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## **Evaluation of Microsoft Office Utilization Skills of Grade 10 Learners: Input to Development of Intervention Material**

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### **ABSTRACT:**

*The main purpose of this study was to evaluate the Microsoft Office Utilization Skills of Grade 10 learners: Inputs to Development of Intervention Materials. The study made use of descriptive survey research design. The study participants were the One hundred seventy-one (171) randomly selected Grade 10 learners of Estancia National High School, Estancia, Iloilo. The instrument used for data collection were researchers-made questions and some of the questions was Adopted from (Basil C.E Oguguo1, et. Al) (Oguguo et al.,2020) "Assessment of ICT Skills Relevant for Effective Learning Possessed by Undergraduate Students at University of Nigeria". A total of 30 items question were gotten. The reliability of the instrument was determined using Cronbach-Alpha method and a reliability coefficient of 0.84 was obtained. Three research questions and two hypotheses guided the study. The data collected were subjected to analysis, the mean and standard deviation were used to answer the research questions while the hypotheses were tested using t-test and ANOVA at 0.05 level of significance. The findings revealed that the level of the Microsoft Office Utilization Skills of Grade 10 Learners when taken as a whole has a result of Sometimes Utilized. The findings also showed the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex has resulted to Sometimes Utilized. Equally, the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section has resulted to Sometimes Utilized. The findings also revealed that there was no significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. On the contrary, there was a significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. It was therefore agreed that the researchers were going to develop Intervention Materials to help the leaners to develop the competencies that they did not master during the regular classes. It can be presented using printed materials, video lessons, PowerPoint presentations and computerized activities to ensure the effectiveness of knowledge, skills, and attitude to be develop and mastered by the Grade 10 learners.*

**KEYWORDS:** *Microsoft Office Utilization Skills, Intervention Material*

### **I. INTRODUCTION**

Learning is one of the most important features and characteristics that play a significant role in a nation's progress, as it affects rising new generations positively and comprehensively while relying on modern and advanced scientific foundations (Alelaimat, A., 2012). Education must be capable of developing students' potentials, such as self-management,

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personality, intelligence, virtuous morals, and skills required by learners and society (Inayati et al., 2018).

In the current state of the Philippine Educational System, where classrooms are scarce, and funds are scarce, not enough instructional materials are available to cater to every ICT classroom (Salviejo et al., 2014) . Most students are expected to be computer literate to compete in today's global job market. These computer abilities typically include fundamental to advanced knowledge of word processing, presentation, and spreadsheet applications (Grant et al., 2009).

Mere learning Microsoft Office skills is not sufficed, but using Microsoft Office to improve the teaching and learning is the key for pedagogy-technology amalgamation. To prepare materials for the teaching-learning process, one must first draft the lesson plans and course contents, then edit them, revise them, and finally publish them. The Microsoft Word processor can be of great assistance in completing this task in a professional and productive manner, avoiding repetition and duplication of manual work, and focusing on the quality of the course materials. The teachers also need to make lists of the name of the students for monitoring and recording their academic performance and to analyze and perform a statistical analysis to take some corrective measure if any, in the lesson plan, delivery of instruction. Spreadsheets can be a good choice for creating class lists, recording their performance, and executing statistical analysis upon them. While delivering the class lectures, any innovative teacher needs to draw diagrams, show pictures, animate some objects to explain critical concepts, even play some video clipping of real time operation. productive, interesting, motivating, interactive, and of high quality. For such tasks, presentation software such as PowerPoint can be a good choice for teachers (Majumdar, P., 2006). Therefore, the integration of Microsoft Office with teaching and learning process helps to achieve the expected effectiveness of an education system. Microsoft Office usage is quickly becoming a critical success factor for effective teaching and learning in higher education. Microsoft Office can leverage and extend traditional teaching and learning activities to meet the world's changing needs (Jayewardeneperu, S., 2015).

