

**EMPLOYERS' ASSESSMENT OF ADEQUACY OF OFFICE TECHNOLOGY AND
MANAGEMENT CURRICULUM FOR GRADUATES' EMPLOYABILITY SKILLS
ACQUISITION IN NORTH-WEST NIGERIA**

By

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OF PHILOSOPHY (Ph.D) DEGREE IN BUSINESS EDUCATION**

APPROVAL PAGE

This dissertation has been approved as meeting the requirements for the award of the degree of Doctor of Philosophy (Ph.D.) in Business Education in the Department of Vocational Education, Nnamdi Azikiwe University, Awka.

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CERTIFICATION

I, Iro, Dikko Mani with Registration No. 2013197020F hereby certify that the research study reported in this dissertation is my original work and that references to existing works were duly acknowledged. To the best of my knowledge, this dissertation has not been submitted in part or full for the award of any degree of Nnamdi Azikiwe University, Awka or any other institution.

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DEDICATION

This work is dedicated to my late father Alhaji Ibrahim Yankunu and my late son, Muhammadu Zafrullahi Dikko, for their love for education.

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Abstract

The study on employers' assessment of adequacy of office technology and management curriculum for graduates' employability skills acquisition in North-West Nigeria was necessitated by the need to ensure that the products perform satisfactorily in employment. Five research questions guided the study and ten null hypotheses were tested at 0.05 level of significance. Ex-post facto and survey research design were used for the study. Population of 456 principal officers of public and private establishments in North-West Nigeria was studied without sampling. Ninety-three questionnaire items relating to adequacy of contents of ICT, shorthand, keyboarding, records management and communication skills course units were developed and validated by panel of experts. The internal consistency reliability coefficient of the instrument of 0.82 was obtained using Pearson Product Moment Correlation Coefficient. Mean ratings and standard deviation were used to analyse data in relation to the research questions, and z-Test was used to test the null hypotheses. The results of the analyses revealed that OTM curriculum was adequate for ICT and communication skills and inadequate for shorthand, keyboarding and records management. Hypotheses 1, 2,7,8,9 and 10 were rejected while hypotheses 3, 4, 5 and 6 were not rejected. Based on the above findings it is recommended among others that employers of labour, particularly Federal and States Department of Establishment and Training/Offices of Head of Service and Representatives of private establishments should be co-opted in the future review of OTM curriculum. NBTE, after one and a half decade, should consider reviewing the OTM curriculum so as to cope with the needs of employers of labour.

CHAPTER ONE

INTRODUCTION

Background to the Study

Office Technology and Management (OTM) programme is a relatively new nomenclature for the secretarial studies programme offered in Nigerian polytechnics. The aim of the programme as stipulated by the National Board for Technical Education (NBTE) (2004), is to equip students with secretarial/office skills for employment in various fields of endeavour as well as to equip them with effective work competencies and socio-psychological work skills which are very essential in everyday interactions in human societies.

The programme came into being in 2004 to solve the problems of the secretarial studies curriculum which, according to Oborah (2008), failed to adequately and appropriately respond to development in the society and international organisations, especially with regards to the globalization and information and communication technology (ICT). The initial secretarial studies curriculum was considered obsolete as it trained students mostly in shorthand and typewriting skills with machines and equipment that are no longer used in modern offices. Therefore, graduates of the programme face a lot of challenges in discharging their duties as secretaries hence the need for the OTM programme.

Office Technology and Management programme emphasizes ICT competencies acquisition to equip graduates to fit properly into the offices of any

computerized organization and to professionally perform such functions which includes, relating the functions of the office properly to the whole organization, attending meetings and providing information required and making accurate records of proceedings. The training prepares graduates for other functions such as filing and retrieving information, taking appropriate action independently when faced with challenging office problems and showing personal qualities and attributes that promote harmonious team work. NBTE (2004) affirmed that the training in OTM leads to acquisition of general education and is a foundation for advanced studies. Ezenwafor (2012) posited that OTM is concerned with producing graduates who can quickly access data or information and process, disseminate, store and retrieve it for future use as demanded by their employers or supervisors.

Admission into the OTM programme for the National Diploma (ND) requires that students must have 5 credits at SSCE including English and Mathematics and sit and pass the Unified Tertiary Matriculation Examination organized by Joint Admission and Matriculation Board (JAMB) examination with not less than 150 aggregate marks. For students seeking admission into Higher National Diploma (HND) an average Lower Credit (CGPA 2.50) at the National Diploma level is required in addition to the O' Level qualification.

Former Secretarial Studies curriculum laid more emphasis on teaching shorthand and typewriting. It was also characterized with using manual typewriters

and other outdated equipment in teaching the students that are no longer use in today's offices. The change of the nomenclature to OTM and course contents became imperative so as to pave way for the graduates to be favourably accommodated in today's dynamic and technological world.

Office Technology and Management Curriculum comprises four main components, namely: General Studies/Education, Foundation Courses, Professional Courses and Supervised Industrial Work Experience Scheme (SIWES). The NBTE (2004) structured the curriculum in four semesters of 17 weeks for both ND and HND to include classroom, laboratory and workshop activities and four months of Supervised Industrial Work Experience Scheme (SIWES) in order to give adequate training to the students. Ike (2008) maintained that this curriculum structure keeps pace with the recent global developments. Each unit in the curriculum is designed in consonance with the principle of modular approach by end product. This ensures that after completion of each module, students have acquired operative skills, which can be used for employment purposes.

The curriculum is designed taking into consideration with changes in office environments. This is why the UNESCO (2004), significantly contributed to the review. Thus, Okoro and Ndinechi (2013) opined that the current OTM curricula have been described as having apparent advantages because of UNESCO assistance during the review, which introduces international perspectives to the curricula. This will enable the OTM graduates to benefit from some best practices around the world.

To be in line with what is obtainable in Nigerian offices, the OTM curriculum is designed in such a way that Information and Communication Technology (ICT) course units occupied 66 hours representing 30 percent of the total credit hours to be offered by a student before he graduates. It also composed of 145 hours for practical, representing 75 percent of the total credit hours, so that the graduates would not be found wanting in any office. The curriculum is further enriched with a list of modern equipment that must be provided for the typing pools, computer laboratories and office practice rooms before the programme is accredited by the NBTE. Students of OTM programme are expected to be certified after a satisfactory performance in prescribed course work, workshop practice and laboratory work, examinations and a four- month- SIWES exercise. All these provisions are meant to produce competent graduates who can perform creditably in modern offices and business environments.

