LEVEL OF ICT READINESS AMONG FACULTY MEMBERS OF LOCAL CITY COLLEGE: BASIS FOR AN INTERVENTION PROGRAM DEVELOPMENT

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Abstract: The teachers' Information and Communications Technology (ICT) knowledge and skills help them to be more efficient in performing their tasks, ensure effective learniung to students, and adhere to ICT advancements and competency. The study aimed to determine the level of ICT readiness of the 18 faculty members of the Local City College during the school year 2021-2022 based on profile: age, number of ICT training hours attended, length of service, and sex. A modified survey questionnaire was used to measure ICT readiness in terms of ICT knowledge (through Self-Administered Questionnaire) and ICT skills (through skills demonstration), which were derived from the National ICT Competency Standard of the Commission on Information and Communications Technology and the Computer Literacy Questionnaire. It made use of descriptive-quantitative and qualitative designs. The findings revealed that the faculty were knowledgeable and skilled in basic ICT. The common themes derived from the resulting discrepancy between ICT knowledge and ICT skills were wrong perceptions or assumptions, confusion on the unfamiliar/technical words/terms, and low confidence level which was associated with the random response bias. It was concluded that teachers were skilled and knowledgeable equally or similarly ready in ICT, whether they were clustered according to sex, age groups, number of ICT training hours attended, and length of service in using common computer applications in the basic skills set, namely: Word Processing, Presentation, ICT Basics, Internet Skills, Computer ethics, security, and spreadsheets. Furthermore, the study recommended an intervention program to be conducted among faculty members of the local city college to prepare teachers to be highly knowledgeable and skilled in ICT.

Keywords: : Information and Communication Technology (ICT), level of ICT readiness, ICT knowledge, ICT skills, random bias response

Introduction

Information and Communications Technology (ICT) provides a dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2012). It plays an essential role in the learning process and is an instrument for rapid development in the 21st century. ICT in schools serves as a communication tool that helps improve students' learning and contributes to better teaching techniques. With ICT, teachers' teaching and the students' learning changed (Marcial & De La Rama, 2015).

The United Nations Educational Scientific and Cultural Organization (UNESCO) and its partners designed ICT competency standards for teachers to help educational policymakers and curriculum developers identify the skills teachers need to utilize technology in the service of education (UNESCO,

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2008). The schools and other educational institutions must integrate ICT into the curriculum to prepare students to live in a "knowledge society" (Ghavifekr, Afshari & Amla Salleh, 2012). The teachers are the key players in the success of ICT integration in classes thus, teacher's ICT readiness is essential to be digitally transformed in equipping students for the digital world and to be more efficient at work since ICT innovates in almost all aspects of life and work. Teachers' ICT readiness is measured in terms of knowledge and skills based on Adaptive Control of Thoughts Theory by Anderson (1983) through the integration of declarative knowledge for ICT knowledge and performing a series of procedures related to declarative knowledge for ICT skills.

Moreover, the Commission on Higher Education (CHED) stresses that teacher education is a critical factor in quality Philippine education and the use of ICT in teaching and learning resources creates an attractive and flexible environment for both teachers and students. Certainly, ICT changes the daily practices of teachers. Teachers' ICT readiness along with the curriculum, the teaching strategies, and the classroom set-up are critical factors to meet the educational goals of the 21st- century.

The Local City College being granted the institutional permit to operate as a Tertiary Education should also investigate the ICT aspects of the College, specifically the level of ICT readiness of the faculty/teachers. This will help them to be more efficient in performing their duties and responsibilities, ensure that students' gain lifelong learning skills and adhere to the demands of ICT advancements and competency. With this, the researcher decided to embark on this study to determine the level of ICT readiness of the faculty members of a local city college in Zamboanga, being the only one in the city providing polytechnic and technological courses. The result of the study can be the basis for an intervention program to attain the desired level of ICT competency among teachers to meet the 21st-century educational approach.

This study was conducted to determine the level of ICT readiness of 18 faculty members of a local city college in two campuses, one in the east coast and another one in the west coasts of the city during the school year 2020-2021. The ICT readiness is delimited to ICT knowledge (which is a declarative knowledge) and ICT skills (series of procedures related to declarative knowledge) in six skills domains: ICT basics skills, word processing skills, spreadsheet skills, presentation skills, internet skills, and computer ethics and security skills). Furthermore, the profile of the respondents such as age, number of ICT training hours attended, length of service, and sex were included in this study. Moreover, the hypothesized significant difference in the levels of ICT readiness based on the faculty-respondents' age, number of ICT training hours attended, length of service, and sex were determined. This study shall serve as baseline data for the development of training with seven components such as title of the

training-workshop, participants, rationale/justification, objectives, contents, learning design/methodologies and evaluation.

