



EFFECT OF GENDER ON OFFICE TECHNOLOGY AND MANAGEMENT (OTM) STUDENTS' ACADEMIC ACHIEVEMENT AND RETENTION IN RECORD MANAGEMENT IN POLYTECHNICS IN ANAMBRA STATE, NIGERIA

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ABSTRACT: *The study determined the effect of gender on office technology and management (OTM) students' academic achievement and retention in record management in polytechnics in Anambra State, Nigeria. The study was quasi-experimental research which specifically used the pretest, posttest nonequivalent control group design. The population of the study was 6,213 Ordinary National Diploma (OND) and Higher National Diploma (HND) offering OTM in Federal Polytechnic Oko, Anambra State and the sample size was 347 OTM students. The instrument for data collection was Record Management Achievement Test (RMAT) extracted from second year OND AND HND past questions from 2019-2023. RMAT was administered to OTM students in both experimental and control groups. Test-retest method was used to establish the reliability of the instrument and data were analyzed with Pearson Product Moment Correlation coefficient which yielded 0.86. Mean was used to answer the research questions while analysis of covariance (ANCOVA) was used to test the hypotheses. The SPSS version 21.0 was used for analysis. Findings revealed that male performed better than their female counterparts in record management and also there is no statistically significant difference on the pretest and posttest mean retention scores of male and female office technology and management students' in record management. Based on the results and discussions of the findings of the study, the researchers are pertinent that students' academic achievements in record management are not influenced by gender. It was therefore recommended among others, that record management teachers should endeavor to give female and male students equal opportunities in the classroom.*

KEYWORDS: Gender, Office Technology and Management (OTM), Academic achievement, Retention, Record management, Polytechnics.



INTRODUCTION

Polytechnic education is the part of a technical education programme that is embedded with the acquisition of practical knowledge, skills and attitude needed for the socio-economic development of the nation as well as needed manpower to accelerate the social change and technology development of the nations. Polytechnic is a vocational and occupational system of education designed to give training and impart the necessary skills for the production of craftsmen, technicians, technologists, applied scientists, and skilled personnel who shall be enterprising and self-reliant (National Board for Technical Education, [NBTE], 2006 cited in Ejeka and Mgbonyebi (2021). It is the training of skilled-oriented individuals who are to be instructors, facilitators of Information and Communication Technology (ICT) and training of its learners technically to be self-reliant and self-employed upon graduation. Polytechnics undergo a lot of programmes, of which Office Technology and Management (OTM) is one of them. According to Garba (2021), OTM is among the programmes offered in Nigerian polytechnics with the aim of preparing the recipients with adequate knowledge, skills and competencies for employment and sustainable development. The demand for highly skilled and knowledgeable graduates in the labor market who can function effectively and efficiently in the office is a wakeup call for Office Technology and Management (OTM) products.

The name OTM came as a result of review by the National Board for Technical Education (NBTE) in secretarial studies in Polytechnics, Nigeria is necessitated in order to keep pace with the development of Information and Communication Technology (ICT). Ehirheme and Eze (2020) averred that Office Technology and Management (OTM) is a discipline designed to train proficient office managers and administrative assistants to fully and efficiently participate and progress in modern (computerized) office and business environments. Across the globe, OTM education has evolved as a branch of business education especially with the coming of ICTs into the education scenario (Isiyaku, 2020). Ogolo and Amesi (2021) averred that Office Technology and Management (OTM) is seen as an aspect of business education programme offered at the tertiary educational institutions in Nigeria which is geared towards equipping recipients with knowledge, skills and attitude for maximum success in public and private office works. Akasi and Adebayo (2020) opined that Office Technology and Management is a course of study designed to develop skills, abilities, understanding, attitudes, work habits and appreciation of encompassing knowledge and information needed by individuals to enter and progress in employment (be it paid or self-employment) on a useful and productive basis. Office technology and management profession had skyrocketed from being a mere typist to secretary, instructors, lecturers and so on. In terms of secretary, it puts them at the center of every organization for the purpose of data and information generation, processing, classification, preservation, dissemination and communication (David, 2020). It is worthy of note that graduates of OTM are potential office personnel who are likely to be saddled with carrying out office functions such as receiving data, filing, creating records, receiving calls, record management and other forms of communication capable of driving the achievement of the organization's goals (Dosunmu et al., 2017).

