

**Pre – Assessment of the Level of Computer Literacy among Tanolong Elementary School Teachers:
A Training Needs Survey**

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Abstract

The purpose of this study is to determine the level of teachers' computer literacy, a skill teachers need in order to access information more effectively. With this aim in mind, a survey was conducted to assess the level of computer literacy among the teachers of Tanolong Elementary School. A descriptive research method was adopted. The subjects were the 11 teachers of Tanolong Elementary School who are currently active in the service and rarely attend computer literacy trainings. A questionnaire was the main data gathering tool used in this study. To develop an effective training design for the workshop, the researcher conducted a training needs survey to assess the knowledge of the teachers in using computers and different applications. The data collected were analyzed using frequency counts, percentage, and weighted means. The findings of the study indicate that the profile of teachers in terms of the computer-related trainings that they attended at the survey was conducted was 6 or 54.55 percent. The perceived level of computer skills result shows that 45.45 percent have basic and intermediate computer skills while only 1 has advanced computer skills. The computer application used result shows that the frequency in which they use MS Office Applications was 54.55 percent which implies that they frequently use these applications to support their day-to-day tasks. The researcher also determined the self-efficacy of the teachers on computer operations and MS Office Applications and results revealed a very high computer self-efficacy as indicated by the overall mean of 3.295. Based on these findings, it is recommended that teachers should have follow up trainings to improve their computer skills. Moreover, a series of trainings concentrating on the development of Instructional Material using Multimedia Software could also be included. In addition, refresher training, especially in Excel may also be done to fully utilize and maximize the use of the software.

Keywords: Computer, Computer Literacy, Impact, Teacher, Computer Skills

Introduction

One of the most important determining characteristics of the present century is that information is increasing at a level too fast to catch up. Hence, it is necessary to enhance the skills of people in information-based professions. Otherwise, their professional skills and status may be questionable.

Teaching is one of the professions that require workers to be computer-literate. Teachers have to update and continuously improve their "teaching ability", "word knowledge", and "subject knowledge". Skills in each of these areas are constantly changing and can no longer be addressed by pre-service education.

Computer literacy is a paramount importance since computer provides an environment to create, transfer, and share any kind of

information. In this virtual environment, getting the necessary information fully and on time, making use of the obtained information in personal and professional development and thereby becoming an effective teacher are all directly related to the competency to use the computer effectively for these aims.

Though no fault of their own, many teachers are not prepared to teach about computing or use a computer in teaching because they received their education before computers. Now, they are finding ways to learn computer applications as part of their jobs.

This study supports the government project which aims to upgrade the education in the country through the application of ICT which is already widely recognized as a potent tool for socioeconomic upliftment. No less than the 1987

Constitution gives cognizance to ICTs role in nation-building. The Aquino Administration's Medium Term Philippine Development Plan (MTPDT) identifies ICT as one of the drivers of education, job creation and investments. In fact, President Benigno Aquino III created the ICTO to man the ICT Roadmap of the Philippines in recognition that one of its agenda is to make a cyber corridor in the country. Furthermore, this research will also support the thrust of the Department of Education (DepEd), which is to target holistic growth for learners towards ICT by integrating it to curriculum standards for K-12 schools in the Philippines.

Statement of the Problem

This study aimed to determine the level of computer literacy among the teachers of Tanolong Elementary School. It sought to answer the following questions:

1. What is the profile of teachers before and after the computer literacy training in terms of the following:
 - a. attendance to computer-related trainings,
 - b. perceived level of computer skill,
 - c. frequency of using the MS Office applications in performing their school works, and
 - d. self-efficacy on computer operations, MS Word, MS Excel and MS PowerPoint?

Materials And Methods

This study used the descriptive research method. The subjects were the 11 teachers of Tanolong Elementary School who are currently active in the service and rarely attend a computer literacy training or seminar. A questionnaire was the main data gathering tool in this study.

In order to develop an effective training design for the workshop, the researcher conducted a training needs survey in order to assess the knowledge of the teachers in using computers and different applications.

Frequency counts, percentages and weighted means were the statistical tool used. The computer weighted means were interpreted using the following scales.

Scale Value	Description	Meaning
3.25-4.00	Highly Able	Very High
2.50-3.25	Able	High
1.75-2.49	Barely Able	Low
1.00-1.75	Unable	Very Low

Results and Discussion

Table 1 presents information about the profile of teachers in terms of the computer-related trainings that they attended at the time the survey was conducted.