Methods

The study employed the descriptive-quantitative and qualitative research design. Total enumeration was utilized because there were only 18 faculty members of a local city college in Zamboanga City where, specifically 10 (56%) in west-coast campus and eight (34%) in the east-coast campus of a local city college during the school year 2020-2021.

A modified survey questionnaire was used to measure ICT readiness in terms of ICT knowledge and skills derived from the National ICT Competency Standard of the Commission on Information and Communications Technology and Computer Literacy Questionnaire. The ICT Readiness in terms of ICT knowledge and ICT skills with six subscales scored very high reliability coefficients of 0.993, which means the survey questionnaire is reliable (George and Mallery, 2003). The respondents for pilot-testing were the faculty of a state university during the school year 2020-2021.

The survey questionnaire has two parts. Part 1 of the questionnaire described the profile of the faculty members of the local city college in terms of their age, number of ICT training hours attended, length of service, and sex. Part 2 consisted of a 4-point Likert Scale survey question with the following description: 4-Highly Ready; 3-Ready; 2-Moderately Ready; 1-Not Ready. This survey has two subparts, 2-A and 2-B. Part 2-A delved on the level of ICT Readiness in terms of ICT Knowledge through Self-Administered Questionnaire (SAQ), which is the declarative knowledge in six skills domains namely, ICT Basics, Word Processing, Spreadsheet, Presentation, Internet and Computer Ethics and Security from the National ICT Competency Standards, including the objective 10-item test on general areas of computers.

Permission was sought from school officials of the local city college to gather data. The research instrument was submitted to the Ethics Committee for approval. Teachers who consented to participate in the study were made to answer the Self-Administered Questionnaire (SAQ) for the ICT knowledge and skills demonstration with same indicators specified in SAQ as validation for ICT skills in their respective faculty rooms and classrooms. Interviews were arranged for those with discrepancies on their answers in terms of ICT knowledge and ICT skills. The instrument, in the average, was completed within 20 to 25- minute time.

The Mean and Standard Deviations were utilized to determine the level of ICT readiness in terms of ICT knowledge and ICT skills of the faculty members. Furthermore, the Kruskal Wallis H-test and Mann Whitney U-test analysis were used to determine the hypothesized significant differences of the

levels of ICT readiness based on teachers' age with six age groups; 25 years old and below, 26 to 30 years old, 31 to 35 years old, 36 to 40 years old, 41 to 45 years old, and 46 years old and above: teacher's number of ICT training hours attended with five groups; 0 or Never, 8 to 40 hours, 41 to 80 hours, 81 to 120 hours, and 121 hours & above: teachers' length of service in four groupings; 5 years & below, 6 to 10 years, 11 to 15 years and 21 years & above: and based on teachers' sex group: male or female.

Results and Discussion

There are more faculty – respondents who are 46 years old and above (33.3%). This is followed by faculty between 36 to 40 years old (22.2%). There are 11.1% of the faculty who are aged 25 years old and below, 11.1% are between 26 to 30 years old, 11.1% are between 31 to 35 years old, and another 11.1% who are between 41 to 45 years old. The profile of faculty by age groups implies that the faculty-respondents of the local city college are diverse.

Table 1 Faculty Profile in terms of Age

Age	Frequency Counts	Percentages
25 years old and below	2	11.1%
26 to 30 years old	2	11.1%
31 to 35 years old	2	11.1%
36 to 40 years old	4	22.2%
41 to 45 years old	2	11.1%
46 years old and above	6	33.3%
Total	18	100.00%

There are more faculty who had zero set of training or those who have never undergone training on ICT (44.4%). This is followed by eight to 40 hours of ICT training with 33.3%, then 41 to 80 ICT training hours with 11.1% of the faculty. It further shows that only one out of 10 faculty members had 81 to 120 hours training (5.6%) and 121 hours and above ICT training hours attended (5.6%).

Table 2 Faculty Profile in terms of Number of ICT Training Hours Attended

Number of ICT Training Hours Attended	Frequency Counts	Percentages
0 or never	8	44.4%
8 to 40 hours	6	33.3%
41 to 80 hours	2	11.1%
81 to 120 hours	1	5.6%
121 hours & above	1	5.6%
Total	18	100.00%

There are more faculty-respondents who are five years and below in the service (38.9%). This is followed by faculty with 21 years and above length of service (27.8%), and six to 10 years length of service (22.2%). Only two are in their 11 to 15 years length of service (11.1%). There are no faculty-respondents under 16 to 20 years in the service (0%). It implies that most of the respondents were just novice teachers or less experienced teachers with five years and below teaching experience.

