

# COMPETENCE OF TEACHERS IN THE UTILIZATION OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) AS A PROCESS DESIGN ADOPTION SCHEME FOR JUNIOR HIGH

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## Abstract

The main purpose of this study is to determine teachers' competence and capabilities in teaching Information Communication Technology (ICT) as part of core competencies used in the 21<sup>st</sup>-century skills, and students in terms of Information and Communication Technology Instruction during the school year 2017-2018. This study used the normative, descriptive method of research. The data were gathered using the self-made questionnaire checklist. Gathered data were treated using total weighted points, frequency count and percentage. Teachers are exceedingly aware of the hardware components and its peripherals due to the regularity of their utilization and only few peripherals not familiar with them; teachers are skillful, knowledgeable and able to share their expertise in terms of work processing; teachers are also well equipped with the necessary skills and techniques in order to cater the needs of the students in terms of Spreadsheets software; they are knowledgeable in using PowerPoint presentation; majority of the teachers are doing great in terms of the usage of the internet; teachers are able to teach their students in using email; and the top six issues and concerns that teacher encounter in the utilization of Information Communication Technology are also considered.

**Keywords:** Industrial Technology, Information Communication Technology, Descriptive Research

## INTRODUCTION

Information and Communication Technology (ICT) plays an important role in maintaining sustainable development, especially in developing countries. Over the past decade's most developed countries witnessed significant changes that can be traced to ICT. These changes observed in all aspects of life in terms of economics, education, communication, travel, etc. The information society is one that makes the best possible use of ICT. Society is the quality of life, as the prospects change and economic development, upon information and its exploitation.

ICT tends to expand access to education. Through ICT, learning can occur anytime and anywhere. Online course materials, for example, can be accessible 24 hours a day, seven days a week. Teleconferencing classrooms allow both learner and teacher to interact simultaneously with ease and convenience. Based on ICT, learning and teaching no longer depend exclusively on printed materials. Multiple resources are abundant on the Internet, and knowledge can be acquired through video clips, audio sounds, and visual presentation and so on. Current research has indicated that ICT assists in transforming a teaching environment into a learner-centered one (Castro Sánchez and Alemán 2011). Since learners are actively involved in the learning processes in ICT classrooms, they are authorized by the teacher to make decisions, plans, and so forth (Lu, Hou and Huang 2010). ICT therefore provides both learners and instructors with

more educational affordances and possibilities. More specific benefits of using ICT in education are described below.

Information technology for humans is expanded, built up, nourished, and liberated by giving people access to tools and technologies, with the education and training to use them effectively. People living in remote areas have a great opportunity to connect and assist them effectively. Information of technology is a major hurdle that most nations, especially developing countries are facing. In a nation like the Philippines, Information Communication Technology (ICT) is a valuable tool that can be used for the economic development of the country. The government is still in a struggle on how to use ICT effectively. A government-level commission of ICT merged with the Department of Science and Technology (DoST). Whether it should be an independent department or continue to be part of its role in economic development. Furthermore, the Philippines along with other countries are generally interested in educational technology particularly in the aspect of ICT, aiming to reap the pedagogical benefits associated with the educational system. According to (Mbwana, 2009) Information Communication are being today's societies. The commitment to integrate Information Communication Technology for Education (ICT4E) in all public and private schools is a strategic plan of educational system in the Philippines into dynamics, students become more motivated, inquisitive and creative learners. In order for the students to be globally competitive, one should connect them with the vast information network world with enough resources development of a creative mind and skills for lifelong learning.

