

INFLUENCE OF STUDENTS' INDUSTRIAL WORK EXPERIENCE SCHEME ON
MICROSOFT POWER POINT OF STUDENTS IN POLYTECHNIC, KADUNA STATE,
NIGERIA

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Abstract

The study was carried out to determine the influence of SIWES on Skill acquisition of Office Technology and Management students of Kaduna Polytechnic, Nigeria. The study had two objectives, two research questions and two null hypotheses which were tested at 0.05 level of significance. Quasi-experiment research design was used in the study. The population of the study was forty-six (46) ND II students. The entire population was used as a sample. The major instrument for collecting primary data for this study was Office Technology and Management Computer Skill Diagnostic Test (OTMCST). This was used to test the students' skills on Microsoft Word, Microsoft Excel and Microsoft Power-point (pre-test), while the same test was conducted after the students' participation in SIWES programme (post-test). The instrument was validated by three experts in the Department of Educational Psychology and Counseling, Ahmadu Bello University, Zaria. A pilot study was carried out, using the twenty (20) students of Office Technology and Management in Nuhu Bamali Polytechnic Kaduna State who have embarked and are preparing to embark on SIWES programme to detect any ambiguity in the instruments. The reliability of the instrument was determined using Cornbrash Alpha statistical technique and the coefficient was 0.81. Mean and standard deviation were used to answer the research questions. Simple Regression (SR) was used to test null hypotheses one and while multiple regression was used to test null hypotheses two. From the results, all the two hypotheses were rejected. The result showed that SIWES had influence on Microsoft power point on acquisition of Office Technology and Management students, Microsoft excel and Microsoft power point skill acquisition of Office Technology on the SIWES students. It was concluded that SIWES was necessary for students in the Polytechnic. Based on the findings, it was recommended that government should make SIWES compulsory for all students in Polytechnic

Keywords: SIWES, Skills Acquisition, Office Technology, Management Students'

Introduction

Students' Industrial Work Experience Scheme (SIWES) is mandatory for Office Technology and Management (OTM) Students. OTM has undergone many changes. In the 70s and 80s, it was called secretarial studies where manual typewriters, duplicating machines were used and courses like typewriter and shorthand were taught at the higher institutions and graduates were made to practice typewriter and shorthand whenever they are sent for industrial attachment. Industrial Training Fund (ITF) (2011) stated that the level of industrial development in any society is directly linked to the quality of skilled manpower available to drive the production and service delivery processes. Nwankwo and Amaechule (2011) were of the opinion that, in skills acquisition three stages are mandatory, these are: theoretical, practical and exposure to challenges. This implies that an important factor in skill acquisition process is exposure to practical situations where these skills are displayed and utilized.

It is in realization of the relationship between human resources and economic development that the Nigerian government through ITF introduced the Students' Industrial Work Experience Scheme (SIWES) in 1973. The scheme was specifically designed to equip and provide Students of Polytechnics, Technical Colleges and other tertiary institutions with the opportunity to acquire practical skills and experiences on the job before graduation (Umar, 2010). Advancement in technology has brought about changes in virtually everything that is done in the world, office inclusive. The advent of computer and computer Softwires have not only influenced the way things are done, but also accelerated the speed which they are done. The introduction of packages like Microsoft Word, Excel, PowerPoint, Access, CorelDraw, Publisher that are used for different purposes have not only affected the way offices run businesses, but also affected the curriculum of tertiary institutions.

Microsoft Word is a component of the Microsoft office suite of productivity software, but can also be purchased as a stand-alone product. Microsoft word brings one to its opening Edit Mode; it gives you a blank page to work on. It also provides a range of menus and icons that would make working in Microsoft word easy. The Office Technology and Management student sees the material being typed on screen to enable him/her check for corrections and amendments. Microsoft Excel has to do with the use of spreadsheet skill which allows Office Technology and Management students to explore solution alternative processes that go beyond symbolic manipulations and provide students with a deeper understanding of concepts embedded in a problem. One unique use of spreadsheets is the ability to interactively model and simulate mathematical situations. OTM teachers can use spreadsheets to create experimental environments for discovering mathematical relationships. These experiments can assist students in their conceptualization of relationships among numerical, graphical and algebraic representations (Peter, 2009).