Employers of labour are the recipients of the end-products of any programme including OTM end-products. They have laws and requirements guiding the hiring graduates. The needs of the society also make employers of labour inquisitive on the type of graduates they employ. They need graduates who can deliver as expected and relieve the organization of stress and incompetency. Thus, the aim of employers is to achieve success through competent people. Therefore, they need well trained and articulate graduates of OTM programme.

Armstrong (2006) held the view that people and their collective skills make a significant contribution to the attainment of the organizational goals.

Employers may need to assess the OTM graduates in order to determine their relative value. Also, assessment of OTM graduates by employers will go a long way in determining the worthiness or otherwise of the programme. Assessment refers to the appraisal of the characteristics, significance, importance or relative value of a person, organization or thing. Allen (2004) maintained that, assessment enables one to identify strengths and weaknesses in a programme thereby finding ways to overcome the weaknesses. Therefore, assessment is a process whereby parts or outcome of programme are examined to determine whether or not, they are satisfactory, particularly with reference to the programme stated objectives.

Assessment is a systematic analysis of the impact of a programme based on the data collected, with a view to determine the quality of the task performed by the recipients of the programme. Black and Mackay (2012) stated that, assessment is the process of collecting data and organizing or analyzing the data into interpretable form in a number of variables to construct a profile on an individual's abilities or skills.

Office Technology and Management graduates would be assessed by employers on some professional courses of OTM curriculum which include ICT, shorthand, keyboarding, records management and communication skills. ICT is the use of electronic system for producing, storing, analyzing

and distributing information. It is the transfer and flow of information, circulation of knowledge and ideas in the society using electronic means. Arora (2006) stated that the general success of a secretary in an office is his ability to perform excellently in ICT functions. ICT is an umbrella term that includes any communication device or applications encompassing cellular phones, computer networks, hardware and software, satellite system et cetera. The focus of ICT is, therefore, on application of the computer and its allied programme that assist OTM graduates to perform work in any office effectively and efficiently. The

inclusion of ICT in the OTM curriculum paves way for OTM graduates to cope up with the challenges posed by technology.

Shorthand, as a component of the professional course unit to be assessed, is defined as a system of rapid writing which involves the use of signs and symbols to represent spoken sounds. O'Dea, Sykes, Watson and Williams (2000) defined shorthand as a way of rapidly writing spoken sounds by the use of combination of conventional letters of English plus arbitrary symbols as in speed writing. Shorthand is one of the components of professional courses as contained in the OTM curriculum. OTM graduates need to possess shorthand skills for them to perform efficiently and effectively in any office. Also, it is this skill that distinguishes confidential secretary with other secretaries.

Keyboarding is another component of professional course units in OTM curriculum. It aims at training the OTM graduates to have typewriting skills and

ability to input data into a computer system with speed and accuracy. Office work needs a secretary who can competently input data within a short time, thus, saving the organization time. Oborah (2008) stated that keyboarding is the ability to input data by touch using the alphabetic and numeric keys on a computer keyboard. Keyboarding, as a course unit in OTM curriculum, aims to trained the OTM graduates on how to input data in a computer with speed and accuracy by applying touch typewriting system.

Records management is an important variable in any organization. For any organization to prosper there must be effective and efficient records. Proper records of both human and material resources are vital and essential for the progress, prosperity and continuity of any organization. Umar (2010) maintained that, if organisations' records are not complete, objective, truthful, available and accessible, its image is at stake.

Communication skill also form part of the professional course unit in OTM curriculum. It is defined as the ability of the secretary to interact positively with employers, colleagues, subordinates and customers in a work environment. It aimed to train OTM graduates the process of transmitting or passing messages, ideas and information in order to influence action. According to Sulaiman (2010), communication skills aim is to educate, enlighten, inform, inspire, persuade and entertain employers, colleagues, subordinates and customers of an organization. Enriching OTM curriculum with communication skills course unit, goes a long

way to impart to the graduates, important skills that link people together and make social interactions in organization cordial.

Assessment of the adequacy of OTM curriculum may vary according to gender of the employers. It is possible that male employers may assess the adequacy of the curriculum based on the applications of a particular portion of the curriculum by his organisation as compared to female employers and vice-versa. Studies conducted by Farotade (2009) on the assessment of adequacy of word processing, spreadsheet, shorthand and keyboarding components of OTM curriculum utilizing supervisors of OTM graduates revealed that, male supervisors, affirmed that OTM curriculum is adequate on word processing, while female supervisors vindicated the adequacy of OTM curriculum in both word processing and keyboarding.

It may also be possible that employers in public establishments may assess the adequacy of OTM curriculum different from employers in private establishments. Studies carried out by Nura (2012) on the adequacy of word processing, spreadsheet, records management and communication skills as appraised by employers of public and private establishments employers in Zamfara state, found out that, employers in private establishments confirmed that, OTM curriculum is adequate in spreadsheet and records management, while those employers in public establishments affirmed that OTM curriculum is adequate in word processing and communication skills. It is against this background that the

researcher intends to determine from employers of public and registered private establishments in North-West Nigeria, if the current OTM curriculum contents on ICT, shorthand, keyboarding, records management and communication skills could produce the caliber of products they need.

Statement of the Problem

The curriculum of Office Technology and Management programme is expected to equip the graduates with adequate skills, values, norms and attitudes to fit properly into the office of any computerized organization and perform effectively and efficiently as professional secretaries (Njoku, 2012). The curriculum is designed to equip the graduates to perform administrative and clerical duties, coordinate office activities, participate in plan and schedule meetings, provide high level administrative support and carry out information and communication technology functions in automated offices.

What appears disappointing is that most OTM graduates cannot prepare and preserve information using modern ICT gadgets. They cannot transmit any type of communication applying the conventional secretarial principles as required of confidential secretarial duties at various levels (Okolocha & Ihionkhan, 2015). More so, study conducted by Njoku (2012) revealed that OTM curriculum needs to be reviewed further because many OTM graduates are found ineffective in their places of work.