Although the advantages of using ICT in the classroom have been demonstrated in previous research, barriers or challenges associated with its use still exist. Frederick, Schweizer and Lowe (2006) showed that student mobility, special needs, and anxiety over standardized test results are the main challenges associated with ICT use. These challenges can be solved by providing more authentic group- and problem-based learning activities, and adequate learning support (Whelan 2008). Whelan (2008) also identified more barriers from the student perspective, including: subpar technical skills that reduce access to ICT in classroom; an insufficient number of academic advisors and lack of timely feedback from instructors; and reduced interaction with peers and instructors. Therefore, the author recommends the following strategies to facilitate the learning process: more induction, orientation, and training for students; an increased emphasis on the importance of instructor access and effective administration; and the expansion of podcasting and online conferencing tools. In general, capacity building, curriculum development, infrastructure, policy, and government support are required in order to lower student barriers and improve the effectiveness of ICT use in the classroom. In addition, Castro Sánchez and Alemán (2011) encourage students to acquire specific technical skills to facilitate learning in ICT environments.

In schools, teachers are being challenged on how to teach students the skills that are required by the information society. The success in the use of ICT in education depends largely on the teachers and their level of skills in integrating ICT and in utilizing ICT to provide learner-centered, interactive education. The effective use of ICT is seen as essential part for the students to acquire and exploit information within every sphere of human activity. Nevertheless, the

necessity to evaluate, proper use of ICT will remain as a big in an information society. Therefore, we need to encourage teachers' capacity in the use of ICT for education by training them to be able and integrate improved educational outcomes and make the best use of it.

This study aimed to determine teachers' competence and capabilities in teaching ICT. Specifically it sought to look into the profile of the teacher respondents as to age; gender; position/designation; the number of years in teaching ICT; and the number of hours in relevant in-service training, seminar workshops attended. Additionally, this study also determines the knowledge level of teachers in identifying and determining computer system and peripherals and its uses; Further, it examines the competence level of teachers in word processing; spreadsheets; presentation software; using the internet; and in using e-Mail. Lastly, related issues and concerns that teacher encounter in the utilization of Information Communication Technology are also considered.

## **THEORETICAL CONSIDERATIONS**

This research is anchored on the Learning by Doing as propounded by John Dewey, the Constructivism Theory of Jean Piaget and Jerome Bruner, and the Connectives theory of George Siemens and Stephen Downes. Learning is at its best if it is basically based on actual life experiences to accomplish both in individual and for society. In intellectual aspects that are a valuable adults in developing a sense in finding a place in social and economic life adapted to this capacity and personal preferences. Attaining the skill requires the mastery of a system that takes literally years to learn. The teacher requires skill in noting the difficulties of the learners, but this does not mean that it should be done away with. Much as the teacher wants, he can still require his students to practice more. The outcome of an individual for societal integration cannot be achieved unless the student has acquired a command from his mentor. The educator has to find ways to teach all his students if they are taught properly, the latter can learn skill concepts necessary to function in modern society.

As established in the literature, internal variables greatly influence how teachers integrate technology in the classroom. But which variable has the strongest impact on ICT use and how internal variables are influenced by ICT preparation programs are discussed below.

Palak and Walls (2009) conducted a mixed study to investigate whether teachers who frequently integrate technology and work at technology-rich schools shift their beliefs and practices toward a student-centered paradigm. The results showed that their practices did not change; neither student-centered nor teacher-centered beliefs are powerful predictors of practices. However, teachers' attitudes toward technology significantly predict teacher and student technology use, as well as the use of a variety of instructional strategies ( $p < 0.05$ ). Sang et al. (2010) focused on the impact of Chinese student teachers' gender, constructivist teaching beliefs, teaching self-efficacy, computer self-efficacy, and computer attitudes on their prospective ICT use. The findings confirmed the results of the study by Palak and Walls (2009) that the strongest predictor of future ICT use were teachers' attitudes toward it.

In addition to the influence of teacher attitudes, Sang et al. (2010) further indicated that pre-service teachers with highly constructivist teaching beliefs have stronger intentions to integrate technology into their future teaching practices. Furthermore, more confident pre-service teachers were more capable of and interested in using computers in real classrooms. Thus, although teachers' attitudes towards ICT use were found to be the strongest predictor of technology integration, the impact of their beliefs and confidence in using ICT should not be disregarded either.

