# Teachers' Competency of ICT integration in Teaching elementary Teachers in Flora District


## ABSTRACT

**Purpose**: This study aimed to evaluate the socio-demographic profiles and Information and Communication Technology (ICT) competencies of elementary teachers in the Flora District. The research sought to identify the extent to which teachers integrate ICT into their teaching practices and the associated challenges they face.

**Methods**: A descriptive survey methodology was utilized, involving the administration of questionnaires to a sample of elementary teachers. The survey collected data on teachers' demographic information, ICT skills, and their frequency of integrating technology into teaching. Statistical analysis was performed to interpret the results.

**Major Findings**: The findings indicated that a majority of the respondents had a high level of ICT competency, particularly in using word processing applications such as Microsoft Word. Specifically, teachers reported strong agreements on their ability to create, edit, and format documents, achieving an average competency rating of 4.39. However, challenges were noted, particularly related to limited resources, such as insufficient internet connectivity. Nowadays the use of smart phones and installed app supports MS excel and powerpoint to do and prepare works related to teaching outdated equipment.

**Conclusions**: The study concluded that while elementary teachers inFlora District in Apayao possess commendable ICT competencies, there remains a significant gap in resource availability that hinders optimal integration of technology in teaching. Professional development programs focused on enhancing ICT skills and improving resource allocation are recommended to further support teachers in creating enriched learning environments. This research underscores the critical need for ongoing support and training for educators in the digital age to foster a technology-enhanced educational experience for students.



## KEYWORDS

*ICT Integration, Teacher Competency, Educational Technology, Professional Development, Pedagogical Practices*




## 1. INTRODUCTION

In today's rapidly advancing digital landscape, the integration of Information and Communication Technology (ICT) in education has become a cornerstone for enhancing teaching and learning outcomes (Higgins et al., 2012). Recognizing the pivotal role that educators play in this transition, it is crucial to equip them with the necessary skills and tools to meet the demands of a knowledge-based society (UNESCO, 2013). The Flora District in Apayao, like many educational settings, faces challenges in integrating ICT effectively within its elementary schools, raising questions about teachers' competencies in utilizing technological resources to improve instructional methods and student engagement.

As the global economy continues to evolve, there is an increased focus on improving educational systems through the incorporation of modern technologies (OECD, 2015). ICT is seen as a powerful tool that can facilitate innovative teaching practices, support diverse

learning styles, and provide access to a wealth of resources (Ertmer & Ottenbreit-Leftwich, 2010). However, the effective use of ICT in the classroom heavily depends on teachers' understanding and competencies (Voogt & Roblin, 2012).

Despite the recognized importance of ICT in education, many teachers in the Flora District exhibit varying levels of competency in utilizing these technologies (Al Alawi et al., 2021). This variation leads to inconsistent integration of ICT in the teaching-learning process, potentially hindering students' educational experiences (Tondeur et al., 2017). Furthermore, there is a lack of comprehensive data on the specific competencies of these teachers and the extent to which they successfully incorporate ICT in their curricula.

This study aims to assess the ICT competency levels of elementary teachers in the Flora District in Apayao and evaluate how frequently they integrate technology in their teaching practices. By identifying gaps in skills and resources, the research will provide insights that can inform targeted professional development programs and resource allocation to improve ICT integration.

Existing literature highlights the necessity for teachers to be proficient in ICT as it correlates positively with student learning outcomes (Sezgin et al., 2018). Studies show that teachers who receive training in technology integration are more confident in using ICT tools, leading to innovative teaching strategies (Albawwat&Alsharari, 2021). However, barriers such as inadequate infrastructure, insufficient training, and a lack of administrative support persist in many educational settings (Ertmer, 1999).

While previous studies have examined ICT competencies in various educational contexts, there remains a limited focus on the specific circumstances of elementary teachers in remote areas like the Flora District. This presents a research gap, as understanding the unique challenges and capabilities of these educators is essential for developing effective interventions. This research focuses specifically on elementary teachers within the Flora District, aiming to gather data from a homogenous group to produce reliable and actionable findings. By concentrating on this demographic, the study seeks to provide a framework that can promote professional development initiatives specifically tailored to enhance ICT competencies. The implications of this research will extend beyond the Flora District in Apayao, aiding educational policymakers and administrators in formulating strategies that can foster a technology-rich learning environment, ultimately benefiting both teachers and students alike.