Table 3 Faculty Profile in terms of Length of Service

Length of Service	Frequency Counts	Percentages
5 years & below	7	38.9%
6 to 10 years	4	22.2%
11 to 15 years	2	11.1%
16 to 20 years	0	0.0%
21 years & above	5	27.8%
Total	18	100.00%

There are female faculty members (33.3%). This implies that most of the faculty of the local city college are males. This gender divide favoring the males is rarely noticed across learning institutions as the teaching career seems to be favored by females as observed by different authors (e.g., Abequibel et al., 2021; Alieto, 2019; Horton-Ramos, 2020). This presently noted trend is supposed to have something to do with the nature of courses offered in the institution.

Table 4 Faculty Profile in terms of Sex

Sex	Frequency Counts	Percentages
Male	12	66.7%
Female	6	33.3%
Total	18	100.00%

A. What is the faculty's level of ICT readiness in terms of ICT knowledge and ICT skills?

The level of ICT readiness of the faculty is ready with an overall weighted mean of 2.78 described as Ready in terms of ICT knowledge (2.87) and in terms of ICT skills (2.68). The standard deviations are small which means that the faculty-respondents are alike on their level of ICT readiness in terms of ICT knowledge and ICT skills. The result implies that the faculty-respondents are ready and equipped with the necessary knowledge and skills to use common computer applications in the basic skills set. They are knowledgeable and skilled about the basic components of a personal computer, the management of files and printing of documents, the uses of the internet and electronic mail for educational and personal purposes, the tools for slides presentation, and understanding the importance of security and legal issues associated with the use of computers and the internet. Perhaps, they are ready because they are already using the basic functions of Microsoft office programs in doing their work such as developing

instructional materials (self-learning modules, hand-outs, midterm, and final term examinations) and necessary reports and documentations. Moreover, they are also already utilizing the internet for personal and educational purposes.

The data which indicate that the faculty-respondents of this study are only ready oppose the findings of Nacario et al. (2014) which revealed that the teachers were highly knowledgeable and highly skilled in identifying the ICT hardware and software components and highly competent on ICT usage.

Furthermore, Table 5 shows the ICT knowledge (through the Self-Administered Questionnaire) and ICT skills (through skills demonstration/validation) in the skills set division based on the National ICT Competency Standard. In terms of ICT knowledge, the faculty-respondents are Ready in all six skills set namely, word processing skills (3.35), spreadsheet skills (2.85), presentation skills (2.84), ICT basic skills (2.83) internet skills (2.75) and computer ethics and security skills (2.57). In terms of ICT skills, they are Ready in only five skills set namely, word processing skills (3.18), ICT basics skills (2.64), internet skills (2.63), presentation skills (2.61), and computer ethics and security skills (2.52). This means that they are knowledgeable and demonstrated the ability to use the basic functions of each application on a computer. Through word processing, they can create/manage, format, and print documents. Through presentation program, they can use the presentation tool to prepare and enhance reports. Through the internet, they can navigate and search for information and understand the concepts and terms associated with internet and electronic mail (e-mail). They are ready because they understand the basic components of personal computer and the important ethical issues with the use of computers and internet. These faculty-respondents are exposed to module development and other preparation of reports/documents for the school which implies that they can use basic functions of the computers and internet. Specifically, they use Microsoft Word program which is a user-friendly application to prepare and develop self-learning modules, hand-outs, manuals, documentations, examinations. They use Microsoft PowerPoint to present an enhanced report and lessons to students. They have an on-going research project which exposes them to do basic information searches through the internet. They communicate with students through the online platforms such as Facebook messenger, google/yahoo for student's consultation. Their work in the college requires them to use the basic functions that office programs and internet offer which made them ready to use it.

This result that revealed that the respondents are ready supports the finding of Jamil et al. (2018) in their study about the ICT competencies of teachers at university level in which most of the teacher-respondents were also competent in using Microsoft Word documents. The investigated teachers can save a document to a location on a drive, could switch between open documents and create backups of important files. Likewise, the study of Kandasamy (2013) revealed that most respondents were knowledgeable in using applications such as MS Word, internet exploring, e-mailing, and MS

PowerPoint. Additionally, it revealed that most of the respondents made use of ICT in teaching computer skills, communicating with colleagues, monitoring students' performance, and doing presentations. Additionally, the result of the study of Rako (2016) revealed that the teachers used office tools, cloud storage services, social networks, and collaboration tools mainly for their daily work.