Records are very important to the organization; strict compliance to the principles, procedures and rules guiding record management by the officer saddled with the responsibilities of record keeping in an organization is essential. Record management is very important, most organizations depend on records, be it Private or public offices where invoice, teller, memorandum, report, cheques, vouchers, and so many other things are found for decision making and other managerial responsibilities. These records are stored under different heading



and subheading for further usage. The act of record keeping is serving as a pool of information by its users. According to Enakrire (2020), records are used to support formulation of policies and responsibility of tasks, when such need arises and at some point, it is used for educational drives and research arguments, in order to advance transformation and development of nations. Opara (2021) opined that records management is a systematic and strategic planning for records creation to disposal and archiving, regardless of its medium of presentation. Ajibola (2022) averred that the technique of controlling, managing, and utilizing records in an organization is known as records management which begins with the creation of the record and ends with the disposition of the record, encompassing the entire life-cycle of the record. Ajibola further stressed that collecting, categorizing, prioritizing, storing, safeguarding, archiving, maintaining, retrieving, tracking, and destroying documents are all tasks that must be completed. The ability to effectively manage these skills is determined by the quality of OTM students produced by the Polytechnics and the academic achievement in the course of their studies.

Academic achievement is an assessment of the knowledge OTM students have acquired at polytechnics over a certain period of time. Academic achievement is seen as the display of knowledge attained or skills developed in school subjects designated by test and examination scores or marks assigned by the subjects' teacher (Uwaleke et al., 2023). Academic achievement is the accomplishment of success in any educational activities or an individual's ability and capability to reach a set standard through effort, skill, or courage within the school context (Hornby, 2006 cited in Georgios & Aber, 2023). Academic achievement of OTM students gives polytechnics the opportunity to determine whether the educational curriculum has an impact on students' teaching and learning process. It is an indication that the teachers and students have accomplished the educational stated objectives. Academic achievement is measured by continuous assessment (CA) and examination results. Other measures used in measuring academic achievement are extracurricular activities such as Students' Industrial Work Experience Scheme (SIWES) and teaching practice. Students' success in their academics is the primary goal of Polytechnics and learning, recollection, recall, retention, putting theory into practice and recognition are sacrosanct for academic success. The quality of a Polytechnic is determined by student achievement and retention.

Retention of learning is simply the ability to remember what has been learnt. Retention is the strategy that requires the OTM students to put into practice what they have in the confines of the classroom outside the real situation. Retention is based on the teaching strategy adopted by the teacher. It is often presented as the answer for poor academic or behavior performance in school. Students may be retained in a grade for a number of reasons including if they are judged not to have the academic or social skills to advance to the next grade (Bielick & Chapman, 2021). Retention is often used as a means to raise educational standards. Okpe et al. (2022) averred that retention is the ability of the learners to recall information, ideas or learning activities at a later time which he/she may be asked to mention, write or remember after some time. Students are taught the same information, the same kind of way, during their retained year. Retention is usually measured in collaboration with academic achievement (Eze, Odile & Okotubu, 2020). Eze et al. (2021) opined that retention is an important variable in learning; this is because achievement lasts only when students are able to retain what they have learnt. A student may be able to memorize facts in the short term, but may not retain those facts over the long term memory (Bello & Abdulkarim, 2023). Record management is a skilled-based course, as such emphasis should be placed more on the ability to retain the concepts, principles,



procedures and practices governing it. It is regarded as a feminine course; as a result, men see it as being insignificant, all they need is to pass it in order to satisfy Polytechnic requirements for graduation. However, record management is a course that prepares its learners for the world of work irrespective of gender.

Gender belongs to a social category that refers to an individual's social, cultural, and biological meaning and identity (Vinlandari & Gunawan, 2020). Aniaku et al. (2021) viewed gender as the range of physical, biological, mental and behavioral characteristics pertaining to and differentiating between the feminine and masculine (female and male) population. Gender is a broad analytical concept and socio-cultural attribute assigned to being male and female. Gender is used to analyze the roles, responsibilities, constraints, opportunities and needs for men and women in all areas and in any given social context. It is a concept that is used to draw out women's roles and responsibilities in the society in relation to those of men. There is clear evidence to the behaviors, attitude and preferences of the two sexes; male and female. The question is, whether inefficiency in the technicalities associated with record management is attributed to gender? A lot of studies have been conducted on the effect of gender on academic achievement and retention but none to the best of researcher's knowledge has been conducted on the effect of gender on Office Technology and Management (OTM) students' academic achievement and retention in record management in polytechnics in South-East, Nigeria. Therefore, it becomes imperative to establish empirical evidence of this study.