As the programme clocks a decade in operation, there seems to be disequilibrium between the curriculum content and employers requirements for the graduates in different parts of the country due to the fact that, the world is dynamic and a lot of changes has occurred from the time the curriculum was introduced to the present time, in form of nature of equipment, training facilities and trends in performing duties. It appears that this disequilibrium is responsible for the unsatisfactory employment rate of OTM graduates as well as the failure in meeting the needs of the graduates and the society.

As a result of the above, the researcher is interested in assessing the present OTM curriculum with a view to providing relevant empirical data for an objective and comprehensive review of the curriculum.

Purpose of the Study

The main purpose of this study was to assess the adequacy of Office Technology and Management curriculum for graduates' employability skills acquisition in North-West Nigeria by employers. Specifically, the study assessed the adequacy of:

1. ICT skills contents of OTM curriculum in North-West Nigeria.
2. Shorthand skills contents of OTM curriculum in North-West Nigeria.
3. Keyboarding skills contents of OTM curriculum in North-West Nigeria.
4. Records management skills contents of OTM curriculum in North-West Nigeria.

5. Communication skills contents of OTM curriculum in North-West Nigeria.

Significance of the Study

The findings of the study would be significant to OTM students, OTM graduates, employers of labour, OTM departments as well as National Board for Technical Education (NBTE), lecturers and government. OTM students could benefit from the findings of this research in the sense that if the recommendations given on how to tackle any inadequacy identified in the curriculum are implemented by OTM departments, the students will acquire skills that could make them secure employment in any organisation.

OTM graduates could immensely benefit from the findings of this study because the deficient components of the curriculum would be remedied. The recommendations if implemented, ensures that their training is in consonance with the needs and aspiration of employers of labour.

Employers of labour could benefit from the findings of this study in many ways. If the recommendations are implemented, it could provide them with highly qualified manpower they need to perform office functions without direct supervision. This could save cost of immediate re-training of this cadre of employees. Further, it will aid them in what Armstrong (2006) described as people resourcing strategy; a strategy aimed at training the needed qualified manpower of an organization.

The Department of Office Technology and Management also stands a good chance to benefit from the findings of the study. The benefit could be in form of rectifying loopholes identified by employers of labour. Bridging the loopholes could improve the performance of the graduates of the programme. This could lead to the achievement of employers' needs and aspirations which is the goal of setting the programme. The findings of the study could be useful to Office Technology and Management department as ways and means of rectifying the identified problems could be exposed by the study.

The findings of the study could furnish the National Board for Technical Education (NBTE) with adequate and reliable data for the upgrade of the programme in line with the requirements of employers of labour. It could further contribute to the achievement of the set objectives of the board, thus, as stated by Federal Ministry of Education (2004) of providing trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels.

To the OTM lecturers, the findings of this study could improve their teaching capability by tailoring their teaching on the needed knowledge capable of improving students' performance as graduates. The findings could be useful to government because it would guide future policy.

Scope of the Study

The study focused on employers' assessment of adequacy of OTM curriculum for graduates' employability skills acquisition in North-West Nigeria. The employers are categorized into public establishments (Polytechnics) and registered private establishments in North-West Nigeria. The components of the curriculum assessed are ICT, shorthand, keyboarding, records management and communication skills. Respondents' variables were delimited to gender and types of establishment.

Research Questions

The following research questions guided the study. How adequate is:

1. ICT skills component of OTM curriculum for graduates' employability skills acquisition?
2. Shorthand skills component of OTM curriculum for graduates' employability skills acquisition?
3. Keyboarding skills component of OTM curriculum for graduates' employability skills acquisition?
4. Records management skills component of OTM curriculum for graduates' employability skills acquisition?
5. Communication skills component of OTM curriculum for graduates' employability skills acquisition?

Hypotheses

The following null hypotheses were tested at 0.05 significant level:

1. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of Information and Communication Technology skills component of OTM curriculum as a result of their gender.
2. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of Information and Communication Technology skills component of OTM curriculum as a result of their type of establishment.
3. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of shorthand skills component of OTM curriculum as a result of their gender.
4. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of shorthand skills component of OTM curriculum as a result of their type of establishment.
5. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of keyboarding skills component of OTM curriculum as a result of their gender.
6. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of keyboarding skills component of OTM curriculum as a result of their type of establishment.

7. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of records management skills of OTM curriculum as a result of their gender.
8. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of records management skills of OTM curriculum as a result of their type of establishment.
9. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of their gender.
10. Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of their type of establishment.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviewed works of authorities relevant to the study. The chapter is organized under the following sub-headings:

Conceptual Framework

Assessment

Adequacy

Curriculum

Office Technology and Management Curriculum

Employment Requirements

Office Technology and Management Graduates

Theoretical Framework

Deshazer and Berg Solution Focused Approach theory

Scriven Feedback Theory

Theoretical Studies

Information and Communication Technology (ICT) based course Units

Shorthand Course Unit

Keyboarding Course Unit

Records Management Course Unnrit

Communication Skills Course Unit

OTM Programme

Objectives of OTM Programme

Employment Prospects for OTM graduates

Related Empirical Studies

Adequacy of Information and Communication Technology based Course Units

Adequacy of Shorthand Course Unit

Adequacy of Keyboarding Course Unit

Adequacy of Records Management Course Unit

Adequacy of Communication Skills Course Unit

Summary of Review of Related Literature

Conceptual Framework

Assessment

Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning and development of the learners. Allen (2004) defined assessment as the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences. Assessment results are used to improve subsequent learning.

Assessment refers to the wide variety of methods or tools that educators use to evaluate, measure, and document learning progress, skills acquisition or educational needs of students. Erwin (2006) defined assessment as the systematic

basis for making inferences about the learning and development of students. It is the process of defining, selecting, designing, collecting, analyzing, interpreting and using information to increase students' learning and development.

Assessment according to Black, Paul, William and Dullan (2008) is classified into four categories, namely: initial, formative, summative and diagnostic. Initial assessment refers to as pre-assessment, is conducted prior to instruction or intervention to establish a baseline from which individual student growth can be measured. This type of assessment is used to find out the level of the student's skill about the subject. It therefore, helps the teacher to explain the material more efficiently. This type of assessment is not graded.