Microsoft PowerPoint is a presentation program developed by Microsoft and one of the skills in office 2000, 2003, 2007 or 2010. It is a part of the Microsoft Office system which is widely used by business people, educators, students and trainers. As a part of the Microsoft Office suite, PowerPoint has become the world's most widely used presentation program. It is a complete presentation program that allows teachers to produce professional-looking presentations in classroom. Office Technology and Management students who possess skills in Microsoft Word, Microsoft Excel and Microsoft PowerPoint were found to be effective and efficient in office occupation (Anthony, 2016). Polytechnics and allied institutions that run courses in this field cannot but include these latest innovations into their curriculum so that the students can fit properly into the world of work.

Statement of the Problem

Advancement in technology has brought about change in virtually everything that is done in the world, office inclusive. The advent of computer and computer software have not only influenced the way things are done, but also accelerated the speed with which they are done. The introduction of packages like Microsoft Word, Excel, PowerPoint, Access, CorelDraw, Publisher that are used for different purposes have not only affected the way offices run businesses, but also affected the curriculum of tertiary institutions. Polytechnics and allied institutions that run courses in this field cannot but include these latest innovations into their curriculum so that the students can fit properly into the world of work. Failure by any student of OTM students after SIWES to be able to perform these functions on the computer implies that such students have not acquired the necessary skills required of him/her in OTM.

A look at the office today has shown that most secretaries themselves do not know how to PowerPoint documents which has greatly affected their ability to function as secretaries. Graduates of OTM are not any better because most of them are not completely good in all the functions that Microsoft PowerPoint offers. This has limited their dexterity as a graduate of OTM. Problems of this nature have a dire consequence upon the schools where office technology programmes are being offered as it calls to question the availability of required OTM equipment in these areas that have been mentioned, because if these are not available, it will impact negatively in the quality of students being trained. The key issues affecting students of office technology and management improvement and proficiency in the use of Microsoft office in place of industrial attachment. Many office technology and management students are unable to attach to offices or organizations where Microsoft office is used. As a matter of fact, may office technology and management students undergo industrial attachment in fashion shop, filling station, saloon and other organizations where they get experiences not related of Microsoft office skills? Inadequate supervisions of many institution-based supervisors, extorting money and generating scores which makes students to be unserious in exposing themselves to administrative activities. Therefore, this study sought to determine the influence of SIWES on Microsoft PowerPoint of students in Polytechnic, Kaduna state, Nigeria

Objective of the Study

The main objective of this research was to examine the influence of SIWES on skill acquisition of Office Technology and Management students of Kaduna Polytechnic, Nigeria. The specific objectives were to:

- i. Determine the influence of SIWES on Microsoft Power Point skill of Office Technology and Management students of Kaduna Polytechnic, Nigeria
- ii. Ascertain the level of influence of Microsoft word, Microsoft excel and Microsoft power point by SIWES on OTM students of Kaduna Polytechnic, Nigeria.

Research Questions

The study sought answers to the following research questions:

- i. What is the influence of SIWES on Microsoft Power Point skill acquisition of Office Technology and Management students of Kaduna Polytechnic, Nigeria?
- ii. To what extent does Microsoft word, Microsoft excel and Microsoft PowerPoint acquisition influenced by SIWES in Kaduna Polytechnic, Nigeria?

Research Hypotheses

The following null hypotheses were tested.

H0₁: SIWES has no significant influence on Microsoft Power Point skill of Office Technology and Management students in Kaduna Polytechnic, Nigeria

H0₂: Microsoft word, Microsoft excel and Microsoft PowerPoint acquisition has no significant influence by SIWES in Kaduna Polytechnic, Nigeria.

Methodology

This study used quasi-experiment research design. Emmett McGroarty (2017) stated that quasi-experimental design using intact classes is the one group pre-test – post-test design. The design allows outcomes for one group of students before and after their participation in SIWES

programme to be compared, known as pre-test and post-test. The population of this study was forty-six (46) students. It comprised of all the students who used the two skills, studying Office Technology and Management at National Diploma Two (ND II). Based on the ground that all the ND II OTM students constitute the intact classes for the study, the total of 46 students served as sample for the study. This was in view of Nwakena (2009) who indicated that in a situation where by the population is small the whole population should be used as a sample of the study. Hence there is no sampling procedure followed. Emmett McGroarty (2017) stated that quasi-experimental design using intact classes is the one group pre-test – post-test design.