On the contrary, Table 5 reveals that the ICT readiness of the faculty in terms of ICT skills is Moderately Ready in Spreadsheet skills (2.49). This implies that faculty-respondents are moderately ready because they were a bit unprepared to do the tasks associated with developing, formatting, modifying, and printing a spreadsheet, generating, and applying standard mathematical and logical formulas, and creating and formatting graph/charts. They found it challenging to demonstrate the other basic functions that the spreadsheet program offers, maybe because they were not using them frequently in their work. Admittedly, during the interview observation, they were slightly prepared to format data (sort and filter data), adjust scaling of a worksheet, insert page numbers, and create formulas and charts/graphs. This reflects that the faculty-respondents need to improve their readiness in using Microsoft Excel/Spreadsheet program.

As a result, the difficulty that teachers demonstrated in using spreadsheet program during skills demonstration means that the teachers are only moderately ready. The findings of Kandasamy (2013) supported this result that some teachers had difficulties in using MS Excel. Meanwhile, this result opposes the findings of Makgato (2014) where the majority of the teacher-respondents (21 out of 24 participants) indicated that they can use MS Excel spreadsheets. Nonetheless, Lantushenko, et. al (2018) emphasized that the knowledge of spreadsheet tools like Microsoft Excel is a valuable skill to have. Likewise, Friesen et al. (2003) pointed out the uses of Microsoft Excel such as to calculate data, generate graphical representations of data, compare sets of data using tables, graphs, and models; examine patterns in data using charts and trend lines; apply mathematical reasoning to investigate a problem; apply problem solving strategies to develop a solution, and make connections to the real-world applications of mathematics. Therefore, the current skills of teachers need to improve so they can be more efficient in their work such as to record attendance, homework assignments, calculate grades and use the spreadsheet program in doing other-related tasks.

Nevertheless, Table 5 further shows that obviously there are some differences in the mean and one out of six skills indicators got a big difference when comparing the interpretation result of ICT readiness in terms of ICT knowledge and ICT skills. In terms of ICT knowledge, Microsoft Excel/Spreadsheets Skills (2.85) was described as ready. While in terms of ICT skills (validation), the Microsoft Excel/Spreadsheets skills (2.49) was described as moderately ready. It implies that the faculty-respondents' perceptions through answering the survey and their ability that they manifested during observation and demonstration of skills on Microsoft office programs were different. The weighted

mean differences seemed to be in conflict between respondents' perceptions when answering a self-administered questionnaire (ICT knowledge) and the ability shown during the interview observation (ICT skills). To further understand it, an interview observation was administered to the faculty-respondents who responded differently during the self-administered questionnaire and during the validation made through skills demonstration. Only eight out of 18 respondents were interviewed on the reasons of the discrepancy in their answers between SAQ and validation.

Table 5
ICT knowledge (Self-Administered Questionnaire) and ICT skills (Skills Demonstration/validation) in 6 skills set division

ICT Readiness	ICT Knowledge (SAQ)			ICT Skills (Validation)		
	Mean	SD	VD	Mean	SD	VD
1. ICT Basics Skills	2.83	1.05	Ready	2.64	1.14	Ready
2. Microsoft Word/ Word Processing Skills	3.35	0.77	Ready	3.18	0.89	Ready
3. Microsoft Excel/ Spread sheets Skills	2.85	1.13	Ready	2.49	1.32	Moderately Ready
4. Microsoft PowerPoint/ Presentation Skills	2.84	1.21	Ready	2.61	1.30	Ready
5. Internet Skills	2.75	1.16	Ready	2.63	1.26	Ready
6. Computer Ethics and Security Skills	2.57	0.79	Ready	2.52	0.80	Ready
Average	2.87	1.02	Ready	2.68	1.12	Ready
Overall (ICT knowledge and ICT skills)	2.78	1.07				

Legend: *Not Ready (1.0 - 1.5); Moderately Ready (1.51 - 2.5); Ready (2.51 - 3.5); Highly Ready (3.51 - 4.0)*

For Item A. High level in ICT knowledge, Low level in ICT skills mean that the faculty-respondents rating during SAQ for ICT knowledge was a higher level of ICT readiness such as ready or highly ready, however, during skills demonstration for ICT skills, they demonstrated moderately ready or not skilled in performing the series of procedures. While, for Item B. Low level in ICT knowledge, High level in ICT skills is its opposite. It means that the faculty-respondents rating during SAQ for ICT knowledge is a lower level of ICT readiness such that they rated moderately ready or not ready, however, they demonstrated ready or highly ready in performing the series of procedures during skills demonstration for ICT skills.