Another similar study was conducted by Doering, Hughes and Huffman (2003), who analyzed pre-service teachers' perspectives regarding ICT in their future classrooms before and after participation in a teacher preparation program. Prior to taking the preparation courses, teachers were doubtful about the utility of ICT in the classroom, implying that they would closely examine and consider technology integration, rather than blindly incorporate it into their teaching practices. After completing the courses, their doubt had transformed into more positive sentiments. The teachers had a better understanding about ICT use in the classroom. Although the teachers confronted other issues such as technology availability, accessibility, professional support, and classroom management, their perceptions about technology's role had changed. They were more likely to believe that technology can assist in learning and to recognize its importance.

Serhan (2009) and Chai, Koh and Tsai (2010) also investigated pre-service teachers' beliefs about the use of computer technology and the effectiveness of ICT courses. The results of both studies indicate that after participating in courses, pre-service teachers recognized the importance of technology integration into their curricula and believed that ICT use would enhance student learning. They felt that such courses prepared them to apply ICT in the future, and their abilities to select, evaluate, and use a variety of technological resources improved. More specifically, Chai, Koh and Tsai (2010) found that ICT courses with direct instruction on the use of technological tools through the technology enhanced lesson (TEL) approach helped teachers learn how to use technologies as supporting tools in order to enhance their teaching and student learning. Consequently, the pre-service teachers viewed the preparation course favorably.

It is worth exploring how the ICT preparation courses or programs change teachers' intentions and actions. Choy, Wong and Gao (2009) conducted a mixed study to examine the intentions of pre-service teachers before and after a technology preparation course. Their intentions were then compared with their actions related to technology integration during their teaching. Confirming previous results from Doering, Hughes and Huffman (2003), the findings showed that their intentions became significantly more positive ( $p < .05$ ) as a result of increased pedagogical knowledge. Nevertheless, these teachers were not able to translate the positive intentions into actual teaching, largely due to unfamiliar school environments. Based on these results, Choy, Wong and Gao (2009) concluded that teacher education programs need to increase awareness of the benefits of integrating technology into student-centered learning approaches, and provide pedagogical knowledge related to student-centered learning as well as technology integration strategies.

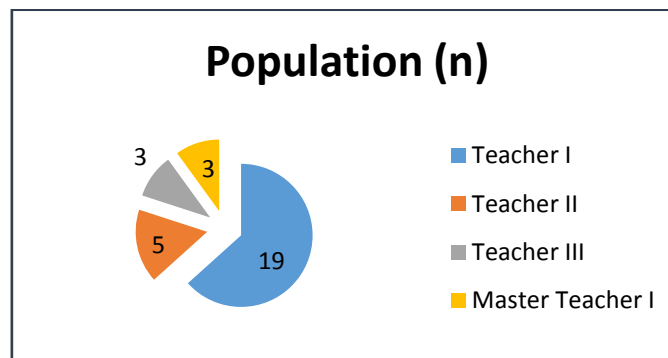
## METHODOLOGY

This study used the normative, descriptive method of research. The researcher investigates through questionnaires administered to the teachers and students of Zapatera National High School, Cebu City Division. Data were analyzed and interpreted based on the perception of the respondents.

The instrument of the study is based on the self-made questionnaire. It consisted of two parts. The first part dealt with the demographics profile of the respondents along age, sex, number of years in teaching ICT and the number of hours in relevant in-service training, seminar workshops attended by the respondents. The second part dealt with the level of competence of teachers in terms of their knowledge of computer system in general; competence in word processing, spreadsheets, presentation, using the internet and using e-mail. The third part contains the assessment on different issues and concerns related to the utilization of ICT.

The final draft of the instrument was shown to the experts for final comments and approval. With the recommendation of the statistician and the experts, the instrument was subjected to a reliability test. Ten (10) teachers were randomly selected, who were not included as respondents were used as pilot samples to test the reliability of the instrument.