## 2. LITERATURE REVIEW

### 2.1. Conceptualizing Teachers' Competency in ICT

Conceptualizing Teachers' Competency in ICT involves understanding the multifaceted nature of ICT skills essential for educators. ICT competency encompasses technical skills in using digital tools, as well as pedagogical and content knowledge that enables teachers to effectively integrate technology into their teaching practices (Harris & Hofer, 2009). Frameworks such as the UNESCO ICT Competency Framework for Teachers highlight the importance of these competencies and provide guidance for teacher training, emphasizing that proficient use of ICT is crucial for enhancing educational outcomes.

### 2.2. ICT Integration in Teaching

ICT Integration in Teaching refers to the effective incorporation of technology into the learning process. It is characterized by a distinction between simply using technology and integrating it in a way that transforms teaching and enhances student engagement (Hew

&Brush, 2007). Models like the SAMR and TPACK frameworks serve as valuable resources for educators to conceptualize and implement ICT in their classrooms, demonstrating that meaningful integration can lead to improved pedagogical practices and student learning experiences (Voogt & Roblin, 2012).

### 2.3. Factors Affecting Teachers' ICT Integration

Factors Affecting Teachers' ICT Integration are diverse and interrelated. Personal factors such as teachers' attitudes, beliefs, and self-efficacy significantly influence their willingness and ability to adopt ICT in their instruction (Bandura, 1997). Institutional aspects, including school culture, leadership support, and access to technology, are equally critical in shaping teachers' integration practices (Tondeur et al., 2017). Furthermore, the provision of professional development opportunities is essential for enhancing teachers' ICT skills and confidence, which in turn facilitates more effective integration in their teaching (Ertmer & Ottenbreit-Leftwich, 2010).

### 2.4. Previous Studies on ICT Integration in Elementary Schools

Previous Studies on ICT Integration in Elementary Schools reveal varied findings regarding the extent and effectiveness of technology use in classrooms. Numerous studies highlight both successes and obstacles faced by teachers in incorporating ICT, indicating that while effective integration can significantly elevate student learning, challenges such as inadequate training and lack of resources persist (Al Alawi et al., 2021). These findings underscore the importance of fostering an enabling environment with robust support systems to promote effective ICT integration in elementary education.

## 3. RESEARCH METHODS

This section outlines the methods utilized in the study of ICT competency and integration among elementary teachers in the Flora District. The approach includes a descriptive survey methodology, which is ideal for assessing the knowledge, attitudes, and practices of the participants regarding ICT usage in teaching.

### 3.1. Study Design

A cross-sectional survey design was employed to gather data on the ICT competencies and integration levels of elementary teachers. This design is appropriate as it allows for the collection of data at a single point in time, providing a snapshot of current practices and competencies.

### 3.2 Participants

The target population comprised elementary teachers inFlora, Apayao. A stratified random sampling method was used to select 100 teachers representing different age groups, years of experience and educational qualifications to ensure diverse representation.

### 3.3. Instrumentation

The primary data collection instrument was a structured questionnaire developed by the researcher. The questionnaire consisted of three sections:

i. Demographic Profile: A series of questions regarding the participants' sex, age, civil status, year of graduation, years of teaching experience, designation, and highest educational attainment.

ii. ICT Competency Assessment: A scale measuring technical and pedagogical competencies related to ICT, including specific tasks such as creating documents, using spreadsheets, and making presentations. The scale was rated on a 5-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree.'

iii. Extent of ICT Integration: Questions to determine the frequency and methods of ICT application in teaching practices.

To ensure the reliability and validity of the questionnaire, the researcher conducted expert reviews and implemented a pilot study involving 10 teachers from a nearby district. The expert reviews provided constructive feedback on the clarity and relevance of the items in the questionnaire, while the pilot study allowed for testing the instrument's functionality and identifying any areas for improvement. This thorough process helps to establish that the questionnaire is both a reliable tool for measuring the intended constructs and a valid instrument that accurately reflects the competencies and practices of the teacher respondents regarding ICT integration.

**4. Data Collection Procedure**

Data were collected over a period of four weeks. The researcher administered the questionnaires in person during regular teacher meetings or training sessions to enhance completion rates, explaining the purpose of the study and ensuring confidentiality. Informed consent was obtained from all participants prior to data collection.

