

**INFLUENCE OF WORD-PROCESSING AND SHORTHAND SKILLS ON
PROFESSIONAL SECRETARIES' FUNCTIONS IN MODERN OFFICES IN NORTH-
WEST GEO-POLITICAL ZONE, NIGERIA**

BY

Inalegwu Mary OJOBANE

M.ED/EDUC/15037/2011/2012/P15EDVE8113

**DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
AHMADU BELLO UNIVERSITY, ZARIA**

SUPERVISORS:

PROF. A.A. UDOH

DR. T. J. ADESINA

NOVEMBER, 2017

**INFLUENCE OF WORD-PROCESSING AND SHORTHAND SKILLS ON
PROFESSIONAL SECRETARIES' FUNCTIONS IN MODERN OFFICES IN NORTH-
WEST GEO-POLITICAL ZONE, NIGERIA**

BY

Inalegwu Mary OJOBANE

M.ED/EDUC/15037/2011/2012/P15EDVE8113

A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,
AHMADU BELLO UNIVERSITY ZARIA IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF EDUCATION DEGREE IN
BUSINESS EDUCATION

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION,
AHMADU BELLO UNIVERSITY
ZARIA, NIGERIA

NOVEMBER, 2017

DECLARATION

I declare that the work in this dissertation entitled:

Influence of Word-Processing and Shorthand Skills on Professional Secretaries' Functions in Modern Offices in North-West Geo-Political Zone, Nigeria" has been carried out by me in the Department of Vocational and Technical Education. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other Institution.

Inalegwu Mary Ojogbane

Signature

Date

CERTIFICATION

This thesis entitled “**Influence of Word-Processing and Shorthand Skills on Professional Secretaries’ Functions in Modern Offices in North-West Geo-Political Zone, Nigeria**” by **Mary Ojogbane INALEGWU** meets the regulations governing the award of the degree of Master of Education in Business Education of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Prof. A.A. Udoh
Chairman, Supervisory Committee

Signature

Date

Dr. T. J. Adesina
Member, Supervisory Committee

Signature

Date

Dr. S. Ibrahim
Head of Department

Signature

Date

Prof. K. Bala
Dean, School of Postgraduate Studies

Signature

Date

DEDICATION

This work is first dedicated to the Almighty God. Also to my beloved husband, Engr. Inalegwu S. Shadrach and our beloved Children.

ACKNOWLEDGEMENTS

The researcher is grateful to Almighty God for His grace that has brought this research work to such a successful completion. Mention must be made with appreciation of the fatherly guidance of her supervisor Prof. A. A. Udoh, who guided her to ensure that the researcher produced an excellent thesis. The untiring efforts of the ever-smiling Dr. T. J. Adesina the researcher's second supervisor who sharpened her research skills and painstakingly corrected the several drafts before arriving at this final clean copy.

The researcher's gratitude also goes to the internal examiners Prof. A.Z. Mohammed, Dr. S. S. Amoor for their wealth of knowledge and experience which have been of help to this work. At the same time, the motherly role of the Head of Vocational and Technical Education Department, Prof. E.E. Adamu and that of the Postgraduate Coordinator of the Department, Dr. M.A Abubakar is duly appreciated. The researcher also appreciates the contributions of Prof. M. M. Aliyu.

The researcher appreciates all the Directors and all the Professional secretaries' in six states Federal Ministries selected for this work for their cooperation in completing the questionnaire. My brother, a beloved and a faithful husband, thank you for releasing me, does everything humanly possible to make this programme a success. My children Isaac, Abigail, Nathaniel and Goddey you bore all the inconveniences and the pains caused by my absence, you kept praying for me, may God bless you.

Lastly, the researcher wishes to note the unrelenting efforts of non-academic staff members of the Department of Vocational and Technical Education, Ahmadu Bello University Zaria, especially Mr. B. Abdulraheem, Mr. P. Osagu and Mr. A. Maidamma with whom she interacted time and time again and felt grateful. God bless you all.

ABSTRACT

The study was carried out to determine the Influence of Word-Processing and Shorthand Skills on professional secretaries functions in modern offices in North West of Nigeria. The major objective was to determine the influence of word-processing and shorthand skills on professional secretaries functions in modern office in North West, Nigeria. Four specific objectives, four research questions were drawn and corresponding four null hypotheses were formulated. Descriptive survey research design was adopted for the study. The population was 246 made up of 90 Directors and 156 professional secretaries' drawn from the Federal Ministries of the six states selected for the study. One hundred and sixty-nine (169) respondents were purposively selected as sample for the study. Questionnaire was used as instrument for data collection. Frequency and percentages were used to analyze the demographic data, while weighted mean was used to answer the four research questions. Simple Linear Regression was also used to test the null hypotheses at 0.05 level of significance. The study found that word-processing and shorthand skills have significant influence on professional secretaries' functions in modern offices in North West, Nigeria. Among other findings was that shorthand skills have significant influence on professional secretaries' communication skill in modern offices in North-West. The study concluded that with the introduction of modern technological equipment in modern offices in North-West, professional secretaries' with word-processing and shorthand skills still functions effectively in the modern offices in North-West, Nigeria. It was recommended among others, that seminars and workshops should be organized by different organizations to enlighten the public especially the executives, employers of labour and even professionals on the importance of word-processing and shorthand skills, and to correct the misconception by the public that shorthand skill is of no significance to professional secretaries' functions, despite the introduction of modern technological equipment.

TABLE OF CONTENTS

Title Page	i
Cover Page	ii
Declaration	iii
Certification	iv
Dedication	v
Acknowledgements	vi
Abstract	vii
Table of Contents	ix
List of Tables	x
List of Abbreviations	xii
List of Appendices	xiv
Operational Definition of Terms	xvi
CHAPTER ONE: INTRODUCTION	
1.1 Background to the Study	1
1.2 Statement of the problem	5
1.3 Objectives of the Study	5
1.4 Research Questions	6
1.5 Null Hypotheses	6
1.6 Significance of the Study	7
1.7 Basic Assumptions	7
1.8 Delimitation of the Study	8

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1	Theoretical Framework	9
2.2	Concept of Shorthand	15
2.2.1	Concept of Word-processing	19
2.2.2	Concept of Professional Secretaries	22
2.2.3	Concept of Modern Office	24
2.3	Role of Professional Secretaries in the Modern Office	27
2.4	Influence of Modern Technology on Professional Secretaries Functions	30
2.4.1	Word Processor	31
2.4.2	Micrographics System	32
2.4.3	Photocopying Machines	32
2.4.4	Office Communication Gadgets	32
2.4.5	Remote Conferencing	33
2.5	Word-processing and Shorthand Skills for Professional Secretaries	33
2.6	Shorthand Skills for professional Secretaries	35
2.7	Shorthand Skills for Communication in Modern Office	37
2.8	Employer's Perception on Word-processing and shorthand Influence on Professional Secretaries' functions in Modern Offices	39
2.9	Empirical Studies	43
2.10	Summary of Reviewed Literature	49

CHAPTER THREE: RESEARCH METHODOLOGY

3.1	Research Design	50
3.2	Population of the study	51
3.3	Sample Size and Sampling Procedure	51
3.4	Instrument for Data Collection	52
3.4.1	Validation of the Instrument	53
3.4.2	Pilot Study	53

3.4.3	Reliability of the Instrument	54
3.5	Procedure for Data Collection	54
3.6	Procedure for Data Analysis	54
CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA		
4.1	Analysis of Demographic Data	56
4.2	Answers to Research Questions:	
	Research Question 1	59
	Research Question 2	60
	Research Question 3	61
	Research Question 4	62
4.3	Test of Null Hypotheses:	
	Hypothesis 1	68
	Hypothesis 2	68
	Hypothesis 3	69
	Hypothesis 4	69
4.4	Summary of major Findings	70
4.5	Discussion of Major Findings	71
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS		
5.1	Summary	74
5.2	Contribution to Knowledge	75
5.3	Conclusion	76
5.4	Recommendations	76
5.5	Suggestions for further study	77
	REFERENCES	78
	APPENDICE	84

LIST OF TABLES

1	Population of the study	51
2	Sample Size and Sampling Procedure	52
3	Analysis of Demographic Data	57
3	Percentage Distribution of the Respondents by Gender	57
4	Percentage Distribution of the Respondents According to Age	58
5	Percentage Distribution of the Respondents according to Qualification	59
6	Mean scores of respondents on influence of WPS on PS' Functions in Modern Office	60
7	Mean scores of respondents on influence of SS on PS' functions in modern offices.	61
8	Mean score on influence of communication skill on professional secretaries' functions in modern offices	62
9	Mean scores of respondents on influence of SS on professional secretaries' communication skill in modern offices	63
10	Test of Null Hypotheses	68
10.	T-test analysis on the views of professional secretaries' and directors on influence of Word Processing Skill as a Predictor of Secretaries' competence in modern offices in North West Zone	68
11.	T-test Analysis on Shorthand Skill as a Predictor of professional Secretaries' Functions in modern offices in North West Zone	69
12.	T-test analysis on Communication Skill as a Predictor of professional secretaries' competence in modern offices in North West Zone	69
13.	T-test analysis on Shorthand Skill as a Predictor for professional secretaries' Communication skill in modern offices in North West Zone	70

LIST OF ABBREVIATIONS

PS	-	Professional Secretaries
SS	-	Shorthand Skills
WP	-	Word processing
WPS	-	Word processing skill

LIST OF APPENDICES

Appendix I: Letter of Identification	84
Appendix II: Request to fill Questionnaire	85
Appendix III: Questionnaire	86
Appendix IV: Classification of the Population of the study	91

OPERATIONAL DEFINITION OF TERMS

The following terms are used in the study and their special meanings require for better understanding.

Accuracy: Means freedom from mistakes or errors. This is an important asset of secretaries in order to produce mailable documents.

Hunt and Peck: Involves the use of a few fingers to reach the key by looking at the keyboard.

Modern Office: An automated office with technological modern gadgets

Phonography: Means ‘sound writing ‘in Greek.

Professional Secretaries: Secretaries assigned to executives or high level personnel with more complex and confidential duties.

Shorthand Skill: Representing words with phonetic symbols.

Stenography: Shorthand skill acquired by shorthand writer called stenographer. Steno script, Forkner and Alpha Hand: where sounds are represented by letters of the alphabet as well as a few symbols.

Word-Processing: Word-processing is a term used to describe the system used for preparing documents, for example, letters, memoranda and reports that are composed mainly of words.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The office of today is dynamic and challenging. The advances in technology are rapidly changing today's modern businesses around the globe and have seriously affected every aspect of office work. As the traditional office moves towards automation, professional secretaries' are required to develop their professional competencies in order to work effectively in the modern office. Word-processing and shorthand are the major skill subjects in business education in Nigerian tertiary institutions. Nwogwugwu (2002) noted that the introduction of sophisticated technological equipment with the new management techniques have changed old work habits, thereby resulting in complete job resignation and acquisition of new skills. Word-processing and shorthand are the core courses to students specializing in secretarial profession.

Over the years, advancement in office technology and new management styles have brought about changes to the office environment. Professional Secretaries have undergone rapid transformation, moving from working in their age-old traditional role of taking notes in shorthand, transcribing on manual typewriter to new and multiple roles of using electronic, computer and recording devices. The National Board for Technical Education (2004) listed the following as traditional roles performed by professional secretaries: typing correspondence, taking dictation and transcribing dictated materials into a mailable document, arranging files and various information into appropriate headings, answering phone calls and attending to visitors, making travelling arrangements for the boss and arranging meetings, booking hotel accommodation.

These traditional functions of professional secretaries according to Aromolaran (2003) and National Board for Technical Education (2004) deduced the original functions of

professional secretaries to include writing of shorthand using pencil, and reporter's book and transcribing the same written shorthand into longhand using manual typewriter as their performed in a traditional office setting.

According to Norris (2008), the work of professional secretaries has shifted to a more management/administrative functions in addition to their traditional secretarial functions. This is because of the introduction and use of new technologies in the office. Professional Secretaries' are assuming more and newer responsibilities, and are expected to function at higher levels of administration and management, with higher remunerations. The traditional secretarial skill of taking notes in shorthand and transcribing on manual typewriter is fading away. Emphasis has shifted to storing, editing and retrieving minutes of meetings and correspondences with the use of computer and electronic typewriter due to automated equipment in offices (Apkan, 2000). Thus, professional secretaries are considered as the "mirror" through which an organization sees.

In keeping with the changes in secretarial job contents, professional secretaries for several years have usually been assessed by means of other work-related criteria, especially in the ministries. For example, proficiency in information and technology applications management and administrative skills are now prominent assessment criteria. On the other hand, the assessment and placement of professional secretaries employed in the public sector are now based on ability to take notes/minutes in shorthand. As stated by Igbisola (2003), office education or office technology management curricula have been reviewed and updated over the years, to keep secretaries abreast of new work pattern and emerging information and modern office gadgets. Gradually, new equipment and machines have replaced the old ones, making work more efficient and reliable. This tends to be the modern way of office organization which uses new technologies such as the electronic typewriter, computer to make office work move faster and more accurate. Given the changes in a modern office due

to automation, various sophisticated gadgets and facilities, the trend of change in the work load of a secretary has become easily visible. Today, the story has indeed changed due to office automation. The introduction of sophisticated office technological equipment like word processors and other information technology resources coupled with new management techniques have completely changed old work habits in offices and triggered off a new business orientation thus making moribund the older methods of business transaction.

The changing skill based the emergence of Information and Communication Technology (ICT) education degree programmes requirement and accrediting agency standards are a few of the driving forces behind the need to assess the need for word-processing and shorthand skill by professional secretaries'. This is enforced by the fact that many technical changes has indicated.

As a result, modern office equipment, which gives the secretary the opportunity to increase his efficiency, abound. Many office functions and secretarial duties that were previously done manually have been mechanized. Thus, the diversities of these office technologies require the secretary to possess new skills and sub-skills to enable him/her to be relevant in modern offices.

The consequence of global development in the modern offices calls for corresponding development of new skills by Nigerians professional secretaries. To achieve such competencies namely; of word-processing skills, which explains why ICT-based courses are offer at both the National and Higher National Diploma levels in the Polytechnics in Nigeria. Word-processing skill, particularly the acquisition of speed and accuracy, using touch rather than 'hunt and peck' approach. Furthermore, it is of interest to note that the contemporary global labour selection requirements for professional secretaries give emphasis on speed and accuracy in word-processing. In a study to determine from job vacancies advertisements, the speed and accuracy requirements in the UK, has the following findings (Ober, 2011). Most

advertisements do not require a predetermined typing speed, instead using such phrases as “competent typing skills’ or ‘proficient in typing and Microsoft Office’. The most common speed requirements (mode) were 60 wpm, accounting for 43 percent of the listings. The average speed requirement (mean) was 58 wpm.

Job applicants who type at least 40 wpm would qualify for 10 percent of the positions and listed minimum typing speeds, those typing 50 wpm would qualify for 18 percent of the positions. These findings are very relevant to the Nigerian labour market requirement.

Fadare (2004) views skill as “expertness, aptitude and competences appropriate for a particular job, it has to do with expert knowledge and creative reasoning to a level of mastery”. In order to attain these skills, the individual needs to acquire basic training or knowledge levels related to the task to be performed whether through formal, informal or combination of the two. Boytzis (2010) defines skill as the ability to demonstrate a system and sequence of behaviour that is functionally related to attaining a goal.

Word processing is a name used to describe the system used for preparing documents (for example, letters, memoranda and reports) that are composed mainly of words. Word processor, in the researcher’s view is a machine that is more sophisticated than the typewriter, which is used in typing, editing, storing and printing all types of documents. Most computer systems operate word-processing package of some kinds. This has rapidly replaced typing as a method of producing documents, although some works are still carried out on typewriters. Bohl in Chukwumezie and Ndinechi (2006) says “word processing was developed as a means of raising office productivity.”

In view of the variables discussed, one could say that professional secretaries with word-processing and shorthand skills tend to stand better chance to function effectively in today’s modern offices. This is the basis of the background to this study, Influence of word-processing and Shorthand Skills on professional Secretaries function in modern offices in the

North-West Geo-political Zone, Nigeria. However, the issue still remains that the researcher has no clear idea of the level of competencies which her study population has; this there reuse the problem.

1.2 Statement of the Problem

As indicated in the background of the study, the worry of this study is to establish what level of influence word processing and shorthand skills that is, the subject have in order to positively influence their work performance in modern secretaries functions in modern offices. In other words, in view of her inability to find studies on this subject matter and her inability to come by any similar work through her personal search in a number of related polytechnics in the area, the researcher hereby wants to know what influence word processing and shorthand skills which have to do with issue of what the problem of the study should be. Hence professional secretaries' skill competence has influence on the functions of Nigerian professional secretaries in modern offices in North West Geo-political Zone, Nigeria.

At this point, the research is interested in knowing whether professional secretaries' shorthand skill e.g in developing minutes of meeting has any bearing with their communication skills. These are the major issues this research work has been able to find out.

1.3 Objectives of the Study

The major objective of this study is to determine the influence of word-processing and shorthand skills on professional secretaries functions in the modern offices in North West Zone, Nigeria. Specifically, the study intends to

1. determine the extent to which the students word processing skill influence their functioning in an automated office.
2. determine the extent to which the student's shorthand skill influence their effective functioning in a modern automated office.

3. determine the extent to which the student's communication skill influence professional secretaries' effective functioning in an automated office.
4. determine the extent to which shorthand skill influence professional secretaries communication skill in automated offices.

1.4 Research Questions

The following research questions were raised by the researcher to guide this study.