Black, Paul, William and Dullan maintained that formative assessment is carried out throughout a course or project. The purpose of formative assessment is to give educators feedback about whether students are learning or not, so that instructional approaches, teaching materials and academic support can be modified accordingly. Formative assessment can take the form of diagnostic, standardized tests, oral questions and classroom discussions.

Moreover, summative assessment as posited by Black, Paul, William and Dullan is carried out at the end of a course, and grades are assigned. In other words, summative assessments are evaluative. Summative assessments are important because they decide whether the student passed or failed. Vergis (2010) maintained that summative assessments are typically scored and graded tests,

assignments or projects are used to determine whether the students have learned what they are expected to learn during the defined instructional period.

Diagnostic assessment deals with the whole difficulties that occur during the learning process. Its result is used to make modification so as to make learning process accessible. The purpose of an assessment generally drives the way it is designed.

Adequacy

Adequacy refers to sufficiency of anything. Suleiman (2013) defined adequacy as having enough of anything. Adequacy could be aligned to any variable. In financing educational programme like OTM, adequacy is defined by Samuel (2010) as a level of funding that provides for basic educational needs of a programme and the students. It is the amount of money needed to fund a comprehensive educational programme. OTM programme is a capital intensive. NBTE (2004) listed the equipment and facilities that must be procured before accreditation. These facilities require a lot of finance. Haris (2012) maintained that, adequacy is the amount of funds needed to provide a high quality education. Procurement of the facilities affords the students vast opportunity to receive a sound education. This would enable them compete favourably with other graduates in the labour market.

Harold (2012) agreed with Haris definition. Harold maintained that, adequacy should guarantee that sufficient funds are available to meet all the

educational needs of the students. This could enable the student pass all the prescribed course units. Adequacy of curriculum was defined by Lukas (2013) as sufficient provisions of all that is needed for smooth operating of any educational programme. It encompasses the educational need of students, lecturers and the community at large. Lukas re-iterated that, adequacy includes enough resources to enhance efficiency in a given job. It includes provision of adequate and equipped laboratories, lecture theatre, workshops and competent and enough lecturers for any program.

Curriculum

Different authorities define curriculum in different ways. Onwuka (1996) posited that the concept curriculum means different things to different people, and therefore lacks a single universally accepted definition. Onwuka defined it as a total experience which the school deals in educating young people. It is a systematic, deliberate and planned activity which aims at changing or modifying the behaviours of members of any society it is intended for. The author maintained that, curriculum is made up of all the experiences, both curricular and extra-curricular, which students have under the guidance of the school.

Offorma (2005) defined curriculum as a process of learning which takes all human sensitivities-political, economic and professional into account. Therefore, curriculum is too nebulous in that, it is “too slippery and all together” “too indefinable” (Offorma, 2005). Kerr (2006) maintained that curriculum is a

logically connected set of conceptually and pedagogically analysed knowledge and value claims. It is a written plan depicting the scope and arrangement of projected educational programme for a school.

Curriculum encompasses total experience of the learners under the guidance and direction of the school. Therefore, it must include all academic, non-academic and recreational activities. It must be detailed as well as sufficient to cater for all interacting elements needed by a learner and what the school performs to ensure the success of the learners. Okoro, in Usurji (2008) defined curriculum as the totality of all the experiences that a student (learner) is exposed to under the direction of the school. It is a series of courses at any level of the education system designed to meet a particular educational purpose or objectives.

Curriculum must be planned taking into cognisance the demands of the society. The learning experiences that make up the curriculum must conform to the needs and preferences of the society in which the graduates of the programme serve. Chado (2007) advocated that curriculum planning is a holistic process comprising situation analysis, selection of objectives, contents and organization methods as well as evaluation of teaching and learning. Therefore, it should be regarded as a dynamic process. A society constantly changes in terms of needs, values and goals. If any programme of education is to serve any useful purpose in a society, its curriculum must be constantly reviewed and modified in line with the changes of the dynamic world.

Rao (2007) pointed out that curriculum planning is not an activity which is undertaken in a school and completed immediately. The author asserted that, curriculum planning consists of the following steps: (a) situation analysis, (b) selection of objectives, (c) selection and organization of contents, (d) selection and organization methods and (e) evaluation of teaching and learning. Therefore, curriculum planning must take the interest of the learner, the nature of the society and the way in which learning takes place.

An important viable element in curriculum is curriculum evaluation. Chado (2007) viewed that curriculum evaluation as the systematic collection of evidence to determine whether certain changes are taking place in the learners as well as determine the degree of the change in individual students. Therefore, curriculum evaluation is a process of finding out the worth of a curriculum. It involved finding on how far the learning experiences as developed and organized are actually producing the desired result. Chado (2007) asserted that curriculum evaluation must consider the following variables: (a) the appropriateness of the organization structure of the content and learning experiences offered to the learners; (b) the suitability of the instructional methodologies adopted in the schools; (c) the utility of the assessment procedures used in evaluating learner progress towards the objectives.

Through evaluation, strengths and weaknesses of the curriculum could be identified. This helps to check the validity upon which basic instructional

programme has been organized and developed. Evaluation, also, checks the effectiveness of particular instrument or facility-the teachers and other conditions that are being used to carry forward the instructional programme (Kerr, 2006).

Curriculum evaluation is concerned with the macro or holistic level of learning event, taking into account the context of learning and all the factors that go with it. It is a designed and purposeful enquiry which is open to comment. Similarly, Kerr (2006) defined curriculum evaluation as a systematic process of determining the extent to which instructional objectives are achieved. Evaluation is carried out to determine whether students have achieved mastery of a behavior as specified in an instructional objective.

Chado (2007) viewed curriculum evaluation as the systematic process of examining the components of the curriculum. The author, re-iterated that it is concerned with examining the goals and objectives, contents and learning experiences so as to find out how far the learners have achieved the planned grand objectives of any programme. Therefore, curriculum evaluation is the process of determining the change in students' behavior and appraising them against the values represented in the objectives. This could help to find out how far the objectives of the particular curriculum are being achieved.