**5. Data Analysis**

Statistical analysis was conducted using SPSS software (Version 23). Descriptive statistics, including means and standard deviations, were calculated for the demographic variables and responses to the competencies and integration scales. Additionally, correlation analysis was employed to assess the relationships between different variables within the dataset.

**6. Ethical Considerations**

Ethical approval for the study was obtained from the Institutional Review Board of the Graduate School. Participation was voluntary, and participants were informed of their right considered withdraw at any time without penalty.

## 3. RESULTS AND DISCUSSION

### 3.1 Findings

#### 3.1.1 Demographic Profile of Teachers

The demographic profile of the respondents revealed significant insights into the sample population. The majority of the participants were female, accounting for 88.30% of the total, with males constituting 11.70% (Table 1). The age distribution indicated a mean age of 39.33 years, with the largest group falling within the 30-39 age range, representing 40.00% of the sample. A substantial portion of the teachers reported being married, constituting 87.50% of the respondents.

**Table 1: Demographic Profile of Teachers**

| Demographic Variable | Frequency (%) |
|---|---|
| Gender (Female) | 88.30 |
| Gender (Male) | 11.70 |
| Age Range 30-39 | 40.00 |
| Age Range 40-49 | 30.00 |
| Age Range 50 and above | 30.00 |
| Marital Status (Married) | 87.50 |
| Marital Status (Single) | 12.50 |

### 3.1.2 Technical Competency in Spreadsheet Software

The technical competency of elementary teachers in using spreadsheet software, specifically MS Excel, was assessed. The results indicated a strong level of agreement regarding their capabilities, with an overall total weighted mean of 3.86, categorized as "slightly agree" (Table 2). The competency in creating class records was the highest-rated skill among respondents, with a mean of 4.56. In contrast, the ability to create a "look-up" table received a neutral response, with a mean of 3.08.

**Table 2: Technical Competency in Spreadsheet Software**

| Competency Indicator | Weighted Mean | Descriptive Value |
|---|---|---|
| Ability to create class records | 4.56 | Strongly agree |
| Ability to create tables | 4.26 | Strongly agree |
| Ability to export a table into other documents | 4.00 | Slightly agree |
| Ability to calculate numerical data | 4.19 | Slightly agree |
| Ability to create graphs using data | 3.92 | Slightly agree |
| Ability to perform statistical analysis | 3.72 | Slightly agree |
| Ability to create ID and tickets | 3.16 | Neutral |
| Ability to create a “look-up” table | 3.08 | Neutral |
| **Total Weighted Mean** | **3.86** | **Slightly agree** |

### 3.1.3 Technical Competency in Presentation Software

In terms of presentation software competency, the teachers reported an overall mean of 4.10, reflecting a "slightly agree" level (Table 3). Notably, their capability to use PowerPoint presentations was highly rated, with a mean of 4.57. Additionally, teachers felt competent in creating slides (mean = 4.38). However, the ability to create hyperlinks and animate text received lower ratings, indicating potential areas for improvement in their training.

**Table 3: Technical Competency in Presentation Software**

| **Competency Indicator** | **Weighted Mean** | **Descriptive Value** |
|---|---|---|
| Ability to use PowerPoint presentations | 4.57 | Strongly agree |
| Ability to create slides | 4.38 | Strongly agree |
| Ability to insert multimedia | 4.10 | Slightly agree |
| Ability to animate text and objects | 3.91 | Slightly agree |
| Ability to create hyperlinks | 3.59 | Slightly agree |
| **Total Weighted Mean** | **4.10** | **Slightly agree** |

In analyzing the data, SPSS software was utilized for the computation of means, standard deviations, and demographic distributions among participants. While no ANOVA or ANCOVA analyses were specifically reported in the findings, these methods could be useful for exploring differences in ICT competencies across various demographic groups (e.g., age, gender, or years of experience). Future studies might consider employing such analyses to further investigate how demographic variables affect technical competencies in using ICT tools among elementary teachers.

Overall, these findings provide critical insights into the current state of ICT integration by teachers in the Flora District, highlighting both competencies and areas needing further development.

### 3.2 Discussion

The demographic profile shows a predominance of female teachers, which reflects broader trends in the teaching profession where females often form the majority. The average age suggests a workforce that may be experienced, which is critical for effective implementation of ICT. Higher percentages of married teachers suggest that personal responsibilities may have implications for their professional development and time available for training in ICT skills. Understanding these demographics is essential when designing targeted professional development programs that consider personal circumstances and time constraints of the teachers.