The instrument used for collecting data was Office Technology and Management Computer Skill Diagnostic Test (OTMCST). This was used to pre-test the students' skills in Microsoft Word, Microsoft Excel and Microsoft PowerPoint. The same test was conducted after the students' participation in SIWES programme (post-test). The instrument was scored 100%, each question carried four marks. The instruments were subjected to validation. Murtala (2011) emphasized on the importance of establishing the validity of research instruments. In view of this, the instruments were validated by three (3) experts in the Department of Educational Psychology and Counseling, Faculty of Education, Ahmadu Bello University, Zaria not below the rank of senior lecturer. This agrees with the assertion of Abdullahi (2015) that validation of content of a research instrument by experts is both important and acceptable. A pilot study was carried out using twenty (20) students of Office Technology and Management in Nuhu Bamali Polytechnic, Zaria who have embarked and are preparing to embark on SIWES programme to detect any ambiguity in the instruments. This is because they were not part of the study population and were accessible to the researcher.

The Data collected from the Pilot study was statistically analyzed for the purpose of establishing the reliability of the instrument. Cronbach's reliability coefficient was used. According to Herman (2015), an instrument is considered reliable if its reliability coefficient lies between 0 to 1, and that the closer the calculated reliability coefficient is to zero, the less reliable is the instrument, and the closer the calculated reliability co-efficient is to 1, the more reliable is the instrument. The researcher collected letter of introduction from the Head of Department of Vocational and Technical Education, Faculty of Education, Ahmadu Bello University, Zaria, in order to gather necessary data needed for this research work. The services of research assistants were employed for the administration of the test instrument. In order to answer the research questions, the descriptive statistics was used to calculate the mean. The null hypotheses one was tested using simple linear regression, while null hypotheses two was tested using multiple linear regression at 0.05 levels of significance. According to Osuala (2004), linear regression was used to test the influence between the dependent and independent variables. If the mean score is less than 2.5 it will be taken as a negative response, while 2.5 and above will be a positive response. For the analysis of null hypotheses one and two, where the r-value is less than the critical value ($r\text{-value} < r\text{-critical value}$), the null hypothesis was retained; on the other hand, if the r-value is greater than the critical value ($r\text{-value} > r\text{-critical value}$), the null hypothesis was rejected.

Result

Research Question one: What is the influence of SIWES on Microsoft Power point skill acquisition of Office Technology and Management students in Kaduna Polytechnic, Kaduna State?

Table 1: Analysis of mean scores of ND II students with Microsoft Power point during SIWES

Variable	N	Mean	Std Dev	MD
Microsoft PowerPoint before SIWES	10	37.1	11.024	2.2
Microsoft PowerPoint	10	39.3	11.967	

after SIWES

Source: *Field Work, 2020*

The study analysis presented in Table 4 show that ND II students who were taught with Microsoft Power point skill had a mean of 39.3and a standard deviation of 11.967 against a SIWES with a mean of 39.3 and a standard deviation of 11.967 with a mean difference of 2.2.

Research Question two: How can SIWES assist OTM students to improve their skills acquisition in Microsoft word, Microsoft excel and Microsoft Power point?

Table 2: Distribution of respondents based on performance scores showing influence of SIWES on acquisition of Microsoft word, Microsoft Excel and Microsoft Power Point skills

Variable	N	Mean	STD	MD
Microsoft Word + Microsoft Excel + Microsoft Power before SIWES	46	52.6	7.252	1.4
Microsoft Word + Microsoft Excel + Microsoft Power Point after SIWES	46	51.2	7.156	

Source: *Field Work, 2020.*

The study analysis presented in Table 5 show that ND II students who were taught with Microsoft world, Microsoft excel and Microsoft Power point had a mean of 51.2and a standard deviation of 7.156 against a SIWES with a mean of 52.6 and a standard deviation of 7.252 with a mean difference of 1.4.

Test of Null Hypotheses

The research hypotheses were tested using linear regression analysis.

Hypothesis one: Table 3: Linear regression analysis showing influence of SIWES on Word Power Point skill acquisition

Model	Coefficients	SE	T	Sig
Microsoft Power Point Skill before SIWES	40.998	2.893	19.533	0.000
Microsoft Power Point Skill after SIWES	1.124	1.135	2.752	0.000

R squared 0.527

R squared adjusted 0.503

As shown in Table 7, the findings of the study on regression analysis revealed that SIWES contributed 1.124 units to show its predictive influence on acquisition of Microsoft skills. It implies that one unit increase in the use of SIWES increases acquisition of Microsoft Power Point skills by 1.124 (about 122%). The co-efficient of determination, R^2 , which shows the total percentage contribution of the independent variable in the variation of the dependent, is 50 percent. This implies that all the activities related to SIWES significantly influenced the acquisition of Microsoft Power Point skills by the p-values of 0.006, which is lower than α at 0.05 level of significance. The null hypothesis is rejected.

