology (ICT) in the providing quality of graduates to man the organizational development in their chosen profession and/or organization in the future career, it is highly recommended for all the tertiary faculty



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force, especially those who did not integrate ICT into their teaching methodologies, to utilize ICT facilities through equipping their knowledge and skills on the use of ICT tools;

Second, since it unveiled in the study that majority of the faculty respondents has an “Intermediate” level of literacy on the use of ICT tools, it is highly recommended that the faculty members specially of those in their thirty (30) years in service onward should undergo advance trainings and engagement on the ICT-related development programs to be more effective in their teaching methodologies. With this, it would help maximize and attain the learning objectives that could facilitate authentic development to the learners;

Third, since it found out that faculty members have limited ideologies on the ways to integrate ICT tools in their teaching methodologies, it is highly recommended for all the faculty members to widen their perspective and dimension on the diversity of the use of ICT tools that can contribute to the acquisition and absorption of knowledge among the students by increasing their motivation and engagement in classroom activities.

Fourth, since the faculty respondents acknowledge the importance effects of integrating ICT tools in the teaching methodologies in order to efficiently and effectively execute the learning goals among their subject instruction, it is highly recommended that the university officials must initiate an effort to provide ICT facilities, interventions and development programs for ICT to supplement the noble vision of the university to be in international status. Specifically, officials must make internet or wi-fi as mass medium, making it accessible to all both rich and poor; Indeed, ICT plays an important role in achieving the university visions through the provision of these facilities;

Fifth, since the students disclosed their realization on the importance of ICT in the attainment of learning objectives being left behind to the other universities, University and college officials must invest in ICT facilities for the teaching methodologies of their faculty for the students to be diverse and competitive making them in an international standard;

Lastly, as practitioner of Public Administration and since Development is one of the aims of the noble profession, it is highly recommended for all the faculty members who are aiming holistic development to their learners, faculty members must be well-versed and equipped with the knowledge of ICT tools for them to incorporate in their teaching methodologies as the researcher truly believes that ICT unlocks the door to education and education unlocks the door to development.

## 6. Author(s) Contribution

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## 7. Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## 8. Plagiarism Policy

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