1. To what extent does possession of word-processing skill influence professional secretaries' competence in modern offices?
2. To what extent does possession of shorthand skill influence professional secretaries' functions in modern offices?
3. To what extent does possession of communication skill influence professional secretaries' competence in modern offices?
4. To what extent does possession of shorthand skill influence professional secretaries' communication skill in modern offices?

1.5 Null Hypotheses

In line with the research questions, the following null hypotheses were formulated:

1. Word-processing skill has no significant influence on professional secretaries' competence in modern offices.
2. Shorthand skill has no significant influence on professional secretaries' functions in modern offices.
3. Communication skill has no significant influence on professional secretaries' competence in modern offices.
4. Shorthand skill has no significant influence on professional secretaries' communication skill in modern offices.

1.6 Significance of the Study

The findings of this study will be of immense benefit to the followings: organizations, institutions, students, lecturers and curriculum planners. The findings of this study will go a long way to correct the misconception and belief of many organizations and institutions that word-processing and shorthand skills have no influence on the practicing secretaries' in modern offices in North West geo-political zone, Nigeria.

This study will be of academic significance to intending students who will become professional secretaries to take their studies very serious and put word-processing and shorthand in right perspective.

Lecturers will find it useful because it will bring about the enlightenment and awareness that is needed, as to whether word-processing and shorthand courses are still relevant or not, thereby making them find a way of updating their knowledge and skills in the most appropriate and relevant technology.

The result of this study will be of immense benefit to curriculum planners and implementers, it will help them in their job of curriculum review and implementation as it concerns shorthand and word-processing in our schools system. The curriculum planners will also come to know the fact as to whether or not there is an existing relationship between word-processing and shorthand skills and secretaries functions in offices. Finally, it will be of benefit to future researchers who may wish to carryout researches in the related areas.

It is the intention of the researcher to publish the finding of this work in respected journals in the country after the programme. This is to enable beneficiaries mentioned to have access to information that are vital to them.

1.7 Basic Assumptions

For the purpose of this study, it was assumed that;

1. Secretaries in modern offices, in the North-West geo-political zone, Nigeria have the background knowledge/training in word-processing and shorthand.
2. Poor mastery of both shorthand and word-processing skill is associated with ineffectiveness of secretaries' in modern offices.

1.8 Delimitation of the Study

The scope of the study was delimited to directors and professional secretaries' in Federal Ministries in North West Geo- Zone Nigeria; this is because word-processing and shorthand skills proficiency are criteria usually used for selection and promotion of secretaries' as well as having same mode of office operations based on these conditions. It was also delimited to the following states: Kaduna, Kano, Katsina Jigawa, Sokoto and Kebbi States which were chosen because they were within the same geo-political zone with same characteristics that represented a reasonable number of professional secretaries and directors in the North- West geo-political zone, Nigeria. Professional secretaries were chosen for this study because they use word-processing and shorthand skills in order to function effectively in their job.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter deals with the review of related literature that are sourced from relevant papers presented, textbooks, magazines and journals, past research theses were reviewed under the following sub-headings:

- 2.1 Theoretical framework
- 2.2.1 Concept of Modern Office
- 2.2.2 Word-processing Skill for Professional Secretaries
- 2.3 The Role of Professional Secretaries in Modern Offices
- 2.4 Shorthand Skill for professional Secretaries
- 2.5 Shorthand Skill for Communication in Modern Office
- 2.6 Employer's and Professional Secretaries Perception on Word-processing and shorthand skills
- 2.7 Empirical Studies
- 2.8 Summary of Review of Related Literature

2.1 Theoretical Framework

The theoretical framework of this study derives from the theory of Skill Acquisition/development as propounded by Hubert Dreyfus and Stuart Dreyfus (1986). The main idea behind Dreyfus theory is the distinction between “knowing that” and “knowing how”. They argued that there are definite stages that an agent should go through to evolve from “knowing that” (novice) to “knowing how” (expert). The theory is appropriate to the study because the study is assessing the influence of word-processing and shorthand skills to professional secretaries' functions in modern offices in North-West geo-political zone, Nigeria. Dreyfus proposed the model of skill acquisition in 1986, in an influential 18-page report on their research at University of California Berkeley Operations Research Centre for U.S.A, Air Force office of Scientific Research (Dreyfus 1986). Thus, the main thrust of the

research is skill acquisition. The main idea of the theory is to provide a means of assessing and supporting progress in the development of skills on competencies and to provide a definition of acceptable level for the assessment of competence or capability which is in tandem with the focus of this study.

One of the major aspects of traditional epistemology, and its manifestation in artificial intelligence research and the philosophy of mind is its emphasis on the formal system of deduction and premises and propositional knowledge. However, Dreyfus and Dreyfus (1986) argue that this formal system of education is one of the problems with traditional epistemology, since much of our sense of judgment and the process, which we go through to form beliefs, is not a matter of starting with premises and by plugging them into a formula in order to deduct conclusions. Rather a gradual process that involves being embodied in different ways and developing skills would make it possible for us to deal with the world. By explaining the stages that an individual goes through in order to become an expert, Dreyfus and Dreyfus justify their point of view on learning process and skill development (Dreyfus and Dreyfus, 1986 Theory of Skill Acquisition)

The main idea behind Dreyfus Theory is the distinction they make between “knowing that” and “knowing how”. They argue that many skills, such as riding a bike or playing chess, could not simply be reduced to “knowing that”. The reason that many of us are not conscious of our “knowing how” is possibly that we take our knowing-how for granted. In traditional epistemology, the knowing-how and knowing-that is considered as one concept, which is acquired through a formal system of deduction. However, Dreyfus and Dreyfus (1986) argue that there are definite stages that an agent goes through in order to evolve from knowing-that (novice) to knowing-how (expert). As human beings acquire a skill through instruction and experiences, they do not appear suddenly from rule-guided and Dreyfus (1986) believed that there is a gradual process involved for an agent to go through in order to

reach the stage of expertise or knowing-how. Their skill acquisition process shows that a person goes through at least five stages of different knowledge of a specific task and ways of decision-making as he improves his skill. Unlike other models or assessment that rate the whole person, the Dreyfus model is applicable per skill. In other words, it's a situational model and not a trait or talent model. The five stages according to these scholars are novice, advanced beginner, competence, proficiency and expertise.

According to Dreyfus and Dreyfus (1986), you are neither “expert” nor “novice” at all things: rather, you are at one of these stages in some particular skill domain. You might be a novice cook but an expert skydiver, or vice versa. Most nondisabled adults are experts at walking – we do so without planning or thinking. It has become instinct.

Stage 1 - Novice: By definition, the novices have little or no previous experience in this skill area. By “experience”, Dreyfus and Dreyfus (1986) mean specifically that performing this skill results in a change of thinking. Novices are very concerned about their ability to succeed, with little experience to guide them; they really do not know whether their actions will all turn out okay. Novices do not particularly want to learn; they just want to accomplish an immediate goal. They do not know how to respond to mistakes and so are vulnerable to confusion when things go awry. Novices can however, be somewhat effective if they are given context-free rules to follow, that is, rules of the form “whenever X happens, do Y”. In other words, they need a recipe. The problem with recipes – with the context-free rules – is that you can never specify everything fully. Novices also face the problem of not knowing which rules are most relevant in a given situation and when something unexpected comes up, they will be completely flummox.

Stage 2 - Advanced beginner: According to Dreyfus and Dreyfus (1986), once past the hurdles of the novice, one begins to see the problem from the viewpoint of the advanced beginner. Advanced beginners can start to break away from the fixed rules a little bit. They

can try tasks on their own but they will have difficulty trouble shooting. Advanced beginners can start using advice in the correct context, based on similar situations they have experienced in the recent past but just barely. Although they can start formulating some overall principles, there is no “big picture”. They have no holistic understanding and rally does not want it yet. If larger context are forced on advanced beginners, they would probably dismiss it as irrelevant.

Stage 3 - Competent: At this third stage an individual becomes personally involved at his best. Practitioners can now develop conceptual models of the problem domain and work with those models effectively. They can troubleshoot problems on their own and begin to figure out how to solve novel problems – ones they have not faced before. They can begin to seek out and apply advice from experts and use it effectively. Instead of following the sort of knee-jerk response of the previous levels, the competent practitioners seek out and solve problems; their work is based more on deliberate planning and past experience.

Without more experience, they will still have trouble trying to determine which details to focus on when problem solving.

Stage 4 – Proficient: At this level of proficiency, depth of understanding in the area of discipline/practice is achieved. Fully acceptable standard achieved routinely dealing with more tasks that are complex. Proficient practitioners need the big picture. They seek out and want to understand the larger conceptual framework around this skill. They will be frustrated by over simplified information. Proficient practitioners make a major breakthrough on the Dreyfus theory: they can correct previous poor task performance.

They can reflect on how they have done and revise their approach to perform better the next time. In addition, they can learn from the experience of others. Up until this stage, that sort of self-improvement is simply not available. Along with the capacity to learn from

others comes the ability to understand and apply maxims, which are proverbial, fundamental truths that can be applied to the situation at hand (Benner, 2004).

According to Dreyfus and Dreyfus (1986) and Benner (2004), maxims are not recipes; they have to be applied within a certain context. Proficient practitioners can take full advantages of the reflection and feedback that is core to agile methods. This is big leap from the earlier stages; someone at the proficient stage is much more like a junior expert than an advanced competent.

Stage 5 – Expert: The expert stage moves an individual to authoritative knowledge of typing discipline with excellence achieved. According to Dreyfus and Dreyfus (1986), experts are the primary sources of knowledge and information in any field. They are the ones who continually look for better methods and better ways of doing things. They have vast body of experience that they can tap into and apply in just the right context. These are the folks who write the books, write the articles, and do the lecture circuit. These are the modern wizards (Dreyfus and Dreyfus, 1986).

Experts work from intuition, not from reason. Although experts can be amazingly intuitive – to the point that it looks like magic to the rest of the people – they may be completely inarticulate as to how they arrived at a conclusion. The expert knows the difference between irrelevant details and the very important details, perhaps not on a conscious level, but the expert knows which details to focus on and which details can be safely ignore. The expert is very good at targeted, focused pattern matching.

A division of knowledge that is relevant when analyzing Dreyfus theory is “know-that” and “know-how”. Traditionally, explicit knowledge or “knowing that” has been understood as expressible in some languages; it can be attained easily from any codified information (Eraut, 1994). By contrast, “knowing how”, tacit or implicit knowledge is not expressible in some languages. It is considered intuitive – acquired through practical

experience, and as such, is subjective and contextual, and cannot be readily made explicit or formalized.

In psychology, the knowledge gained in implicit learning is not fully accessible to consciousness. The learner cannot provide a full verbal account of what he has learned. Implicit knowledge does not involve processes of conscious hypothesis testing. In addition, "implicit knowledge is preserved in cases of amnesia; thus, implicit learning relies on neuronal mechanisms other than the hippocampal memory system" (Eraut, 1994:195). Implicit knowledge is stored as abstract and possibly instantiated, representations rather than aggregate or verbatim representations. This knowledge may also be flexible because of its non-hippocampus base (Eraut, 1994).

Knowledge that represents its content, attitude, and its holder explicitly is on the higher-order thought theory, conscious, and is considered explicit (Dreyfus and Dreyfus, 1986; Eraut, 1994). Explicit mental representation is required to refer in verbal communication and is thus a link emerges between explicitness and consciousness. Explicit processing of knowledge includes perceptual, cognitive, and motor processes, such as stimulus selection and search, attention focusing and maintenance, memorization, computation, decision making, response selection and execution (Dreyfus and Dreyfus, 1986).

Dreyfus (1986) argued that this formal system of education is one of the problems with traditional method, since much of our sense of judgment and which we go through to form beliefs is not a matter of starting, and by plugging those into a formula in order to deduct conclusions may not go well. Rather a gradual process that involves being embodied in different ways and developing skills would make it possible for us to deal with the world. The main idea behind Hubert and Dreyfus' skill development theories is the distinction they

make between knowing-that and knowing-how. They argue that “knowing-that” is possibly because we take our knowing-how for granted.

Dreyfus had a different way of looking at the concept of learning. In the article, ‘Concept of Learning and Skill Acquisition’ believed that there is gradual process involved for an individual to go through in order for him to reach the stage of expertise. Their skill acquisition process shows that these five stages are necessary ingredients every individual has in skill decision-making as he improves his/her skills. In novice stage, the individual is unlikely to be satisfactory unless closely supervised.

At the beginner stage, the individual is able to achieve some steps using personal judgment but with supervision. At competence stage, the individual is able to achieve most tasks, copes with complex situations. Proficient stage, takes full responsibility for his work/deals with complex situations holistically. Experts stage, the individual is able to take responsibility for going beyond existing standards and creating own interpretations. Holistic grasps of complex situations, moves between intuitive and analytical approaches with ease. The theory of skill acquisition in these stages is very much in line with the acquisition of word-processing and shorthand skills treated in this work.

2.2 Concept of Shorthand

Through the centuries shorthand has been written in systems based on orthography (normal spelling), on phonetics (the sounds of words), and on arbitrary symbols, such as a small circle within a larger circle to represent the phrase, “around the world.” Most historians date the beginning of shorthand with the Greek historian Xenophon, who used an ancient Greek system to write the memoirs of Socrates. It was in the Roman Empire, however, that shorthand first became generally used (Korie, 2010).

Shorthand is any system of rapid handwriting, which can be used to transcribe the spoken words. Shorthand system use a variety of technique including simplifying existing

letters or characters and using special symbols to represent phonemes, words and phrases Aromolaran (2011). Shorthand is a core and an anchored for secretarial educators and administrators. It is a system of rapid handwriting employing symbols to represent words, phrases, and letters. The training of secretaries' in Nigeria has been associated with shorthand for many years now. This is because shorthand is useful in taking instructions from a boss down quickly and accurately and has being known to improve the concentration and ability to increase the secretaries' memory, which enhances the listening ability as opined by chip (2013).

The invention of writing, scribes have used various techniques to enable them to write easily. Ancient Egyptians devised two scripts Hieratic Demotic, as alternatives to their complex Hieroglyphic script, which was used mainly for monumental inscriptions. Peter (2010) noted that during the 4th century BC, the Greeks devised a number of symbols, systems that reduced letters to a single stroke and which could be used to represent common words, suffixes and prefixes. Such systems are generally refers to as *stenography*. The process of writing shorthand is called *stenography* from the Greek *stenos* (narrow) and *graphie* (writing). It is also been called **brachygraphy**, from Greek *brachys* (short) and trachygraphy, from Greek *trachys* (swift, speedy), depending on whether compression or speed of writing is the goal, *brachgraphy* (short writing) or *tachygraphy* (swift writing.) Their purpose was to make writing more compact and/or faster.

Omigot (2000) further stated that, the first modern shorthand system was presented in 1588 by the cleric English Timothy Bright. More than a dozen of systems followed, such as the 1626 system of the stenographer. John Willis was acknowledged as the father of shorthand, the 1626 system of the writer and translator, Thomas Shelton, used by the diarist Samuel Pepy' the 1672 system of the writing master, William Mason and the 1786 system of the stenographer and Samuel Taylor which was adapted to many European languages. Most

of the 17th and 18th century shorthand followed the principles of Willis's system. They have geo-political zone metric characters with straight lines, segments of circles and so forth were alphabetic (using normal spellings).

Olowu (2002) further asserted that, British educator Sir Isaac Pitman first published his system of shorthand in 1837. Pitman designed light and heavy lines and curves to represent consonants, dots and dashes to indicate vowel sounds, and small semicircles and v-shaped symbols to designate diphthongs. The system was introduced to the United States in the 1850s and is still widely used in many countries, including Nigeria. Ismaila (2008) described shorthand as a skilled subject, which aids the ability to concentrate on taking account of events using special outlines.

The availability of a full range of vowel symbols, however, makes possible complete accuracy. The Pitman alphabet, which is older than Gregg, is linear in form. Written Pitman looks geometric. The circles and straight lines make up the basis of its alphabets. Different pairs of sounds are represented by thick and thin strokes in Pitman. Pitman vowels are not connected to the shorthand outline and are indicated with dots and dashes, written after the outline is written. Position of the outlines (above, on or through the line of writing) also indicates the initial vowel sound, reducing or eliminating the need to go back and place vowel signs to many outlines.

Notable features of Pitman Shorthand include: Pitman shorthand is phonetic. It records the sounds of speech rather than the spelling. For instance, the sound (f) in 'form', 'elephant' and 'rough', is written in the same way for each word.

Vowel sounds are optional and are written with small dots, dashes or other shapes next to the main strokes. This helps increase writing speed because most words can be identified from their consonants only. The thickness, length and position of the strokes are all significant.

The thickness, length and position of the strokes are all significant. In Nigeria today, shorthand is one of the subjects taught at the secondary and tertiary levels of education and a close examination of schools curriculum show that shorthand is given more contact time in many tertiary institutions than other courses. Shorthand is a skill subject that prepares one for an occupation as a secretary. Its many applications include taking of minutes, composing letters, report writing, recording messages and others.

There have been several versions of Pitman's shorthand since 1837. The original Pitman's shorthand had an "alphabet" of consonants, which was later modified. Additional modifications and rules were added to successive versions. Pitman New Era (1922–1975) had the most developed set of rules and abbreviation lists. Pitman 2000 (1975–present) introduced some simplifications and drastically reduced the list of abbreviations to reduce the memory load, officially reduced to a list of 144 short forms. The later versions dropped certain symbols and introduced other simplifications to earlier versions. For example, strokes "rer" (heavy curved down-stroke) and "kway", (hooked horizontal straight stroke) are present in Pitman's New Era, but not in Pitman's 2000.

