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Typewriting Skills Background and Academic Performance in Word Processing among Office Technology Management Students in Adamawa State Polytechnic Yola, Nigeria

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Abstract
This study was conducted to determine the influence of typewriting skills background on academic performance in word processing among office technology management students in Adamawa State Polytechnic, Yola, Nigeria. Guided by two research questions and two hypotheses, this study adopted a survey research design. The population was 91 ND I students of Office Technology and Management in the 2025/2026 session. The 91 students were adopted as the sample. The instrument used for data collection was Word Processing Achievement Test (WPAT). The research questions were answered using mean and standard deviation, while t-test was used to test the stated hypotheses. The results indicated, among others, that students with distinction background in O' level typewriting performed better in word processing. The researchers concluded that good background and pass in O'level typewriting influenced students' performance in word processing. It was recommended, among others, that school authorities should provide enough computers to assist students that do not have background in typewriting to practice at regular intervals and even in their free time.

Introduction
Globalization and technological change have created a new global economy powered by technology, fueled by information and driven by knowledge; Information and

Communication Technology (ICT) occupies a complex position in relation to globalization. The emergence of this new global economy has serious implications for the nature and purpose of educational institutions. ICTs are potentially powerful and enabling tools for educational change and reform processes through improving both access to education and the quality of education. ICTs help expand access to education, strengthen the relevance of education to the increasingly digital workplace and raise educational quality by helping make teaching and learning into an engaging, and active process connected to real life, when used appropriately.

The typewriter which is either a mechanical or electromechanical device is a machine that is used in acquiring typewriting skills. According to White and Clerk (2025), "The typewriter is either a mechanical or electromechanical device with a set of 'keys' that, when pressed causes characters to be printed on a paper".

On the other hand, Mbaezue (2018) views typewriting skills as "the mastery and proficiency of one using the typewriting to produce document that are mail-able. These include reading, writing, listening, computational, operational and interpersonal". Ogwo and Oranu (2019) summit that a student can be considered to be skilled in typewriting when performance is accomplished in less time, with less energy, greater accuracy, higher consistency, and with more flexibility and easy transfer of such skills in the application of the knowledge in other business subjects. Adebisi (2025) defined typewriting as "an art of producing prints like character on paper by pressing keys on the machine called typewriting, to meet the need to communicate in the most appropriate manner by writing". From the ongoing, typewriting can be seen as 'an art' which must be learn. It is also a process of getting information on paper through operating the typewriting keyboard, by the use of mechanical or electro- mechanical contrivance which makes letters by means of types.

In teaching and learning word processing, proper teaching and learning of keyboarding cannot be overlooked because having background of keyboarding with constant practice may enhance the student's performance in word processing. Keyboarding is the gateway to all computer operations. Keyboarding helps to get all inputs into the computer. Ekpan and Inegbedion (2022) defined keyboarding as the manipulation of the computer keyboard by touch. Bartholomew (2023) explained keyboarding as the art of placing information into various types of equipment through the use of a typewriter-like keyboard. Keyboarding is a psychomotor skill that involves mental processes as well as finely coordinated muscular movement. Keyboarding requires stimuli to sensory receptors (eyes, ears, fingertips, muscles, tendons and joints) which are screened, transformed and

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organized by a neural process known as "selective perception" into modified mental images of the original stimuli.

Keyboarding, as a skill, is typically discussed in terms of working on a computer. With the introduction of the personal computer (PC) in educational settings, interest in the area of keyboarding skills in office technology and management programme increased significantly. Whoever aspires to become a manager or teacher in the field of office technology and management needs a thorough understanding of the knowledge of keyboarding.

Oyedele (2020) stated that word processing is a typing system which allows instantaneous editing and it has an electronic memory capable of storing information; it saves time by elimination of both the re-typing of previously approved text and redundant proofreading. A lot of arguments have been put forward as to the difficulty of word processing as a course. Shuller (2024) opined that the issue as to whether or not word processing is difficult depends on the person in question, his disposition towards the course, and his prior knowledge of the course.

Performance is the act of accomplishing a task successfully. Brady et al. (2022) stated that performance connote final accomplishment of something noteworthy after much effort. Enyi (2024) stated that performance refers to the degree of success reached or attained in some general or specific area of study. Also, it is the extent of success reached or attained in some general or specific area of study. It is the extent of success attained by a student on a task he is exposed to. Performance in this study refers to students' attainment in school courses or subjects. It includes students' excellence in academic pursuit, behaviour, confidence, communication skill, punctuality, assertiveness, social skill and the like. Students' performance is commonly measured by their success in classroom assignment, exercise, continuous assessment test or examination.