According to DepEd Memorandum No. 39, series of 2012, the policy guideline in addressing learning gaps and implementing reading and writing programs in secondary schools, DepEd recognized that most secondary schools had already implemented remediation programs to address learning deficiencies. The order advised schools to structure their programs and interventions in accordance with the guidelines established in order to systematize the process. Strategic Intervention Materials are used to improve students' least mastered skills in a particular subject area (Cordova et al., 2019)

The learning difficulty is caused by a lack of fundamental knowledge and skills about the material being studied (Inayati et al., 2018) . The primary goal of teaching is to provide students with appropriate and effective instruction. Thus, it is the responsibility of an ICT teacher to devise and provide the necessary materials for use in ICT classes. Knowledge and learning in the classroom are thought to be a continuous process that is very important in our students (Ducay and Soberano, 2022).

Schools are thus encouraged to provide the best possible quality instruction and responsive education to students from the start. The intervention plays the necessary role in the teaching and learning process. This leads to developing the Instructional materials because these are

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school resource inputs and includes print and non – print items that are designed to impart information to students in the educational process. Learning experiences must be designed to help students reach their full potential, and teachers must consider various learning strategies and techniques to help students master learning (Salviejo et al., 2014).

The Strategic Intervention Materials help the learners to develop the competencies that they did not master during the regular classes. It can be presented using power point presentation, printed materials, or computerized activities. The SIM focuses solely on one remediation competency (Cordova et al.). Educational interventions are used to help students gain the skills and knowledge they need to attend school (Lim and Shorey, 2019).

## **II. METHODOLOGY**

### **2.1 Research Design**

The research design refers to the overall strategy and analytical approach that you have chosen to integrate the various components of the study in a coherent and logical manner, ensuring that the research problem is thoroughly investigated. It serves as the blueprint for gathering, measuring, and interpreting information and data. (Osalla et al., 2023).

This study employed descriptive survey design. The study was conducted at Estancia National High School, Estancia, Iloilo. Estancia National High School was chosen for this study because researchers were currently employed in this institution.

### **2.2 Research Participants**

This study targeted Grade 10 learners of Estancia National High School because majority of the students have already acquired the necessary ICT skills for learning as part of the requirement for their TLE ICT subject. The respondents were randomly selected Grade 10 learners made up the population for this study which comprises of Three hundred (300) learners, one hundred seventy-one (171) learners were sampled for the study. Slovin's Test technique was used to select the sample for the study.

### **2.3 Measurement Approaches**

The instrument "Evaluation of Microsoft Office Utilization Skills of Grade 10 Learners: Inputs to Development of Intervention Materials Questionnaire" was used for data collection. The instrument comprised of two variables under consideration by the researchers. The instrument was arranged based on a 5-point scale of Strongly Agree, Agree, Neither Agree nor Disagree, Disagree and Strongly Disagree (Likert Scale).

### **2.4 Validity of the Instrument**

The instrument was validated by three experts, two from teachers teaching ICT subject of the school and one teaching English from the English Department. Some of the questions was Adopted from (Basil C.E Oguguo1, et.) (Oguguo et al., 2020) "Assessment of ICT Skills Relevant for Effective Learning Possessed by Undergraduate Students at University of Nigeria") Forty (40) items were constructed before the validation process, during the validation, some items were found to be irrelevant while others were found to be double-barreled; moderations were made and after the validation, a total of 30 items question were gotten.

### 2.5 Reliability of the Instrument

The instrument was trial test on randomly Grade 10 learners with similar attributes from a nearby school. Cronbach-Alpha method was employed to estimate the internal consistency of the instrument since it is most suitable for polytomous scored items. A reliability index of 0.84 was obtained which shows that the instrument was reliable.

### 2.6 Administration of the Instrument

The instrument was administered on a face-to-face basis to ensure maximum return of questionnaires. Questionnaires as a research instrument can be self-administered or with the researcher's interference.

### 2.7 Data Analysis

The data gathered from the participants was evaluated with the statistics package program SPSS 23.0. The data were analyzed using Mean and Standard Deviation, t-test, and ANOVA ( $p < 0.05$ ).