Cronbach's Alpha was used to measure the internal consistency and reliability of the instrument employing the Statistical Package for the Social Sciences (SPSS Statistics version 17.0) and Microsoft Excel Data Analysis ToolPak. The results were 0.65, 0.71 and 0.70 for the Knowledge on Computer System and Peripherals and the level of competence in different application software respectively. The Cronbach alpha reliability for the overall scale was 0.85 for the present sample. The instrument was first pretested on a group of 10 respondents who did not form part of the actual sample. The pilot study indicated that the tool was adequate thus, it enabled the researcher to assess the suitability of the tool for use.



**Figure 1: Distribution of Respondents**

As presented in figure 1 is the population distribution of the respondents. There were 19 Teacher I position, 5 teacher II position, there were also 3 teacher III and 3 master teacher I position. They are the teachers of Zapatera National High School as respondents of this study to answer the questionnaires administered by the researcher.

## RESULTS AND DISCUSSIONS

Presented in this portion are the age and gender profile of the teachers. The source of age categorization was derived from the highest to lowest age presented in Table 1.

**Table 1: Teachers Demographics in Terms of Age and Sex.**

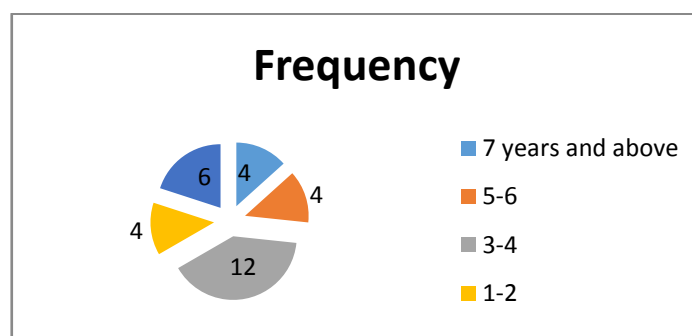
Age	Male		Female		Total	
	f	%	f	%	f	%
36 and above	6	40.00	3	20.00	9	30.00
31-35	4	26.70	7	46.60	11	36.70
26-30	5	33.30	1	6.70	6	20.00
20-25	0	0.00	4	26.70	4	13.30
<b>Total</b>	<b>15</b>	<b>100</b>	<b>15</b>	<b>100</b>	<b>30</b>	<b>100</b>
<b>Mean</b>	<b>3.75</b>		<b>3.75</b>		<b>7.5</b>	

Table 1 shows that out of 30 teachers, there were fifteen (15) males and fifteen (15) females. Four (4) females or 27 percent are in the age bracket of 20-25, five (5) males or 33 percent and only one (1) female or 7 percent are in the age bracket of 26-30. For the age bracket of 31-35 there were four (4) males or 27 percent while seven (7) females or 47 percent, and the last bracket there were six (6) males or 40 percent while three (3) females or 20 percent is in the age bracket of 36 and above.

Table 1 implies that most of the respondents are already matured since there were 9 out of 30 with an age range of 36 and above and 11 out of 30 with an age range of 31-35. Further, they have equal number of male and female respondents.

### Number of years in Teaching ICT

This part reiterates the respondents' teaching experienced. The years in service are vital in the delivery of the teaching-learning process for this will ensure teachers capability. The data are reflected in figure 2.



**Figure 2: Number of years in Teaching ICT**

As reflected in the figure that there were 12 or 40.00 percent having an ICT teaching experience of 3 to 4 years. On the other hand, teaching experienced of seven (7) years and above, five (5) to six (6) years, and one (1) to two (2) years having a frequency of four (4) or 13.33 percent