According to Nicholes (2025), most teachers have been well trained in child development while only few have adequate training in psychomotor skill development. In order to be trained efficiently, students must be guided progressively through a series of movement of eye, arm, hand and finger sequences. This will help students to develop the movement or motion patterns that are expected for effective and efficient keyboarding. It is on this note that the researchers considered it necessary to examine the influence of typewriting background on Adamawa State Polytechnic students' academic performance in word processing.

Statement of the problem

Computers have become an integral part of people's life all over the world. The primary means for interacting with the computer is the keyboard. Keyboarding skills are no longer vocational in nature but necessary to be able to design, communicate, extract and disseminate information. Manipulative/typing technique underlies and becomes the essential basis for the development of keyboarding speed and accuracy. Experience has shown that the achievement level among office technology students in word processing is generally low. This is evident in students' inability to manipulate computer in an orderly manner through the use of keyboarding. Word processing is a psychomotor skill that requires proper teaching and guidance by a qualified instructor who is knowledgeable and can use appropriate methods. Despite having competent lecturer in teaching and learning of ICTs, according to Okoji (2022), students' performance in word processing is alarming. Appropriate instructional methods are likely to enhance learning achievement in word processing, but if students also lack background of keyboarding/typewriting, there is tendency for students to perform below average.

Unfortunately, the results of students' performance in word processing examinations in the polytechnic indicated that students' performances are declining progressively. This is supported by the Head of Department, Business Management Education, Adamawa State Polytechnic that the four years word processing result summary in the department (Office Technology and Management option) indicates that the average student's performance in word processing for ND 1 was 55% in 2021/2022 session, 48% 2022/2023 session, 46% 2023/2024 session and dropped to 40% in the 2025/2026 session. It is evident, therefore, from the summary of the results that majority of the students perform poorly in word processing which may have been caused by many factors; but the major factor that the researchers want to establish is the background in typewriting. Therefore, this study seeks to determine the influence of typewriting background on Adamawa State Polytechnic students' academic performance in word processing.

Research questions

For the purpose of this research work, the following research questions guide the study:

1. What is the difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O' level?
2. What is the difference, in word processing performance of ND 1 students, between those that had pass and those that failed in typewriting in their O' level?

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Hypotheses

Ho1: There is no significant difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O' level.

Ho2: There is no significant difference, in word processing performance of ND 1 students, between those that had pass and those that failed in typewriting in their O' level.

Methodology

The research design used for this study was survey research design. The population for the study comprised of ND 1 Office Technology Management (OTM) students of Adamawa State Polytechnic for the year 2025/2026 academic session. The department was chosen because of the nature of the study and its proximity to the researchers. The population for the study stood at 91 ND 1 OTM students; and all 91 students served as the sample of the study. This was in line with the view of Nwachukwu (2019) that, in a situation where the population is small, the whole population should be used as the sample of a study.

The main instrument for this study was the Word Processing Achievement Test (WPAT) developed by the researchers; it was designed to test students' knowledge and skills in selected topics in word processing. The items of the instrument were developed by the researchers based on the topics that were taught to students as stipulated in the National Board for Technical Education (NBTE) curriculum. The instrument had two sections, A and B. Section A elicited demographic information which included the grade the students passed his O'level typewriting subject; while section B was the main achievement test on word processing. The instrument was scored on a minimum of 0 and a maximum of 100 marks.

The Word Processing Achievement Test (WPAT) was scrutinized and vetted by research experts in the Department of Vocational Education, Modibbo Adama University, Yola. Suggested modifications on the test items were effected before the test was administered to students in the selected polytechnic. This was in agreement with Abubakar (2025) who said that validity of the research instrument must be done before administration.

In order to establish the reliability of the Word Processing Achievement Test (WPAT), a pilot study was conducted using thirty (30) ND 1 OTM students in Tatari Ali Polytechnic, Bauchi. This is because the polytechnic had OTM programme which was in line with researchers' target population. The researchers determined the reliability of the (WAPT) using the data gathered from the pilot study. The data obtained were subjected to Cronbach alpha analysis in order to establish the reliability coefficient of the instrument. A

standardized Cronbach alpha reliability coefficient of 0.86 was obtained. This, according to Russon and Wanous (2025), was adjudged to be reliable; as they stated that a reliability of 0.5 and above is reliable for any instrument to be used.

In analyzing the data collected, descriptive statistics such as frequency distribution, mean and standard deviation were used to answer the research questions, while t-test analysis was used to test the null hypotheses. The null hypotheses were retained when the calculated value was less than or equal to critical table value at 0.05 level of significance. But when the calculated value was greater than t-critical table value, the null hypotheses were rejected.