After the conduct of the study, to validate the Numerical data of the results, the description was arranged on a 5-point scale of Always Utilized, Often Utilized, Sometimes Utilized, Rarely Utilized, and Never Utilized (Likert Scale) in the Evaluation of Microsoft Office Utilization Skills among Grade 10 Learners.

## III. RESULTS

Table 1. Mean and Standard Deviation on Microsoft Office Utilization Skills of Grade 10 Learners when taken as a whole.

	N	Mean	Description	Std. Deviation
MSWORD	171	2.8567	Sometimes Utilized	.71915
MSEXCEL	171	2.8404	Sometimes Utilized	.73160
MSPPT	171	2.8737	Sometimes Utilized	.74633
Valid N (listwise)	171			

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

The result from Table 1 above on Microsoft Office Utilization Skills of Grade 10 Learners in Microsoft Word showed that the Mean is 2.8567 and the Standard Deviation was 0.71915. It was therefore agreed that the level of Microsoft Office Utilization Skills of Grade 10 Learners in Microsoft Word was Sometimes Utilized. Equally, Microsoft Excel has a Mean is 2.8404 and the Standard Deviation was 0.73160. Thus, it was agreed that the level of Microsoft Office Utilization Skills of Grade 10 Learners in Microsoft Excel was also Sometimes Utilized. Similarly, Microsoft PowerPoint has a Mean was 2.8737 and the Standard Deviation was 0.74633. Thus, it was agreed that the level of Microsoft Office Utilization Skills of Grade 10 Learners in Microsoft PowerPoint was also Sometimes

Utilized. Therefore, the level of Microsoft Office Utilization Skills of Grade 10 Learners when taken as a whole has a result of Sometimes Utilized.

Table 2. Mean and Standard Deviation on Microsoft Office (Microsoft Word) Utilization Skills of Grade 10 Learners when classified according to Sex.

SEX	N	Mean	Description	Std. Deviation
MALE	80	2.8113	Sometimes Utilized	.74715
FEMALE	91	2.8967	Sometimes Utilized	.69529
TOTAL	171	2.8567	Sometimes Utilized	.71915

Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40;  
Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 2 above showed the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. In Microsoft Word, the Male has a Mean of 2.8113 and its Standard Deviation was 0.74715. Hence, the result was Sometimes Utilized. Also, the Female has a Mean of 2.8967 and its Standard Deviation was 0.69529. Hence, the result was Sometimes Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft Word) Utilization Skills of when classified according to Sex has a Mean of 2.8567 and its Standard Deviation was 0.71915. Therefore, the result of the study was Sometimes Utilized.

Table 3. Mean and Standard Deviation on Microsoft Office (Microsoft Word) Utilization Skills of Grade 10 Learners when classified according to Section.

Section	N	Mean	Description	Std. Deviation
Section A	50	3.2960	Sometimes Utilized	.63212
Section B	68	2.9647	Sometimes Utilized	.59670
Section C	53	2.3038	Rarely Utilized	.58572
Total	171	2.8567	Sometimes Utilized	.71915

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 3 above shows the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. In Microsoft Word, Section A has a Mean of 3.2960 and its Standard Deviation was 0.63212. Hence, the result is Sometimes Utilized. Also, Section B has a Mean of 2.9647 and its Standard Deviation was 0.59670. Hence, the result is Sometimes Utilized. Unfortunately, Section C has a Mean of 2.3038 and its Standard Deviation was 0.58572. Hence, the result was Rarely Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft Word) Utilization Skills of when classified according to Section has a Mean of 2.8567 and its Standard Deviation was 0.71915. Therefore, the result of the study was Sometimes Utilized.



Table 4. Mean and Standard Deviation on Microsoft Office (Microsoft Excel) Utilization Skills of Grade 10 Learners when classified according to Sex.