There are hundreds of shorthand systems in a myriad of languages. In English, the systems are divided into distinct types viz:

Symbol System such as Gregg, Pitman, Thomas Natural, Century 21, and Eclectic Shorthand, where sounds are generally represented by strokes which are kept as brief as possible, making them faster to write than longhand.

Alphabetic System such as Speedwriting, Steno script, Forkner and Alpha Hand, where sounds are represented by letters of the alphabet as well as a few symbols, Hybrid system such as Tee line. While Tee line is based on alphabetic characters, it appears to be much more like a symbol system since so little of each letter is written. The Tee line is popular in Great Britain, but virtually unheard of in the United States, machine Systems that

requires a typewriter or a stenography machine to be written. Today, computers can take machine input and transcribe it with amazing accuracy (Owen, 2012).

Ezenwafor, (2009) further opined that shorthand enables secretaries to write spoken words at such a high speed as 100 and 120 words per minute that is impossible in longhand. He further explained that, a confidential secretary training must emphasize shorthand writing and transcription skills among other skills such as typewriting, bookkeeping and office practice. Shorthand is listed as one of the technical skills required of professional secretaries for effective performance.

2.2.1 Concept of Word-processing

The development of technology as it relates to word-processing in the last two decades is aptly described, as a revolution, which is still on, and no one seem to know how far this revolution may go. As a result, the traditional concept of the office has been giving way to the office made up of rings of cables with interfaces and plugs in which a wide variety of equipment may be linked. In spite of these technological developments, word-processing still remains one of the most important subjects in secretarial education, and this has raised much concern among professional secretaries.

In the researcher's view, word processor is a machine that is more sophisticated than the typewriter, which is use in typing, editing, storing and printing all types of documents. word processor is for generating form letters and documents, or mail-mergers. Some will mail-merge form a separate word processor documents, whilst others will accept data from an external database such as a Dbase file.

Word-processing is a term used to describe the system use for preparing documents (for example, letters, memoranda and reports) that are composed mainly of words. Most computer system operate word-processing package of some kinds. This has rapidly replaced typing as methods of producing documents, though some work are still are carried on

typewriters. Different word-processing soft wares can be installed on these systems. The secretary can use word processor to convert raw data (words, phrases and sentences) into (a finished document). This may sometimes involve the use of different sizes and styles of character fonts. Ugwu in Ntukidem (2002) pointed out that word processing is an application of computer technology to the input, editing, merging, storing formatting and printing of text. The word processor is a special-purpose computer expressly designed for and solely devoted to the preparation, storage and printing of documents. Whitecome and Clark, (2000) said, the basic skills needed for word-processing are:

- (i) *Fast accurate keyboarding skills;*
- (ii) *Sound knowledge of text-editing techniques.*
- (iii) *Familiarity with relevant software packages.*
- (iv) *A good command of grammar, punctuation and spellings.*
- (v) *A willingness to learn new specialized vocabularies.*
- (vi) *Skills in formatting documents (setting up the pages).*
- (vii) *Good proofreading ability.*
- (viii) *Ability to recognize work so that deadlines is met.*

Oborah (2011) described the concept of word-processing as the development of the ability to input data by touch using the alphabetic and numeric keys on the typewriter keyboard. The touch method involves striking the correct key with the correct fingers without looking at the keyboard as contrasted with the concept of 'hunt and peck. Hunt and peck involves the use of a few fingers to reach the key by looking at the keyboard and this is usually the practice of the unprofessional users of the keyboard.

The main advantage of word processor over typewriter is the fact that everything key strike into a word processor is retained until purposely removed. This allows rough drafts to be corrected, sentences or paragraphs to be added or deleted and frequently used document to

be recalled immediately. The advantage of greater degree of speed and accuracy of data input by the computer operators has to do with proficiency in touch word-processing. Bohl in Chukwumezie (2006) observed that, “Word-processing was developed as means of raising office productivity.” Word-processing as one of the viable subject in secretarial education that is indispensable, play more significant role in achieving skills development in the society if properly positioned. Word-processing for all will mark the beginning of self-sufficient improved productivity in office. Secretaries’ competency in the use of word processor will enable the secretary achieve much that includes:

- Producing neat, accurate and original documents with speed
- Reducing fraudulent practices as any alteration on the original copy is easily detected.
- Saving the secretary’s time since the secretary could enter a programme and the entire typewriter to produce several original copies while relaxing or doing something else.

Alabi (2007) has it that Secretarial services are very important to an individual, the business society and the Nigeria economy as a whole. The courses provide uniquely interrelated, saleable and interdependent, and each involves a well-articulated and dynamic skill for occupational purpose. Word-processing skills are fundamental and sellable skills at all levels of private and public business establishment in Nigeria.

Word processing is taught in theory and in practice. The theory affords the secretaries the opportunities to know various means, methods, rules and techniques involved in the process of typing. While the practical involves the practical display or typing of those things learnt in theory, a good understanding enables a secretary to type well, Krevolin in Ndinechi (1990) summarized the contribution of word-processing to secretaries generally as follows:

Studies indicate incontrovertibly that typewriting benefits vocabulary, reading, spelling, and typewriting also influences positively skills matter acquisition. It helps develops favourable attitude and habits, reinforces Basic English knowledge, provides confrontation with a

precision machine (interface), facilitates the gathering of general information in subliminal fashion from the content typed writing and practice copy, fosters techniques immediately applicable to social life and school activities, liberates the creative mind from the limitations of handwriting, and contributes to remedial education.

Braimoh (2009), on the other hand, defined word-processing as a cumulative psychomotor skill involving the touch method of input to a standard keyboard device. Word-processing skills continue to be essential requirements for professional secretaries for effective performance in our modern offices today. Word-processing which was now introduced as in the new curriculum and at the terminal speed was 50 words a minute (50 wpm). The standard is assumed to hold with this new curriculum in absence of clear guide in the new curriculum as while employers presently insist that secretaries have minimum of 35 words a minute, while those with Higher National Diploma status are required to obtain a speed of not less than 50 words a minute. From the above definitions, it could be deduced that, word-processing is seen as the skill acquired through the process of proper positioning of fingers on the home keys as well as manipulation of word processor keys effectively for producing accurate and mailable documents.

2.2.2 Concept of Professional Secretaries

The office of today requires professional secretaries who are capable of exercising good judgment and making good decisions within the scope of authorities given to them. This, in other words implies that professional secretaries are expected to acquire knowledge of word-processing shorthand and office management in order to perform effectively and efficiently in today's modern offices. The above discourse shows that professional secretaries signify people who possess the mastery of word-processing and shorthand skills and the abilities to assume responsibility with or without direct supervision. The changing nature of modern offices and pressure for results means more responsibility for the

professional secretaries in addition to their traditional roles. Professional secretaries have been conceptualized in many ways by different authors. Oxford Advanced Learner's dictionary (2006) defined professional secretaries as: *'A person, usually an official who is in charge of records, correspondence, minutes of meeting and related affairs of an organization, company and association'*. *'An officer in-charge of corporate and legal affairs of an organization and one who handles all appropriate records and reports of an incorporated company'*. *'A person employed to handle correspondence and do routine work in a business office usually involving taking dictation, typing, filling and the like (usually qualified as a profession secretary'*. *An officer skilled and specialized in an establishment or who is charged with some aspects of organizational functions deals with people, correspondences and other business matters in the organization'*.

Esene (2007) described the professional secretary as an assistant to an executive possessing mastery of skills and ability to assume responsibility without supervision, which displays initiative, exercises judgment and makes decisions within the scope of his/her authority. Salami (2009) agreed that professional secretaries are people who without-direct-responsibility assists another with communication and public relations in business, professional and personal affairs. A professional secretary as defined by Oladunjoye in Ntukidem (2002) is an assistant to an executive who possesses the mastery of office skills and ability to assume responsibilities without direct supervision, plays initiative, exercises judgment and makes decision within the scope of his authority. Similarly, Austin (2002) sees the secretary as a person who has acquired the basic secretarial skills of shorthand and Word-processing plus enough knowledge, skills and practical experience in office work to cope with filing system, office machine, and equipment and reception duties. Today's professional secretaries' must be intelligent, alert, interesting and socially amiable.

He/she must possess a good memory of places, names and events. She must maximize her use of the opportunities which modern technology provides for quick, effective discharge of her secretarial functions. Hence she must possess ability to operate or access modern technological tools and skills such as computer is considered today integral and indispensable machine to secretarial functions (Ntukidem 2002). These authors have shown that the place of secretaries in an organization cannot be over-emphasized as professional secretaries possess enormous managerial authority in the office. There is a growing notion that, in view of the Information and Communication Technology breakthrough in the modern offices the place of the professional secretary in offices will soon be overtaken by technological innovation.

Olise (2010) argued that, despite the commendable improvements in office technology the position of the professional secretary will remain relevant for a considerable time to come because the following functions of the professional secretary cannot be undertaken by the computer without serious distortions or even frustrations:

- a. Receiving visitors and answering inquires relating to the department or organization.
- b. Preparing replies to routine correspondence in a manner that promotes the images of the organization, making inquiries for information that may be needed by the executive, department or company for planning and decision making. Collecting, collating and analyzing information from various sources planning and decision making.

2.2.3 Concept of Modern Office

Change is the only constant thing in life. It is difficult to think of any other area this statement hold true than in modern offices. The office is defined as any place where clerical and administrative functions of an organization are performed on a regular basis. Nwosu (2000) asserted that innovations in office technology have resulted in a drastic change in the

nature, composition and role of the office. The modern office which is also known as the transition office, automated office, electronic and paperless offices, is where all the processes of (clerical and administrative) functions have been computerized for greater effectiveness and efficiency of office workers and resulting in organizational growth and better services (Spencer, 1981 and Nwosu, 2000).

Akpomi and Ordu (2009) referred to modern office as an office that has exposed professional secretaries to office technology including internet that make work much easier and knowledge more accessible. It is easier for professional secretaries to send messages by telex, electronic mails (e-mails), fax and telephone. Onwukwe and Uteh (2009) asserted that, as reliance on technology continues to expand in offices, the role of professional secretaries has rapidly evolved. Akpomi and Ordu (2009) viewed modern office as a means of exposing professional secretaries to office technology which fastens their work in the office.

Nte (1995) described modern office as the adaptation of technology for office activities that encompasses all defined functions of an office. Folahan (2006) also noted that the use of paper in the office is as old as the office itself and served two functions, namely, a means of communication and means of record keeping. Folahan, however, posited that the advent of telephone, telegraph, intercom, mobile phone, etc. has made information dissemination between and within an office less dependent on paper work adding that the invention of the computer has initiated and launched a new thinking which bordered on the paperless office.

From observation, one can conclude that the popular office of today, especially in Nigeria, is the transition office while the modern office which is also an automated office is where office processes and functions are fully computerized such that every worker sends and receives information as well as performs normal duties through interaction with the computer and information technology gadgets. The office and office functions today are

becoming totally and rapidly transformed. One would, therefore, expect the trend to continue and even increase greatly, hence the need for professional secretaries' to adequately prepare to effectively function in today's and tomorrow's office by equipping themselves with the equipment and processes their work. There is no shying away from the truth that some of the technological developments in our offices today are right here with us and projects that these technological gadgets determine who heads and who trails as the gadgets permeate all aspects of human organizations. Chukwudebe (2001).

In the opinion of Dauda (2001), modern technology has taken a very wide stride ahead in most Western Countries today. In these countries, machines handle every aspect of office or business activities. However, in the third world, countries like Nigeria, Professional Secretaries view the modern technology as a threat to their job. In line with this view, Akinyemi (2002) asserted that technology has affected every aspect of secretarial work from the origination of document to the production, revision, reproduction, distribution and storage of documents. These authors are expressing what is obtained in a modern office where professional Secretaries have witnessed better and improved functions of production of manuscript at a faster rate and with ease. The problem of laborious typing a letter over and over again is gone with the advent of ICT. The production of neat and multiple production of paper using super photocopier that sorts out pages of document has replaced the cyclostyling machine process.

Akinyemi (2002) further observed that machines shorthand is fast becoming an alternative to the Typewriter Keyboard as a means of originating information. With this technology in modern offices, professional secretaries may no longer need to learn Shorthand Symbols but a Shorthand System consisting of only letters that permits them to write whole words by just depressing one or more keys at a time. Agomuo and Isu (2002) enumerated a variety of office technology in the modern offices as the facsimile machines, interactive

technologies, internet, electronic mail (e-mail), voice mail, teleconferencing and other information system technology. Nwogwugu (2002) also discovered that technological innovation in the electronic offices are characterized by several secretarial work tools which were outlined as electronic typewriters, word-processors, , dictating machine, electronic switchboard, dictaphone, e-mail terminals, electronic filing techniques for record management, electronic document interchange and spreadsheet for carrying out accounting functions, telephone coordinated by integrated telephone concept.

2.3 Role of Professional Secretaries in the Modern Office

A professional Secretary is an office-staff who combines the mastery of secretarial skills of shorthand and word-processing with office routine. As the reliance on technology continues to expand in offices, the role of professional secretaries has greatly evolved. Minolta Survey (1987) indicated that automation had led to great changes in the role of professional secretaries today. A secretary is an office-staff who combines the mastery of secretarial skills of word-processing and shorthand with office routine functions. The ambitious and dedicated secretary needs to have required shorthand and word-processing skills beside the operation of automated machines in order to adequately carryout the numerous office duties that are repetitive, boring and cumbersome. Ogunyinka (2010) asserted that, a secretary is the person who performs the myriad of daily chores that nibble away at an executive time like corporate piranha.

Also according to Aromolaran (1996) the office of today (automated office) expects secretarial roles to transcend from the traditional roles to the modern roles of the automated office. Chukwumezie, (2002) reported that, with the constant changes in technologies in the workplace, the traditional office is fast giving way to modern technological operations in both the nature of the work and position of professional secretaries. Mechanical technology inherent in the traditional office has now been replaced by digital technology. The clamor for

revision in the course of study was inadequate to arm the professional secretaries with the competencies needed to adjust to the rapidly changing needs of the office. What should be the fate of the skills traditional shorthand and typewriting in consideration of the need to reform secretarial profession.

The professional secretaries' today according to Ntukidem (2002) is regarded as a 'confidant', one who is entrusted with the secret matters of the chief executives or a keeper of secrets, whose work is of a confidential nature. He said a secretary who intends to keep his/her job should prepare himself/ herself for the challenging tasks of modern office since office automation and organizational restructuring have led professional secretaries to assume responsibilities that were once reserved for managerial staff. Professional Secretaries today conduct research on the internet, operate and troubleshoot new office technologies, coordinate administrative activities, stores, retrieves and integrate information for dissemination to staff and clients.

According to Bureau of Labour (2006), professional secretaries serve as information and communication manager for an office, plan and schedule meetings and appointments, organize and maintain paper work and electronic files, disseminate information by using telephone, mail services, web sites and e-mail. Professional secretaries are aided in these tasks by a variety of office equipment such as fax machines, photocopies, scanners, telephone, paper shredders, etc.

In addition, professional secretaries nowadays use computers to do tasks previously handled by managers to create spreadsheets, compose correspondence, manage data bases, and create presentations, reports and documents using desk-top publishing software and digital graphics. Aromolaran (2003) also stated that there are several other non-typing skills that must be acquired by professional secretaries' to enable him/ her experience success and job satisfaction in today's modern office which include assisting his/ her executive in decision-

making on some issues affecting the establishment, supervising the subordinates, ability to work under pressure and manage her time and that of her boss effectively, ability to work for more than one boss in a depressed economy and ability to manage herself and her boss desire to work with computer, excellent English Language skills and ability to use reference and resource materials.

The role of the secretary transformed from that of a scribe to that of a more complex work of office management, information generation and information management. Given the advantage of speedy information generation that the use of shorthand brought about, a major part of the secretaries' day to day work involved recording information and transcribing comprehensible information from dictated material as well as from manuscripts. The professional secretary, therefore, became an indispensable companion of top management in facilitating administration and business transactions. Working closely with top management, the secretary became highly involved in promoting the efficiency and effectiveness of top management, relieving his/he boss of all routine work, ensuring the smooth running of the office and providing top management staff with structured and filtered information for easy decision making.

Many changes are taking place in the way tasks are performed in the modern office. These changes show continued office revolution in future. The up-to-date shorthand and typewriting must also prepare students for the modern processes of storing and retrieving data, for the way mail is processed and for the way word processing is accelerating production and transmission of letters and other documents. Employers and customers seek professional secretaries who are not afraid of change and who can adapt to changes and will continue to be part of office scene. Change is the order of the day and the new office secretary must be prepared to cope with it. The professional secretary is expected to be competent in performing basic office skills. Employers and customers have not reduced their

demand for secretaries who are competent in the use of grammar, punctuation, spelling and proper word choice and who can express themselves well both orally and in writing. Listening skills are also essential. The ability to follow directions and accurately collect facts and information to be stored and later retrieved are important skills. Today the greater need is for editing skills that go far beyond what we normally thought of as proofreading.

Professional secretaries are no longer expected only to detect errors and to know how to correct them, they should have the ability to edit the letter or document as well. Emphasis on those basic skills is necessary. There is no acceptable substitute for proficiency in this area.

2.4 Influence of Modern Technology on Professional Secretaries Functions

Decades now, fast changes have been taking place in all facets of human life including the office environment. This is as a result of technological advancement. Every office in today's business world, be it government, industries or other human endeavours require fast and accurate information for quick decision –making. Because of changes in technology, the job of professional secretaries in offices has changed tremendously from that of typewriting and shorthand dictation, answering of telephone calls and processing of mails. The technological changes prevalent in modern offices have not spare Professional secretaries. Today's professional secretaries are exposed to modern office technology including internet that make work much easier and skills more accessible (Edwin, 2008). It is now easier to send messages by telex, electronic mails (e-mails), fax and telephones. Other office gadgets available to the secretary are photocopiers, duplicating machines, dictating machines, printers among others. This is the era of computer and information technology, which have become an enabler of greater convenience. The traditional manual typewriters have given way to word processors floating texts and graphics and of displaying word-

processor texts in any style and font as well as print out several copies of the document in variety changes colours if desired.