Presentation of results

Research question 1: What is the difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O'level?

The analysis of data used to answer the research question one is presented in table 1.

Table 1: Mean and standard deviation on the difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O'level

Variable	N	Mean	Std Dev	MD
Credit	20	56.3	14.10	
				11.5
Distinction	50	67.8	15.85	

Table 1 indicated the performance of ND 1 students in word processing that have background credit and distinction in O'level typewriting. The analysis showed that ND 1 students who had credit in typewriting scored a mean of 56.3 in word processing; while, ND 1 students with distinction in O'level typewriting had a mean score in word processing of 67.8. Similarly, the result indicated a mean difference of 11.5 between the two groups in favour of ND 1 students who had distinction in typewriting. This is to say that students with distinction background in O'level typewriting performed better in word processing.

Ho1: There is no significant difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O'level.

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t-test was used to test null hypothesis one, and the result is as presented on table 2.

Table 2: t-test analysis of difference, in word processing performance of ND 1 students, between those that had distinctions and those that had credit in typewriting in their O'level

ND Students with typewriting background	N	Mean	SD	t-cal	Sig.
Credit level	20	56.3	14.10		
				3.893	0.001
Distinction	50	67.8	15.85		

Table 2 presents an independent sample t-test analysis used to compare the mean difference between the performance of ND 1 students in word processing. The analysis revealed that the mean of performance score, in word processing, of ND 1 students with credit in O'level typewriting was 56.3 and standard deviation of 14.10, as against the mean of 67.8 and standard deviation of 15.85 for students with distinction in O'level typewriting; with degree of freedom of 90. The t-value for the model was calculated as 3.893 with p-value of 0.001. The t-cal was greater than the t-tabulated of 0.196, and the 0.001 α value was lower than the a priori significant p-value of 0.05. The result, therefore, shows that significant difference existed between the mean performance of ND 1 students with credit and those with distinction in their O'level typewriting; implying that there is significant difference in students' academic performance in word processing between the two groups. Hence, the null hypothesis was rejected.

Research questions 2: What is the difference, in word processing performance of ND 1 students, between those that had pass and those that failed in typewriting in their O'level?

Table 3: Analysis of mean score of ND 1 students' performance in word processing for those that had pass and those that failed in typewriting in their O'level

Variable	N	Mean	Std Dev	MD
Below	6	37.1	11.02	
pass/fail				2.2
Pass	15	39.3	11.97	

Table 3 indicated the performance of ND 1 students in word processing with pass and below pass level background in O'level typewriting. The analysis of the data indicated that ND 1 students who had pass in O'level typewriting scored a mean of 39.3 in word processing, while ND 1 students who had below pass in O'level typewriting had a mean performance score in word processing of 37.1. Similarly, the result indicated a mean difference of 2.2 between the two groups in favour of ND 1 students who had pass in O'

level typewriting. This is to say that students with pass background in O'level typewriting outperformed, in word processing, those with below pass in O'level typewriting.

Ho2: There is no significant difference, in word processing performance of ND 1 students, between those that had pass and those that failed in typewriting in their O'level.

Table 4: t-test analysis showing difference, in word processing performance of ND 1 students, between those that had pass and those that failed in typewriting in their O'level

ND Students with typewriting background	N	Mean	SD	t-cal	Sig
Below pass/fail	6	37.1	11.02		
				2.10	0.002
Pass	15	39.3	11.97		

Table 4 presents an independent sample t-test analysis used to compare the mean difference on the performance of ND 1 students in word processing between those with pass and below pass in their O'level typewriting. The analysis revealed that the mean of performance score, in word processing, of ND 1 students with pass in O'level typewriting was 39.3, with standard deviation of 11.97, as against 37.1 mean score and 11.02 standard deviation for students with below pass in O'level typewriting; with degree of freedom of 90. The t-value for the model was calculated as 2.10 with p-value of 0.002. The t-cal was greater than the t-tabulated of 0.196 and the 0.002 α value was lower than the *a priori* significant p-value of 0.05. The result, therefore, shows that significant difference existed between the mean performance, in word processing, of ND 1 students with pass and those below in O' level typewriting. This implies that there is significant difference in students' academic performance in word processing between the two groups. Hence, the null hypothesis was rejected.

