LEVEL OF MASTERY OF THE BARANGAY OFFICIALS IN COMPUTER LITERACY: BASIS FOR TRAINING ENHANCEMENT

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ABSTRACT

This study assessed the level of mastery of the barangay officials in computer literacy in terms of Computer Management, Word Processing (using MS Word), Spreadsheet (using MS Excel), Presentation (using MS PowerPoint), Internet (browsing and searching) and E-mail. The descriptive research design was used in this study. The respondents were comprised of Barangay Captain, Barangay Secretary, Barangay Treasurer and seven Barangay councilors of selected barangays in the Municipality of Buenavista, Guimaras whose term started from October 2013 to October 2016. Findings showed that majority of the barangay officials have ages above 40 years old, female, and married. Most of the respondents were college level and with a monthly family income 5, 000 and below. Results also showed that the respondents' level of mastery in computer literacy is affected by age, civil status, and educational attainment. Age has a significant relationship in the respondents' level of mastery in computer literacy which would mean that the younger the age, the more clienteles begin understanding and experience computer technology.

Keywords: *level of mastery, computer literacy, descriptive, Barangay Officials, Buenavista, Guimaras*

INTRODUCTION

Background of the study

Computers have touched every part of our lives: the way we work, learn, live, and even the way we play. It is almost impossible to go through a single day without encountering a computer, a device dependent on a computer, information produced by a computer, or a word that was introduced or whose meaning has changed with the advent of computers. It is important to be computer literate because of the significance of computers in today's generation. Being computer literate means you have knowledge and understanding of computers and their uses (Kashif, 2015; Amity University, 2016).

Albano, et al. (2007) asked why we need computers. According to them, the answer is clear. In all aspects of daily living education, work, pleasure, entertainment, communication, marketing, business, and the like, the computer is always present. With the advent of globalization, the technological revolution has taken place. The man has to be computer literate because that is the demand of the time. If he does not go with the tide, he will be left behind. Today, there is no doubt that the majority of human beings are computer literate. There are three measurements to assess the level of computer literacy. The first is awareness. When you begin to study computers, you will be aware of their importance, versatility, and pervasiveness in our society. Second is knowledge. You will learn what computers are and how they function. This requires knowing some technical jargons in order to understand computer language. The last is interaction. The best way to understand computers is to use it directly for some simple applications, like doing research via the Internet, mailing and chatting electronically.

According to Moursund (2012), the concept of "computer literacy" is receiving much mention today. Computer literacy refers to knowledge of the non-technical and low-technical aspects of the capabilities and limitations of computers, and of the social, vocational, and educational implications of computers. While such a definition can provide a focus for thought and discussion, it still does not pinpoint what is meant by computer literacy. Among other things, it does not provide a measure of computer literacy nor a method for improving a person's level of computer literacy.

Book III of the Local Government Code of the Philippines defines the role of the Barangay as the basic political unit, it serves as the primary planning and implementing unit of government policies, plans, programs, projects, and activities in the community, and as a forum wherein the collective views of the people may be expressed, crystallized and considered, and where disputes may be amicably settled. Under Chapter 5 of the Local Government Code, two of the Barangay officials are appointed by the Punong Barangay, Barangay Secretary and Treasurer. Section 394 provides the powers and duties of the Barangay Secretary which shall (a) Keep custody of all records of the Sangguniang Barangay and the Barangay assembly meetings; (b) Prepare and keep the minutes of all meetings of the Sangguniang Barangay and the Barangay assembly; (c) Prepare a list of members of the Barangay assembly, and have the same posted in conspicuous places within the Barangay; (d) Assist in the preparation of all necessary forms for the conduct of Barangay elections, initiatives, referenda or plebiscites, in coordination with the COMELEC; (e) Assist the municipal civil registrar in the registration of births, deaths, and marriages; (f) Keep an updated record of all inhabitants of the Barangay containing the following items of information: name, address, place and date of birth, sex, civil status, citizenship, occupation, and such other items of information as may be prescribed by law or ordinances; (g) Submit a report on the actual number of Barangay residents as often as may be required by the Sangguniang Barangay; and (h) Exercise such other powers and perform such other duties and functions as may be prescribed by law or ordinance. Section 395 provides the powers and duties of the Barangay Treasurer which shall (a) Keep custody of Barangay funds and properties; (b) Collect and issue official receipts for taxes, fees, contributions, monies, materials, and all other resources accruing to the Barangay treasury and deposit the same in the account of the Barangay as provided under Title Five, Book II of the Code; (c) Disburse funds in accordance with the financial procedures provided in this Code; (d) Submit to the Punong Barangay a statement covering the actual and estimates of income and expenditures for the preceding and ensuing calendar years, respectively, subject to the provisions of Title Five, Book II of the Code; (e) Render a written accounting report of all Barangay funds and property under his custody at the end of each calendar year, and ensure that such report shall be made available to the members of the Barangay assembly and other government agencies concerned; (f) Certify as to the availability of funds whenever necessary; (g) Plan and attend to the rural postal circuit within his jurisdiction; and (h) Exercise such other powers and perform such other duties and functions as may be prescribed by law or ordinance. In line with the aforementioned demands of computer literacy, the researchers have initiated this study to assess the level of mastery of the barangay officials in computer literacy and competency of two of the most vital officials in the Barangay.

The Municipality of Buenavista Local Government Unit (LGU) has long been provided some of its barangays at least a computer unit to upgrade the system of operation to a much enhanced way. That is, through computer technology. But up to now, those computers had not been used to their fullest capabilities. Barangay offices still rely on manual labor not on the machines as their frontline of service and operations. Some things are neglected.

Statement of the Problem

This study aimed to assess the level of mastery of the Barangay Officials in computer literacy. Specifically, this study sought answers to the following questions: 1) What is the profile of the respondents as to age, sex, civil status, educational attainment, and monthly family income? 2) What is the level of mastery of the barangay officials in computer literacy in terms of age, sex, civil status, educational attainment, and monthly family income? and 3) Are there significant differences in the level of mastery of the barangay officials in computer literacy when they classified according to age, sex, civil status, educational attainment, and monthly family income?

METHODOLOGY

The study used a descriptive research design. The respondents of the study were 70 barangay officials in the municipality of Buenavista, Guimaras whose term started from October 2013 to October 2016. In gathering the data needed in this study, set of questionnaires was utilized. The questionnaire is divided into two parts. Part I, focused on the profile of the respondents while Part II, focused on the knowledge and skills in computer.

The scale of means to interpret the level of mastery of the barangay officials in computer literacy are as follows: Expert (4.20-5:00); Proficient (3.40-4.19); Familiar (2.60-3.39); Beginner (1.80-2.59) and Novice (1.00-1.79).

The questionnaire had undergone validation by the Vice President for Research and Extension, Research Director and Dean, College of Science and Technology since this is a researcher made questionnaire. Two other barangays officials were identified to validate the said questionnaire. Pilot testing was done to selected barangays in the Municipality of Buenavista who were not part of the pool of respondents of this study. The reliability of the questionnaire was determined using Cronbach Alpha. Subsequently, Frankel and Wallen (1993), emphasized that if the reliability coefficient was 0.7 the questionnaire can be considered reliable. According to Garett (1966), in order for the questionnaire to be valid, it must be reliable, and highly reliable that is always a valid measure to some function. The Cronbach Alpha of the instrument is 0.909, hence the questionnaire was considered reliable. The researcher personally distributed and gathered the questionnaire to the respondents. Interviews were also done with the barangay officials. Processing of the data gathered in this study was done through the Statistical Package for Social Sciences (SPSS) making use of the following statistical tools: frequencies, mean, percentage and Pearson's (r) Coefficient.

RESULTS AND DISCUSSIONS

Profile of the Respondents

Data in table 1 shows the profile of the respondents in terms of age, sex, civil status. In terms of age, the result revealed that out of 65 respondents, 43 (66.2%) were mostly at above 40 years old and 22 (33.8%) were 21 to 40 years old. In terms of sex categorized as male and female, the results revealed that most of the respondents are females 36 (55.4%) out of 65, and 29 (44.6%) for males. For civil status, the majority of the respondents were married 51 (78.5%), 9 (13.8%) widow and widower, 3 (4.6%) single and 2 (3.1%) separated. In terms of educational attainment, the result revealed that 32 (49.2%) of 65 respondents were college, followed by 26 (40.0%) high school; 6 (9.2%) did not indicate their educational attainment and only 1 (1.5%) was elementary. Moreover, in terms of monthly family income of the respondents, the result revealed that 32 (49.2%) P5,000 and below, 23 (35.4%) P5,001 to P10, 000 and 10 (15.4%) above P10, 000.

Table 1.Profile of the Respondents in terms of Age, Sex, Civil Status, Educational Attainment and Monthly Income

Particulars	f	%
Age		
21 to 40 years old	22	33.8
above 40 years old	43	66.2
Total	65	100.0
Sex		
Male	29	44.6
Female	36	55.4
Total	65	100.0
Civil Status		
Single	3	4.6
Married	51	78.5
Widow/Widower	9	13.8
Separated	2	3.1
Total	65	100.0
Elementary	1	1.5
High School	26	40.0
College	32	49.2
Did not indicated	6	9.2
Total	65	100.0
Income		
5,000 and below	32	49.2
5,001 to 10,000	23	35.4
above 10,000	10	15.4
Total	65	100.0

Level of Mastery in Computer Literacy when Categorized According to Profile

Data in table 2 shows the level of mastery of the respondents according to age. It was found out that respondent's with ages from 21-40 years old were beginners in using the computer. On the other hand, those aging above 40 years old were novice in using the computer. This implies that ages above 40 years old respondents were aware of the function/operation but have less experienced in using computer compared to those aging 21 to 40 years old. Studies found that young people are more likely to be computer users and more computer literate than older groups (Marshall & Bannon, 1986). In addition, older individuals tend to be slower to respond to the rapid changes in technology and the increased reliance on computers than younger individuals (Kelley, et al, 1999).

Table 2. Level of mastery in computer literacy when classified as to age

	21 to 40 years old			above 40 years old			Total		
	Mean	SD	Interpretation	Mean	SD	Interpretation	Mean	SD	Interpretation
Comp Mgt.	2.58	1.07	Beginner	1.60	.88	Novice	1.93	1.05	Beginner
MS Word	2.39	1.20	Beginner	1.46	.83	Novice	1.78	1.06	Novice
MS Excel	2.10	1.09	Beginner	1.33	.73	Novice	1.59	.94	Novice
MS PowerPoint	1.96	1.13	Beginner	1.17	.49	Novice	1.44	.85	Novice
Internet	2.06	1.10	Beginner	1.21	.47	Novice	1.50	.84	Novice
E-mail	2.11	1.18	Beginner	1.19	.50	Novice	1.50	.91	Novice
Total	2.20	1.08	Beginner	1.32	.56	Novice	1.63	.87	Novice

Scale: 1.00–1.79 (Novice), 1.80–2.59 (Beginner), 2.60–3.39 (Familiar),3.40–4.19 (Proficient), 4.20–5.00 (Expert)

Data in table 3 shows the level of mastery of the respondents in terms of sex. It was found out that average mean of female respondents (M=1.79) were slightly higher than male respondents (M=1.42). Moreover, both were described as novices in using the computer. Subsequently, Frankel and Wallen (1993), emphasized that if the reliability coefficient was 0.7 the questionnaire can be considered reliable.

Table 3.Level of Mastery in Computer Literacy when classified as to Sex

	Male			Female			Total		
	Mean	Sd	Interpretation	Mean	Sd	Interpretation	Mean	sd	Interpretation
Comp Mgt.	1.59	.86	Novice	2.21	1.11	Beginner	1.93	1.05	Beginner
MS Word	1.43	.81	Novice	2.05	1.16	Beginner	1.77	1.06	Novice
MS Excel	1.34	.65	Novice	1.78	1.07	Novice	1.59	.93	Novice
MS PowerPoint	1.33	.74	Novice	1.53	.92	Novice	1.44	.85	Novice
Internet	1.41	.83	Novice	1.57	.86	Novice	1.50	.84	Novice
E-mail	1.40	.88	Novice	1.58	.92	Novice	1.50	.90	Novice
Total	1.42	.77	Novice	1.79	.92	Novice	1.62	.87	Novice

Scale: 1.00–1.79 (Novice), 1.80–2.59 (Beginner), 2.60–3.39 (Familiar),3.40–4.19 (Proficient), 4.20–5.00 (Expert)

Data in table 4 shows the level of mastery of the respondents when classified according to civil status. It was found out that the single respondents were familiar of the functions/operations but need further practice to be confident in using computer, married and widow/widower respondents were novice/not aware in using computer, and those separated respondents were beginners/aware of the function/operations but have not experienced using computers.

Table 4 Level of mastery in Computer Literacy when classified as to Civil Status

	Single			Married			Widow/Widower			Separated			Total		
	Mean	sd	Int.	Mean	sd	Int.	Mean	sd	Int.	Mean	sd	Int.	Mean	Sd	Int.
Comp Mgt.	3.63	1.28	Familiar	1.94	1.00	Beginner	1.28	.57	Novice	2.00	1.41	Beginner	1.93	1.05	Beginner
MS Word	3.33	1.98	Familiar	1.75	.99	Novice	1.32	.63	Novice	2.00	1.41	Beginner	1.77	1.06	Novice
MS Excel	2.96	2.00	Familiar	1.56	.85	Novice	1.15	.36	Novice	2.05	1.48	Beginner	1.59	.93	Novice
MS PowerPoint	3.00	1.73	Familiar	1.41	.77	Novice	1.00	.00	Novice	1.80	1.13	Beginner	1.44	.85	Novice
Internet	3.03	1.76	Familiar	1.49	.76	Novice	1.00	.00	Novice	1.70	.98	Novice	1.50	.84	Novice
E-mail	2.93	1.67	Familiar	1.50	.86	Novice	1.00	.00	Novice	1.65	.91	Novice	1.50	.90	Novice
Total	3.15	1.700	Familiar	1.61	.796	Novice	1.13	.255	Novice	1.87	1.22	Beginner	1.62	.87	Novice

Scale: 1.00–1.79 (Novice), 1.80–2.59 (Beginner), 2.60–3.39 (Familiar),3.40–4.19 (Proficient), 4.20–5.00 (Expert

Data in Table 5 shows the level of mastery of the respondents as to educational attainment. It was found out that elementary, high school including those who did not indicate were novice/not aware in using the computer, while college level were beginners/ aware of the function/operation but have not experienced using the computer. As a whole, the level of mastery in computer literacy was novice.

Table 5. Level of Mastery in Computer Literacy when classified as to Educational Attainment

	Elementary			High School			College			Did not indicate			Total		
	Mean	SD	Int.	Mean	SD	Int.	Mean	SD	Int.	Mean	SD	Int.	Mean	SD	Int.
Comp Mgt.	1.00	-	Novice	1.26	.50	Novice	2.59	1.04	Beginner	1.48	.72	Novice	1.93	1.05	Beginner
MS Word	1.00	-	Novice	1.21	.44	Novice	2.37	1.18	Beginner	1.11	.19	Novice	1.77	1.06	Novice
MS Excel	1.00	-	Novice	1.20	.42	Novice	2.01	1.13	Beginner	1.10	.24	Novice	1.59	.93	Novice
MS PowerPoint	1.00	-	Novice	1.16	.46	Novice	1.75	1.05	Novice	1.06	.16	Novice	1.44	.85	Novice
Internet	1.00	-	Novice	1.13	.36	Novice	1.89	1.02	Beginner	1.10	.24	Novice	1.50	.84	Novice
E-mail	1.00	-	Novice	1.11	.32	Novice	1.92	1.11	Beginner	1.00	.00	Novice	1.50	.90	Novice
Total	1.0	-	Novice	1.18	.39	Novice	2.09	.99	Beginner	1.14	.24	Novice	1.62	.87	Novice

Scale: 1.00–1.79 (Novice), 1.80–2.59 (Beginner), 2.60–3.39 (Familiar),3.40–4.19 (Proficient), 4.20–5.00 (Expert)

Data in table 6 shows the level of mastery of the respondents in terms of monthly income. It was found out that respondents with a monthly family income of 5,000 and below, 5,001 to 10,000 and above 10,000 are novice/not aware in using the computer. It implies the income of the respondents does not vary their skills in using the computer.

Table 6. Level of Mastery in Computer Literacy when classified as to Monthly Family Income

	5,000 and below			5,001 to 10,000			above 10,000			Total		
	Mean	sd	Int.	Mean	sd	Int.	Mean	sd	Int.	Mean	Sd	Int.
Comp Mgt.	1.82	1.02	Beginner	1.93	.97	Beginner	2.31	1.30	Beginner	1.93	1.05	Beginner
MS Word	1.74	1.03	Novice	1.73	.97	Novice	1.98	1.40	Beginner	1.77	1.06	Novice
MS Excel	1.59	.93	Novice	1.49	.78	Novice	1.80	1.28	Novice	1.59	.93	Novice
MS Powerpoint	1.43	.88	Novice	1.43	.78	Novice	1.50	.97	Novice	1.44	.85	Novice
Internet	1.48	.90	Novice	1.50	.73	Novice	1.58	.95	Novice	1.50	.84	Novice
E-mail	1.49	.95	Novice	1.52	.84	Novice	1.50	.97	Novice	1.50	.90	Novice
Total	1.59	.91	Novice	1.60	.79	Novice	1.77	.98	Novice	1.62	.87	Novice