At present, profound changes are being introduced into office work, particularly into secretarial practice, because of the influence of information and communication technology. This development has brought tremendous changes to the work of the secretary in the modern office and now new elicits new interests and concerns about the future of secretarial practice and its career prospects in the face of rapid development in modern offices. Thus, the invention of computer brings the greatest revolution to the professional secretaries' functions. Presently its effects are felt in the following aspects in professional secretaries' job:

2.4.1 Word Processor

In the researcher's view, the word processor is a machine that is more sophisticated than the typewriter that is used in typing, editing, storing and printing all types of documents. Word processor is a term used to describe the system used for preparing documents (for example, letters, memoranda, and reports) that are composed mainly of words. It is the combination of a typewriter like keyboard, a viewing screen, a central processing unit (CPU) and a storage unit. Most computer systems operated word-processing package of some kinds. This has rapidly replaced typing as a method of producing documents, although some works are still being carried out on typewriters. The main advantage of word processor over typewriter is the fact that every key stroke into a word processor is retained, until it is purposely removed. This allows corrections on rough draft, sentences or paragraphs to be added or deleted on frequently used document to be recalled immediately.

Ntukidem (1997) stated that another dimension of word processing is the use of general-purpose computers to run word processing application programmes such as WordStar, WordPerfect or Microsoft Word. Different word-processing software can be installed on these systems. The secretary can use word processor to convert raw data (words, phrases and

sentences) into (a finished document). This may sometimes involve the use of different sizes and styles of character fonts. Ugwu in Ntukidem (2002) pointed out that word processing is an application of computer technology to the input, editing, merging, storing formatting and printing of text. The word processor is a special-purpose computer expressly designed for and solely devoted to the preparation, storage and printing of documents. The system includes a display unit, keyboard, floppy disk drives a letter-quality print head, with different sizes and styles of character fonts.

2.4.2 Micrographics System

Micrographics are used to store data. It process of photography, reducing and recording paper documents and computer generated output on microfilms. Many micrographics systems also include computer assisted retrieval (CAR) mechanism. Micrographic system therefore replaces the traditional paper records management of using file folders and cabinets to categorize data.

2.4.3 Photocopying Machines

Another area which technology has made its impact on professional secretaries' job is in photocopying of documents. Photocopiers are fast and powerful. Most of them incorporate many-advanced feature such as electronic image editing capabilities which allow one to modify copies instead of simply producing exact duplicates. The documents can also be enlarged or reduced.

2.4.4 Office Communication Gadgets

Receipt and distribution of information is another major function of the professional secretary. This is done to people both within and outside the office environment. Intercoms and ordinary telephone were the earliest forms of automated office communication, especially with respect to voice messages. Currently, electronic mail, voice mail, facsimile transmission and remote conferencing are now available in many of today's offices.

2.4.5 Remote Conferencing

This is another major aspect of secretarial profession which has been greatly influenced by technological development in recent times. Computer conferencing uses computers and data communications network to conduct discussions along persons in remote locations. The participants do not even have to be on-line at the same time. Messages can be stored and displayed later. Computer conferencing removes barriers of time and geography, allowing individuals to work at their own pace without interruptions. Tele conferencing applies to audio and video meetings held by electrically linking geographically dispersed participants. Audio conferencing is the conference call option by which several people in different places can talk to one another on the phone. Video-conferencing on the hand involves holding meetings using freeze-frame or full-motion colour pictures over two-ways, closed circuit television. It provides the face-to-face visual interaction that audio-conference lack.

2.5 Word-processing Skill for Professional Secretaries

Word-processing has enough practical skills and knowledge experienced by professional secretaries to enable them function and to be able to cope with filling/simple office machinery and reception duties. In Columbia's term (1987) ' A professional Secretary is an assistant to an executive possessing mastery of office skills, ability to assume responsibility without direct supervision, exercise judgment and makes decision within the scope of his/her authority. Word-processing skill is taught in theory and practical. The theory affords the word-processing students the opportunities to know various means, methods, rules and techniques involved in the process of typing. While the practical involves the practical display or typing of those things learnt in the theory, a good understand enables a student to type well.

Ohakwe (2001) considered word-processing skill as fundamental in any keyboarding on computer, tele printer or telex. To him office correspondence such as business letters, memos, and minutes of meeting, financial matters and statistical drafts are regular features of word-processing, task of any office. With or without technology word-processing skill is very much required of a secretary. He said, shorthand and word-processing co-exist with electronic gadgets. The basic skills competencies which word processing provides for professional secretaries according to Ndinechi (1990), Okafor (1992) and Nwosu (2001) are enumerated as follows:

Typing straight copy and statistical data from original sources using machine control properly not only accurately but speedily. Formatting the text and displaying in an acceptable form according to general office standard/procedure. Editing and centering tabulation capabilities using present format neatly, correcting errors using various means. Apart from the above listed skills of word-processing; Krevolin in Ndinechi (1990) summarized the contributions of word-processing to general education as follows:

Studies indicate incontrovertibly that typewriting benefits vocabulary, reading, spelling, and typewriting also influences positively subject matter acquisition. It helps develops favourable attitude and habits, reinforces basic English knowledge, provides confrontation with precision machine (interface), facilitates the gathering of general information in subliminal fashion from the content of timed writing and practice copy, fosters techniques immediately applicable to social life and school activities liberates the creative mind from the limitations of handwriting, and contributions to remedial education. Field survey (2012) indicated that, selection and the promotion of professional secretaries from CONTISS 7 to 13, which is the terminal grade. Candidates must possess either HND/NCE/OND with 80 to 120 wpm in word-processing plus working experience, which differs from one level to the other in universities, and Federal Colleges of Education and

Polytechnics respectively. While the selection and promotion of secretaries in state ministries from USS 7 to 14 as the terminal grade, candidate must possess, neither HND/NCE/OND with 80 to 120 wpm in shorthand, 35 wpm in typing including years of working experience.

Akindele (1996) concluded that there is correlation between English and word-processing. Commenting on same she stated the link between English and word-processing, keyboarding is the widest and the most natural. She submitted that word-processing is another form of writing and that the main areas of English knowledge which are directly relevant to the secretary's skill vocabulary extension. Akindele (1996) also submitted that success in word-processing depends in no small measure on ability in English. Obioma and uteh (2009) submitted 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, while a student is considered unskilled if he is unsure about which finger goes on which key. He is not skilled if he/she lacks at least a bowing acquaintance with key striking techniques (Brimoh and Ireda, 2009). Word-processing whether from printed copy, dictated or from one's thought is a perceptual-motor-skill. This means that it involves perceiving then doing (Brimoh & Ireda 2009).

2.6 Shorthand Skill for professional Secretaries

The introduction of office automation does not render shorthand useless. Komolafe (2005) believed that, the availability and efficiency of dictating and transcribing machines have resulted in many "no shorthand" secretarial positions; shorthand is still required for many traditional multifunctional secretarial positions. He confirms that shorthand may not be used in every entry position; it may be required for promotion to higher level executive secretarial jobs. While its use is declining as the use of word processing equipment increases, shorthand is a communication skill that enables an individual not only to transcribe verbatim

correspondence but also to take down general instructions and telephone messages rapidly, accurately and to outline presentations and minutes of meetings.

Shorthand enables professional secretaries to be familiar with words and their pronunciation, the application of proper punctuation marks in correspondence going out of the office. Ahmed (2006) asserted that shorthand is a skill and practical subject that enhances accurate and successful form of taking dictation, writing of letters and producing a mail able memorandum. Good knowledge of shorthand enables professional secretaries to record telephone messages verbatim and possesses good control of English language, general knowledge in business matters and terminologies.

This was supported by Onwukwe and Uteh (2009) that in the era of ICT, shorthand is still very relevant and has educational value. Besides its merit as a practical accomplishment, it is of direct service as mental discipline, the degree of application and concentration required for its mastery is considerable. Onwukwe and Uteh further said that it serves as an effective medium for training in English, while at the same time the resources of the speed class can be used to extend knowledge of matters of cultural and general interests. He stressed that the link between shorthand and English prose helps to cultivate an 'ear' for good English and at the same time extends vocabulary if the meaning of new words in the text are discussed.

Vundi, Nasongo and majanga (2011) opined that shorthand cannot be separated from English. This is because shorthand is a linguistic skill and words are the very stuff of which it is made. A well-developed skill in English is a contributory factor to success in the total shorthand skill (both writing and transcribing). This was supported by Audu (2012) that shorthand offers the advantages of speed and confidentiality. Ezenwafor (2009) in his study identified the following shorthand skills:

- (i) Mastery of principles for reading/writing
- (ii) Enhances hearing capacity
- (iii) High speed of writing
- (iv) High speed transcription
- (v) Good knowledge of English words
- (vi) Good use of punctuation marks
- (vii) Note taking from dictating/recording machine
- (viii) Verbatim recording of events.

The above-identified skills are considered relevant by top civil servants who utilized the services of professional secretaries for different length of time.

2.7 Shorthand Skill for Communication in Modern Office

Communication skills as viewed by the researcher are the ability to use a range of fundamental arithmetic and mathematical skills to reach conclusions in a range of situations. Communication Skill, these have to do with written, verbal and listening skills. By far, some of the communication skills most often mentioned by employers are the ability to listen, write and speak effectively and fluently. There is no gainsaying the fact that successful communication is critical in modern day business organizations. According to Quintessential Careers (2010), these are certain skills have been associated with the professional secretary.

The list covers a wide spectrum. However, they include the followings:

- i. **Analytical/Research Skill** – This is in the area of thinking with demonstrated talent for identifying, scrutinizing, improving and streamlining complex work processes.
- ii. **Computer-Technical Literacy** – With the advent of Information and Communication Technology (ICT) and by implication the use of the computer, almost all jobs in the office now require some basic understanding, application

and use of the computer hardware and software, especially word processing, data processing, spreadsheets and e-mail.

- iii. **Flexibility/Adaptability/Managing Multiple Priorities** – Today's goal-driven leaders, including the professional secretaries who maintain a productive climate and confidently motivates, mobilizes, mentors and coaches subordinates to meet and sustain high performance standards require these skills.
- iv. **Multicultural Sensitivity/Awareness** – There is possibly no bigger issue in the work place today than the subject of diversity is; Such diversities include language, religion, the concept of federal character as in the case of Nigeria, gender, individual characteristics and dispositions, among others. The job seekers, particularly the secretaries, require demonstrating a conscious and deliberate awareness and understanding of other people.
- v. **Planning/Organizing** – In these areas, the skills and ability to design, plan, organize and implement projects and tasks within a stipulated period are very important. The subject of goal setting is not isolated – the secretary should be able to set measurable and achieving goals, taking into consideration, all known and unforeseen constraints.
- vi. **Teamwork** – In modern-day organizations, teamwork requiring working in one or more work groups is inevitable. It thus becomes necessary for the individual to develop and sustain the ability to work with others in a professional manner in the course of attempting to achieve organizational and individual goals.
- vii. **Result-Driven** – The professional secretary should be result-driven and an achiever with exemplary planning and organizational skills, and possessing a high degree of detailed orientation.

viii. **Problem-Solving/Reasoning/Creativity** – This involves the ability to find solutions to problems using the power of creative reasoning of past experiences of shorthand along with the available information and resources.

ix. **Interpersonal Skill** – The ability to relate with, and inspire co-workers to participate and prevent conflicts is very essential, given the amount of time spent at work each day.

2.8 Employer's and professional Secretaries Perception on Word-processing and shorthand skills

Virtually all employers' around the world recognize the importance of professional secretaries' and the influence of word-processing and shorthand skills on professional secretaries functions in modern offices. These people make things to happen in the organizational arena. There is a serious misconception about who is the true professional secretary in Nigeria in spite of its numerous definitions. This is because the personality of the secretary has been misrepresented, there are many impostor secretaries whose activities have lowered the image of professional secretaries' thereby discouraging many people who would have loved to take up the vocation. The typewriter and now the computer commonly used by the secretary, stenographer, typist and data entry personnel constitute the major deceptive factor in identification of the true professional secretary. For many people, anyone sitting behind the typewriter or computer is a professional secretary, a notion that is entirely wrong. The real graduate office secretary has his/her qualities. He/she is, indeed, an executive secretary.

Employers' do not seem to follow any hard and fast rules regarding the indicators used to identify the right type and combination of secretarial skills. While employers' are increasingly looking for a wider range and higher level skills, on the whole they do not seem to have change the indicator (eg educational qualifications) nor recruitment methods, in line with the new skills needs and requirements.

The qualities required by professional secretaries' have been outlined by Whitehead (1977) to include a wide general education, secretarial skills, business knowledge and personal qualities. In the Nigerian context, wide general education will include university degree, Higher National Diploma, National Diploma and Nigeria Certificate of Education. Secretarial skills include Shorthand 100-120 wpm and Typing 50-60 wpm, accurate spelling, sound knowledge of reprography, information and communication technology. The personal qualities are commonsense, tact, discretion, initiative, adaptability, honesty, and a few others. With the above listed qualities, one can start to imagine the type of professional secretary being described and his contribution to organization prospects and success. One is not, therefore referring, to just anyone with basic secretarial or data entry skills, sitting behind the typewriter or computer when talking about the professional secretaries' in modern offices, secretaries' who carries out executive duties. Certainly, they are not professional secretaries' best typists, or data entry hands.

Although the computer and other information and communication tools have all helped to facilitate and upgrade the work of the professional secretary, his/her work, however, goes beyond the manipulative skills. Spencer and Pruss (2000) remarked that such technology should not replace flair and intuition, rather it should remove unnecessary obstacles from professional secretaries' work to enable them concentrate fully on writing with the flair and drive that all good writing should possess. It requires more than the basic secretarial skills and scanty education to function as a professional secretary and contribute or organizational development and growth. It therefore, amounts to organizational suicide to entrust the complex responsibilities of the professional secretary to just anyone with the basic secretarial skills because of cheap cost of labour. The eventual cost of this mistake to the organizations is enormous. This is because employing anyone without basic secretarial skills may be prone to making mistakes such as errors in typing important document, inability to

interpret issues in correspondence correctly, lack of prompt initiative, misplacing of important documents due to poor filing approach, poor organization of work leading to unnecessary delays and inability to deal with technical complex matters. Because of the weak educational background in word-processing and shorthand, the duties performed by professional secretaries' vary from one organization to the other and from one department to the other. These duties include among others:

- Providing administrative, secretarial, advanced clerical and pragmatic support; relieving departmental head of administrative work such as investigating and answering complaints and providing assistance in resolving operational and administrative problems;
- Planning and organizing work activities by recommending improvements in work flow, procedures, and use of equipment and forms; implementing improvements as approved; developing and revising office forms and report formats as required; organizing and maintaining filing systems;
- Drafting and/or typing, word processing, format, edit, revise and process a variety of documents and forms including reports, correspondence, memoranda, agenda items, agreements, ordinances, resolutions, technical and statistical charts and tables and other specialized and technical materials from rough drafts, dictation, modified standard formats, and brief verbal instructions;
- Proofreading, verifying, and reviewing materials, applications, records, and reports for accuracy, completeness, and conformance with established standards, regulations, policies, and procedures; ensure materials, reports, and packets for signature are accurate and complete;
- Maintaining accurate and up-to-date office files, records, and logs for assigned areas;
- Maintaining calendar of activities, meetings, and various events for assigned staff; coordinating

activities and meetings with other departments, the public, and outside agencies; coordinating and arranging special events as assigned; scheduling meetings; coordinating arrangements and setting up meeting rooms; notifying participants; preparing and/or assembling meeting materials.

The place of professional Secretaries in any organization is indispensable; primarily, the professional secretary is indispensable in an organization because he/she is a very versatile human being. He is a human being unlike the other office ingredients or resources that do not have initiative that can only be manipulated. He is the organization's image-maker.

- He/she knows how to keep secrets and confidential documents;
- He/she is the custodian of office information and correspondence;

Training Needs of Professional Secretaries

Word processing, writing, and communication skills are essential for all secretaries and administrative assistants. Employers increasingly require extensive knowledge of computer software applications, such as desktop publishing, project management, spreadsheets, and database management. Employers of professional secretaries increasingly are seeking candidates with a college degree, as these secretaries work closely with top executives. A degree related to the business or industry in which a person is seeking employment may provide the jobseeker with an advantage in the application process. As office automation continues to evolve; retraining and continuing education will remain integral parts of professional secretaries' jobs. Professional secretaries as administrative assistants should be proficient in typing and good at spelling, punctuation, grammar, and oral communication. Employers also look for good customer service and interpersonal skills because professional secretaries must be tactful in their dealings with people. Discretion, good judgment, organizational or management ability, initiative, and the ability to work

independently are especially important for higher-level administrative positions. Changes in the office environment have increased the demand for professional secretaries' who are adaptable and versatile. There are always openings for topflight secretaries in both the public and private sectors. These sectors rely on the nation's higher institutions of learning to supply them with this indispensable category of work force. The office environment has metamorphosed into a very modern one from the traditional office known. The move now is towards a paperless office. This new trend according to Chukwumezie (2002) has helped enrich and widen the scope and practices of the secretarial profession in terms of speed, quality, accuracy and variety.

There is, however, the need for professional secretaries to be at home with internet resources and other new innovations that assist the secretary to facilitate his work and provide the much needed assistance to his executive. The training institutions have not responded sufficiently to the changes in the office and emerging secretarial practices. Their skill laboratories lack the needed equipment to adequately train graduate office secretaries for the challenges in the world of work. The trainers, themselves, need retraining as most of them still rely on the old methods of training. They are not versed in modern information and communication technologies and even the use of computer, which are crucial to the work of the professional secretary. The knowledge and skill of professional secretaries' must be urgently upgraded for their output to be relevant in modern offices.

2.9 Empirical Studies

There are many studies relating to the ongoing study, however, the following related studies are reviewed:

Boladele (2006) carried out a study in Ilorin on the problems faced by secretaries who were trained with manual office equipment in automated office and the population was 300, the researcher used 50% of the population as sample size for the study. The researcher raised 3 research questions and associated 3 null hypotheses to find out problems faced by secretaries who were trained with manual typewriter in automated offices. The study showed

that employers in automated offices required the services of secretaries who are skilled in shorthand and typewriting, the use of word processors, electric typewriter, fax machine etc. It was found that secretaries who were trained with manual office equipment had problems working in automated offices. It showed that although skill in shorthand were still required ,skills in operating word processor, fax machines and others were also needed for secretaries to function in a modern automated office. The current study is line with the previous because the study focused on the shorthand skills as a major pre-requisite for secretaries to function effectively in modern offices, and the study used survey design, which the present is also going to use.

A research conducted by Aliyu (2007) on the Correlation of Typewriting and Computer Application on Student's in Business Education seeks to find the extent to which previous knowledge of typewriting influences student's performance in computer application. The research design adopted for this study was correlational study. The targeted population was the students of Muhib Center for Continued Education Kaduna State, while thirty (30) students were used as sample for the study, selected through (random sampling technique). The instrument used for the study was pre-test and post-test. The students were given instruction in computer application for three months at the period; they were tested to determine their level of performance. The Pearson Product Moment Coefficient and radio significance at 0.05 level, statistical methods were used in analyzing the data. The result of the null hypothesis showed that there is no significant relationship in performance on computer application (operation) between students with background of typewriting and those without. Among others it was recommended that students of computer class be exposed to typewriting skills before going into the practical aspect of computer study.

The study conducted by Aliyu (2007) focused on Correlation between Typewriting and Computer Application in Kaduna State, and the students of Muhib Center for Continued

Education were used. The present study is similar to this in that, it is on the influence of word-processing skills to professional secretaries. The difference is that the ongoing study is having wider coverage area, and the research is survey design.

Akpomi and Ordu (2009) conducted a research on the “Modern Office Technology and the Secretary’s productivity in Private Business Organizations”. The study investigated modern office technology and secretaries’ productivity in private business organizations. Three research questions and null hypotheses were formulated for the study, which includes; what is the relationship between modern office technology and secretary’s productivity in private organization, among null hypotheses formulated was, there is no significant relationship between secretary’s productivity and modern technology. The population for the study consisted of all the secretaries in all modern business organizations in Port-Harcourt and its environs. Random sampling technique was use to select 40 secretaries drawn from 40 selected private business organizations in Port-Harcourt. Three instruments namely; the Modern office Technology Availability (MOTA), Modern Office Technology and Secretary’s Usage (MOTSU), and Modern Office Technology and Secretary’s Productivity (MOTSP) were developed and used for the study. Experts in Office Management and Business Education validated the instrument and had a test retest reliability of 0.73, 0.84 and 0.89 respectively. Mean and Chi-Square was the statistical tools used for analysis. The questionnaire was properly filled and returned. Any item with a mean score of 2.00 and above was regarded as a factor that contributed to effective and efficient productivity of secretaries in modern business organizations. While any item with a mean score of less than 2.00 was considered otherwise

Based on the research’s findings, it was concluded that many private business organizations have computers and other modern office technological gadgets, while others does not have and this affected the productivity of secretaries in such business organizations.

The skills of the secretaries in the used of technological gadgets are portrayed virtually in all aspects of the working environment in modern business office. Based on the findings and results of the study, the following recommendations were made. Among others: private business organizations should procure as many modern office technological gadgets as possible to enable secretaries increase their productivity, secretaries without new skills in the use of modern office gadgets should be retained to fit into the trend of current advancement, secretaries should be given the opportunity and chance to perform or carry out other administrative functions. The current research observed that Akpomi and Ordu research work was well carried out and have helped the present researcher in her work however; the theoretical framework or conceptual framework was not examined.

Ezenwafor (2009) carried out a study on Civil Servants' Perception on the Relevance of Shorthand to the Effectiveness of Confidential Secretaries' in the Era of Office Automation. One research question was formulated and one null hypothesis was tested at 0.05 level of significance. 180 top civil servants drawn from Anambra and Enugu States were used. These subjects were subjected to t-test statistical analysis. Some shorthand skills were identified; among which were: mastery of principles for reading/writing, note taking from dictating/recording machine and verbatim recording of events.

The findings revealed that all the identified shorthand skill were considered relevant by top civil servants who utilized the services of confidential secretaries for different lengths of time. It was further revealed that no significant difference existed between the mean ratings of the two groups involved in the study (those whose utilization of such services ranged between 1-5 years and those of six years and above). The researcher concluded that shorthand is a sine qua non to confidential secretaries' effectiveness notwithstanding the type of office. The researcher made the following recommendations among which included; Government should support the review of the secretarial education curriculum of Nigerian

institutions to inculcate ICT skills so as to enhance the effectiveness of the products in the work place and that the government should adequately fund secretarial education programme to ensure provision of relevant equipment and manpower. The study had no statement of problem and objectives of the study. The research topic lacked level and location which the present study has. However, the research work helped the present researcher in the literature review because the present research derived some of the shorthand skill that influences professional secretaries' functions in modern offices.

Another research conducted by Ernest (2010) titled "Office Operational Skills perceived as Necessary for Office Information System by Secretaries' in University of Nigeria Nsukka". The purpose of the study was to ascertain the level of operational skills possessed by secretaries' for these office information systems. The population of the study was 110 secretaries in University of Nigeria, Nsukka. Four research questions were used for the study. Questionnaire which was the instrument used for data collection was validated by experts. It was discovered that secretaries possess moderate operation skills in word and data processing and high level of operational skills in reprographic system. It was recommended that secretaries' with low operational skills should upgrade their skill through in-service training to enable them remain relevant in their jobs.

The above study is relevant to the current research because it focused on operational skills in word and data processing which is related to the current study in the training and functions of secretaries' in our modern offices. The researcher conducted a very good research but it was discovered that there was null hypotheses stated, but no level of significance was given which made it difficult to determine the outcome of the tested null hypotheses. However, the current study had gained from the previous study in the area of literature review and research design.

Alikali (2011) conducted a research on “Secretarial Tasks Required in Modern Business Offices and their Implication on Secretarial Education Curriculum of Tertiary Institutions in the North Central Zone of Nigeria”. Four objectives, research questions, and null hypotheses were drawn to facilitate the study. Descriptive survey research design was used with questionnaire administered to 148 executives and 202 secretaries drawn from the population of 2,960 executives and 4,040 secretaries. The instrument was validated and reliable. The null hypotheses were tested using t-test and chi-square statistics at 0.05 level of significance. Some of the findings included: secretaries and executives did not differ on the job-tasks required by the secretary in modern business offices; the performance of secretarial education students in job-tasks in modern business offices depended on the correction of lapses in the current curriculum. It was based on the findings that the researcher maintained that secretary in modern business offices needed computer based knowledge job-tasks and competencies related to computer because almost all of the tasks performed by secretaries in modern offices are computerized.

The researcher recommended the following among others: there is need for Secretarial Education Teachers to be trained with new technologies so that they can be able to teach secretarial students with relevant equipment. There is need for institutions such as Colleges of Education and Universities to train secretarial education students with computer based word processing knowledge in order to make them relevant in the modern business world. The current research observed that Alikali’s research work was thoroughly carried out. This research work is relevant to the current research study. The researcher’s work helps the current researcher on the area of business attributes of a secretary. However, there was no conceptual framework that guides the study; which the present study contained.

2.10 Summary of Reviewed Literature

Word-processing is said to be an important and major course in secretarial profession, which is seen to have many advantages that, its employment utility, effect on the use of and command of English language, creation of positive corporate image and enrichment of life experiences. The review also reveals that, the modern technological gadgets (computer) which is viewed as an improved typewriter bring with it changes that have posed the manually operated machines; it also highlights some controversies among scholars as to the continual influence of word-processing in modern offices.

Shorthand is the process of using short cut to write in order to keep pace with the speaker. It is a shorter way of writing in order to take verbatim recording of the speaker. Shorthand has been in existence since men quest for the need in recording whatever said with an international history. There are different methods of shorthand used in recording speeches, which were found to be difficult before the introduction of Pitman New Era in 1837. Other methods were derived from Pitman system but the most widely used is that of Pitman system.

Professional Secretaries are those who passed through a prescribed programme of training with appropriate skills, attitudes of assisting and competencies required for assuming the roles of assisting their executives in an office, while modern functions is exposing the professional secretaries to modern office technology. Studies related to this work were discussed and the empirical studies reviewed which included, Boladele (2006), Aliyu (2007), Akpomi and Ordu (2009). The researcher observed that in all the empirical studies reviewed, all focused on the views of secretaries on impact, relevance of shorthand skill to secretaries' job in modern offices, none viewed the influence of word-processing skill on professional secretaries functions in modern offices, because word-processing was not introduced by then, which is the major gap this study has filled.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter describes the research design and methodology and procedure employed in collecting and analyzing data under the following sub-headings:

- 3.1 Research Design
- 3.2 Population of the study
- 3.3 Sample Size and sampling Procedure
- 3.4 Instrument for Data Collection
 - 3.4.1 Validation of the Instrument
 - 3.4.2 Pilot Study
 - 3.4.3 Reliability of the Instrument
- 3.5 Procedure for Data Collection
- 3.6 Procedure for Data Analysis

3.1 Research Design

Survey research design was adopted for this study. This is because it is a reliable tool for educational research. It is a means of obtaining base line data on prevailing traits and perception among segments of the population and generalizing the findings obtained from the population. It also allows the researcher to examine many variables (demographic and life style information, attitudes, motives, performance etc.). Survey research design focuses on people, the vital facts of people, and their belief, opinions, attitudes, motivation and behaviour. It helps the researcher to detect what people think and what they do. It can be used for both small and large sample population. According to Osuala (2001) when a survey centers on individual and their opinions, belief, motivation and behaviour, the survey research design is most appropriate. Survey research design therefore, gives remarkably accurate picture of a phenomenon.

Kerlinga and Baileg (2008) stated that survey research determines incidence, distribution and inter-relatedness among sociological variables and focuses on vital facts, beliefs, opinions, attitudes, motivation and behaviour of people. Gay (1981) cited in Jacob (2012) also described the survey research design as being useful for studying a variety of problems involving data collection for either testing hypotheses or answering questions concerning the present status of subjects under study.

He further noted that this design permits the description of conditions as they exist in their natural settings. In line with Gay’s view, survey research design is therefore, considered appropriate for this study in order to achieve the purpose of the study.

3.2 Population of the Study

The population of the study was two hundred and forty-six respondents (246), made up of seventy-three (90) Directors and one hundred and fifty-six 156 professional secretaries in Federal Ministries of the six states in North West Geo-political zone, Nigeria. The accessible population was drawn from six states Federal Ministries in the zone who served as respondents for the study as shown in Table 1. The breakdown of the population is shown in appendix III

S\N	State	No. of Ministry	No. of Directors	No. of PS	Total
1.	Kaduna	08	17	29	46
2.	Kano	08	17	29	46
3.	Katsina	08	16	27	43
4.	Jigawa	07	11	20	31
5.	Sokoto	08	16	28	44
6.	Kebbi	08	13	23	36
Total		47	90	156	246

Source: Office of the Director General of each Ministry

3.3 Sample Size and Sampling Procedure

The sampling procedure employed is the purposive sampling procedure in selecting 169 as tested population, made up of 64 directors and 105 professional secretaries’. The

researcher decided to use purposive sampling procedure because, the researcher focused on the professional secretaries with both shorthand and word-processing skills in modern offices in the North-West geo-political zone, Nigeria. Conroy (2015) posited that for a population of 200, 132 respondents could be selected at an acceptable margin error of $\pm 5\%$. Thus, for this study with a population of 246, a sample size of 169 is chosen at an acceptable margin error of $\pm 3\%$. Purposive technique was used in selecting the sample to avoid been bias through the use of yes or No.

Table 2 Sample Size for the Study

North-West States	No. of Directors	No. PS	Total
Kaduna	12	20	32
Kano	15	24	39
Katsina	10	17	27
Jigawa	09	15	24
Sokoto	10	17	27
Kebbi	08	12	20
Total	64	105	169

Source: field survey, 2015.

3.4 Instrument for Data Collection

The instrument for data collection as in appendix III was structured questionnaire; “tagged Influence of word-processing and Shorthand skills on Professional Secretaries functions in modern offices”. According to Kerlinger (1978) questionnaire is the best instrument to gather data about the respondents’ feeling, emotions and perception. The questionnaire was divided into four sections: A, B, C, D and E. Section ‘A’ contained the personal data of the respondents and ‘B’ contained the questionnaire items: items 1-10 on the influence of word-processing skill on professional secretaries’ functions in modern offices to

provide answers to research question one. Section 'C' items 11-20 on the areas of shorthand skill on secretaries' functions in modern offices to answer research question two. Section 'D' consisted of items 21-30 on the influence of communication skill on professional secretaries functions in modern office to answer research question three. Section 'E' items 31-40 on influence of shorthand skill on secretaries' communication skill in modern office to answer research question four. The forty (40) High Extent items were close-ended questions. They were placed in 4 points rating scale of Very High Extent (VHE), High Extent (HE), Low Extent(LE) and Very Lower Extent(VLE) respectively which was scored as follows: VHE= 4, HE= 3, LE= 2 and VLE= 1. The same questionnaire item was used for both directors and professional secretaries'.

3.4.1 Validation of the Instrument

Face and content validity of the instrument was obtained through the judgment of experts in the Department of Vocational and Technical Education, Ahmad Bello University, Zaria, not below the rank of senior lecturer. Comments, observations and corrections such as spellings and omissions of letters made were incorporated into the final copy of the instrument. This is in line with Udoh (2002) that validation of content of research instrument by any expert is an important and acceptable type of validation.

3.4.2 Pilot Study

For the researcher to ascertain the reliability of the instrument, five copies of the questionnaire were administered to Directors, and eight to professional secretaries in Federal Ministry of Transport, Central Area, Abuja. The Pilot study was meant to ascertain the clarity, authenticity or otherwise of the instrument. The choice of this location for pilot study was influenced by the fact that the Ministry has the same characteristics with the population of the study, but it is outside the study area.

3.4.3 Reliability of the Instrument

Reliability of an instrument refers to the Consistency with which an instrument measures what it intended to measure. The data obtained from the pilot study were statistically analyzed using split-half method to determine the reliability of the instrument. The instrument was divided into two halves 'odd' and 'even' numbers. The Spearman Rank Order Correlation Coefficient was used to calculate the reliability coefficient of 0.90. This falls within the range suggested by Ade (2001), who established that an instrument used for data collection was reliable and valid when reliability coefficients are between 0.70 and 1. According to Gaur and Gaur (2009), the closer the reliability result is to 1, the more reliable the instrument is to be used for data collection. In view of the above, the instrument for this study was adjudged reliable for this study.

3.5 Procedure for Data Collection

The researcher obtained a letter of introduction as in appendix I from the Head of Vocational and Technical Education Department, Ahmad Bello University, Zaria for permission to conduct the study in all the Ministries selected. The researcher and two trained assistants in each of the six states in the zone administered the instrument for the study. The exercise lasted for six weeks; the researcher supervised the filling of the questionnaire and offer explanation where necessary.

3.6 Procedure for Data Analysis

The data so collected were analyzed in three stages. In stage one; the researcher used frequency tables and percentages to answer the bio-data of the respondents. Weighted mean were used to answer the research questions. In answering the research questions in stage two, Very High Extent and High Extent were classified as High Extent while Low Extent and Very Low Extent were considered as Low Extent. A mean score of 2.50 and above was consider as High Extent, while a mean of 2.49 and below was consider as Low Extent. All

Null hypotheses were tested using t-test. This is in agreement with Dunn (2001) who stipulated that the t-test was developed to test hypotheses regarding differences between two mean which was supported by Magaji, (2010) that t-test is a more appropriate tool to measure two or more variables.

In testing of null hypotheses, if the calculated value is greater or equal to the critical value, the null hypotheses is rejected, while if the calculated value is less than the critical value, the null hypotheses is retained. All the hypotheses were tested at 0.05 level of significance ($p=0.05$).

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the analyses of the data collected for the study under the following sub-headings:

- 4.1 Analysis of Demographic Data
- 4.2 Answer to Research Questions
- 4.3 Testing of Null hypotheses

The data analysis was based on the bio-data of the respondents, the research questions and the null hypotheses. The quantitative information the questionnaire was coded for data capturing using version 20.0 Statistical Product Service Solution (SPSS), while qualitative information was subjected to content analysis. Tables of frequency and percentages were used to analyze personal data of the respondents. Weighted mean was used to answer the research questions. Score of 2.5 and above was set as the index score for high extent. In testing of null hypotheses, t-test was used to test all null hypotheses. All the hypotheses were tested at 0.05 level of significance. At the end of the fieldwork, the total number of returned and valid copies of questionnaires was Directors-53, PS-83 = 136. Thus, the population for this analysis is 136. Section four of the chapter presents discussion of the major findings as follows:

- 4.1** Analysis of Demographic Data. Analyses of Bio-data of respondents are as presented in table 3

Analysis of Gender Distribution of Directors.

Table 3 Gender Distribution of Directors by percentage

Gender	Frequency	Percentage (%)
Male	34	64.2
Female	19	35.8
Total	53	100

Source: Field Survey 2015

Table 3 indicated the gender distribution of the respondents showed that 34(64.2%) were males and 19(35.8%) were females. This implied that there were more male directors to female Directors.

Table 3 Percentage Analysis of Gender Distribution of professional Secretaries'

Gender	Frequency	Percentage (%)
Male	51	61.4
Female	32	38.6
Total	83	100

Source: field Survey, 2015

Analysis of respondents by their gender is as presented in Table 3 from the table, 51 %(61.4%) of professional secretaries' that responded to the instrument were males, while 32(38.6%) were females.

Table 4 Percentage Distribution of Directors by Age

Age Range	Frequency	Percentage (%)
18 – 25 yrs	0	0
26 – 30 yrs	0	0
31 yrs & above	53	100
Total	53	100

Source: Field Survey, 2015

From table 4 the age range of directors is presented, 53(100%) of directors were 31 years and above. None is between ages 18-25 years.

Table 4 Percentage Analysis Distribution of professional Secretaries' by Age

Age Range	Frequency	Percentage (%)
18 – 25 yrs	13	15.7
26 – 30 yrs	62	74.7
31 yrs & above	08	9.6
Total	83	100

Source: Field Survey, 2015

Table 4 showed that the age (in years) distribution of Professional Secretaries', the data showed that 13 that are 15.7% of the respondents were within the age range of 18-25 years, 62(74.7%) were within the ages 26-30. This indicated that there were mostly younger ones serving as professional secretaries' in Federal Ministries in the North-West geo-political zone, Nigeria

Table 5 Percentage Analysis of Educational Qualification of Directors by

Educational Qualification	Frequency	Percentage (%)
NCE	0	0
OND	0	0
HND	13	24.5
First Degree & Above	40	75.5
Total	53	100

Source: Field Survey, 2015

Analysis of respondents by their qualification is as presented in table 5. From the table 40 (75.5%) of directors are first degree and above holders, while 13(24.5%) are holders of Higher National Diploma (HND). This indicated that majority of the Directors are (75.5%) are first degree and above

Table 5 Educational Qualification of Professional Secretaries' by Percentage

Educational Qualification	Frequency	Percentage (%)
NCE	05	6.0
OND	28	33.7
HND	26	31.3
First Degree & Above	24	29.0
Total	83	100

Source: Field Survey, 2015

Table 5 showed that OND has the highest frequency of 28(33.7%), HND has 26(31.3%), and NCE has 05(6.0%). This indicated that most of the professional secretaries' are HND and OND holders are mostly preferred because of their practical orientation.

4.2 Answers to Research Questions

The answers to the four research questions and analysis is presented in table 6- 9

Research Question 1: To what extent does possession of word-processing skill influence professional secretaries' competence in modern offices?

The analysis of data used to answer research question one is shown in table 6.

Table 6 Mean scores of respondents on the influence of WPS on PS' Functions in Modern Offices.

S/no.	Item Statement	Mean	SD	Decision
1.	The emergence of modern technological equipment has successfully discouraged PS in applying WPS in their offices	2.23	1.012	Low Extent
2.	The knowledge of WP assists PS' functions Effectively in modern offices	3.32	.673	High Extent
3.	Executives prefer secretaries with WPS to those who do not possess WPS	3.25	.648	High Extent
4.	Modern technological gadgets go paripassu With WPS	3.13	.652	High Extent
5.	Secretaries still take dictations in Shorthand and use WP for transcription	2.74	.944	High Extent
6.	The use of Microsoft Office, Power point, data base operation in checking and editing data are possible with the knowledge of WP	3.09	.658	High Extent
7.	Speed in WP is necessary for typing minutes of meetings	3.32	.547	High Extent
8.	Secretaries who are well equipped with WPS do better in manipulation of data	3.09	.883	High Extent
9.	WPS helps PS to operate computers in modern Offices	3.49	.669	High Extent
10.	WP enables PS to have good construction of English Language and writing skills	2.83	1.033	High Extent
Average Mean = 3.05				

Source: Field Survey, 2015

The summary of the respondents opinions used to answer research question one presented in table 6 showed the highest mean recorded was 3.49 in favour of word-processing skill as an aid to professional secretaries in computer operation in modern offices. The least mean recorded for that with divergent opinion was 2.23 in respect of the emergence of modern technological equipment has successfully discouraged PS in applying WPS in their offices. Average mean for the table is 3.05, which implies that word-processing skills positively influences competence of professional secretaries' in modern offices.

Research Question 2: To what extent does possession of shorthand skill influence professional secretaries' functions in modern offices?

The analysis of data used to answer research question two is shown in table 7.

Table 7 Mean scores of respondents on the influence SS on PS' Functions in Modern Offices.

S/no	Item statements	Mean	SD	Decision
11.	PS with the knowledge of shorthand Keep organizations' secrets from the public	3.62	.713	High Extent
12.	SS helps secretaries with speed to speedily follow the steps involved in taking minutes of meetings	3.40	.689	High Extent
13.	PS without the knowledge of SS function effectively in modern offices than those with the skill	1.92	.958	Low Extent
14.	The use of shorthand is archaic in modern offices	3.13	.878	High Extent
11.	PS with SS can use electronic organizers in taking dictation	2.83	.935	High Extent
16.	PS with SS manage files and directories better	3.15	.662	High Extent
17.	Shorthand should be phased out of modern offices	2.96	.898	High Extent
18.	Shorthand skill do not help professional secretaries' to develop minutes of meetings to reflect major points discussed	2.13	1.00	Low Extent
19.	Secretaries with SS save the organization from internal and external rumours since information are kept secret	3.43	.605	High Extent
20.	The use shorthand in minutes taking at meeting is archaic	3.13	.900	High Extent
Average Mean = 2.97				

Source: field Survey, 2015

Responses of Directors to research question two in 4.2.2 showed the highest mean recorded was 3.62 in favour of shorthand skill helped professional secretaries to function effectively in modern offices. The least mean recorded for directors with divergent opinion was 1.92 mean score. Hence, the calculated mean of 3.62 was greater than 1.92 benchmark score.

Research Question 3: To what extent does possession of communication skill influence professional secretaries' competence in modern offices?

The analysis of data used to answer research question three is shown in table 8.

Table 8 Mean score on the influence of communication skill Professional Secretaries competence in Modern Offices

S/n	Item Statements	Mean	SD	Decision
21.	PS with communication skill perform better in modern offices	3.11	.800	High Extent
22.	Inadequate communication skill delays the Facilitation of office activities of secretaries	2.94	.745	High Extent
23.	Communication skill has no effect in keeping or taking what the Executive or speaker says verbatim in the office thereby ensuring originality of information in the secretary's job	2.47	1.03	Low Extent
24.	PS are required to know office machine operations to enable them function effectively.	3.40	.566	High Extent
25.	Communication skill helps in record management and other secretarial tasks and competencies	3.36	.653	High Extent
26.	Communication skill helps in performing tele-communication and voice activating tasks	3.08	.675	High Extent
27.	With communication skill, it is possible for the secretary to correct executives' spelling mistakes	2.75	.959	High Extent
28.	Professional secretaries' with CS can operate computer and other information technology facilities proficiently	3.19	.681	High Extent
29.	Communication skill are not relevant in secretary's work in today's modern offices	2.09	.946	Low Extent
30.	Communication skill should be the only criteria for recruitment and promotion of secretaries	2.49	.933	Low Extent
Average Mean 2.89				

Source: Field Survey 2015

Responses of the respondents in table 8 revealed that communication skill helped professional secretaries' to function effectively in modern offices with the highest mean of 3.40 while respondents with contrary opinion has low mean score of 2.09.

Research Question 4: To what extent does possession of shorthand skill influence professional secretaries' communication skill in modern offices?

The analysis of data used to answer research question four is shown in table 9.

Table 9 Mean scores of respondents on the influence of SS on professional Secretaries Communication Skill in Modern Offices

S/no	Item Statements	Mean	SD	Decision
31.	SS helps secretaries with the ability necessary in communication	3.34	.706	High Extent
32.	Secretaries should be recruited and promoted based on their ability to operate modern equipment	3.34	.783	High Extent
33.	PS should be recruited based on their ability to operate computers	3.32	.754	High Extent
34.	SS helps secretaries to communicate effectively with others using a range of spoken, written and other non-verbal means of expression	3.32	.779	High Extent
35.	SS helps secretaries to have good command of English Language and writing skills	3.28	.907	High Extent
36.	SS does not have any influence on Secretaries communication skill	2.08	.851	Low Extent
37.	Recruitment and promotion of PS should be based on the ability to check and edit data on the computer	3.01	.741	High Extent
38.	SS helps secretaries to interact effectively in the office	3.02	.888	High Extent
39.	SS saves the secretary the strength of writing in longhand thereby helping the secretary to do more work in the office	3.36	.653	High Extent
40.	SS do not help secretaries in communication process	2.17	1.087	Low Extent
Average Mean = 3.03				

Source: Field Survey, 2015

The analysis of data used to determine the opinions of respondents on influence of shorthand skill on professional secretaries' communication skill in modern offices is presented in table 9 opined that shorthand skill have influence on professional secretaries' communication skill with a highest mean score of 3.36 against 2.08. Based on the analysis, the calculated values of 3.36 is greater than the index score of 2.08, hence the researcher concluded that directors agreed that shorthand skills influences the communication skill of professional secretaries in modern offices in North West Zone, Nigeria.

Research Question 1: To what extent does possession of word-processing skill influence professional secretaries' competence in modern offices?

The analysis of data used to answer research question one is shown 6

Table 6 Mean scores of respondents on the influence of WPS on PS' Functions in Modern Offices (PS N = 83)

S/no	Item statements	Mean	SD	Decision
1.	The emergence of modern technological equipment has successfully discouraged PS in applying WPS in their offices	2.17	.908	Low Extent
2.	The knowledge of WP assists PS' functions effectively in modern offices	3.31	.643	High Extent
3.	Executives prefer secretaries with WPS to those who do not possess WPS	3.19	.594	High Extent
4.	Modern technological gadgets go paripassu with WPS	3.06	.651	High Extent
5.	Secretaries still take dictations in Shorthand and use WP for transcription	2.80	.921	High Extent
6.	The use of Microsoft Office, Power point, data base operation in checking and editing data are possible with the knowledge of WP	3.01	.741	High Extent
7.	Speed in WP is necessary for typing minutes of meetings	3.34	.590	High Extent
8.	Secretaries who are well equipped with WPS do better in manipulation of data	3.07	.793	High Extent
9.	WPS helps PS to operate computers in modern Offices	3.40	.517	High Extent
10.	WP enables PS to have good construction of English Language and writing skills	2.76	1.019	High Extent
Average Mean = 3.01				

Source: Field Survey, 2015

The summary of the respondents opinions used to answer research question one presented in table 6 showed the highest mean recorded was 3.40 in favour of word-processing skill as an aid to professional secretaries' in computer operation in modern offices. The least mean recorded for that with divergent opinion was 2.17 in respect of the emergence of modern technological equipment has successfully discouraged PS in applying

WPS in their offices. Average mean for the table is 3.01, which implies that word-processing skills positively influences competence of professional secretaries' in modern offices.

Research Question 2: To what extent does possession of shorthand skill influence professional secretaries' functions in modern offices?

The analysis of data used to answer research question two is shown in table 13.

Table 7 Mean scores of respondents on the influence of SS on Professional Secretaries' Functions in Modern Offices (PS N =83)

S/no	Item statements	Mean	SD	Decision
11.	PS with the knowledge of shorthand keep organizations' secret from the public	3.55	.590	High Extent
12.	SS helps secretaries with speed to speedily follow the steps involved in taking minutes of meetings	3.40	.643	High Extent
13.	PS without the knowledge of SS function effectively in modern offices than those with the skills	1.95	.854	Low Extent
14.	The use of Shorthand is archaic in modern Offices	3.18	.735	High Extent
15.	PS with SS can use electronic organizers in taking dictations	2.75	.986	High Extent
16.	PS with SS manage files and directories better	3.07	.762	High Extent
17.	Shorthand should be phased out of modern Office	3.11	.797	High Extent
18.	Shorthand skill do not help secretaries to develop minutes of meetings to reflect major points discussed	2.00	.911	Low Extent
19.	Secretaries with SS save the organization from internal and external rumours since Information are kept secret	3.43	.628	High Extent
20.	The use of shorthand in minutes taking at meetings is archaic	3.23	.687	High Extent
Average Mean = 2.97				

Source: Field Survey, 2015

Research Question 3: To what extent does possession of communication skill influence professional secretaries' competence in modern offices?

The analysis of data used to answer research question three is shown in table 8.

Table 8 Mean score of Professional Secretaries' on the influence of WP & SS on Professional Secretaries' Functions in Modern Offices (PS N = 83)

S/no	Item statements	Mean	SD	Decision
21.	PS communication skill perform better in modern offices	3.10	.775	High Extent
22.	Inadequate communication skill delays the facilitation of office activities of secretaries	2.99	.724	High Extent
23.	Communication skill has no effect in keeping or taking what the executive or speaker says verbatim in the office thereby ensuring originality of information in the secretary's job	2.19	.981	Low Extent
24.	PS are required to know office machine operations to enable them function effectively.	3.39	.559	High Extent
25.	CS helps in record management and other secretarial tasks and competencies	3.37	.599	High Extent
26.	CS helps in performing telecommunication and voice activating tasks	3.10	.674	High Extent
27.	With communication skill, it is possible for the secretary to correct executives' spelling mistakes	2.73	.976	High Extent
28.	Secretaries with WPS can operate computer and other information technology facilities proficiently	3.17	.746	High Extent
29.	CS and WP are not s relevant in secretary's work in today' modern offices	1.89	.841	Low Extent
30.	CS and WP should be the only criteria for recruitment and promotion of secretaries	2.46	.845	Low Extent
Average Mean = 2.84				

Source: Field Survey, 2015

The analysis of data used to determine the opinions of respondents' on influence of communication skill on professional secretaries functions in modern offices revealed the highest mean of 3.39, while a mean of 1.89. Hence, the analysis indicated that communication skill influence competence of professional secretaries' in modern offices in North West, Nigeria.

Research Question 4: To what extent does possession of shorthand skill influence professional secretaries' communication skill in modern offices?

The analysis of data used to answer research question four is shown in table 15.

Table 9 Mean scores of respondents on the influence of SS on professional secretaries' communication skill in modern offices (PS N = 83)

S/no	Item statements	Mean	SD	Decision
31.	SS helps secretaries with the ability necessary in communication	3.27	.717	High Extent
32.	Secretaries should be recruited and promoted based on their ability to operate modern equipment	3.39	.749	High Extent
33.	PS should be recruited based on their ability to operate computers	3.40	.680	High Extent
34.	SS helps secretaries to communicate effectively with others using a range of spoken, written and other non-verbal means of expression	3.39	.659	High Extent
35.	SS helps secretaries to have good command of English Language and writing skills	3.07	.973	High Extent
36.	SS does not have any influence on Secretaries' communication skills	1.83	.867	Low Extent
37.	Recruitment and promotion of PS should be based on the ability to check and edit data on the computer	2.94	.874	High Extent
38.	SS helps secretaries to interact effectively in the office	2.91	.870	High Extent
39.	SS saves the secretary the strength of writing in longhand thereby helping the secretary to do more work in the office	3.19	.706	High Extent
40.	SS do not help secretaries in communication process	2.11	.937	Low Extent
Average Mean = 2.95				

Source: Field Survey, 2015

The analysis of data used to determine the opinions of respondents on influence of shorthand skill on professional secretaries' communication skill in modern offices is presented in table 9 opined that shorthand skill have influence on professional secretaries communication skill with a highest mean score of 3.40 against 1.83. Based on the analysis, the calculated values of 3.40 is greater than the index score of 1.83, hence the researcher concluded that both directors and professional secretaries' agreed that shorthand skill influences the communication skill of professional secretaries' in modern offices in North West Zone, Nigeria.

4.3 Testing of Null Hypotheses

Four null hypotheses were stated and tested to further probe into the statistical validity of the solutions proffered for the research questions of the study. The level of significance (alpha) was set at 0.05. The decision rule was that if the significance value (p-value) of the X-test is greater than the alpha, then the null hypothesis is retained. On the other hand, if the significance value (p-value) of the X-test is equal to or less than the alpha, then the null hypothesis is rejected. The analyses of each of these null hypotheses are presented in Tables 10-13.

Null Hypothesis 1: *There is no significant influence of word-processing skill on professional secretaries' competence modern offices.*

The analysis of data used to test null hypothesis one is shown table 10.

Table 10 T-test analysis on the views of professional secretaries' and directors on influence of Word Processing Skill as a Predictor of Secretaries' competence in modern offices in North West Zone

	Observed N	Expected N	Residual	X ² Cal	X ² Crit	Df	Level of Sig.
Very High Extent	28	20.8	7.3				
High Extent	32	20.8	11.3	18.06	7.81	3	0.05
Low Extent	15	20.8	-5.8				
Very Low Extent	8	20.8	-12.8				
Total	83						

Source: Field Survey, 2015

The result of t-test used to test the null hypothesis one is as presented in table 10. From the table, calculated t-test value is 18.06. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance. Thus, H_{01} is rejected.

Null Hypothesis 2: Shorthand skill has no significant influence on professional secretaries' functions in modern offices.

The analysis of data used to test null hypothesis two is shown table 11.

Table 11 T-test Analysis on Shorthand Skill as a Predictor of professional Secretaries' Functions in modern offices in North West Zone [N= 136]

	Observed N	Expected N	Residual	X ² Cal	X ² Crit	Df	Level of Sig.
Very High Extent	27	20.8	6.3				
High Extent	33	20.8	12.3	18.54	7.81	3	0.05
Low Extent	15	20.8	-5.8				
Very Low Extent	8	20.8	-12.8				
Total	83						

Source: Field Survey, 2015

The result of t-test analysis used to test the null hypothesis two is as presented in table 17. From the table, calculated t-value is 18.54. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance. Thus, H_{02} is rejected.

Null Hypothesis 3: Communication skill has no significant influence on professional secretaries' competence in modern offices.

The analysis of data used to test null hypothesis three is shown table 12.

Table 12 T-test analysis on Communication Skill as a Predictor of professional secretaries' competence in modern offices in North West Zone

	Observed N	Expected N	Residual	X ² Cal	X ² Crit	Df	Level of Sig.
Very High Extent	28	20.8	6.3				
High Extent	32	20.8	12.3	18.54	7.81	3	0.05
Low Extent	15	20.8	-5.8				
Very Low Extent	8	20.8	-12.8				
Total	83						

Source: Survey2015

The result of t-test analysis used to test the null hypothesis three is as presented in table 12. From the table, calculated t-value is 18.54. The value is greater than the t-Critical value of 7.81 at 0.05 level of significance. Thus, H_{03} is rejected.

Null Hypothesis 4: Shorthand skill has no significant influence on professional secretaries' communication skill in modern offices.

The analysis of data used to test null hypothesis four is shown table 13.

Table 13 T-test analysis on Shorthand Skill as a Predictor for professional secretaries' Communication skill in modern offices in North West Zone

	Observed N	Expected N	Residual	X ² Cal	X ² Crit	Df	Level of Sig.
Very High Extent	27	20.8	7.3				
High Extent	33	20.8	11.3	18.06	7.81	3	0.05
Low Extent	15	20.8	-5.8				
Very Low Extent	8	20.8	-12.8				
Total	83						

The result of t-test analysis used to test the null hypothesis four is as presented in table 13. From the table, calculated t-value is 18.06. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance. Thus, H_{04} is rejected.

4.4 Summary of Major Findings

In summary, the major findings of this study are as follows:

1. For Research Question 1 which sought to determine the influence of word-processing on professional secretaries' functions with an average mean of 3.01 was obtained using descriptive statistics. Taking the stipulated benchmark of the study into consideration, that is, any score that is equals to and above the mean score of 2.50 was to be considered as agree. The obtained average mean value of 3.01 for this research question therefore implies that word-processing skills has influence on the function of professional secretaries in modern offices North-West Geo-Political Zone, Nigeria. (P-value 53.10)

2. With respect to Research Question 2 which was to ascertain the influence of shorthand skill on professional secretaries' functions in modern offices, descriptive statistics computation gave an average mean of 2.97 which is also above the stipulated benchmark of 2.50 thus it is taken that shorthand skill also has influence on professional secretaries' functions in modern offices, North West, Nigeria. (P-value 6.53)
3. Research Question 3 relates to whether communication skill has influence on professional secretaries functions in modern offices, North West Nigeria, and the average mean obtained here was 2.84 to imply that the variable of communication skill wields influence on professional secretaries' functions in North West, Nigeria. (P-value 21.46)
4. Research Question 4 sought to determine whether shorthand skill has influence on professional secretaries' communication skills with an average mean of 2.95 was obtained using descriptive statistics. This figure when put side by side the benchmark of 2.50 clearly shows that shorthand skill has influence on communication skill of professional secretaries' in modern office North West, Nigeria. (P- value 13.80)

4.5 Discussions of Major Findings

The finding drawn from research question one and hypothesis one was found to be positive with an average mean of 3.01 shown in table 12, 16 was therefore upheld, because it indicated that word-processing skills have great influence on professional secretaries' functions in modern offices with the average mean recorded in the tables was 3.01, respectively. It shows that professional secretaries' needs word-processing skills to function effectively in modern offices. This is because virtually every activity in modern offices is

automated. This finding was buttressed by Bohl in Chukwumezie (2006) who stated that word-processing was developed as means of raising office productivity.

Similarly, in table 16 the result of the statistical analysis of hypothesis one, the result found that shorthand skills have significance influence on professional secretaries' function in modern offices in the North West Zone, Nigeria. The good aspect of shorthand is that you have a random-access record of conversation, which you can write up at high speed, rather than having to transcribe from tape. This finding agreed with what was obtained by other researcher. Ezenwafor (2009) who identifies shorthand skills as mastering of principles for reading/English words etc.

The result of the analysis of research question two and test of null-hypothesis two in 13, 17 shows that, majority of the respondents agreed that shorthand has significant influence on confidentiality of professional secretaries' in recording and keeping of official/data information in modern offices. This finding concurred with one of the conclusion posed by Ezenwafor (2009) that shorthand a skill is a sine qua non for every professional secretary. This was attested to by Olise (2010) who argues that, despite the commendable improvements in office technology the position of professional secretaries' will remain relevant for a considerable time to come because their functions cannot be undertaken by the computer without serious distortions and even frustrations.

The third objective was to examine influence of communication skill on professional secretaries' functions in modern offices. Item 21, 22, 24, 25, 26, 27 and 28 had mean scores of above 2.5, which is the level of acceptance. The finding drawn from the regression computed showed that, there was no significance difference in the opinion of Directors and Professional secretaries on the influence of communication skill on professional secretaries' functions in modern offices. This clearly communication skill really help professional

secretaries' in their functions. This concurred with Ohakwe (2001) communication skill is fundamental in any keyboarding on computer, teleprinter or telex.

To him office correspondence such as business letter, memos, and minutes of meeting, financial matters and statistical drafts are regular task of any office. He also said that communication skill co-exist with electronic gadgets. Tim (2013) found that the influence of shorthand skill could not be overemphasized because transcribing from a digital recorder doubles the time it would take to file accurate quotes.

The result collected from both Directors and Professional Secretaries opined that no significant difference between the opinions of directors in Federal Ministries and that of professional secretaries' on the influence of word-processing and shorthand skills on professional secretaries functions in the modern offices in North West Zone, Nigeria. From the employers' opinion the changes in the office environment have increased the demand for professional secretaries' who are adaptable and versatile. There are always openings for topflight secretaries in both the public and private sectors. These sectors rely on the nation's higher institutions of learning to supply them with this indispensable category of work force. The office environment has metamorphosed into a very modern one from the traditional office known. The move now is towards a paperless office. This concur with Chukwumezie (2002), that the new trend according to him helped to enrich and widen the scope and practices of the secretarial profession in terms of speed, quality, accuracy and variety.

One of the findings of this study shows that shorthand has significant influence on professional secretaries' communication skill in modern offices with a mean score of 3.40 which is the above the level of acceptance. This finding coincided with Ahmed (2006) that shorthand enables professional secretaries' to be familiar with words and their pronunciation, the application of proper punctuation marks in correspondence going out of the office. That shorthand practical skill enhances accurate and successful form of writing letters and

producing a mail able memorandum and possesses good control of English, general knowledge in business matters and terminologies. Onwukwe and Uteh (2009) asserted that shorthand serves as a medium for training in English.

This study revealed that word-processing and shorthand skills help professional secretaries' to function effectively in modern offices. This finding conforms to the findings in the present study, "Influence of Word-Processing and Shorthand Skills on Professional Secretaries Functions in Modern Offices in the North-west geo-political zone, Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In this chapter, the researcher presents the summary, conclusion and recommendations of the study based on the result obtained from the data discuss under the following headings:

5.1 Summary

5.2 Contribution to knowledge

5.3 Conclusion

5.4 Recommendations

5.1 Summary

The major objective of this study was to determine the influence of word-processing and shorthand skills on professional secretaries' functions in modern offices in North-West geo-political zone, Nigeria. In order to achieve this, four specific objectives, four research questions and four null hypotheses were formulated. In view of this, related literature and empirical studies were reviewed. The literature showed that previous studies focused more on the relevance of shorthand skills rather than combining both word-processing and shorthand skills on professional secretaries' functions in modern offices. This identified gap formed the basis for this study. This study focused on the level of influence of word-

processing and shorthand skills on professional secretaries' functions in modern offices. This study was conducted in Federal Ministries of the six states in North-West Nigeria.

Descriptive survey design was used. One hundred and sixty-nine respondents were purposively sampled from a study population of two-hundred and forty-six, 90 directors and 156 professional secretaries' in six states in North-West geo-political zone of Nigeria. Four rating structured questionnaire was used as the instrument for data collection. One hundred and thirty-six (136) were properly filled and subjected to statistical analyses. The researcher with the help of two trained research assistants administered the questionnaire within a period of four weeks. Index weighted mean score of at least 2.50 were used to answer the four research questions, while data were coded into SPSS and t-test was used to test all the null hypotheses 0.05 level of significance. All the null hypotheses were rejected.

The result of the study revealed that word-processing and shorthand skills has influence on professional secretaries' functions in modern offices. The test of the hypothesis one revealed the calculated t-value is 18.06. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance. Thus, H_{01} is rejected. Null hypothesis two also revealed the calculated t-value is 18.54. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance. Thus, H_{02} is rejected. These results further affirmed that word-processing and shorthand skills has significant influence on professional secretaries' functions in modern offices as opined by directors and trained professional secretaries' North West, Nigeria.

The analysis of data used to answer research question three revealed that there is significant difference between the opinion of directors and professional secretaries' on the influence of communication skill on professional secretaries' functions in the modern in North West Zone which was affirmed with the hypothesis value calculated of t-value of 18.06. The value is greater than the T-Critical value of 7.81 at 0.05 level of significance.

Thus, H_0_3 is rejected. The researcher concluded that the two groups of respondents shared the same opinion.

5.2 Contribution to Knowledge

This study established that:

1. Word-processing and shorthand skills had significant influence on professional secretaries' functions in modern offices North West, Nigeria.
2. Communication skill had significant influence on professional secretaries' functions in modern offices, North West Geo-Political Zone, Nigeria.
3. Shorthand skill had significant influence on communication skill of professional secretaries' in North West, Nigeria.

5.3 Conclusion

From the findings of this study, the researcher concluded that all the variables studied in this work which includes word-processing skill, shorthand skill and communication skill, has significant influence on of professional secretaries functions in modern offices, North West Nigeria. Consequently, with the introduction of modern technology in modern offices, professional secretaries without these skills will lose their job. And if they lose their job, there will be an increase in number of unemployed persons in the society. The stress of being jobless with families might even put their health at risk.

5.4 Recommendations

Based on the findings and conclusions enumerated above, the following recommendations are made by the researcher:

1. All the Federal Ministries involved in this study should make shorthand and word-processing skills are criterion for employing professional secretaries in the labour force because it influences their functions as professional secretaries.

2. Professional Secretaries should disabuse their minds from thinking that the emergence of technological equipment is an attempt to replace shorthand or displace them from modern offices. It is said, “As office automation continues to evolve, retraining and continuing education will remain integral parts of professional secretaries’ jobs. Changes in the office environment have increased the demand for professional secretaries and administrative assistants who are adaptable and versatile.” This is because people who are trained to do so must operate machines. Thus, professional secretaries should embrace modern technology.
3. The researcher also recommends that professional secretaries should always be ready and be open-minded to acquire additional training/skills to development, their communication skill, bearing in mind that changes occur frequently in the line of their chosen career and they are not left behind in the use of information gadget in this digital age. Employers of secretaries should assess the prospective professional secretaries on the identified skills before engaging them so that they will not become round pegs in square holes.
4. Professional secretaries as much as possible should not discard their shorthand knowledge and skills irrespective of prevalent misconceptions of the public. They should consider shorthand skills as their stock in trade and make use of them as much as possible.

5.5 Suggestion for Further Study

Similar study can be carried out on the same topic in other parts of the country to see whether similar results can be obtained or for proper comparison. Similar research should be carried out in the following areas:

1. Relationship between Information Technology and Performance of Secretaries in the North-Central Zone, Nigeria.

2. Influence of Word-Processing and Shorthand Skills on professional Secretaries Functions in Modern Offices in the South-South Geo-Political Zone, Nigeria.

REFERENCES

- Ade, U.B. (2001), *A shorthand Methodology that Works*. Business Education Forum.
- Adebusi, A.M. (2001). The Relevance of Shorthand and Typewriting in Curriculum for Higher Education. *Business Education Journal*, Vol.3 (4) pp. 28-37
- Agomuo, E.E. and Isu, C.O. (2002). Secretarial Job-Tasks Required in Modern Business offices in Abia State: Implications for improved Secretarial Education, III (5), 194-201
- Ahmed, B.O. (2006). *Students' performance in Shorthand at Junior Secondary School level*. B.ED Research project. Ahmadu Bello university, Zaria.
- Akindele, .O.A. (1996). "Effect of Proofreading and Editing Skills on Students Performance in Typewriting". Master's Thesis. A.B.U., Zaria.
- Akinyemi A.O. (2002). The important of Technology on Information Processing and its Implication for Secretarial Training in the 21st Century. *Nigeria Business Education Journal III 3(4)*.
- Akpan, E.O. (2000). *Enhancing the Status and Role of the Graduate Secretary in the present Day office*, 2nd Edition, London: Heinemann Educational Publishers.
- Akpomi, .M. and Ordu, P. (2009). Modern Office Technology and Secretary's productivity in private Business organization. *African Journal of Business management* 3(8) 333-339.
- Alabi, V.B. (2007). Repositioning Secretarial Education for poverty Reduction: A Panacea for National Economic Empowerment and Development. *Book of Readings Association of Business Education of Nigeria*.
- Alikali, P.E. (2011). *Secretarial Job-Tasks Required in Modern Business Offices and their Implication on Secretarial Education Curriculum of Tertiary Institutions in the North Central Zone of Nigeria*. M.ED Thesis. Ahmadu Bello University, Zaria.
- Aliyu M.M. (2005). Secretarial Profession and Self-Reliance. *Journal of Educational Research and Development* 1(1) 162-164
- Aliyu, M.M. (2001). *Business Education in Nigeria: Trends and Issues*. Zaria: A.B.U. Press.

- Aliyu, M.M. (2007). "A Correlation of Typewriting and Computer Application on Students' Performance in Business Education". *Business Education Journal* Vol. II (3) NABE
- Anyakoha, E.U. (2002). Well come address at the conference of HERAN held at Princess Alexandra Unity Hall University of Nigeria Nsukka 14-17 September.
- Aromolaran E.A. (1992): Essentials duties of Secretaries. *Business Education Focus Bureau of labour* (2006)
- Aromlaran, E.A.(2003). "An Evaluation of the Continuous Relevance of Secretaries in the Automated Offices," *Business Education Journal*,4 (1):63-71.
- Atakpa, R.A. (2008). Office Practice and Management, Practical Approach. Royal Pace Publishers.
- Audu, A.J. (2012). *Problems and prospects of Studying Shorthand in Federal Colleges of Education in North-West Zone, Nigeira*. M.Ed Thesis. Ahmadu Bello university, Zaria.
- Austin, E. (2002): Senior Secretarial Duties and Office organization. London: MacDonald and Evans Publishers.
- Bayard, T. (2012). Types of Shorthand. Demand media www.onlineshorthand.com/-/index.asp Retrieved on 8th October 2012.
- Blackburn, N.D. (2001), Secretarial ship. California: Good year Publishing Inc.
- Bourdrot, T.E. (2000). Keyboarding Teacher's Guide. Austin: Texas Education Agency.
- Braimoh, M.Z. (2009). Learning Principles – Tools for Typewriting Skill Acquisition in Schools *Book of Readings in Business Education Journal* ABEN, Volume 1 (a) pp. 20-28.
- Boytziz, C.A. (2010). The Need for Modern Technology in Training Secretaries. Chicago South-Western Publishing Company. London.
- Buba.C. (2007). Principles and Practice of Education. Macmillan Publication Company Limited: New York.
- Chip, R. (2013). Communication Skills Strategies Retrieved from www.http.com/skills/bytesfora. 29th Oct. 2014.
- Chukwudebe C.O.A. (2001). Technology and Women: A look ahead, A paper presented at the National Coordination Committee meeting of Women in Technical Education and Employment (WITED) at Federal Polytechnic Neke (Owerri).
- Chukwumezie, F. U. (2002). "The Internet Competencies Required of Secretaries in a Technological Government for the 21st Century, *Journal of Environment, Business Education Journal* 3 (6) October.