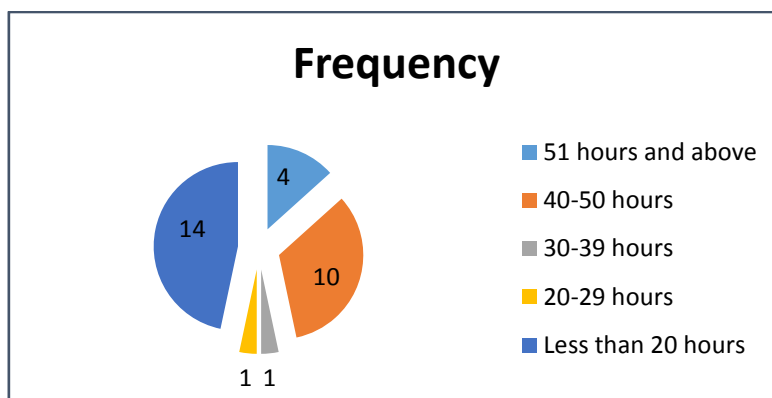


respondents respectively. Moreover, there were six (6) teachers or 20.00 percent of them have less than a year of teaching experience. This simply implies that the teachers' were still in their greenhorn age in their teaching career. This suggests that teachers experience need to be improved in order to ensure full integration of ICT in teaching and learning.

This concurs Petrogiannis, K. (2010) who points out that there is a need to adapt ICT in teacher education since ICT is new in integrating it to education, therefore, the school administrators and managers need to implement the new trend of education in the digital world.

### Number of Hours in Relevant In-Service Training, Seminar Workshops Attended

Training, Seminars, Workshops plays a prime opportunity to expand the knowledge base of all teachers, it ensures that the teachers have a consistent experience. This segment of the study reveals Number of hours in relevant in-service training, seminar workshops attended as reflected in figure 3.



**Figure 3: Number of hours in relevant in-service training, seminar workshops attended**

Figure 3 discloses that there were 14 or 46.70 percent having less than 20 hours in training and seminars attended, 10 or 33.33 percent attended 40-50 hours in training and seminars. On the other hand, four (4) or 13.30 percent of the respondents had attended 51 hours and above in training and seminars while 1 respondent has 20-29 hours and 30-39 hours respectively or 3.30 percent. This indicates that teachers handling ICT craved for more training and seminars with respect to Information and Communication Technology. In this approach teachers are expected to create an outcome where they can use their training and seminars attended to help their students to make them technology oriented individuals. These teachers possessed a positive outlook and open for new approaches for them to grow professionally.

These findings indicate that majority of the teachers are computer literate. These results concur with the e-learning Nordic study 2006 results that suggest that more teachers are becoming computer literate to meet the demands of the 21st century. The findings provide strong evidence that use of ICT in improving teaching and learning has not been fully embraced by secondary school teachers. This trend may influence teachers' pedagogical approaches to teaching and learning and thereby students' attainment (Becta, 2006).

### Teachers' Knowledge on Computer System and Peripherals

In this part reveals the teachers' understanding on the computer system and its peripherals. It is very important for the teachers' knowledge and their capabilities to identify the common hardware system and its peripherals respectively. Table 2 presents the findings.

**Table 2: Knowledge on computer system and peripherals.**

Computer Literacy as to Usage	Frequency	Percentage
Monitor	30	100
Mouse	30	100
Keyboard	30	100
Speaker	30	100
Printer	30	100
Power Supply	30	100
Central Processing Unit	30	100
AVR	26	86.70
Hard Disk Drive	22	73.30
Motherboard	20	66.70
Random Access Memory	18	60.00
Heat Sink	14	46.70

This table shows that there were 30 respondents or 100 percent are acquainted in computer hardware such as the monitor, mouse, keyboard, speaker, printer, power supply and the Central Processing Unit, there were twenty-six or 86.70 percent knows the AVR, and for the Hard Disk Drive twenty two or 73.30 percent who identify the Hard Disk Drive, there were 20 or 66.70 respondents identified the Motherboard, there were 18 or 60.00 percent knows the Random Access Memory and only 14 or 46.70 percent knows the Heat Sink. This presentation means that teacher respondents are exceedingly aware of the hardware components and its peripherals due to the regularity of their utilization. While there are only few peripherals, which are not familiar with them like AVR, Hard Disk Drive, Motherboard, Random access memory and heat sink.