Sex	N	Mean	Description	Std. Deviation
Male	80	2.8200	Sometimes Utilized	.75413
Female	91	2.8582	Sometimes Utilized	.71493
Total	171	2.8404	Sometimes Utilized	.73160

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 4 above shows the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. In Microsoft Excel, the Male has a Mean of 2.8200 and its Standard Deviation was 0.75413. Hence, the result is Sometimes Utilized. Also, the Female has a Mean of 2.8582 and its Standard Deviation was 0.71493. Hence, the result was Sometimes Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft Excel) Utilization Skills of when classified according to Sex has a Mean of 2.8404 and its Standard Deviation was 0.73160. Therefore, the result of the study was Sometimes Utilized.

Table 5. Mean and Standard Deviation on Microsoft Office (Microsoft Excel) Utilization Skills of Grade 10 Learners when classified according to Section.

Section	N	Mean	Description	Std. Deviation
Section A	50	3.2660	Sometimes Utilized	.59953
Section B	68	2.9059	Sometimes Utilized	.66644
Section C	53	2.3547	Rarely Utilized	.64705
Total	171	2.8404	Sometimes Utilized	.73160

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 5 above shows the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. In Microsoft Excel, Section A has a Mean of 3.2660 and its Standard Deviation was 0.59953. Hence, the result was Sometimes Utilized. Also, Section B has a Mean of 2.9059 and its Standard Deviation was 0.66644. Hence, the result was Sometimes Utilized. Unfortunately, Section C has a Mean of 2.3547 and its Standard Deviation was 0.64705. Hence, the result was Rarely Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft Excel) Utilization Skills of when classified according to Section has a Mean of 2.8404 and its Standard Deviation was 0.73160. Therefore, the result of the study was Sometimes Utilized.

Table 6. Mean and Standard Deviation on Microsoft Office (Microsoft PowerPoint) Utilization Skills of Grade 10 Learners when classified according to Sex.

Sex	N	Mean	Description	Std. Deviation
Male	80	2.8675	Sometimes Utilized	.76931
Female	91	2.8791	Sometimes Utilized	.72977
Total	171	2.8737	Sometimes Utilized	.74633

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 6 above shows the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. In Microsoft PowerPoint, the Male has a Mean of 2.8675 and its Standard Deviation was 0.76931. Hence, the result was Sometimes Utilized. Also, the Female has a Mean of 2.8791 and its Standard Deviation was 0.72977. Hence, the result was Sometimes Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft PowerPoint) Utilization Skills of when classified according to Sex has a Mean of 2.8737 and its Standard Deviation was 0.74633. Therefore, the result of the study was Sometimes Utilized.

Table 7. Mean and Standard Deviation on Microsoft Office (Microsoft PowerPoint) Utilization Skills of Grade 10 Learners when classified according to Section.

Section	N	Mean	Description	Std. Deviation
Section A	50	3.1800	Sometimes Utilized	.59693
Section B	68	2.9838	Sometimes Utilized	.75718
Section C	53	2.4434	Rarely Utilized	.67211
Total	171	2.8737	Sometimes Utilized	.74633

Legend: Always Utilized = 4.21-5.0; Often Utilized = 3.41-4.20; Sometimes Utilized = 2.61-3.40; Rarely Utilized = 1.81-2.60; Never Utilized = 1.0-1.80

Table 7 above shows the Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. In Microsoft PowerPoint, Section A has a Mean of 3.1800 and its Standard Deviation was 0.59693. Hence, the result was Sometimes Utilized. Also, Section B has a Mean of 2.9838 and its Standard Deviation was 0.75718. Hence, the result was Sometimes Utilized. Unfortunately, Section C has a Mean of 2.4434 and its Standard Deviation was 0.67211. Hence, the result was Rarely Utilized. Consequently, the Total Number of Grade 10 Learners on Microsoft Office (Microsoft PowerPoint) Utilization Skills of when classified according to Section has a Mean of 2.8737 and its Standard Deviation was 0.74633. Therefore, the result of the study was Sometimes Utilized.

Levene's Test for Equality of Variances								
		F	Sig.	t	df	Sig. (2- taile d)	95% Confidence Interval of the Difference	
							Lower	Upper
MSWORD	Equal variances assumed	.863	.354	-.774	169	.440	-.30329	.13238
	Equal variances not assumed			-.771	162.436	.442	-.30437	.13346
MSEXCEL	Equal variances assumed	.106	.745	-.340	169	.734	-.26017	.18369
	Equal variances not assumed			-.339	163.540	.735	-.26099	.18451
MSPPT	Equal variances assumed	.130	.719	-.101	169	.919	-.23809	.21484
	Equal variances not assumed			-.101	163.574	.920	-.23891	.21567

Table 8 above showed the significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. In Microsoft Word, the result was 0.354, in Microsoft Excel the result was 0.745 and in Microsoft PowerPoint the result was 0.719 which were higher than 0.05 alpha level of significance. Therefore, there was no significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex.

Table 9. One-way Anova Summary on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section.

		Sum of Squares	df	Mean Square	F	Sig.
MSWORD	Between Groups	26.646	2	13.323	36.529	.000
	Within Groups	61.274	168	.365		
	Total	87.920	170			
MSEXCEL	Between Groups	21.850	2	10.925	26.546	.000
	Within Groups	69.141	168	.412		
	Total	90.992	170			
MSPPT	Between Groups	15.329	2	7.665	16.225	.000
	Within Groups	79.362	168	.472		
	Total	94.692	170			

Table 9 above showed the significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. In Microsoft



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Word, the result was 0.000, in Microsoft Excel the result was 0.000 and in Microsoft PowerPoint the result was 0.000 which were lower than 0.05 alpha level of significance. Therefore, there was a significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section.

#### **IV. ANALYSIS**

The data was gathered through questionnaires, which distributed among 171 randomly selected Grade 10 learners and collected manually by the researchers. The total number of respondents was computed based on Slovin's Test. All data were collected and served as the basis to find out the effect of Microsoft Office Utilization Skills in Grade 10 Learners. Data were tabulated, tallied, statistically treated, and analyzed. Using Cronbach-Alpha Method questionnaires, the researcher was able to evaluate the level of Microsoft Office Utilization Skills in Grade 10 Learners. The performance of the respondents was measured based on their scores in the 5-point scale of Always Utilized, Often Utilized, Sometimes Utilized, Rarely Utilized, and Never Utilized rating questionnaires (Likert Scale). The data gathered from the respondents was evaluated with the statistics package program SPSS 23.0. The data were analyzed using Mean and Standard Deviation, t-test, and ANOVA ( $p < 0.05$ ). The data samples were used to find out the level of Microsoft Office Utilization Skills in Grade 10 Learners when taken as a whole and when classified according to Sex and Section. Also, if there was a significant difference level of Microsoft Office Utilization Skills in Grade 10 Learners when classified according to Sex and Section. The findings revealed that the level of the Microsoft Office Utilization Skills of Grade 10 Learners when taken as a whole has a result of Sometimes Utilized. The findings also showed the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex has resulted to Sometimes Utilized. Equally, the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section has resulted to Sometimes Utilized. The findings also revealed that there was no significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. On the contrary, there was a significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section.

#### **V. DISCUSSIONS**

This research led the way to the development of Intervention Materials to help the learners to develop the competencies that they did not master during the regular classes. It can be presented using printed materials, video lessons, PowerPoint presentations and computerized activities to ensure the effectiveness of knowledge, skills, and attitude to be developed and mastered by the Grade 10 learners. The findings revealed that the level of the Microsoft Office Utilization Skills of Grade 10 Learners when taken as a whole has a result of Sometimes Utilized. The findings also showed the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex has resulted to Sometimes Utilized. Equally, the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section has resulted to Sometimes Utilized. The findings also revealed that there was no significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Sex. On the contrary, there was a

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significant difference on the level of Microsoft Office Utilization Skills of Grade 10 Learners when classified according to Section. A need of Intervention Materials is to be developed by the researchers where students' knowledge could be more enhanced. Also, the Institution should work hard to materialize the intervention materials and be beneficial by the learners.

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