- Chukwumezie, F.U, and Ndinechi, G.I. (2006). Word Processing Electric Spreadsheets. Sub-skills required of Secretaries for Office in Private Organizations. *Journal Association Business Educators in Nigeria*, (ABEN) Volume 5 (2) pp 38-149.
- Clarke, E.M. and Klein A. E. (2004). *The new world secretarial handbook*. Cleveland, Ohio: Williams Collins World Publishing Co.
- Conroy, R. (2015). A rough guide to sample size available at rconroy@rcsi.ie
- Columbia C. (1987).The Roles of a Secretary. *The Secretary* 47(8) Dauda .D. (2001). Applying Information Technology in Business Education. A Paper presented at the National Conference of Nigerian Association of Business Education at Federal Polytechnic.
- Douglas, B (2006).The Business Teacher. Teaching Business Subjects *.Business Education Journal*. 2 (2) 20-26
- Dreyfus, H.L. and Dreyfus, S.E. (1986). *Mind over machine: The Power of Human Intuition and Expertise in the Age of the Computer*, oxford, Basil Blackwell.
- Dunn, D.S. (2001), *Statistics and Data Analysis for the Behavioural Sciences*. Boston: McGraw-Hill Higher Education.Pg412-413.
- Edwin, E.O. (2008). *Principles of Business Education*, 4th Edition. New York: Mc-Graw-Hill Inc.
- Ernest, A.C.E. (2010). Office Operational Skills Perceived as Necessary for office information Systems by Secretaries in University of Nigeria, Nsukka. *Business Education journal Vol. VII No. 2, 131-138*
- Esene, R.A. (2007). *Secretarial Duties Office Practice*. Agbor: Royal Pace Publisherson October 12, 2012, from www.Evangel.university.academic.nonacademic/jobvacancy.
- Ezenwafor, J.I. (2009). Civil Servants' Perception of the Relevance of Shorthand to the Effectiveness of Confidential Secretaries in the Era of Office Automation. *Business Education Journal*. 7(1) 106-107
- FadereJ.A. (2004). Secretarial Assertive Skills for Efficient Office management. *Journal for Promotion and Advancement of Secretarial Profession*, Vol.1 (1) pp. 73-85
- Guar, A.S. and Guar, S.S. (2009) *Statistical Methods for Practice and Research: A Guide to Data Analysis Using SPSS*, 2nd edition. Los Angeles: Respond Books from Sage.
- Igbinola, M.O. (2003). "The Automated office and its implications for Training of the 21st Century Secretary." Ilorin: *Nigerian Association of Business Education (NABE) National Conference*.
- Ismaila, B.A. (2008). Progressive Approach to Secretarial Classification. *Pearson Journal* 11(3), 28-32

- Jacob, S. (2012). *An Assessment of ECD in 5HB and IUNDAF States in UNICEF 'D' Field Office, Nigeria*: Wais Publishers. Jos
- Kerlinger, F. N. (1978) *Foundation of Behavioral Research*. 4th Edition Hatt, Renchant and Winston.
- Kerlinger O.A. and Baileg, A. (2008). Pearson Product Moment Correlation Experiment Resource. Retrieved from <http://www.experimentresources.com/Pearson-product-moment-correlation.html> accessed on April, 2011.
- Komolafe, I. A. (2005). The Impact of information Technology on Secretarial Studies. *The Journal Business Education (JOB) NABE, Osun State Chapter*, 1(1): 24-27.
- Korie, B.I. (2001). "The relevance of Secretarial Staff in an Era of Information and Technology." *Business Education, Book of Readings* 1(3)1.
- Mayer, R.N. (2008). History of Shorthand Retrieved from <http://www.technoRhetoric.net2014>. Accessed on 10th July, 2014.
- Mbaezeue, A.N.C. (1998). Typewriting: A Gateway to New Horizon in Secretarial Profession. *Journal National Association of Professional Secretarial Staff of Nigeria*, Volume 6(1) pp. 51-56
- Minolta Survey Report Published in Professional Secretaries International (1987). National Board for Technical Education NBTE (1989). Current Curriculum and course Specifications for Higher National Diploma in Secretarial Studies: Curriculum and Course Specifications. Kaduna
- Ndinechi, G.I. (1990). A Guide for Effective Typewriting Instruction in Secondary School *Business Education Journal*, Volume 2 (2) pp. 13-21.
- Nte, M.N. (1995). The Place of the Secretary in an Automated Office. Paper presented at NAPSSON Seminar at Enugu.
- Ntukidem, E. (2002). Technological Advancement in Secretarial Profession: Challenges and Implications for Secretaries and Educators of Secretaries, *Business Education Journal* Vol. III No. 3
- Nwogwugu, P.O. (2002). The Need for New Office Skills and Competencies for Secretaries working in the 21st Century. *Office Business Education*, III(5), 19-24
- Nwosu, A.N. (2001). Innovations in Business Education: A Case for Keyboarding in Business Curriculum *Business Education Journal*, Volume 3(3) pp. 47-52
- Nyam, Y.Y. (2004). "The Teaching of Secretarial Students in the 21st Century: Relevant Aspects in Typewriting and Computer Keyboarding". A Workshop on Teaching methodology, Kaura Namoda; Federal Polytechnics.
- Ober, S. (2011). *Gregg College Keyboarding and Document Processing (11ed)*. New York.

McGraw-Hill

- Obioma, O.V. and Uteh, C.K. (2009). Current Issues and Trends in Teaching/Learning of Business Courses: Shorthand and Typewriting. *Association of Business Educators in Nigeria, Book or Reading*. Vol. 1(9) pp. 29-35
- Oborah, J.O. (2011). Basic ICT skills and keyboarding for office technology and management. Lagos: Adura Publishers.
- Ogunyinka, A. O. (2000). Welcome to Computer Science with the Basic Programming Language. Enugu: Acena Publishers.
- Ohakwe, S.N. (2001). "Manual office Skills in an Information Technological Era". *Business Education Journal*, 2(4)
- Okafor, A.N. (1992). Acquisition of Word Processing Skills for Self-reliance *Business Education Journal*, Volume 2 (4) pp. 12-20
- Oladunjoye, T. O. (1988). Secretarial Duties London: Pitman African business series.
- Olise, J.M. (2010). Career Prospect of Secretaries in the face of Rapid Development in Information and Communication Technology, ABEN. *Book of readings* 1(10) pp. 169-177
- Olowu, I.A. (2002). "Integrating Information Technology (IT) with (NCE) Secretarial Education Curriculum. "*Book of Readings in Business Education* 1(1)
- Omigot, S.A. (2000). Research Methodology for Thesis and Project Work. Kaduna: March-up ventures
- Onwukwe, V.O. and Uteh, C.K. (2009). Current Issues and Trends in Teaching/learning of Business Courses: Shorthand and Typewriting. *Book of Reading in Business Education*, 1(9) 30 -32.
- Osuala, E.C. (2001). Introduction to Research Methodology. Onitsha: African FEP Publishers Ltd.
- Otoo, D. (2007). Comparative Study of Academic Performance of Public and Private JSS Graduate: A Case Study Of Four Selected Senior Secondary Schools in the Kumasi Metropolis. *M.ED Educational Administration and Management Thesis*. Centre for Educational Policy Studies University of Education, Winneba.
- Owen, A. (2012). Gregg Shorthand, Pitman Shorthand, speedwriting shorthand. The website Devoted to Pan Shorthand, www.shorthand.classes.com/community, downloaded on 8th October 2012
- Oxford Advance Learner's Dictionary (2010). New York: Oxford University Press
- Oyeyiola, A.O. (2005). Secretarial Duties and Human Relations: A Basic Text for Professional Secretaries and Students Trainees in Tertiary Institutions. Kaura Namoda Educational Associate. Gusau.

- Peter, I. (2010). Origin of Internet: Peter's history of the internet, Retrieved from www.nthhistory.inforlan. Accessed on 20th July, 2014.
- Pitman, N.E. (1837). *New Course*. Pitman Publishing New Zealand Ltd: Wellington.
- Quintessential Careers (2010). [http://www.quintcareers.com/job skill values.html](http://www.quintcareers.com/job_skill_values.html)
- Salami, L.T. (2009). Professional Secretary in an Era of Information and Communication Technology. Challenges and Implication for Job performance. ABEN. *Book of Readings* 1(9) pp. 186-193
- Spencer, D.D. and Nwosu, A. N. (2000). *Principles and Problems of Business Education*. Columbus: Charles E. Merrill Publishing Co.
- Spencer, J. and Pruss, A. (2000) *The Professional Secretary*, London, Continuum Wellington House pp. 125-126
- Tim, L. (2013). *You Need More than Ever*. Submitted 14th January 2013. Retrieved 2nd June 2014 at www.sky.sportsnews.org
- Udoh, A.A. (2002). *Effects of Lecture Period and Automotive Device on the performance of Low Achievers in Introductory Accounting in Ahmadu Bello University Campuses*. Unpublished Thesis, ABU, Zaria.
- Vundi, S.K. Nasango, J.W. and majanga, E. (2010). Influence of Teachers' and Students' Attitude towards performance in Shorthand in Technical Training: Current Research. *Journal of Social Sciences* 3(2) 59-62.
- Whitecome, A. and Clark, O. (2000). *Office Procedure*. Great Britain: Heinemann Educational Publishers.
- Wolfensohn E.A. (2001). *Shorthand, a Saving Grace*. <http://www/Wikipedia>. Retrieved Tuesday 7th July 2001.

APPENDIX I



DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA.
FACULTY OF EDUCATION

VICE CHANCELLOR: Prof. Ibrahim Garba (B.Sc., M.Sc. (A.B.U.) Ph.D. (London) D.I.C.)

Telephone: 069-51755, 50692

HEAD OF DEPARTMENT: Professor A. A. Udoh (B.Ed. (Hons) Nsukka, M. Ed. & Ph.D. Bus Edu (A.B.U.))

7th July, 2014
Date: _____

Your Ref: _____
M.Ed/Educ/15037/2011-2012

Our Ref: _____

Letter of Identification

INALEGWU MARY OJOGBANE – M.ED/EDUC/15037/2011-2012

This is to certify that the above mentioned name is a Postgraduate student (M.Ed Business Education) in the Department of Vocational and Technical Education, Faculty of Education, Ahmadu Bello University, Zaria, carrying out a research topic: *Influence of Word – Processing and Shorthand Skills on Professional Secretaries' Function in modern Offices in North-West Geo-Political Zone, Nigeria.*

Please, kindly give her every assistance she may require .

Professor A.A. Udoh
HEAD OF DEPARTMENT

APPENDIX II

REQUEST TO FILL QUESTIONNAIRE

Business Education Section
Department of Voc. and Tech. Education
Faculty of Education
Ahmadu Bello University
Zaria – Kaduna State

Date_____

Dear Respondent,

I am a Post graduate student of the above University carrying out a study on **“Influence of Word-Processing and Shorthand Skills on Professional Secretaries’ Functions in Modern Offices in North-West Geo-Political Zone, Nigeria”**.

I write to solicit for your assistance and co-operation to fill the questionnaire to the best of your knowledge and understanding in providing the required information by ticking the items. You are assured that the information given shall be used for academic purpose only and will be treated confidentially.

Thanks for your contribution to knowledge.

Yours faithfully

Inalegwu Mary Ojogbane
M.ED/EDUC/15037/2011-2012

APPENDIX III
QUESTIONNAIRE

**QUESTIONNAIRE FOR SECRETARIES' AND DIRECTORS IN FEDERAL
MINISTRIES IN NORTH-WEST GEO-POLITICAL ZONE OF NIGERIA**

SECTION A: PERSONAL DATA

Please tick where applicable.

Age: 18-25 [] 26-30 [] 31 above []

Gender: Male [] Female []

Status: Director [] Professional Secretary []

Your highest Educational Qualification:

NCE [] OND [] HND [] first degree and above []

Others (specify) _____

SECTION B: QUESTIONNAIRE ITEMS

Read through the questions carefully and [] tick correctly to the best of your knowledge and opinion in the column provided. Please note the following keys:

VHE - Very High Extent

VH - High Extent

VLE - Low Extent

VLE - Very Low Extent

Influence of word-processing skill on professional secretaries functions in modern offices

S/N	ITEM STATEMENTS	VHE	HE	LE	VLE
1.	The emergence of modern technological equipment has Successfully discouraged professional secretaries in applying word-processing skill in their office				
2.	The knowledge of word-processing assists professional secretaries functions effectively in modern offices.				
3.	Executives prefer secretaries with word-processing skill to those who do not.				
4.	Modern technological gadgets go paripasu with word-processing and skill.				
5.	Secretaries still takes dictations in shorthand and use word-processing for transcription.				
6.	The use of Microsoft office, power point, operate database, checking and editing data are possible with the knowledge of word-processing.				
7.	Speed in word-processing is necessary typing of minutes of meetings.				
8.	Secretaries who are well equipped with word-process skills better do manipulation of data information.				
9.	Word-processing skills help the professional secretaries' to operate computer in modern offices.				
10.	Word-processing enables professional secretaries to have good construction of English language and writing skill.				

SECTION C**Influence of shorthand skill on secretaries functions in modern offices**

S/N	ITEM STATEMENTS	VHE	VH	VL	VLE
11.	Professional secretaries with the knowledge of shorthand keep organizations' secret from the public.				
12.	Shorthand skills helps secretaries' with speed to speedily follow the steps involves in taking of meetings				
13.	Professional secretaries' without the knowledge of shorthand skills function effectively in modern offices than those with the skills.				
14.	The use of shorthand is archaic in modern offices.				
15.	Professional secretaries with shorthand skills can use electronic organizers in taking dictations.				
16.	They manage files and directories/folders better.				
17.	Shorthand should be phase out for modern office equipment.				
18.	Shorthand skill does not help secretaries to develop minutes of meeting to reflect major points discussed.				
19.	Professional secretaries with shorthand skill save the organization from internal and external rumors since the information are kept secret.				
20.	The use of shorthand in minutes taking at meeting is archaic.				

SECTION D**Influence of communication skill on professional secretaries functions in modern offices**

S/N	ITEM STATEMENTS	VHE	HE	LE	VLE
21.	Professional secretaries with word-processing and shorthand skills performs better in modern offices.				
22.	Inadequate shorthand and word-processing skills have successfully belayed the facilitation of office activities of secretaries'				
23.	Shorthand has no effect in keeping or taking what the Executive or speaker said verbatim in the office thereby ensuring originality of information in the secretary's job.				
24.	Professional secretaries are required to know office machines operations to enable them function effectively.				
25.	It helps them in record management and other secretarial tasks competencies.				
26.	Its helps in performing telecommunication/voice activating tasks.				
27.	With shorthand, it is possible for the Secretary to correct the executive spelling mistakes.				
28.	Professional secretaries with word-processing skill can operate computer and other information technology facilities proficiently.				
29.	Shorthand and word-processing skills are not relevant in secretary's work in today's modern offices.				
30.	Shorthand and word-processing skills should be the only criteria for recruitment and promotion of secretaries.				

SECTION E**Influence of shorthand skill on professional secretaries communication skill in modern offices**

S/N	ITEM STATEMENTS	VHE	HE	LE	VLE
31.	Shorthand skill helps secretaries with the ability necessary in communication.				
32.	Secretaries should be recruited and promoted based on their ability to operate modern equipment.				
33.	Professional secretaries should be recruited based on their ability to communicate effectively.				
34.	Shorthand skill helps secretaries to communicate effectively with others using the range of spoken, written and other non-verbal means of expression.				
35.	Shorthand skill helps secretaries to have good command of English Language and writing skills.				
36.	A shorthand skill does not have any influence on secretaries communication skills.				
37.	Recruitment and promotion of professional secretaries should be based on the ability to check and edit data on the computer.				
38.	Shorthand skills help secretaries' to interact effectively in the office.				
39.	Shorthand skills save the secretary the strength of writing in longhand thereby help the secretary to do more work in the office.				
40.	Shorthand skills do not help secretaries' in communication process.				

APPENDIX IV

CLASSIFICATION OF THE POPULATION OF THE STUDY

Table 3.1 Population of the Study

S/N	State	No. of Ministries	No. of Directors	No. of Secretaries	Total
1.	Kaduna	Federal Ministry of Land, Housing and Urban Development	03	05	08
		Federal Ministry of Works	02	03	05
		Ministry of Environment	02	03	05
		Ministry of Youths and Sport	02	04	06
		Ministry of Commerce and Industry	02	04	06
		Ministry of Agriculture	02	04	06
		Federal Ministry of Health	02	03	05
		Federal Ministry of Education	02	03	05
		Total	17	29	46
2.	Kano	Ministry of Commerce and Industry	02	04	06
		Ministry of Youths and Sport	02	04	06
		Ministry of Land, Housing and Urban Development	03	05	08
		Ministry of Works	02	03	05
		Ministry of Agriculture	02	04	06
		Ministry of Education	02	03	05
		Ministry of Environment	02	03	05
		Federal Ministry of Health	02	03	05
		Total	17	29	46
3.	Katsina	Ministry of Education	02	03	05

	Ministry of Agriculture	02	04	06
	Ministry of Environment	02	03	05
	Ministry of Land, Housing and Urban Development	02	04	06
	Ministry of Youths and Sport	02	03	05
	Ministry of Commerce and Industry	02	04	06
	Federal Ministry of Health	02	03	05
	Ministry of Works	02	03	05
	Total	16	27	43
4.	Jigawa			
	Ministry of Agriculture	01	03	04
	Ministry of Education	02	03	05
	Ministry of Environment	02	02	04
	Ministry of Land, Housing and Urban Development	02	03	05
	Federal Ministry of Health	02	03	05
	Ministry of Youths and Sport	01	03	04
	Ministry of Establishment	01	03	04
	Total	11	20	31
5.	Sokoto			
	Federal Ministry of Education	02	03	05
	Ministry of Agriculture	02	04	06
	Ministry of Environment	02	03	05
	Ministry of Land, Housing and Urban Development	03	05	08
	Federal Ministry of Works	02	03	05
	Federal Ministry of Health	02	03	05
	Ministry of youths and Sport	01	03	04

	Ministry of Commerce and Industry	02	04	06
	Total	16	28	44
6.	Kebbi			
	Federal Ministry of Works	02	03	05
	Federal Ministry of Education	02	04	06
	Ministry of Land, Housing and Urban Development	02	03	05
	Ministry of Agriculture	01	02	03
	Federal Ministry of Youths and Sport	01	02	03
	Ministry of Health	01	03	03
	Ministry of Commerce and industry	02	03	05
	Ministry of Environment	02	03	05
	Total	13	23	36
	Grand Total	90	156	246

Source: Office of Director General of Each Ministry