### Level of Competence in Word Processing

Table 3 presents the level of competence of teachers in Word Processing. In this presentation learning word processing is one aspect to help students and teachers create and share professional-looking content in creating presentable letters, projects, reports assignments and any other related curricular activities.



**Table 3: Teachers' Level of Competence in Word Processing.**

<b>Word Processing</b>	<b>Mean</b>	<b>Description</b>
Use simple editing e.g. Bold, italics, centering, font size etc.	2.67	Very Competent
Use a spellchecker	2.53	Very Competent
Import text and images into a word processed document	2.63	Very Competent
Includes tables in a document	2.63	Very Competent
Creates new document templates	2.57	Very Competent
Use headers and footers	2.43	Very Competent
Save a document in various file formats including ppt/HTML	2.47	Very Competent
<b>Average</b>	<b>2.56</b>	<b>Very Competent</b>

Legend: (3-Very Competent; 2-Competent; 1-Not Competent)

Table 3 revealed that the teachers are very competent in Word Processing Category. It has an average mean of 2.56 with the verbal description of Very Competent. It also showed that teachers uniformly got Very Competent verbal description or fall into 2.33-3.00 rating scale. In this presentation, it simply implies that teachers are skillful, knowledgeable and able to share their expertise in terms of work processing.

The results are in agreement with (Jegade et al 2007) and Lakkala and Lehtinen, E. (2010) who found teachers to be more proficient in word processing than the other applications.

### **Level of Competence in Spreadsheets**

Table 4 revealed that the teachers are very competent in Word Processing Category. It has an average mean of 2.32 with the Verbal description of Competent. It also showed that teachers have almost the same level of competence described as Very Competent or fall into 2.33-3.00 rating scale. It simply implies that teachers are skillful, knowledgeable and able to share their expertise in terms of spreadsheets software.

It goes to show that teacher's responses came into the same direction. The teacher is well equipped with the necessary skills and techniques in order to cater the needs of the students in terms of Spreadsheets and help teachers develop their skills in order to make teaching methodologies effective and efficient. Teachers must equip with these skills and be able to learn and be proficient in using a spreadsheet so that they can use it in an efficient manner.

Laborde, C (2002) conforms the results of the study on his analysis on the processes whereby pairs of secondary school pupils (12–13 years old) made mathematical generalizations using spreadsheet. The main findings were served a scaffolding role in the step towards a mathematical generalization. Formalization took on a significant role in the computer specifically spreadsheets software.

**Table 4: Teachers' Level of Competence in Spreadsheets**

<b>Spreadsheets</b>	<b>Mean</b>	<b>Description</b>
Input data in rows and columns.	2.50	Very Competent
Auto filing series	2.43	Very Competent
Sort data	2.33	Very Competent
Input formulae	2.27	Competent
Replicate formulae along rows/columns	2.3	Competent
Produce charts and graphs for data analysis	2.27	Competent
Add headers and footers	2.27	Competent
Print a selected area	2.33	Very Competent
Understand and use relative and absolute cell-referencing	2.30	Competent
Display/hide formulae	2.17	Competent
<b>Average</b>	<b>2.32</b>	<b>Competent</b>

Legend: (3-Very Competent; 2-Competent; 1-Not Competent)

### Level of Competence in Presentation Software

The impact of understanding in using PowerPoint presentation is to help the teachers point across better and help the students learn effectively.

**Table 5: Teachers' Level of Competence in presentation.**

<b>Presentation</b>	<b>Mean</b>	<b>Description</b>
Create a basic presentation	2.60	Very Competent
Modify colors of text, lines, and spaces on a slide	2.60	Very Competent
Introduce animation onto slides	2.40	Very Competent
Modify transition between slides	2.37	Very Competent
Edit a master slide	2.40	Very Competent
Incorporate a data chart or graph	2.33	Very Competent
Rearrange slides within a presentation	2.40	Very Competent
Produce appropriate handout formats	2.33	Very Competent
<b>Average</b>	<b>2.43</b>	<b>Very Competent</b>

Legend: (3-Very Competent; 2-Competent; 1-Not Competent)

This part here presents the competence of teachers in terms of using presentation software as illustrated in Table 5. Teachers have a Verbal description of Very Competent and have an Average Mean of 2.43, which falls into the rating scale of 2.33 – 3.00.