Discussions of the findings

The findings from research question one and hypothesis one revealed that students with distinction background in O'level typewriting performed better in word processing than those with credit. The t-cal (3.893) was greater than the t-tabulated of 0.196 and the α value (0.001) was lower than the 0.05 level of significance. The result, therefore, shows that significant difference existed between the mean performance, in word processing, of ND 1 students with credit and those with distinction in O'level typewriting. Ogwo and Oranu (2019) summit that a student can be considered to be skilled in typewriting when performance is accomplished in less time, with less energy, greater accuracy, higher consistency, and with more flexibility and easy transfer of such skills in the application of the knowledge in other business subjects. On another hand, Oyedele (2020) stated that it

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is a typing system which allows instantaneous editing and it has an electronic memory capable of storing information; it saves time by elimination of both the re-typing of previously approved text and redundant proofreading.

The results from research question two and hypothesis two indicated that a mean difference of 2.2, in word processing scores, between students with pass and those who failed in typewriting, was obtained in favour of ND 1 students who had pass in O'level typewriting. This is to say that students with pass background in O'level typewriting outperformed, in word processing, those with below pass in O'level typewriting. Also, the t-cal (2.10) was greater than the t-tabulated of 0.196 and the α value (0.002) was lower than the 0.05 level of significance. The result, therefore, shows that significant difference existed between the mean performance of ND 1 students with pass and below in O'level typewriting; implying that there is significant difference in ND 1 students' academic performance in word processing between the two groups.

Conclusion

It can be concluded from the findings of this study that knowledge of typewriting has become a necessary skill for academic excellence and probably a way of life today. This is not only in schools or in the workforce, but also as a means for communicating with others, for sharing ideas, expressing thoughts, and even for utilizing entertainment through multiple technology devices such as computer, tablets, gaming consoles, smart television, and even larger cell phones. Evidently, typing is the primary means of interfacing with a computer for undertaking word processing. It is therefore inferred that by the time students, after finishing their school, enter the workforce, the majority of all jobs will require effective use of computers. There is also proof that a person who uses his/her experience in typewriting takes a better advantage significantly than a person who has no typing techniques. Hence, people who do not know how to use computers and who are not efficient with a keyboard will be at a major disadvantage in the job market. Therefore, learning how to use the keyboard properly is an essential 21st century life skill that students must develop.

Recommendations

1. Office Technology Management Departments should ensure pre-training in typewriting of prospective candidates who seek admission into their departments to increase the level of students' performance not only in word processing but in other courses.

2. School authorities should provide enough computers to assist students that do not have background in typewriting to practice at regular intervals, so as to improve on their typing skills.

References

Abubakar, H. B. (2025). Technology in K-12 Education: Envisioning a New Future. Retrieved on 26 March, 2025 from http://www.air-dc.org/forum/abthornburg.htm

Adebisi, O. S. (2025). *Foundation in Teaching Type writing Book 2*.

Bartholomew, L. W. (2023). *Typewriting/Keyboarding Instructions in Elementary Schools*. Retrieved on 1\8\2025 from http://www.usoe.K12.ut.us/ate/keybarding/Articles/whowhen.htm.

Brady, J., Showers, B. & Fullan, M. G. (2022). *Students' achievement through staff development*. Alexander: V.A

Enyi, G. S. (2024). *Introduction to Teacher Education in Nigeria.* Enugu: ITC Publishers.

Ekpan, G. & Inegbedion, O. (2022). Exploring the Gender Impact of the World Links Program: Summary of the Findings of an Independent Study Conducted in Four African Countries.

Mbaezue, N. B. (2018). *Mastering Type writing*.

Nicholes, L. M. (2025). A Comparison of Two Methods for Teaching Keyboarding in the Elementary School. *Computer in the Schools*, 11(4), 15-25.

Nwachukwu, A. C. (2019). *Introduction to keyboarding.* Lagos: Excel Print.

Ogwo, B. A. & Oranu, R. N. (2019). *Methodology in formal and non-formal technical/vocational education.* Nsukka: University of Nigeria Press Ltd.

Okoji, B. I. (2022). Secretarial Administration Practice in the millennium: Trends and Issues. *Secretarial Forum Journal for the Promotion and Advancement of Secretarial Profession,* 3(36), 125-136.

Oyedele, J. F. (2020). Learning and Teaching Word Processing (Electronic Typewriters). *Business Education Journal,* 2(3), 19 -32.

Russon, V. H. & Wanous, K. M. (2025). Multifaceted Nature of Intrinsic Motivation: The Theory of 16 Basic Desires. *Review of General Psychology*, 8(3), 179-193.

Shuller, S. (2024). *Keyboarding in Elementary Schools: Curriculum Issues*. USA: Skye Publications.

White, C. A. & Clarks, G. (2025). *Office Procedure*. London: Heinemann Educational Publishers. pp:11-17