Table 1 Profile of the Teachers Based the Trainings Attended			
Questions	Responses	Frequency	Percentage (%)
1. Have you completed or attended Computer Literacy Training before?	Yes	6	54.55
	No	5	45.45
	Total	11	100
2. Are you currently taking Computer Literacy Training?	Yes	1	9.09
	No	10	90.91
	Total	11	100

The table shows that 6 or 54.55 percent of the Tanolong Elementary School Teachers have attended Computer Literacy Training before the survey was conducted. Likewise, only 1 teacher or 9.09 percent of the respondents was currently enrolled or attending a training related to computer operations.

The researcher also determined the perceived level of computer skill, the computer applications they used, and the frequency of the use of MS Office Applications. Table 2 shows the profile of the teachers in terms of the areas cited.

Table 2
Perceived Level of Computer Skills, Computer Applications Used and Frequency of Use of MS Office Applications

Questions	Responses	Frequency	Percentage (%)
B. Perceived Level of Computer Skill	No Computer Skill	0	0.00
	Basic	5	45.45
	Intermediate	5	45.45
	Advance	1	9.09
C. Computer Application Used	MS Word	10	90.91
	MS Excel	9	81.82
	MS PowerPoint	7	63.64
	Internet / Social Media	6	54.55
D. Frequency of Use of MS Office Application	Never	0	0.00
	Sometimes	5	45.45
	Always	6	54.55

Table 2 is divided into three sections. The first is the respondents perceived computer skill level. The result shows that 45.45 percent of the respondents believe that they have basic computer. Only 1 or 9.09 percent of the respondents has advance computer skills. This implies that the teachers can at least operate a computer.

The second section of Table 2 shows the computer applications used. The results show that most 90.91 percent of the respondents use MS Word. MS Excel follows with 81.82 percent of the respondents and PowerPoint with 63.64 percent of the total number of respondents. When asked about the frequency in which they use MS Office Applications, 6 out of 11 respondents or 54.55 percent answered Always which implies that they frequently use these applications to support their day-to-day tasks.

The researcher also determined the self-efficacy of the teachers on computer operations and MS Office Applications. The questionnaire was divided into 4 parts which focus on Computer Operation, MS Word, MS Excel and MS PowerPoint.

Table 3 shows the perception of the respondents in these areas.

Table 3
Computer Self Efficacy of the Teachers

Computer Task		
A. Computer Operation	WM	Interpretation
1. Launching windows applications	3.00	Agree
2. Organizing files and folders on drives	3.18	Agree
3. Creating a file	3.55	Strongly Agree
4. Saving a file	3.64	Strongly Agree
5. Creating a folder	3.55	Strongly Agree
6. Deleting a file or folder	3.55	Strongly Agree
7. Copying a file or folder	3.64	Strongly Agree
8. Cutting/Moving a file or folder	3.36	Strongly Agree
9. Renaming a file or folder	3.64	Strongly Agree
10. Searching for files or folders	3.55	Strongly Agree
AVERAGE WEIGHTED MEAN	3.46	Strongly Agree
B. MS Word	WM	Interpretation
1. Creating a New Document	3.55	Strongly Agree
2. Search and Replace Text	3.55	Strongly Agree
3. Changing font size, style, color and effects	3.45	Strongly Agree
4. Formatting paragraph	3.27	Strongly Agree
5. Creating bulleted and numbered lists	3.36	Strongly Agree
6. Inserting shapes and graphics	3.27	Strongly Agree
7. Creating and formatting table	3.36	Strongly Agree
8. Creating header and footer	3.18	Agree
9. Formatting a document	3.18	Agree
10. Printing a document	3.55	Strongly Agree
AVERAGE WEIGHTED MEAN	3.37	Strongly Agree
C. MS Excel	WM	Interpretation
1. Select Cells	3.27	Strongly Agree
2. Cut, Copy and Paste data	3.45	Strongly Agree
3. Creating formula	3.00	Agree
4. Copying a formula	3.09	Agree
5. Formatting Cell	3.09	Agree
6. Inserting and deleting rows and columns	3.27	Strongly Agree
7. Creating border	3.18	Agree
8. Using excel functions such as Sum, Average, Count, Min and Max functions	3.00	Agree
9. Creating different kinds of charts	3.00	Agree
10. Filling cells automatically with a series	2.91	Agree
AVERAGE WEIGHTED MEAN	3.13	Agree
D. MS PowerPoint	WM	Interpretation
1. Creating a Title Slide	3.45	Strongly Agree
2. Creating New Slides	3.45	Strongly Agree
3. Making Changes to Your Slides	3.36	Strongly Agree
4. Applying a Theme	3.18	Agree
5. Running PowerPoint Slide Show	3.18	Agree
6. Adding Animations	3.09	Agree
7. Adding Transitions	3.18	Agree
8. Use the Slide Sorter View	3.00	Agree
9. Creating slide master	3.09	Agree
10. Printing	3.18	Agree
AVERAGE WEIGHTED MEAN	3.22	Agree
OVERALL WEIGHTED MEAN	3.295	Strongly Agree