It shows that the teachers are capable and very clever in teaching ICT related skills through their knowledge in using powerpoint presentation since they attended seminars and training on basic ICT skills, so, additional information and in the part of the student as it shows that they are interested in embracing this learning for their own welfare. When they acquire skills effectively, it can really enhance the output of the presentation and improve the overall comprehension of the learners.

According to University of Minnesota, Center for Teaching and Learning (2006) presentation software like PowerPoint, when effectively planned and used, can enhance instruction. People are divided on the effectiveness of this ubiquitous software—some say that PowerPoint is wonderful while others bemoan its pervasiveness. No matter which side you take, there are effective ways to use PowerPoint which can be used to enhance instruction.

### Level of Competence in using the Internet

This level of competence of teachers with the use of the internet is depicted in Table 6. It clearly stated that using the internet in the classroom can expand the knowledge of both teachers and students. It plays an important role for the present generation that they provide internet education for their young generations.

**Table 6: Teachers' Level of Competence in using the internet.**

Using the Internet	Mean	Description
Access an Internet site via its website address	2.57	Very Competent
Use search engines to find information	2.63	Very Competent
Use bookmarks/ favorites for marking sites	2.53	Very Competent
Download files from the internet	2.63	Very Competent
Save text and images from the web pages	2.63	Very Competent
<b>Average</b>	<b>2.60</b>	<b>Very Competent</b>

Legend: (3-Very Competent; 2-Competent; 1-Not Competent)

Table 6 revealed that teachers have an average mean of 2.60 with a verbal description of Very Competent. All items under the Using the Internet indicator were rated by the teachers as Very Competent with under the rating scale of 2.33-3.00. It simply shows that the majority of the teachers are doing great in terms of the usage of the internet, which implies that teachers are very keen on surfing the World Wide Web. It is very necessary that teachers have a deep knowledge on how to effectively browsing the Internet in order to relate in the learners.

### Level of Competence in using e-Mail

**Table 7: Teachers' Level of Competence in using e-Mail.**

Using e-Mail	Mean	Description
Send and receive e-mail messages	2.53	Very Competent
Attach files to output e-mails	2.50	Very Competent
Open and save files attached to incoming e-mails	2.50	Very Competent
Forward emails to selected contacts	2.43	Very Competent
Create new contacts in the address book	2.37	Very Competent
Create a distribution list of contacts	2.37	Very Competent
Sort messages and file in created folders	2.43	Very Competent
<b>Average</b>	<b>2.45</b>	<b>Very Competent</b>

Legend: (3-Very Competent; 2-Competent; 1-Not Competent)

This teachers' competence in using email determine the importance of understanding and function in order to assess and use this technology very well. This area presents the level of performance using the electronics male found in table 7.

The table shows that teachers obtained an average mean of 2.45 with a verbal description of Very Competent. Teachers are able to teach their students in using email, thus all items under using e-Mail indicator were rated with a verbal description of a Very Competent and belongs to the rating scale of 2.33 – 3.00. This table simply shows that teachers are capable and skillful to teach, know how to manage in terms of compose/send/receive/forward e-mail as well as downloading and attaching files. They are also able to create new contact, create a distribution list including sorting messages and files in created folders and other internet related functions that would require the student to use their individual emails, thus teachers and students are able to communicate any classroom related discussions that can capture student's interest using the current trends of information technology.