Evaluation is an invaluable tool to improve any programme. Its main purpose is to make value judgment about a programme; to improve its effectiveness and/or to take decisions on the programme being evaluated. Martin

(2011) stressed that evaluation enables a programme success or progress to be demonstrated. Information collected through evaluation allows for better communication of programme impact to the ultimate recipients of the programme. Evaluation is needed in order to understand an ongoing process or situation. Through evaluation, inferences could be made as to whether items/equipment and facilities are adequately available for the programme or not. An immediate report could be made on the state of affairs of the situation through evaluation. Results of evaluation could also be used to measure periodic progress of students and their future potentialities. Reports that emanate from evaluation could be useful tools for appraising any educational programme. Therefore, evaluation reports must satisfy the guidelines of the accreditation bodies. This could enhance continuation or rejection of the programme.

Employers of labour are part of the stakeholders involved in any curriculum planning and evaluation, and therefore, their participation in it go a long way in making the curriculum rich which consequently could be beneficial to the graduates of the programme. In line with this proposition, Bloom, Madus and Hastings (2007) maintained that curriculum evaluation is the evaluation of the educational goals so as to ascertain the extent to which they satisfy the needs of the individual in particular and the society at large. All the stakeholders play significant roles in making a valuable curriculum that could cater for the needs of the society.

Office Technology and Management Curriculum

Office Technology and Management programme came into being in Nigerian Polytechnics in 2004. It replaced the old secretarial studies programme which existed in Nigerian Polytechnics for over 24 years. Agbongiasede (2014) maintained that, it took the National Board for Technical Education (NBTE) 24 years to settle down and carry out a review of the old Secretarial studies curriculum which was entirely dominated by shorthand and typewriting. The OTM programme, according to NBTE (2004) aims at equipping students with the knowledge, competencies and specific skills that will enable them to successfully hold positions as managers and administrative assistants. It exposes students to industrial work experiences that afford them an opportunity to practically carry out their skills; to develop in them an occupation and intelligence that make them versatile and adaptable to the changing situation in the business world and to develop their potentials for further academic and professional pursuit.

The former secretarial studies curriculum is changed so as to pave way for the graduates of the programme to have the capabilities to face the challenges of the dynamic and technological world. Omeje (2008) asserted that it has become absolutely imperative for curriculum planners and stakeholders in secretarial studies to reform the content of the programme to reflect the present ICT, internet studies and entrepreneurship which will equip the graduates with competencies for

self-reliance, self-employment, and less dependence on paid employment. Thus, Esene (2011) explained that OTM curriculum radically shifts to where the profession has been in order to join the rest of the developed countries.

The introduction of technologies makes office work simpler and faster. This necessitated the change from the secretarial studies curriculum to OTM curriculum. Nwosu (2008) posited that the clamour for the revision of secretarial studies curriculum was necessitated by the fact that the skills, attitudes and knowledge previously acquired in the course of study were inadequate to arm the graduates with the competencies needed to adjust to the rapidly changing needs of the office. Amongst the reasons for the change of nomenclature and course contents of secretarial studies to OTM was to deal with the inadequacies and obsolence of the secretarial studies curriculum.

In designing OTM curriculum, the NBTE (2004) maintained that it adopts the principle of modular-by-end product approach thus, making each of the professional modules, to provide the students with professional operative skills, which can be used for employment purposes and/or self-employment when completed. It is from this perspective that Adebayo (2004) advocated that business education curriculum generally should be so reformed in such a way that a graduate of business education is well equipped to be self-employed.

Like all other educational programmes, the OTM minimum entry requirements for admission are clearly set out. This is aimed at standardizing

students' admission into the programme. NBTE (2004) specified the entry requirement for national diploma (ND) programme to include five credit passes including English and Mathematics in the West African School Certificate Examination (WASC), General Certificate of Education (GCE) Examination, Senior Secondary School Certificate Examination (SSCE), National Examination Council (NECO) Examination, National Business Certificate (NBC) or their equivalents. At the Higher National Diploma (HND) level, before a student is admitted, NBTE (2004) stated that, the candidate must fulfill all ND level requirements and a minimum of Cumulative Grade Point Average (CGPA) of 2.50 and above in the final ND examination. In addition candidates must also have a minimum of one year working experience. By this policy statement, NBTE has paved way for admitting qualified students which according to Esene (2009) is laying a minimum academic standards for all the programme.

Setting minimum academic standards portrays the image of the programme and the graduates of the programme in labour market. Maduewesi and Onyeachu (2010) revealed that in order to produce high quality OTM graduates, the NBTE provided that only quality students are admitted. The research conducted by Esene (2013) confirmed this. The writer stated that the NBTE set out minimum academic standards in OTM programme so as to ensure that no institution operates below the minimum prescribed requirements. This ensures that the OTM graduates are adequately and sufficiently prepared for the competition in the world of work. The

minimum standard also, serves as a guideline to institutional administrators in the implementation of OTM curriculum and course specifications.

Employment Requirements

The main objective of any educational programme is to enable the graduates secure employment, self/paid. Employers of any cadre have requirements guiding the hiring of any graduate. Requirements for hiring OTM graduates are clearly stipulated by Federal Government and private establishments. Ahukannah and Ikelegbe (2008) quoted Federal Government circular No. PSRU-4.5/xx/396 regarding secretarial cadre as below:

1. Confidential Secretary Grade IV (Grade Level 06): This is the lowest grade in public service in this cadre. The qualification needed for this grade is senior school certificate/National Business Certificate (NBC) or its equivalent. The candidate must have the ability to take shorthand dictation at 80 wam and typewriting speed of 35 wam.
2. Confidential Secretary Grade III (Grade Level 07): The qualification required for this grade is National Diploma OTM or the Intermediate Certificate of either the Federal/State Ministry of Establishment and Training, or the Intermediate Certificate of National Business and Technical Examination Board (NABTEB). Candidates that qualify for appointment in this cadre must have 100 wam/50 wam in shorthand and typewriting respectively.

3. Confidential Secretary Grade II (Grade Level 08): Holders of HND OTM as well as first degree in OTM possess this position. Holders of Advanced Business Certificate (ABC) organized by NABTEB also qualify for this position. Candidates must have the ability to take shorthand at 120 wam and typewriting speed of 60 wam.