As shown in Table 3, the teachers have a very high computer self – efficacy on computer operation, MS Word, MS Excel and MS PowerPoint as indicated by the overall mean of 3.295. This may be attributed to the fact that majority of the teachers have undergone Computer Literacy Training before. However, it is important to note that there are items which gained low means (although interpreted as Agree or High Efficacy) which means that the teachers can use these features but could not maximize their functions (especially in Excel and PowerPoint). In addition, they still requested that the computer literacy training be pursued since there are still teachers who have not yet participated in any seminar, training, or workshops related to Computer Literacy. Likewise, in order to really benefit from using these applications in their work, follow up trainings should be conducted in order to master these skills.

Conclusion and Recommendation

Based on the presentation and discussion of findings, the following conclusions were drawn:

1. Majority of the teachers have attended computer literacy training before.
2. All of the respondents have knowledge in using computers and MS Office Applications
3. The computer self – efficacy of teachers is very high; however, this does not mean that all of the teachers can use and maximize the benefits of the MS Office Applications

Based on the conclusions drawn, the following recommendations are made:

1. Follow up training should be conducted to improve the computer skill level of the teachers.
2. Set of trainings concentrating in the development of Instructional Materials using Multimedia Software should be conducted.
3. Refresher training, especially in Excel, should be conducted in order to fully utilize and maximize the use of the software.

References

1. Office of the President of the Philippines. (2011). [Executive Order No. 47, June 23, 2011]. Manila: Malacafiang Records Office.
2. Abcede, M. (2002). Department of Education: Highlights of the Integration of ICT in the Philippines' Educational System, UNESCO (Bangkok).
- a. 3. Bertram, D. (n.d.). Likert Scales: are he meaning Of life. Topical Report

TRAINING NEEDS ASSESSMENT FOR COMPUTER LITERACY TRAINING

I. PROFILE OF THE RESPONDENT

Name (optional): _____

Gender: ☐ Male ☐ Female Age: _____

Position: _____ Date Hired: _____

Years in Service: _____

II. BASIC INFORMATION ABOUT THE TEACHERS

A. Computer Literacy Training

1. Have you completed or attended Computer Literacy Training before?
☐ Yes ☐ No
2. Are you currently taking Computer Literacy Training?
☐ Yes ☐ No

B. Perceive Level of Computer Skill

1. How would you rate your computer skill?
☐ No computer skill ☐ Intermediate
☐ Basic ☐ Advance

C. Computer Application Used

1. Which of the following do you have experience with?
☐ Microsoft Word ☐ Microsoft PowerPoint
☐ Microsoft Excel ☐ Internet / Social Media

D. Frequency of Use of MS Office Applications

☐ Never ☐ Sometimes ☐ Always

III. COMPUTER SELF – EFFICACY OF TEACHERS ON COMPUTER OPERATIONS AND MS OFFICE APPLICATIONS

Legend: 4 – Strongly Agree 2 – Disagree
3 – Agree 1 – Strongly Disagree

Computer Task				
A. Computer Operation	4	3	2	1
1. Launching windows applications				
2. Organizing files and folders on drives				
3. Creating a file				
4. Saving a file				
5. Creating a folder				
6. Deleting a file or folder				
7. Copying a file or folder				
8. Cutting/Moving a file or folder				
9. Renaming a file or folder				
10. Searching for files or folders				
B. MS Word	4	3	2	1
1. Creating a New Document				
2. Search and Replace Text				
3. Changing font size, style, color and effects				
4. Formatting paragraph				
5. Creating bulleted and numbered lists				
6. Inserting shapes and graphics				
7. Creating and formatting table				
8. Creating header and footer				
9. Formatting a document				
10. Printing a document				
C. MS Excel	4	3	2	1
1. Select Cells				
2. Cut, Copy and Paste data				
3. Creating formula				
4. Copying a formula				
5. Formatting Cell				
6. Inserting and deleting rows and columns				
7. Creating border				
8. Using excel functions such as Sum, Average, Count, Min and Max functions				
9. Creating different kinds of charts				
10. Filling cells automatically with a series				
D. MS PowerPoint	4	3	2	1
1. Creating a Title Slide				
2. Creating New Slides				
3. Making Changes to Your Slides				
4. Applying a Theme				
5. Running PowerPoint Slide Show				
6. Adding Animations				
7. Adding Transitions				
8. Use the Slide Sorter View				
9. Creating slide master				
10. Printing				

Comments and Suggestions:
