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Comparative Study on the Effectiveness of Computer Literacy Program among Public and Private High School in the Municipality of Binalbagan

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ABSTRACT

In the Philippines, computer play a great role in education, that both public and private schools have turned to Information Technology as a tool to improve teaching and learning. This study aimed to perform a comparison of the effectiveness of the computer literacy programs among public and private high schools in the Municipality of Binalbagan for the Academic Year 2018-2019. The respondents of this study were 372 randomly selected high school students from both public and private schools in Binalbagan enrolled as of February 2018. The students rated their proficiency in various computer skills namely, hardware or equipment-related knowledge and skills, system knowledge and skills, and application software knowledge and skills. These ratings reflected the effectiveness of the computer literacy program in their respective schools. A researcher-constructed questionnaire was used in gathering data. The data were analyzed using descriptive method statistics of frequency count, percentage, t-test, p-value and mean. Results revealed that majority of secondary students were females. Most of them were in the 16-20 years-old age bracket and most of them were studying in public schools and most were junior high school students. All the computations and analyses were performed using the statistical package for social science (SPSS), version 17. The findings also revealed that the perception of the student-respondents on the effectiveness of computer literacy program of high school in the Municipality of Binalbagan when grouped according to age, sex, school categories and secondary level as a whole is effective.

KEYWORDS: *education, comparison, t-test, p-value, SPSS.*

INTRODUCTION

Computer play a big role in education especially in developing countries like the Philippines. Both public and private schools have turned to Information Technology (IT) as a tool to improve teaching and learning. The initiative by the government to ensure that the computer subjects are mandatory in basic and secondary educational levels is an acknowledgement that computer skills are necessary to be able to produce globally competitive students in whatever career they choose to take in the future. People who have computer skills have the ability to use computer and other related things efficiently. They can also use computer programs and other applications that are associated with computers to make their work effectively.

Senator Angara urged to integrate computer subjects in private and public schools, providing materials and equipment to be used in implementing computer literacy. Most schools now have computer laboratories, audio visual rooms, Internet connections, projectors, and other related technologies. Teachers are also given trainings and attend seminar-workshops to be able to incorporate computer technology in their lessons and teaching strategies. Despite higher budget allocations from the government, it seems that the public schools are still far behind compared to private schools in terms of facilities and exposure to technologies, with the student-to-computer ratio as the main factor. This is one of the reasons why most parents prefer to enroll their children in private school's despite of the hefty tuition and miscellaneous fee.

It is the issue of the difference in the effectiveness of the computer skills taught in public and private secondary schools that prompted the group to do comparative research in order to determine the extent of this difference and the factors that caused it. The subject of this research are the public and private schools in the Municipality of Binalbagan. The eight (8) high schools are the Binalbagan National High School, Binalbagan Catholic College (High School Department), Fellowship Baptist School (High School Department), San Blas Academy, Biao National High School, Payao National High School, Binalbagan National High School (Santol Extension), CAMAHS-Binalbagan National High School, and Payao National High School (Namulo Extension).

MATERIALS AND METHOD

This study used the descriptive method of research. The respondents of the survey were the students in every public and private high school in the Municipality of Binalbagan. The students will rate their proficiency in various computer skills which will reflect the effectiveness of the computer literacy program in their respective schools.

Data Gathering Procedure

The researcher used in this study was the researcher-made questionnaire. The questionnaire was divided into two parts. The First part obtained the profile of the students, while the second part assessed the students' perception of the effectiveness of the computer literacy program of the school, they were in. The respondents were asked to indicate their age, gender, school category (whether public or private), and secondary level (whether junior or senior high school) on the first part of the questionnaire. On the second part, they were asked to check the level of effectiveness of the computer literacy program of their school based on their experiences or observation using 5-point Likert scale. After the questionnaires were distributed and answered, the researcher retrieved the questionnaires and collected the data.

RESULTS AND DISCUSSION

The questionnaire of this study was subjected to validation by the three (3) faculties of IT Department who were experts in validation of survey questionnaires. The validity was rated using the Good and Skates validations instrument, wherein the mean value in the mean value result of 3.87 justified that the instrument used was valid.

Table 1. Distribution of the Respondents of the study per High School

List of High School in the Municipality of Binalbagan	Total Respondents	Actual Respondents
1.Binalbagan Natl. High School	1,245	88
2. Biao Natl. High School	302	21
3. BCC (High School Department)	899	64
4. Fellowship Baptist	374	27
5. San Blas Academy	363	26
6. CAMAHS- Binalbagan Natl. High School	537	38
7. Payao Natl. High School	1,160	82
8. Binalbagan Natl. High School	242	17
9. Payao Natl. High School (Namulo Ext.)	120	9
Total	5,242	372

Table 1. shows that there are 5, 242 high school students in Binalbagan, Negros Occidental for the Academic Year 2016-2017. The sample size was determined by using the Slovin's formula. The number of respondents in each school was determined by using the stratified sampling technique formula.

Table 2. The Demographic Profile of the Respondents

Profile		Frequency	Percent
Age	Young (12-15)	133	35.8
	Old (16-20)	239	64.2
Sex	Male	148	39.5
	Female	224	60.5
School Categories	Public	205	55.1
	Private	167	44.9
Secondary Level	Junior High School	220	59.1
	Senior High School	152	40.6

Table 2. indicated a total of 372 students were chosen as respondents of the survey, wherein 133 (35.8%) were young and 239 (64.2%) were old; 148 (39.5%) were males and 224 (60.5%) were females; 205 (55.1%) were from public schools and 167 (44.9%) were from private schools; 220 (59.15) were in junior high school and 152 (40.6%). The results imply the majority of student-responds were old, females, in public schools and are in junior high school.

Table 3. The effectiveness of Computer Literacy Program grouped in terms of Skills

Profile		Hardware		System		Software	
		Mean	Interpretation	Mean	Interpretation	Mean	Interpretation
Age	Young	3.3872	Very Effective	3.5534	Very Effective	3.5583	Very Effective
	Old	3.9059	Very Effective	4.0209	Very Effective	3.6438	Very Effective
Sex	Male	3.7586	Very Effective	3.7557	Very Effective	3.5682	Very Effective
	Female	3.6987	Very Effective	3.8058	Very Effective	3.5855	Very Effective
School Category	Public	3.5854	Very Effective	3.5976	Very Effective	3.5201	Very Effective
	Private	4.0090	Very Effective	4.1317	Very Effective	3.8204	Very Effective
Secondary Level	Junior	3.5705	Very Effective	3.5129	Very Effective	3.5670	Very Effective
	Senior	3.9338	Very Effective	4.1689	Very Effective	3.8162	Very Effective
Total		3.7311	Very Effective	3.8183	Very Effective	3.6349	Very Effective

Table 3. Shows the comparison of the effectiveness of the computer literacy program grouped in terms of skills. Overall, both young and old students have common agreement as to various effectiveness of the computer literacy programs. They both rated the computer literacy program as "very effective" in terms of hardware (3.3872 and 3.9059); system (3.5334 and 4.0209); and software application (3.5583 and 3.6438). As to male and female students they both rated the computer literacy program as "very effective" in terms of hardware (3.7586 and 3.6987); system (3.7557 and 3.8058); and software application (3.5682 and 3.5855). In terms on school categories, public and private high school have both common agreements on their perceptions. The computer literacy program was also assessed as "very effective".

In general, students' perceptions toward the effectiveness of computer literacy programs in their respective high schools show a common agreement in terms of hardware, system and software applications.

CONCLUSIONS

1. The perception of the student-respondents on the effectiveness of the computer literacy program of high schools in the Municipality of Binalbagan when grouped according to age, sex, school, categories, and secondary level as whole is very effective.
2. When grouped according to gender, male respondents rated a higher effectiveness of the computer literacy program in terms of hardware skills. On the other hand, female respondents rated a higher effectiveness in terms of system skills. Although the

difference is not that great, the result is an implication that male students are more inclined to learning hardware and software skills than their female counterparts.

3. When grouped according to school category, respondents from private schools gave a higher effectiveness rating in all three (3) categories hardware, system, and software skills. This shows that those who are in private schools have learned more and are confident of their skills than their public-school counterparts. Difference in facilities, student-computer ratio, and teacher trainings are possible factors of the discrepancy.
4. When grouped according to secondary level, more senior high school respondents rated their computer literacy program as effective in all skills categories. This indicates as students go along with their studies, more knowledge and skills are acquired.
5. There is no significant difference in the effectiveness of computer literacy program among public and private schools in the Municipality of Binalbagan when they are grouped and compared according to Age, Sex, School Categories and Secondary Level. This means that the computer education of high schools in this area are at par with each other.

RECOMMENDATIONS

1. There is a need to improve the computer laboratories and facilities of both public and private high schools in the Municipality of Binalbagan to be able to improve their hardware, software, and system skills.
2. For computer literacy programs to be more effective, a lower student- to-computer ratio may be implemented in private and public high schools in Binalbagan.
3. Public schools may provide more computers so that students can perform individually and they can do activities faster.
4. The teaching skills of the teachers may focus on the female students to improve their hardware skills.

REFERENCES

i. Alelabi, A: The relative effectiveness of computer assisted and text-assisted programme instruction on students learning outcomes in social studies. Unpublished Ph.D. thesis of the University of Ibada, Ibadan, Nigeria. (1998).

ii. Egunjobi, A. O: The efficacy of two computer assisted instructional modes on learner's practical geography achievement at the secondary school level in Ibadan (2002).

iii. Kirkpatrick, H. & Cuban, I.: Should we worried:" What the research says about gender differences in access, use, attitudes, and achievement with computers. Educational Technology, 38 (4), 56-60, (1998, July-August).

ISSN NO:: 2348 – 537X

iv. Ogunkola, B.J: Computer Attitude, Ownership and Use as Predictors of Computer Literacy of Science Teacher in Nigeria (2008)

v. Robles, M.: Designing and Implementing an Effective Teacher Professional Development Program on ICT Integration: A Framework for Decision-Making (2006).

vi. Udousoro, V. J.: The relative effectiveness of computer and text-assisted programme instruction on students' learning outcomes in mathematics. Unpublished Ph.D. Thesis of the University of Ibadan. (2000).