Statement of the Problem

Proper record management is the oil that lubricates the engine of an organization and the success of any organization, no matter the size, depends wholly on the availability of records. Due to the widespread adoption of information technology (IT), which includes record management, in the organization, significant changes have occurred. Records are collected, processed, saved, accessed, analyzed, interpreted and disseminated to the end users for decision making. If anything goes wrong with the record management of the organization, their activities will be in jeopardy. There is no aspect of organizational record that needs to be tampered with, be it store records, accounting records, management records and so on. A negligent OTM graduate in management of records could cause total winding up of the organization, bankruptcy et cetera. Therefore, due diligence should be given to the teaching and learning of record management. The principles, procedures, practices and rules guiding its operation should be fully impacted to its learners. Students learning office technology and management must acquire record management skills with the ultimate aim to develop, capture, keep, and properly dispose of information. There seems to be a gap in the effect gender has on these skills Office Technology and Management students possess in the polytechnics. Many students including parents see OTM via record management as a course/ subject for women. As a result, there is a lower enrollment rate in OTM for men than women. In light of this, the researchers investigate the effect of gender on Office Technology and Management (OTM) students' academic achievement and retention in record management in polytechnics in South East, Nigeria.



Purpose of the Study

The major purpose of this study was to determine the effect of gender on Office Technology and Management (OTM) students' academic achievement and retention in record management in polytechnics in South-East, Nigeria. Specifically, the study sought to determine the:

1. What are the differences in the pretest and post-test mean achievement scores of male and female office technology and management students' in record management?
2. What are the differences in the mean retention scores of male and female office technology and management students' in record management?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean achievement scores of male and female office technology and management in record management.
2. There is no significant difference in the mean retention scores of office technology and management students' in record management.

METHODS

The research was carried out using quasi-experimental design of pre-test and posttest nonequivalent control groups. The study was carried out in Anambra State of Nigeria and the population consisted of 6213 Ordinary National Diploma (OND) and Higher National Diploma (HND) offering OTM in Federal Polytechnic Oko, Anambra State and the sample size was 347 OTM students. The instrument for data collection was Record Management Achievement Test (RMAT) extracted from second year OND AND HND past questions from 2019-2023. The instrument was validated by three experts and the reliability of the test was calculated using Pearson Product Correlation Coefficient and the result revealed a reliability coefficient of 0.86. Mean and standard deviation were used in analyzing the data and Analysis of Covariance (ANCOVA) was used in testing the hypothesis at 0.05 level of significance.



RESULTS

Research Question 1: What are the differences in the pretest and post-test mean achievement scores of male and female office technology and management students' in record management?

The result of the analysis in respect of the research question is presented in Table 1.

Table 1: Pretest and Post-test Mean Achievement Scores of Male and Female Office Technology and Management Students' in Record Management

Gender	N	Pre-test X	Post-test X	Mean gain X _{GL}	Decision
Male	33	27.04	43.17	16.13	
Female	314	26.50	30.90	4.40	

Data in Table 1 show that the pretest and post-test mean achievement scores of male OTM students in record management are 27.04 and 43.17 while the pre-test and post-test mean achievement scores of female OTM students in record management are 26.50 and 30.90 respectively. The mean gain of male of 16.13 is higher than that of females (4.40). This shows that male performed better than females.

Research Question 2: What are the differences in the pretest and post-test mean retention scores of male and female office technology and management students' in record management?

The result of the analysis in respect of the research question is presented in Table 2.

Table 2: Pretest and Posttest Mean Retention Scores of Male and Female Office Technology and Management Students' in Record Management

Gender	N	Pre-test X	Post-test X	Mean gain	Decision
Male	33	33.32	57.28	23.96	No difference
Female	314	22.15	39.67	17.52	in effectiveness

Data in Table 2 show that the pretest and post-test mean scores of male OTM students in record management are 33.32 and 57.28, while the pre-test and post-test mean scores of female OTM students in record management are 22.15 and 39.67 respectively. The mean gain of male is 23.96 higher than that of females which is 17.52. This implies that the mean achievement scores of male are 6.44 higher than that of females. Thus, male performed better than their female counterparts.



Hypothesis 1

There is no significant difference in the mean achievement scores of male and female office technology and management students' in record management.