Hypothesis two:

Table 4: Multiple Regression Analysis on influence of SIWES on skill acquisition of Office Technology and Management students of Kaduna Polytechnic in Kaduna State, Nigeria

Model	β	Stand. Error	r^2	Adj.r	T	p. value
Microsoft Word	30.155	2.893	4.385	0.503	0.081	0.000
Microsoft Excel	0.367	1.135	3.081		0.176	0.000
Microsoft Power Point	0.169	1.737	0.015		0.176	0.000
SIWES (Constant)	0.744					0.000

P<.05

As shown in Table 8, the findings of the study on regression analysis revealed that SIWES contributed 1.525 units to show its predictive influence on skills acquisition of OTM students. It implies that one unit increase in the use of SIWES increases skills acquisition of OTM students by 1.525 (about 153%). The co-efficient of determination, R^2 , which shows the total percentage contribution of the independent variable in the variation of the dependent, is 54 percent. This implies that all the activities related to SIWES significantly influenced the skills acquisition of OTM students by the p-values of 0.006, which is lower than α at 0.05 level of significance. The null hypothesis is rejected.

Summary of Findings

From the data analysis, the following are the summary of the major findings:

1. The result of research question one and null hypothesis one revealed that SIWES had influence on Microsoft power point skill acquisition of Office Technology and Management students of Kaduna Polytechnic in Kaduna State Nigeria.
2. The result of research question two and null hypothesis two revealed that SIWES had influence on Microsoft word, Microsoft excel and Microsoft power point skill acquisition of Office Technology and Management students of Kaduna Polytechnic in Kaduna State Nigeria.

Conclusion

Based on the outcome of this research work, the researcher concluded that Microsoft power point and other Microsoft office should continuously be used in Office Technology and Management students of Kaduna Polytechnic in Kaduna.

Recommendations

Based on the outcome of the study, the following recommendations were made:

1. Microsoft PowerPoint skill should continuously be used in SIWES for Office Technology and Management students of Kaduna Polytechnic in Kaduna
2. Microsoft Word + Microsoft Excel + Microsoft PowerPoint should continuously be applied in SIWES for Office Technology and Management students of Kaduna Polytechnic in Kaduna

References

- Abdullahi, A. F. (2011) Students Industrial Work Experience and the Dynamics of Sustainable Skills Acquisition and Utilization among Graduates in Nigeria Research. *Journal of International Studies*, 130-136
- Abdullahi, N.A. (2016) *Influence of Computer Application Skills on Job Efficiency of Confidential Secretaries in Federal Establishment in North-Central Geo-Political Zone, Nigeria*. M.Ed. Faculty of Education Ahmadu Bello University, Zaria
- Anthony, N.E. (2016) *Influence of Computer Application Skills on Job Efficiency of Confidential Secretaries in Federal Establishment in North-Central Geo-Political Zone, Nigeria*. M.Ed. Faculty of Education Ahmadu Bello University, Zaria
- Murtala, M. M. (2011). *Influence of Computer Application Skills on Job Efficiency of Confidential Secretaries in Federal Establishments in North-Central Geo-Political Zone, Nigeria*
- Emmett McGroarty (2017) *Designing and Analyzing Quasi-Experiments*, including the one-group pre-test-post-test design. A Journal Article
- ITF (2011). An Evaluation of the Impact (SIWES) on Technical Skill Development in Nigeria. A Joint Study by ITF and University of Jos.
- Nwakena, T. (2009). Web-based enrollment and other types of self-selections in surveys and studies: Consequences for generalizability. *Annual Review of Statistics and its Application*. 5.
- Nwanaka, C.R. and Amaechule, S. (2011). Skills Acquisition: Imperative for Business Studies Educators among Secondary Schools in Rivers State, Nigeria. *Mediterranean Journal of Social Sciences* 2(7): 37-43
- Osuala, E.C. (2004). *Principles and methods of Business and computer Education*. Enugu: Cheston Agency Ltd.
- Peter, B. C. (2009). "Teaching business statistics with Microsoft Excel," *bol*. 1, no. 1, pp. 18 – 26.
- Umar, M.K. (2010) Skills Improvement Required by Electrical Technologists for Effective Work Performance in Industries in Kaduna State. *Journal of Nigerian Association of Teachers of Technology* 7(1): 163-170.