The post ranges to Confidential Secretary Grade I (Grade Level 10), Principal Confidential Secretary (Grade Level 12), Assistant Chief Confidential Secretary (Grade Level 13) and Chief Confidential Secretary (Grade Level 14). All these grades were attainable by promotion after meeting a satisfactory service and passing prescribed examination.

Gyere (2013) stated the grades as obtained in public service have equivalent in private sectors and tertiary institutions in Nigeria but the entry requirements remain the same. Gyere listed the below as equivalent in tertiary institutions:

1. Confidential Secretary IV	Grade Level 05	CONTEDISS 04
2. Confidential Secretary III	Grade Level 06	CONTEDISS 05
3. Confidential Secretary II	Grade Level 07	CONTEDISS 06
4. Confidential Secretary I	Grade Level 08	CONTEDISS 07
5. Senior Confidential Sect.	Grade Level 09	CONTEDISS 08
6. Principal Confidential Sect I	Grade Level 10	CONTEDISS 09
7. Principal Confidential Sect II	Grade Level 12	CONTEDISS 11
8. Assistant Chief Confidential Secretary	Grade Level 13	CONTEDISS 12

9. Chief Confidential Secretary Grade Level 14 CONTEDISS 13

Office Technology and Management Graduates

One of the major problems of Office Technology and Management graduates is the absence of a universal nomenclature. However, different designations were proposed by different scholars. Omeje (2008) proposes “Secretarial Technologist”, Ahukannah and Chukwumezie (2008) propose “Office Technologist, Office Systems Manager, Business system manager/Business systems Technologist, Business Communication Manager or Computer Typist”. No wonder, Agbongiasede (2014) lamented that one of the major problems of OTM curriculum is the job title of the graduates. The problem is whether the graduates are to be designed as secretaries, office managers, secretarial managers, administrative assistants or office supervisors.

In the same vein, Alfred (2014) explained that there is no occupational nomenclature for OTM products. Advertisements for jobs, both in public and private sectors still focus on secretaries. Graduates of the programme are not yet recognised in labour market as they do not know where they belong. The curriculum was designed in such a way that the graduates will be able to perform office functions using new methods posed by office automation. Okoro and Asogwa (2012) said that with the changing times and enhanced curriculum, OTM products would be armed with multifarious subjects and would be quite versed in several office functions including processing of information using ICT, accounting

functions and a number of ancillary services. Despite these, the graduates of OTM programme still lack proper designation commensurate contents of the curriculum.

In line with multifarious nature of the contents of OTM curriculum, Okoro and Asogwa (2012) propose designation of “Office Technologist, Office Managers, Office Technologist or Management Staff”. Consequently, the situation now is such that this class of essential office workers is, to say the least, neither here nor there. Looking at the objectives of OTM programme as enshrined in the NBTE (2004), more critically; one can infer without any contradiction that, the OTM graduates are referred to as secretaries. The objectives stated categorically that, to produce graduates of ND/HND who should fit property into the office of any computerized organization and perform professionally the functions of a secretary. Miller, Okoro and Ojianjaegbu (2011) inferred that various research studies by notable scholars have often shown that a sizeable number of ND/HND graduates work with very busy top executive in different organizations as personal secretaries, confidential secretaries or personal assistants.

The roles of secretaries are dynamic. Agbongiasede (2014) stated that today’s secretary have been affected by the invasion of sophistication and dynamism in office activities. Therefore, the curriculum must prepare him for these challenges. Susan (2014) agreed with this assertion where the writer states that, secretary should be acquainted with all the competencies required in ICT and be able to apply such knowledge effectively in his office work.

OTM graduates are termed as secretaries, According to Emmanuel and Bolanle (2010); secretary is staff who is concerned with the preparation, preservation and transmission of all types of communication as well as conventional secretarial duties of confidential nature at various levels in an organization. He is expected, according to this definition to revolutionize every aspect of their functions, He is expected by his employers to effectively carry out the various manipulative activities without hesitation. Therefore, He must be psychologically and emotionally prepared for the reality of work setting. The OTM curriculum, radically shift the graduates from where the profession has been to the present global office automation.

A secretary is any person employed to take care of office routine tasks, keeps records and makes business arrangement for his chief executive. Agboola and Ademiluyi (2011) stated that a secretary is responsible to an executive. Iyanda in Ahukannah and Ekelegbe (2008) stated that a secretary may be regarded as a chief administrator of an organization or to a person who performs the functions of organizing and recording of the proceeding of a meeting, or to a professional auxiliary staff, skilled in shorthand and typewriting and mainly responsible to an executive. Wordnet (2008), perceived secretary, as a person who assists a member of staff on top management level, and who under takes a lot of administrative functions for the smooth running of the office. But, Wikipedia (2008) defined secretary as a person employed to write orders, letters, dispatch public or private

papers, records and the like. He is an official scribe, one who attends to correspondence and transacts other business for an association, a public body, or an individual.

Iro (2013) opined that secretary is a person whose work consists of supporting management including executive, using a variety of professional skills, communication competencies and information and communication technology expertise. Define in another perspective, Adebayo and Akuyele in Susan and Ugonwa (2014) posited that secretary is an executive assistant who has mastery of office skills, demonstrates the ability to assume responsibility without direct supervision, exercises initiative and judgment and takes decision within the scope of assigned authority.

Theoretical Framework

The researcher reviewed the theories relevant to the study as below:

Deshazer and Berg Solution Focused Theory

This theory was developed in America in the 1980's by Steve Deshazer and Insoo Kin Berg. The proponents of this theory are of the belief that nobody is perfect, and this is applied to curriculum planners as well as everything else. They advocate that, "if no one can 'do' his problem perfectly, there must always be times when he does not do them well". This phrase, Deshazer and Berg termed as exceptions. Whatever a person is doing differently at these 'exceptional' times will be the basis of a potential solution. Part of the solution focused theory is, therefore,

to discover whatever a person is already doing something which might contribute to the solution of the problem with which he has come. Deshazer and Berg maintain that the second simple idea is that knowing where somebody wants to get makes the getting there much more likely. One of the common consequences of a serious problem is that it clouds the views of future.

This theory is relevant to this research in the sense that OTM curriculum planners are human beings and, therefore, are not perfect. Mistakes, misrepresentations and errors may be made in some areas of the curriculum. These mistakes, misrepresentations or inadequacies may be identified by the employers of OTM graduates through interaction with them as their secretaries. The researcher seeks to find out from employers any discrepancy or inadequacy in some professional course contents of information and communication technology, keyboarding, shorthand, records management and communication skills of the OTM curriculum. The problem of inadequacy which may affect the performance of OTM graduates in their places of work identified by the employers. It may serve as an input for further curriculum review.

Scriven Feedback Theory

Scriven (1967) propounded a theory of formative assessment termed feedback theory. Scriven maintained that feedback is the central function of formative assessment. It typically involves a focus on the detailed content and production of what is being taught and learnt, rather than simply the grades or

scores students obtain. The theory also emphasizes on how far a recipient of any programme falls short of the expected standard.

Scriven (1967) maintained that formative evaluation must gather information to assess the effectiveness of a product of the curriculum in order to serve as a guide to the school system. Scriven advocated that assessment is important only when it alters subsequent educational decisions (curriculum), and provides an opportunity to close gaps between current (the curriculum contents) and the performance (employer's needs).

This theory is relevant to this study based on the fact that the researcher's intention is to collect data through questionnaire items from employers of OTM graduates. The data collected centred on adequacy of professional OTM course units which are used daily in offices. These course units are ICT, keyboarding, shorthand, records keeping and communication skills of the curriculum. The feedback collected could be used as an input to close any identified gap in the curriculum for improved performance and effectiveness of OTM graduate.

Theoretical Studies

Information and Communication Technology (ICT) based course units

For OTM graduates to be valued and accommodated in today's offices, they must possess ICT competencies. The OTM curriculum had contains different ICT course units which every OTM student must undergo and pass. These course units include ICT Office Applications, Desktop and Advanced Desktop Publications,

Webpage and Advanced Webpage Design, Database Management System and Management Information System.

In line with the above provision, OTM graduates competencies in the ICT course units give them a lot of opportunities to serve in different organisations; in as far as the graduates possess the required competencies in the course units. OTM graduates are the pivot upon which the wheels of organisation rotate. Therefore, they must be competent in all ICT course units. Ezenwafor (2013) stated that competencies of secretaries in data processing and interpretation assist organisations in no small way towards making a useful and valuable judgment without much stress and unnecessary delay.

Similarly, Samuel (2014) maintained that OTM graduates competency in word processing and other ICT course units make the graduates' relevant and valuable asset of any organisation. Samuel stated that, the ability of the secretary to create, edit, organize and analyse data/documents into lists and tables' up-grades organizational image and competency in making timely decisions. This is possible when OTM graduates are competent in ICT applications.

A very important function of a secretary is the ability to save time. Time is saved only if an OTM graduate is competent in ICT functions. Thus, Mumuni, Aliata and Sam (2014) stated that, with ICT competency, OTM graduate will be able to manipulate words, sentences and paragraphs without re-typing and redundant repetitive work as it used to happen with manual typewriter. Mumuni,

Aliata and Sam maintained that competency of a secretary in ICT goes a long way in making office work flexible, as the secretary will be able to delete and insert words, phrases or sentences before printing. Also, designing of documents, filling of forms, retrieving information and printing have been simplified as a result of secretary's competencies in ICT.

OTM graduates need to have varied knowledge of ICT course units as enshrined in OTM curriculum. No wonder, Okolocha and Olannye (2015) posited that OTM graduates need to possess competencies in all ICT based course units in order to be able to work in different offices. Okolocha and Olannye advocate that OTM graduates must have the competency to create files and folders, use input devices to enter and edit texts accurately, manipulate information (opening, copying, cutting, pasting, saving and deleting files); preview and print documents among others. These competencies make them assets in organisations.

Information and communication technology (ICT) based course units are integral aspects of OTM curriculum. According to Ndenichi and Garba (2014), OTM is a computer based programme designed in a modular approach to accommodate practical and theoretical ICT knowledge that will equip students with office/secretarial skills for employment in various fields of endeavors. ICT based course units occupy one third of the total credit hours of the OTM curriculum. In every semester, at least, one ICT based course unit is offered from

National Diploma to Higher National Diploma level. NBTE (2004) stated that ICT based course units account for between 60-70 percent of the contact/credit hours.

ICT based course units are emphasized by NBTE in the OTM curriculum due to the dynamic nature of the society. Ezenwafor (2012) stated that for individuals of different ages, levels and vocations to succeed, they must possess competencies and skills in ICT. The reform of the content of the OTM curriculum to encompass ICT based course units is intended to equip OTM graduates to fit properly into any computerized office and perform professional functions of secretaries. Ikekegbu (2007) opined that incorporating of ICT based course units in OTM curriculum is meant to make the graduates of the programme relevant in the present day office environment. Eze (2009) agreed with Ikekegbe and maintained that ICT based course units are introduced into OTM curriculum so as to enrich the graduates with skills and knowledge needed for effective performance in any office.

All organizations, public and private engage the services of secretaries. The inclusion of ICT based course units in OTM curriculum is a response to the criticisms made by stakeholders on secretarial studies curriculum for its inadequacy in ICT based course units' component. Ike (2008) posited that incorporating ICT course units from first semester of National Diploma could address the fears and worries of most stakeholders; as the general objectives,

theoretical and practical contents of the course units are considered good enough for OTM graduates and the modules are well designed.

Most secretaries that graduated under secretarial studies programme face operational skills challenges on the usage of office equipment, more especially on office information systems. ICT based course units could remedy these problems. Etonyeaku (2010) stressed that, secretaries of yester-years dealt with papers, worked with manual communications and kept the office records in files cabinets while present day secretaries, need operational skills in daily office information system. The OTM curriculum has taken care of all these through the ICT course contents like Information and Communication Technology I&II, Information and Communication Technology Office Applications I&II, Database Management Systems, Management Information Systems, Desktop and Advanced Desktop Publishing and Webpage and Advanced Webpage Design.

The order of the day in most organizations is database management system, which according to Tenese (2011), is a software package with computer programme that controls the creation, maintenance and the use of a database. This brought reduction in redundancy, data integrity, improvement and enhancement of data availability and utilization. This could be why Okoli (2012) advised that OTM graduates need functional database management system training at school to enable the graduates simply collate, process and disseminate information to the various users, store for future use and retrieve it when the need arises.