Table 6
Descriptive: Faculty-respondents' Reasons for the Discrepancy on the Level of ICT
Readiness between ICT knowledge (through SAQ) and ICT skills (skills demonstration)

Reasons for the Discrepancy result	Respondent Identification	Number of Respondents/ Total Number	Percentage
A. High level in ICT knowledge, Low level in ICT skills			
1. Wrong Perceptions/Wrong Assumptions	Respondent 1 Respondent 3 Respondent 4 Respondent 2 Respondent 6	5/8	62.5%
2. Confusion on the unfamiliar/technical words/terms in SAQ	Respondent 1 Respondent 3 Respondent 5 Respondent 6	4/8	50.0%
B. Low level in ICT knowledge, High level in ICT skills			
3. Low confidence level	Respondents 7 Respondents 8	2/8	25%

Reason 1: Wrong Perceptions/Assumptions

From eight faculty respondents, five or 62.5% of them say it is their wrong perceptions/assumptions on their ICT knowledge and ICT skills.

Respondent 1 says that his wrong thoughts on the level of ICT readiness trigger him to answer the survey questionnaire incorrectly in terms of ICT knowledge because he cannot perform anymore during skills demonstration as a basis for the level of ICT skills.

- Respondent 1: *"Ah pensaba yo una mientras ta'n answer yo el questions, amo se sabe yo kay pronto lang man se man check alli na papel, pero hende gale yo sabe gayod, mali na de mio pensamiento amo se mali el answer na survey"*

Respondent 3 says that being unsure of what the question means in the survey questionnaire causes the discrepancy on rating for the level of ICT readiness. It was understandable when one reads it. However, it seems to be very difficult already when one does it in actual or during skills demonstration.

- Respondent 3: *"Hende yo ta puede entende gayod cosa kel quiere decir kay no sabe yo tanto na software or na computer pero sabe yo se, ta entende lang man yo con ese, so easy se hace. Si actual dol hende ya man yo bien sabe hace dol dificil ya"*.

Respondent 4 says it's easy to use Microsoft programs on the computer when pointing to the screen using the mouse, it provides the options/functions as a guide. So, it is easy since he knows it very well, especially encoding with a computer, except for formatting. Knowledge of encoding in Microsoft Word made him think he was highly ready in the level of ICT readiness during the SAQ.

- Respondent 4: *"...pronto lang se aqui lang se busca oh (ta enseña na screen). Sabe gayod yo se, ahora este donde ba yo aquel anda or pichi para hace se ta manda tu?...Ta usa kasi computer para man encode lang, dificil usa el Microsoft ese man format-format, man type-type gaja pronto since ta puede man yo man encode ta pensa yo highly ready ya yo del tan answer el survey…"*

Respondent 2 says it is easy to answer the survey and just tick ready for the level of ICT readiness and not thinking of his actual skills specifically when using Microsoft Word for the creation of the self-learning module. It did not matter to him since he always handles electronics subjects, and not always using the computer.

- Respondent 2: *"Easy lang man answer na survey ma'am, tick-tick lang pero hende gale gayod yo ready ma'am. Kay firme yo ta agarra electronics subject and hende firme ta agarra computer ta'n answer lang yo, Si usa Microsoft or man format como hace module, easy lang pensa pero mali na mio pensamiento kay dificl se hace".*

Respondent 6 explains that he is knowledgeable, however, when told to do the set of procedures, he was unsure already in Microsoft Excel. He was not as skilled as he thought.

- Respondent 6: *"Una ta pensa yo se kay sabe yo del ta'n answer pa lang yo survey pero enante del ta manda tu hace na Microsoft Excel hende yo sure, na ahora sabe ya yo, sorry mali lang mio answer na survey ma'am dapat ready lang kay hende man yo pronto encontra se, pero pichi-pichi lang se alli na screen ta sale man se el function para guia"*

Reason 2 Confusion on some unfamiliar/technical words/terms in SAQ

From eight faculty respondents, four or 50.0% of them reasoned that confusion on some unfamiliar / technical terms in ICT knowledge causes the discrepancy in rating for the level of ICT readiness between ICT knowledge and ICT skills.

Respondent 1 asks during skills demonstration how to actually do it though she answered ready in the survey questionnaire and the unfamiliar terms trigger the discrepancy in the level of ICT readiness.

- Respondent 1: *"Paquilaya ba se hace ma'am? hende man yo familiar con el term, pero dol sabe yo se hace poreso sabe yo ya'n answer."*

Respondent 3 says there were unfamiliar terms and some overlooked words that contributed to the discrepancy of his answer in the level of ICT readiness in terms of ICT knowledge and ICT skills.

- Respondent 3: *"Ta'n dos-dos yo aquel enante na maga palabra hende yo familiar pati hende firme ta usa ba, olvidao ya man yo, hende gale yo ready, paciencia ya tu. Como ya'n overlook lang yo pero tama hende gayod yo alli ready. No sabe gale yo hace."*

Respondent 5 says that the terms / words in the ICT knowledge through SAQ are too technical that caused her confusion and she even requested to be taught during skills demonstration.

- Respondent 5: *"Bien technical man gayod se ma'am, pensaba yo amo yo ta hace based alli na questions poreso ta pensa yo bien sabe gayod yo, hende gale gayod. Enseña ya lang tu ma'am paquemodo se hace."*

Respondent 6 expresses his being shy or ashamed of his current ICT skills that led to the answer of ready even though he is not and having difficulty in understanding the terms.

- Respondent 6: *"...Makahuya habla no sabe pero hende gayod yo sabe poreso ta'n kayod gayod yo si na maga seminar, ta tormenta man yo entende el term and ta procura yo poreso ya hace yo ready alli na survey..."*

Reason 3 Low Confidence Level

From eight faculty respondents, two or 25% of them say that low confidence level triggers them to lower the level of ICT readiness in terms of ICT knowledge and ICT skills even though they are highly knowledgeable and highly skilled.

Respondent 7 says that his confidence level for ICT readiness in terms of knowledge and skills is low and it is safe to say that he has a lower level of ICT readiness because Microsoft applications may have other processes and other features in different types of computers. He may be familiar with the current version but unsure if he is highly skilled and can perform well in other brands or higher versions of Microsoft Office programs. There are still a lot of things to learn from the current programs even though he was exposed to Microsoft programs in his previous work experiences.

- Respondent 7: *"I answered ready lang because I am not confident that it is the same process, same features in all types of computers, I may be very familiar with my computer version but if I will use other computers of different brand ba se or version ba se ta llama like Apple or Microsoft I may not be ready. Kaya even I am highly ready in using it, I will just tick ready. ... I was usually using it, pero si habla tu highly ready, ready ya lang kay mucho pa man cosa aprende alli...I was truly exposed in using Microsoft application in my previous work experiences which made me ready and equipped with the skills, but I cannot say I am highly ready, just ready para safe."*

Respondent 8 expresses that she had no formal training that is why her confidence level is low in rating for the ICT readiness. She was not confident enough to say highly ready in some skills because she is not confident and exerted more effort when using the computer.

- Respondent 8: *"No hay man yo trainings pero ya procura yo on my own aprende computer kay quiere yo aprende, na ahora ta usa yo enbuenamente so ready lang masquin sabe yo el otro functions de ese. on a o confident kay de ahora lang yo se ta aprende pero ta procura yo poreso ansina ya lang level ready masquin sabe ya gale gayod yo kasi ta'n effort pa gayod on a maga otro functions del application".*

Therefore, there are three reasons that had caused the discrepancy in the result between ICT knowledge (through answering the SAQ) and ICT skills (skills demonstration), weighted mean, and interpretation. These are wrong perceptions/assumptions, confusion on the unfamiliar/technical words/terms, and low confidence level. These are random response biases which could also be associated with the result of this study that faculty-respondents are only ready in ICT. Since they are just knowledgeable on some basic functions of computers and the internet. There was also a tendency that they would have different understanding of the terms/words used in the Self-Administered Questionnaire. It was also possible that what mattered were their different perceptions/opinion and their feelings on how to rate their own knowledge. According to Kulas et al. (2018) these are random response biases which occur when a respondent honestly does not know the answer to the question but answers anyway which leads to guessing or speculating rather than reporting information.

Furthermore, the 10-item objective type of test covers the general areas about computers that were taken from the computer literacy questionnaire. The teachers' mean score on the general computer knowledge test (Part 2-A Level of ICT Readiness of the Questionnaire) was very good (6.56), the level of ICT knowledge is practically good for a 10-item test. The difference in the scores of the 18 respondents had a wider gap like some faculty got a lower score of 3 and some others a higher score of 9.

The standard deviation of 2.04 reflected that the scores vary with a wider gap, but the ICT knowledge of teachers is very good. It shows an image of heterogeneity among the ICT readiness in terms of ICT knowledge of the faculty, thus, not all faculty-respondents are highly knowledgeable on the general areas about computers.

The result of this study opposes that of Alazzam et al. (2012) who studied the ICT Readiness in terms of ICT knowledge of Technical and Vocational Teachers. In their study, 66.9% of the respondents possess a moderate level of knowledge about ICT with a mean score of 9.46 (S.D. = 3.17). ICT knowledge is essential as a critical factor among teachers' ICT readiness to integrate ICT into classroom teaching. The technical and vocational teachers should be equipped and ready with ICT knowledge since

ICT is pervasive in its rapid development, therefore, the teachers should continue to improve and gain more knowledge about ICT.

Table 7 Summary of Faculty-Respondents' Score on Level of ICT Knowledge (10 Objective Tests)

No. of Respondents	Mean Score	Standard Deviation	Adjectival Rating
18	6.56	2.04	Very Good

Legend: *Poor (1.0-2.5), Fair (2.51 to 4.5), Good (4.51 to 6.5), Very Good (6.51 to 8.5), Excellent (8.51 to 10)*

Interestingly, most of the teachers answered questions four (88.89%), one (83.33%), and three (83.33%) correctly. These questions *"What is the brain of the computer? "What is a folder?"* and *"What kind of program is used to edit a GIF file or a JPEG file"* are very easy questions because these are basic computer questions and faculty-respondents were familiar with these because they frequently utilize the functions of computers in school.

Furthermore, questions such as *"What is URL?"* (77.78%), *"Which one is not an output device?"* (72.22%), *"How much information fits on a CD?"* (61.11%), *"What is the main function of a server in a networked environment?"* (61.11%) and *"Which of the following is considered to be poor e-mail etiquette?"* (61.11%) are easy questions because these are also simple terms and functions of hardware, and the basic internet usage such as the knowledge about Uniform Resource Locator (URL) when searching on the internet and basic etiquette when using computers and internet. This means that the faculty-respondents are exposed and familiar with this basic features and functions of computers and the internet in their work.

On the contrary, question number six, *"What are WAV and AIFF examples of?"* (72.22%) and question number seven, *"Which one is not a Web search engine"* (61.11%) are difficult questions because only few answered it correctly. This implies that the teachers were unfamiliar with the terms; it was technical for them that is why they did not correctly answer it.

7.1 ICT Knowledge: Number of Respondents who answered correctly per item test.

QUESTIONS	No. of Respondents Answered Correctly		
	F	%	Adjectiv Rating
. What is a folder?	15	83.33	Very Eas
!. How much information fits on a CD and a DVD	11	61.11	Easy
:. What kind of program is used to edit a GIF file or a JPEG ile	15	83.33	Very Eas
!. What is the main brain of the computer?	16	88.89	Very Eas
i. What is the main function of a server in a networked nvironment	11	61.11	Easy
i. What are WAV and AIFF examples of?	5	27.78	Difficul
'. Which one is not a Web search engine	7	38.89	Difficul
!. Which one is not an output device?	13	72.22	Easy
!. What is a URL?	14	77.78	Easy
0. Which of the following is considered to be poor e-mail tiquette	11	61.11	Easy
AVERAGE		65.56%	

Legend: *Very Difficult (10-20), Difficult (21-40), Moderately Easy (41-60), Easy (61-80),*
Very Easy (81-100)

3. Is there a significant difference on the level of ICT readiness of the faculty when data are grouped according to age, number of ICT training hours attended, length of service, and sex?

The H value of 7.684 with the corresponding probability value of 0.175 is not significant at alpha = 0.05. There is not enough sample evidence that faculty-respondents differ with one another in terms of their ICT readiness when they are categorized by age groups. This means that regardless of their age groups, the teachers had a similar level of ICT readiness whether they are younger or older. Perhaps, when there are changes in technology, teachers in whatever age group need to be in trend or adapt to these changes; hence, it could be said that age is not a factor influencing the faculty's level of ICT readiness.

This supports the findings of Mazoya et al. (2015) that there is no significant difference between age of teachers and their highest level of education and age is an important factor in the readiness of teachers in using ICT. Unlike the findings of Owan et al. (2021) that opposes the result and indicated that age significantly affected the academic staff's preparedness in adopting internet tools for research.

Table 8 Significant Differences on the Level of ICT Readiness when Data are Analyzed into Age

Variable	Age	Mean	Mean Rank	H	Sig
Level of ICT Readiness	25 years old and below	3.09	12.00	7.684	0.175
	26 to 30 years old	3.42	13.00		
	31 to 35 years old	3.87	16.00		
	36 to 40 years old	2.90	9.00		
	41 to 45 years old	2.85	10.00		
	46 years old and above	1.99	5.50		

The H value of 6.496 with the corresponding probability value of 0.165 is not significant at alpha = 0.05. Therefore, the posited hypothesis that there is no significant difference in the level of ICT readiness of the faculty when data are analyzed into the number of ICT training hours attended is accepted since there is no statistically significant difference among the variables tested in the study. The data indicate that regardless of the number of trainings attended by the faculty members, their level of ICT readiness does not vary. This implies that faculty-respondents' readiness was similar regardless of the number of training hours on ICT.