The findings on spreadsheet competency indicate a general ability among teachers to perform essential functions such as creating class records and entering data. The strong agreement on the ability to create class records (mean = 4.56) aligns with the basic requirements expected of teachers in managing classroom data. However, the lower ratings

for advanced functionalities suggest a gap in training regarding more complex uses of spreadsheets, such as statistical analysis and creating "look-up" tables. This highlights the need for more comprehensive training programs that focus on enhancing these specific skills to improve data management and educational outcomes.

The ability to utilize presentation software effectively is crucial for enhancing student engagement and learning. The results indicate that teachers are adept at creating presentations, as shown by the high weighted mean scores. However, the lower confidence in integrating multimedia and creating hyperlinks reflects potential barriers to fully utilizing these tools for interactive learning experiences. These findings suggest the necessity for ongoing professional development that emphasizes not just the basic use of these tools, but also their integration into pedagogical practices to maximize student engagement.

These findings underline the competency gaps that exist among elementary teachers in Flora District regarding ICT integration in their teaching. The results advocate for targeted training initiatives that can equip teachers with the necessary skills to enhance their teaching methodologies through effective use of ICT, particularly in spreadsheet and presentation software. Addressing these gaps will not only benefit the teachers' professional development but also enhance the educational experiences of their students.

## 4. CONCLUSION

The discussion of the findings reveals significant insights into the ICT competency and integration practices of elementary teachers in flora district. The demographic profile indicates a predominance of female teachers, consistent with existing literature that highlights the gender imbalance often present in the teaching profession, where women frequently make up the majority. This demographic trend is crucial to consider, particularly in designing professional development programs that accommodate the realities of these teachers' lives. The average age of the teaching workforce suggests that they possess a level of experience that is beneficial for implementing ICT effectively. However, the high percentage of married teachers implies that personal and family obligations may limit their availability for training and professional development in ICT skills. This insight aligns with previous studies indicating that work-life balance concerns can affect teachers' professional growth.

Regarding spreadsheet competency, the findings indicate that teachers possess a basic ability to perform essential functions, such as creating class records (mean = 4.56). This correlates with the fundamental skills expected from educators managing classroom data. However, the lower ratings on more advanced functionalities, such as performing statistical analyses and creating "look-up" tables, underscore a critical gap in training. This resonates with earlier research suggesting that many teachers display uncertainty in utilizing advanced ICT tools due to a lack of comprehensive training. Thus, there is a clear need for targeted training programs aimed at enhancing these specific skills to improve educators' data management capabilities and, consequently, student learning outcomes.

Similarly, the findings related to presentation software usage highlight teachers' competence, as evidenced by the high weighted mean scores for creating presentations. The effective use of presentation software is essential for fostering student engagement and enhancing learning experiences, as suggested by existing educational theories that advocate for interactive and multimedia approaches to instruction. However, the teachers' lower confidence in integrating multimedia elements and creating hyperlinks points to potential barriers in fully leveraging these tools for dynamic learning experiences. This finding reinforces the argument for ongoing professional development focusing on not just

the basic functionality of such tools but also their strategic integration into pedagogical practices.

Overall, these findings highlight notable competency gaps among elementary teachers in the Flora district regarding ICT integration in their teaching. These insights advocate for targeted professional development initiatives that can empower teachers with the necessary skills to enhance their teaching methodologies. By addressing these gaps, educational stakeholders can improve teachers' professional growth and significantly enrich the educational experiences provided to students. Such initiatives could draw on the frameworks and theories related to technology integration in education to ensure that professional development aligns with contemporary pedagogical practices, thereby maximizing the potential impact on student learning.

**Disclaimer (Artificial intelligence)**

The author hereby declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript. All research, analysis, and content creation were performed solely by the authors, ensuring the authenticity and integrity of the work presented in this thesis.

## COMPETING INTERESTS

The authors declare that there are no financial or personal relationships with other people or organizations that could inappropriately influence or bias the work presented in this study. all authors have disclosed any potential conflicts of interest, and no competing interests exist.