Scale: 1.00–1.79 (Novice), 1.80–2.59 (Beginner), 2.60–3.39 (Familiar),3.40–4.19 (Proficient), 4.20–5.00 (Expert)

Difference in the Respondent's Level of Mastery in Computer Literacy when Categorized According to Profile

Table 7 shows the difference in the respondent's level of mastery when categorized according to the variable age. The result showed that there was a significant difference in their level of mastery in computer when they were grouped according to age. This may imply that the age of an individual affects his/her mastery of the different computer programs. The younger the individual the more he/she is open to newer trends in technology, especially in computer. No significant difference existed in the respondents' level of mastery in computer when they were grouped according to sex. This means that male and female respondents' level of mastery in computer does not vary with one another.

Table 7. Difference in the Level of Mastery when classified according to Age, and Sex

	t	df	Sig. (2-tailed)	Interpretation
Age				
Equal variances assumed	4.309*	63	.000	
Equal variances not assumed	3.557	26.930	.001	Significant
Sex				
Equal variances assumed	-1.724	63	.090	Not Significant
Equal variances not assumed	-1.758	62.905	.084	

**p < 0.05 level of significance*

Table 8 shows the difference in the level of mastery when classified according to civil status, educational attainment and monthly income. Results revealed that civil status affects the level of mastery of the respondents. Using Post Hoc analysis, single respondents have a significant difference to married and widowers; married and widowers had a significant difference to single. This implies that single respondents were more knowledgeable in computer technology compared to married and widowers.

Furthermore, there was a significant difference in the respondents' level of mastery when they were classified according to educational attainment. This means that educational attainment is one factor that affects the individual's skills in computer. Since computer subject is now being taught as one of the subjects in school in the new curriculum, those who were under this will also have prior knowledge about computer programs. Hence, they have a higher level of mastery compared to those who did not.

However, the monthly income of the respondents does not affect their level of mastery in computer. This means that whether they are earning small or big amount every month, this does not affect their mastery of computer programs.

Table 8. Difference in the Level of Mastery when classified according to civil status, Educational Attainment, and Monthly Income

	Sum of Squares	df	Mean Square	F	Sig.
Civil Status					
Between Groups	9.32	3	3.108	4.799*	.005
Within Groups	39.50	61	.648		
Total	48.83	64			
Educational Attainment					
Between Groups	13.88	3	4.62	8.074*	.000
Within Groups	34.95	61	0.57		
Total	48.83	64			
Monthly income					
Between Groups	.277	2			
Within Groups	48.56	62			
Total	48.83	64			

**p < 0.05 level of significance*

CONCLUSIONS

The level of mastery of the barangay officials in computer literacy was novice when classified as to their profile showed that the age, sex, civil status, educational attainment, and monthly family income. This implies that there is a need for trainings and seminars for the improvement of the barangay officials and employees on computer literacy. Furthermore, the factors that affect the level of mastery in computer literacy of the respondents were age, civil status and educational attainment. Hence, there is no significant difference when they were classified as to sex and monthly family income of the respondents. There was a significant relationship in the level of mastery of the barangay officials in computer literacy when they classified to age.

REFERENCES

Ambre and Trinidad Jr. (2012) "Computer Literacy and Competency Of Barangay Secretaries And Treasurers In Lagangilang, Abra"

Cardona and Velasco (2008) "Performance of Barangays in Vigan City"

McKay, D. (2012). Computer Literacy: An Important Skill Retrieved September 15, 2012, from http://careerplanning.about.com/od/importantskills/a/comp_literacy.htm Moursund, D. (2012).

Introduction to Computers. Retrieved from https://homepage.cs.uri.edu/faculty/wolfe/book/Readings/Reading01.htm

Hoffman, M.E and Blake, J. (2003). Today and Tomorrow. Consortium for Computing Small Colleges

Local Government Unit. The Local Government Code of the Philippines. Book III. Chapter 5.

Local Government Unit. The Local Government Code of the Philippines. Book III. Sec. 394.

Jack R Fraenkel and Norman E Wallen (2008), How to Design and Evaluate Research in Education 7th Ed (USA: Beth Mejia), 39