This finding opposes the study of Tarman (2016) who found a statistically significant difference between teachers who attended technology-related professional development and those who did not. Sergis et al. (2014) in his study indicated that the low IT integration in education, innovations, and development was closely linked to the lack of continuous training and openness to flexible practices. Thus, the need for training was important for personal and professional development of teachers as expounded by Tzima et al. (2019).

Table 9 Significant Differences on the Level of ICT Readiness when Data are Analyzed into Number of ICT Training Hours Attended

Variable	Number of ICT Training Hours Attended	Mean	Mean Rank	H	Sig
Level of ICT Readiness	0 or Never	2.39	7.38	6.496	0.165
	8 to 40 hours	2.60	8.50		
	41 to 80 hours	3.68	14.00		
	81 to 120 hours	4.00	18.00		
	121 hours & above	3.80	15.00		

The H value of 4.112 with the corresponding probability value of 0.250 is not significant at alpha = 0.05. Therefore, the posited hypothesis that there is no significant difference in the level of ICT readiness of the faculty when analyzed into length of service is accepted since there is no statistically significant difference among the variables tested in the study. The data indicate that regardless of the length of service of the faculty members, their level of ICT readiness does not vary. The length of service was not a factor to vary the level of ICT readiness. It implies that it does not matter whether they were experienced teachers or less experienced teachers or new/novice teachers, in terms of ICT readiness, they are the equal. This supports the findings of Semerci (2018) that there is no significant difference between teachers' ICT willingness by teaching experience.

Table 10 Significant Differences on the Level of ICT Readiness when Data are Analyzed into Length of Service

Variable	Length of Service	Mean	Mean Rank	H	Sig
Level of ICT Readiness	5 years & below	3.11	11.14	4.112	0.250
	6 to 10 years	3.06	10.75		
	11 to 15 years	2.97	11.50		
	21 years & above	1.99	5.40		

The U value of 28.00 with the corresponding probability value of 0.454 is not significant at alpha = 0.05. Therefore, the posited hypothesis that there is no significant difference in the level of ICT readiness of the faculty when data are grouped based on sex is accepted since there is no statistically significant difference among the variables tested in the study. The data indicate that regardless of sex of the faculty members, their level of ICT readiness does not vary. This means that regardless of sex, the teachers had a similar level of ICT readiness in terms of ICT knowledge and ICT skills. This result contradicts the findings of Owan et al. (2021) which revealed that female staff were more prepared than males in using internet tools for research sharing during the pandemic.

Table 11 Significant Differences on the Level of ICT Readiness when Data are Analyzed into Sex

Variable	Sex	Mean	Mean Rank	U (Mann Whitney)	Sig
Level of ICT Readiness	Male	2.95	10.17	28.00	0.454
	Female	2.43	8.17		

Problem 4. Based on the findings, what intervention program can be proposed to address the ICT deficiencies of the faculty?

Based on the data, the intervention program is necessary to prepare teachers to be highly knowledgeable and highly skilled in ICT to be in trend with the progressing technological advancements and innovations. The findings indicated that teachers are just ready to use the different ICT tools; thus, they need to improve from ready to highly ready because only basic knowledge and skills indicators are included in this study which calls for an enhanced ICT training-workshop. The study of Almerich et al. (2011) emphasized that the teachers' training needs in ICT were one of the key aspects for the integration of ICT into daily educational practice, along with competencies in ICT and teachers' use of these technological resources.

Discussion and Conclusion

The faculty are knowledgeable and skilled about components of a personal computer, management of files and print documents, uses of the internet and electronic mail for educational and personal purposes, spreadsheet, and the tools for slides presentation. There were no significant differences in the faculty-respondents level of ICT readiness based on the teachers' age, number of ICT training hours attended, length of service and sex groups.

Based on the foregoing findings, it is safe to conclude that the teachers are skilled and knowledgeable equally or similarly ready in ICT whether they are clustered according to sex, age groups, number of ICT training hours attended, and length of service. Particularly, the faculty-respondents were ready and equipped with the necessary knowledge and skills to use common

computer applications in basic skills set namely, Word Processing, Presentation, ICT Basic, Internet Skills, Computer Ethics and Security and Spreadsheet.

It is recommended that a training proposal as an intervention program be conducted among faculty members of the local city college to prepare teachers to be highly knowledgeable and highly skilled in ICT. This training shall keep them abreast with the progressing technological advancements and innovations. Furthermore, it is recommended that the local city college shall design a high quality and successful technology plan to help improve the faculty's level of ICT readiness.

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