Table 3: ANCOVA on Pretest and Posttest Mean Achievement Scores of Male and Female Office Technology and Management Students' in Record Management.

Source	Type III Sum of Squares	Df	Mean Square	F	p-value	
Corrected Model	303.901 ^a	2	102.408	10.607	.000	
Intercept	607.908	1	607.907	51.401	.000	Not Significant
Pretest	40.602	1	51.600	3.200	.047	
Group	310.511	1	300.511	22.406	.000	
Error	200.305	15	13.005			
Total	7110.000	16				
Corrected Total	600.200	14				

The result in Table 3 shows that there is a statistically significant difference in the mean achievement scores of male and female office technology and management students' in record management. This is because the p-value (.000) is less than the level of significance (0.05). Based on the above, the null hypothesis is not rejected, implying that there is a statistically significant difference on the mean achievement scores of male and female office technology and management students' in record management.

Hypothesis 2

There is no significant difference in the mean retention scores of male and female office technology and management students' in record management.

Table 4: ANCOVA on the Pretest and Posttest Mean Retention Scores of Male and Female Office Technology and Management Students' in Record Management

Source	Type III Sum of Squares	Df	Mean Square	F	P-value	
Corrected Model	100.025 ^a	2	50.021	2.306	.063	
Intercept	307.201	1	300.200	20.300	.001	Not significant
Pretest	60.300	1	61.300	3.001	.011	
Method	2.209	1	4.007	.400	.501	
Error	110.002	15	11.500			
Total	4443.000	16				
Corrected Total	100.066	14				



The results in Table 4 show that there is no statistically significant difference between the pretest and post-test mean retention scores of male and female office technology and management students' in record management. This is because the p-value (.501) is greater than the level of significant (0.05). Based on the above, the null hypothesis is rejected, implying that there is no statistically significant difference on the pretest and posttest mean retention scores of male and female office technology and management students' in record management.

DISCUSSION OF FINDINGS

The findings of the study revealed that there is no statistically significant difference on the pretest and post-test mean retention scores of male and female office technology and management students' in record management and also there is no statistically significant difference on the pretest and posttest mean retention scores of male and female office technology and management students' in record management. Obrah's (2021) study revealed that there was a wide imbalance in gender enrolment and this difference was statistically significant and there was no significant difference in academic achievement based on gender, but the males appeared to have performed better than the females. Similarly, Jekayinfa (2023) study revealed that there was no statistically significant difference in the academic achievement of male and female graduates from the University of Ilorin. This is in line with Omogo and Enyi's (2023) study which shows, among other things, that male students achieved higher than female students in science subjects in secondary schools in South East Nigeria, and that female students achieved higher than male students in arts subjects in secondary schools in South East Nigeria, that there was high disparity index of achievement of female students in science subjects in secondary schools in South East Nigeria, and that there was high disparity index of achievement of male students in arts subjects in secondary schools in South East Nigeria. In support, Dalhatu et al. (2023) study shows that male and female students' performances exposed to 5 seconds were 41.07 and 40.50, respectively. This implies that the retention abilities of male and female students are relatively the same when exposed to wait time variations. Similarly, the findings are in line with Egara and Mosimege (2023) which stated that a significant gender difference occurred in the mean retention scores of students taught algebra concepts utilizing computer simulation.

CONCLUSION

As a result of the findings of this study, it could be concluded that there was no gender difference in the academic achievement and that there is no statistically significant difference on the pretest and posttest mean retention scores of male and female OTM students in record management. This suggests that there is no significant difference in female students' academic achievement and their male counterparts. Based on the results and discussions of the findings of the study, the researchers are pertinent that students' academic achievements in record management are not influenced by gender. It can therefore be asserted that the gender of students, whether male or female, does not seem to have any difference on the record management in the study. However, male and female students exposed to record management have no difference in retention. Based on the findings, the study concluded that there is no



statistically significant difference in male OTM students' mean retention scores than their female counterparts.

RECOMMENDATIONS

Based on the findings of this study, the researcher makes the following recommendations:

1. Record management teachers should endeavor to give female and male students equal opportunities in the classroom.
2. Gender as a factor in students' achievement in record management should be considered in preparation for the implementation of record management curriculum contents. In other words, the study is recommending that record management teachers should identify examples and illustrations that will be clearly understood by both male and female students in the record management classroom in order to close the gender gap in students' achievement in record management in Polytechnics.
3. Record management teachers should devise appropriate teaching strategies to improve its retention among students, most especially female students.

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