**Table 8: Issues and Concerns Related to the Utilization of ICT.**

Issues and Concerns	Mean	Description	Rank
Attendance of Classes	2.23	Much Needed	1
Existence of ICT Laboratories in learning	2.17	Much Needed	2
Conduciveness of ICT environment to learning	2.10	Much Needed	3.5
Lack of ICT instructional Materials	2.10	Much Needed	3.5
Cleanliness and Housekeeping	2.07	Much Needed	5
Obsolescence of ICT Teaching Materials	2.03	Much Needed	6
<b>Average</b>	<b>2.12</b>	Much Needed	<b>N/A</b>

The table refers the issues and concerns in the utilization of ICT in Zapatera National High School. In this process, the results is analyzed regarding the issues and concerns to better understand the root causes and plan effective interventions. The result is ranked according to its mean rating on which areas that needs to improve and need to be addressed by the Head of the School. It shows the top six (6) issues and concerns that Teacher and Student Respondents' encounter in the utilization of Information Communication Technology. The first rank is related to the attendance in the class and followed by the second rank, which is the existence of ICT laboratories in learning", which means that ICT computer laboratory is much needed. The third one specifies that the administration needs to provide conducive ICT environment for learning. The school is also lack of ICT instructional materials as deemed necessary for teachers and student as the fourth rank. Cleanliness and housekeeping must also be address by the school administration obtaining the fifth rank. Lastly, the sixth rank is the obsolescence in ICT teaching materials. The overall verbal description is much needed. There were items that can be resolved through the efforts of the faculty and staff of the school but some concerns cannot be immediately resolved without any budgetary considerations, with this they the teacher was able to control and minimize students absences, the school also have equipped with computers as well as the teaching materials and Instructional Materials it shows that the cooperation between the student and teachers in terms of utilization of ICT is vital. Parents, Teachers, and other stakeholders will engage in active participation in order to address this

concerns of Zapatera National High School, set the goals, face challenges and strive to overcome this concerns effective and satisfying approach.

## CONCLUSION AND RECOMMENDATIONS

Findings of the study shown as to the profile of teachers revealed the following: eleven (11) teachers or 36.70 percent were at the age bracket of 31 – 35 years old, nine (9) teachers or 30 percent were at the age bracket of 36 above, six (6) teachers or 20 percent were at the age bracket of 26-30, four (4) teachers or 13.30 percent were at the age bracket of 20-25. On the other hand, as to the plantilla position of the teachers, twenty-two (22) teachers or 73.30 percent has a teacher 1 position, Six (6) teachers or 20 percent has a teacher 3 position and Two (2) teachers or 6.70 percent has a teacher 2 position. In terms of Number of years in teaching ICT twelve (12) teachers or 40 percent were at the 3 – 4 years teaching experience, Six (6) teachers or 20 percent were at least less than a year teaching experience, and four (4) teachers or 13.33 percent have a teaching experience of 1-2 years, 5-6 years and 7 years and above.

Findings on the teachers competence level of performance of ICT as to curriculum delivery it has an average mean of 2.25 that means it was Competent and for the students. In teaching delivery, the average weighted mean of 2.18 as responded by the teachers and it was interpreted as Competent. Moreover for the word processing the average weighted mean is 2.56 and interpreted as Very Competent. In terms of the skills in spreadsheets teachers rated with an average weighted mean of 2.32 interpreted as Competent. For skills in presentation, it obtained an average weighted mean of 2.43 interpreted as Very Competent. As to the utilization of the internet, teachers rated 2.6 interpreted as Very Competent. For the electronic mail or email, teachers rated 2.45 which means Very Competent. Process Design Adoption aims to address the issues and concerns of the teachers and students with respect to information and communication technology (ICT). Based on the findings, it could be concluded then that teachers' on teaching delivery it has only an average weighted mean of 2.18 interpreted as Competent while for the students' the utilization of an electronic mail has an average weighted mean of 1.88 interpreted as Competent. These results should be given much emphasis for the teachers to deliver the teaching competence to its clientele for them to acquire ICT competencies excellently. It is recommended that this process design adoption scheme be implemented.

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