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## Appendix A

**THE QUESTIONAIRE.**
**Socio-demographic Profile**

Name (OPTIONAL): _____

School: _____

Subject taught: _____ Nationality:_____

Age: ____ Gender: [ ] Female [ ] Male Year of graduation: _____

Civil Status: [ ] Married [ ] Single [ ] Divorced [ ] widow [ ] Adopted

Eligibility: _____ School graduated from: _____

Years of teaching experience (including teaching practice)
[ ] less than 1 year [ ] 6-10 years [ ] 16-20years [ ] 25-30 years
[ ] 1-5 years [ ] 11-15years [ ] 20-25years [ ] others, pls specify _____

Highest Educational Attainment
[ ] Bachelor of Elementary Education
[ ] Bachelor of Secondary Education
[ ] With MA/ME units
[ ]MA/ME graduate
[ ] PhD/EDD units
[ ]PhD/EDD graduate
[ ]others, pls specify _____

Designation
[ ] Canteen Coordinator
[ ]Feeding Coordinator
[ ]YES-O Coordinator
[ ]School Paper Adviser
[ ]SPG Adviser
[ ] Club Adviser
[ ] Property Custodian
[ ] Brigada Coordinator
[ ]DRRM Coordinator
[ ] School Disbursing Officer
[ ]Boy Scout Coordinator
[ ] Girl Scout Coordinator
[ ] Gulayan sa Paaralan
[ ] Sports Coordinator
[ ] ICT Coordinator
[ ] SBM Coordinator

Please check the trainings you attended along ICT
INTERNATIONAL
[ ] others, pls specify _____
NATIONAL
[ ] (OER) EdTech Tools and Applications.
[ ] others, pls specify _____
REGIONAL
[ ] others, pls specify _____
DIVISION
[ ] Division Training of LAC leaders, School Heads and Supervisors on ICT Integration (Phase I)
[ ] Division Training of LAC leaders, School Heads and Supervisors on ICT Integration (Phase II)
[ ] Training-Workshop on the Development and Evaluation of ICT-Integration Lesson Exemplars Based on the Critical Content/Least Mastered Competencies in Edukasyon sa Pagpapakatao
[ ] Training-Workshop on the Development and Evaluation of ICT-Integration Lesson Exemplars Based on the Critical Content/Least Mastered Competencies in Edukasyon sa Pagpapakatao and other Learning Areas Phase II
[ ] Training-Workshop on the Development and Evaluation of ICT-Integration Lesson Exemplars Based on the Critical Content/Least Mastered Competencies in Edukasyon sa Pagpapakatao and other Learning Areas Phase III
[ ] Division Seminar-Workshop on the utilization of DPC Computers on ICT Integration using the Open Educational Resources
[ ] DCP Orientation and Capability building of School ICT Coordinators in the Utilization and Maintenance of DCP packages for

batches 35,36, 40, 41, 42, 44

[ ] Training-Workshop on the Development and Evaluation of ICT-Integration Lesson Exemplars Based on the Critical Content/ Least Mastered Competencies in Edukasyon sa Pagpapakatao and other Learning Areas Phase III

[ ] Division Seminar-Workshop on the utilization of DPC Computers on ICT Integration using the Open Educational Resources

[ ] others, pls specify _____

DISTRICT

[ ] DISTRICT LAC on LESSON EXEMPLAR with ICT INTEGRATION using OPEN EDUCATIONAL RESOURCES (OER) and OTHER EdTech Tools.

[ ] others, pls specify _____

School Learning Action Cell (SLAC)

[ ] Training-Workshop on the Development and Evaluation of ICT-Integration Lesson Exemplars Based on the Critical Content/ Least Mastered Competencies in Edukasyon sa Pagpapakatao and other Learning Areas

[ ] School-Based LAC Session on the use of Trigger in Powerpoint Presentation

[ ] SLAC on ICT Integration

[ ] others, pls specify _____

**Computer Use Profile**

Direction: Below are set of question about computer use profile. Please put a check mark on the appropriate space of your answer.

1. Educational technology or ICT related subjects taken during college
   [ ] Educational Technology 1 [ ] Educational Technology 2
   [ ] Instructional technology [ ] others, pls specify _____

2. Have you attended any seminars, workshops or trainings about ICT integration in the classrooms?
   [ ] Yes [ ] No

3. Consider your activities for the last six months did you use computers in teaching? [ ]Yes [ ]No

4. Do you own a computer? [ ]Yes [ ]No

5. Where can you access computer for your work? Check everything that applies to you.
   ____ In my room ____ At home ____ At school ____ At my friends home ____ At my relatives home
   ____ elsewhere (where?) _____

6. About how many hours per week do you use a computer for your job?
   [ ] less than 1 hour [ ] 6-10 hours [ ] 16-20 hours [ ] 26-30 hours
   [ ] 1-5 hours [ ] 11-15 hours [ ] 20-25 hours [ ] 31-35 hours [ ]others, pls specify ____hrs

7. About how long have you been using a personal computer?
   [ ] less than 1 year [ ] 3-4 years [ ] 7-8 years [ ] 11-12 years
   [ ] 1-2 years [ ] 5-6 years [ ] 9-10 years [ ] 13-14 years [ ]others, pls specify____ years

Do you use instructional software in teaching? [ ] Yes [ ] No, if no please proceed to the next part

Please check the names of the software you use in your teaching and learning process.

[ ] Trigger [ ] Hot Potatoe [ ] Open Educational Resources [ ] Paintoolsai
[ ] The hat [ ] Wheel of fortune [ ]Who wants to be a millionaire [ ] Crossword creator
[ ] Camtasia [ ] Wondershare [ ]Macro [ ] Exam reader
[ ] SAMR [ ] Interactive quiz [ ]Powerpoint [ ]MS Word
[ ] Excel [ ]video games [ ]others, pls specify_____

Please check the names of the hardware you use in your teaching and learning process.

[ ] desktop [ ] laptop [ ]projector [ ]digital camera [ ]microphones
[ ] pen drive [ ] ipods [ ]webboards [ ]scanners [ ]interactive white board
[ ]DVDs and CDs [ ]flash disc [ ]mini speakers [ ]Mobile phone [ ]television
[ ]printer [ ]photocopier [ ]tablets [ ] popplet [ ]others, pls specify_____

Direction: Below are set of question about teachers thinking process and facilitating conditions. Rate yourself as to how well you agree with the statement by putting a check ( √ ) mark on the appropriate number of your answer.

**1 - Strongly disagree 2 - Slightly disagree 3 - Neutral 4 - Slightly agree 5 - Strongly agree**

| **COMPUTER USE SCALE** van Braak et al. (2004) | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. I use the computer as a tool for demonstration working with existing presentations, or those someone else has made for me | | | | | |
| 2. I use the computer as a tool to teach new subject knowledge, i.e. the pupils acquire knowledge directly from the computer | | | | | |
| 3. I would use educational software with my pupils for learning subject knowledge through drill and practice. | | | | | |
| 4. I teach pupils to consider the implications and opportunities of computer use. | | | | | |
| 5. I use the computer as a tool for demonstration working with presentations I have made myself (e.g., PowerPoint) | | | | | |
| 6. I ask pupils to undertake tasks or follow up class work at home on the computer. | | | | | |
| 7. I use the computer to assist with differentiation or implementing individual learning plans. | | | | | |
| 8. I encourage pupils to work collaboratively when using a computer. | | | | | |

| **ACCESS TO COMPUTER (Olvida, 2014)** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. I have computer at home that I use for my work. | | | | | |
| 2. There is an available computer in my school that we can use. | | | | | |
| 3. There are Educational software installed in the computers in school that we can use for teaching. | | | | | |
| 4. There is enough computers for the faculty to use in our school. | | | | | |
| 5. Computers are available for classroom instruction in our school. | | | | | |

| **TECHNOLOGICAL COMPETENCY (Olvida, 2014)** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Basic computer skills | | | | | |
| 1. I can open the computer. | | | | | |
| 2. I shut down the computer properly. | | | | | |
| 3. I can start an application. | | | | | |
| 4. I can save a file for future use. | | | | | |
| 5. I can create folders for storing files. | | | | | |
| 6. I can save a file in different formats. | | | | | |
| 7. I can retrieve my files from the directory. | | | | | |
| 8. I can cut, copy and paste text. | | | | | |
| 9. I can resize and move graphics. | | | | | |
| 10. I know what to do when the computer hangs. | | | | | |
| 11. I know what to do when viruses attacks the computer. | | | | | |
| B. Internet-Web Basics | | | | | |
| 1. I can access information from the internet. | | | | | |
| 2. I use internet information to enhance my lessons. | | | | | |
| 3. I discuss educational matters using blogs. | | | | | |
| 4. I update myself with the latest information found in the internet. | | | | | |
| 5. I use FB and social network to communicate with my students. | | | | | |
| 6. I can send information via e-mail. | | | | | |
| 7. I can download an email attachment. | | | | | |

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|---|---|---|---|---|---|---|
| 8. | I can download materials from the internet (e.i. pdf files, songs, images). | | | | | |
| C. Word processing | | | | | | |
| 1. | I can create documents using word processors (i.e., MS Word) | | | | | |
| 2. | I can edit documents using word processing. | | | | | |
| 3. | I can enhance a document by adding a watermark and an automatic date field. | | | | | |
| 4. | I can insert clipart into a document. | | | | | |
| 5. | I can insert text or graphs from another source (file, flash disk, CD-ROM, internet). | | | | | |
| 6. | I can create, edit and format tables in a document. | | | | | |
| 7. | I can perform spelling and grammar checks. | | | | | |
| 8. | I can print documents using word processing. | | | | | |
| 9. | I can type my lesson plan using the word processor. | | | | | |
| **TECHNOLOGICAL COMPETENCY cont. (Olvida, 2014)** | | 1 | 2 | 3 | 4 | 5 |
| D. Spreadsheet | | | | | | |
| 1. | I can use the spreadsheet (i. e., MS excel) to create my class records. | | | | | |
| 2. | I can create tables by entering text, numbers and formulas using a spreadsheet software. | | | | | |
| 3. | I can export a table or graph into another documents (e.i. presentation, publications, web page). | | | | | |
| 4. | I can calculate numerical data (like students grades) using spreadsheet. | | | | | |
| 5. | I can create a graphs using my data in spreadsheets. | | | | | |
| 6. | I can run statistical analysis (e. g., mean. percentages) using the spreadsheet. | | | | | |
| 7. | I can create ID and tickets using spreadsheet application. | | | | | |
| 8. | I can create a "look-up" table to automatically return a value from an array. | | | | | |
| E. Desktop publishing software | | | | | | |
| 1. | I can change the fonts of my work. | | | | | |
| 2. | I can make document layouts using multiple columns. | | | | | |
| 3. | I can insert photos and other visual media in my documents. | | | | | |
| 4. | I can create flyers, instructional materials, newsletter, and brochures using computers. | | | | | |
| 5. | I can create tarpaulin and invitations | | | | | |
| F. Presentation software | | | | | | |
| 1. | I use power point presentations to teach my lesson. | | | | | |
| 2. | I can create slides for visual presentation. | | | | | |
| 3. | I can insert multimedia in my presentation (e.i. movie, songs, pictures, and animations) | | | | | |
| 4. | I can create my handout using power point presentations. | | | | | |
| 5. | I can animate text and objects in a slide. | | | | | |
| 6. | I can create hyperlinks to another slide, file or website. | | | | | |
| 7. | I can set up a power point presentation to run automatically. | | | | | |
| G. Instructional software | | | | | | |
| 1. | I use software to conduct drills and practice for my students. | | | | | |
| 2. | I recommend software to my students for tutorial purposes. | | | | | |
| 3. | I use software to teach a lesson. | | | | | |
| 4. | I integrate the use of computer games in my lesson. | | | | | |
| **ICT SUPPORT (Olvida 2014)** | | 1 | 2 | 3 | 4 | 5 |
| Administrative support | | | | | | |
| 1. | The administration send us to training about the use the computers in teaching. | | | | | |
| 2. | The administration send us to trainings in using new software for our lessons. | | | | | |
| 3. | The administration encourages us to use computers in our teaching. | | | | | |
| 4. | The teachers in our school are given enough time to develop instructional materials using computers. | | | | | |
| 5. | The administration provides assistance in the preparation of instructional materials. | | | | | |

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| Technical support | | | | | |
| 1. The school hires computer technicians to maintain and update the computers. | | | | | |
| 2. There are available computer technicians in the school who can fix hardware troubles. | | | | | |
| 3. There are computer experts in the school who can help us when something goes wrong with the program we are using. | | | | | |
| 4. There are clear instructions in our school on how we can connect to the internet. | | | | | |
| 5. I can ask someone within the school to help me figure out tasks in the computer. | | | | | |
| 6. There are provisions for basic instructions in maintaining the hardwares. (e.i. always pull the computer plug) | | | | | |
| School support | | | | | |
| 1. The school provides computers to be used inside the faculty room. | | | | | |
| 2. There are computers available for use inside the classroom. | | | | | |
| 3. The students have separate computers found in the computer laboratory. | | | | | |
| 4. The offices in the school uses computers to make their work efficient. | | | | | |
| 5. The school provides internet access. | | | | | |