Office Technology and Management graduates need to be equipped with the new skills required in office to make them relevant. Duniya (2011) maintained that due to the introduction of sophisticated technological office equipment into today's office and the role secretaries need to play in ensuring accuracy and efficiency in their jobs. The secretary needs to face the challenges through enriched ICT based course contents. Information creation, storage, retrieval, dissemination, and sharing are the central nervous system of any organization. All these are possible through ICT knowledge and competency. Ezenwafor (2012) said that students of OTM programme need to acquire both theoretical and practical (manipulative and utilizable) ICT skills on graduation in order to fit into and progress in the labour market of the present and future. Also, Fadare (2014) argued that OTM graduates must be computer wizards in order to perform well in the labour market. The OTM curriculum has taken care of all this by allocating seven hour of practice and one hour for theory in most of the ICT based course units. This will assist in equipping the graduates with abilities to satisfy the demands of the labour market (Nwanewezi & Isifeh Okpokwu in Ezenwafor, 2012).

The advent of technology has made the world to be a global village. This is amongst the reasons why the NBTE made the OTM curriculum ICT compliant. OTM graduates must be trained in line with technological changes of the environment. This could help keep pace with such changes. Nigerian organizations are steadily moving into the era of the paperless offices, which is characterized by use of computer and their networks especially the internet (Nwanewezi, 2013).

Enriching OTM curriculum with ICT based course units greatly makes a significant impact to the OTM graduates in the labour market. The course contents are rich enough that the graduates perform effectively after completion the ICT based course units. Nwanewezi (2013) revealed that, for any graduates of OTM to be relevant, they must embrace and acquire ICT competencies and skills as these are the necessary tools for the performance of their functions in modern offices.

In preparing the OTM graduates to receive proper and intensive training in ICT based course units so as to perform effectively in the labour market, NBTE (2004) made it compulsory for OTM departments to procure adequate facilities for the training. The NBTE (2004) listed the following equipment as the requirements for ICT based course units: ICT workshop, 35 no computers, 35 no UPS internets ready with accessories and 10 no printers. For a single stream of ND and HND, 2 no computer laboratories with 35 no computers, 35 no U.P.S, internet ready with accessories and 10 no printers for each laboratory must be provided. Adegbenjo (2014) posits that OTM programme provides in the recipients, the skills and competencies needed in the world of work to function as competent secretaries. Therefore, based on this equipment, the OTM graduates will be competent as posited by Adegbenjo (2014).

Shorthand Course Units

Shorthand course units are offered at both National Diploma (ND) and Higher National Diploma (HND) levels of the OTM programme. The course unit,

despite criticisms by stakeholders of its obsolescence and non-utilization in most organizations, is vividly included in the OTM curriculum. NBTE (2004) stated that, at ND level, the students should be able to write in shorthand for three minutes varied materials of 1.3 syllabic intensity (SI) dictated at 80 words a minute (wam) and transcribed on the typewriter with a minimum of 95 percent accuracy.

At the HND level, the aim is for the students to write in shorthand for three minutes, varied materials of 1.4 SI dictated at 100 wam and transcribed on a typewriter with a minimum of 95 percent accuracy. Shorthand course units form an important aspect in the OTM curriculum. OTM curriculum consists of four component parts namely: General Studies/Education, Foundation Courses, Professional courses and SIWES. Professional courses, in which shorthand is included, are considered most important in the curriculum. According to NBTE (2004), professional courses are courses, which give the students the theory and practical skills needed to practice as secretaries. They account for between 60-70 percent of the contact hours.

The shorthand course units, because of its importance to OTM graduates are given two equal hours for practical and theoretical teaching. Because of this, NBTE (2004) made it mandatory that before any OTM department is accredited, it must provide a sound laboratory for shorthand which must be equipped with 30 cubicles, 31 microphones, 31 headphones, central transmitting unit and transistors. The sound laboratory must be furnished with rug and air conditioners. All these

facilities are meant to facilitate learning of shorthand. Okwuanaso and Ademiluyi (2010) affirmed that, the requirements by NBTE must be fully/moderately above fulfilled by any the polytechnics before the programme is accredited. This attests to the relevance of shorthand in today's technological environment.

Shorthand course unit is taught at three semesters of ND programme with four contact/credit hours each per week for 15 weeks. The goal of the course unit as listed by NBTE (2004) is to enable students have the ability to write from dictated materials at speeds of 40, 50 and 60 wam with an SI of 1.20, 1.25 and 3.00 at 95 percent accuracy for 1st, 2nd and 3rd semesters respectively at diploma level. It also aims at enabling students acquire English language skills as well as integrate same with shorthand and typewriting.

At HND level, shorthand is offered in the first semester only. It has a goal, according to NBTE (2004), of enabling students to enrich their shorthand vocabulary and skills in the writing and transcribing of shorthand. It also aims at preparing students to write varied passages on any topic in the business world and to transcribe same at 100 wam with an SI of 1.40 at a minimum of 95 percent accuracy. In spite of the introduction of technologies in our offices, shorthand skill is still needed by OTM graduates. Nwosu (2008) maintained that a shorthand skill is still relevant and should be retained in the OTM curriculum. Lecturers of the course should re-direct their efforts towards making the course unit fascinating, interesting and less stressful. Nwosu (2008) welcomed the idea of reducing the

contact hours of the course unit from 8 hours in the former secretarial studies curriculum to 4 hours in the OTM curriculum, and the termination of speeds from 100 and 120 wam in ND and HND respectively in the secretarial studies curriculum to 80 and 100 wam in ND and HND respectively in OTM curriculum.

On the agitation of some stakeholders that shorthand should be expunged from the curriculum, Oborah (2008) disagreed, but agreed on the reduction of the contact hours so as to allow for more ICT course units. Also, Ike (2008) asserted that reducing the speed of shorthand to 80 and 100 wam in ND and HND respectively and the SI by 0.01 has addressed the fears and worries of most stakeholders of dominant roles played by shorthand. Ademiluyi (2012) maintained that shorthand skill is perceived by some stakeholders as obsolete, and that it is no longer use in offices. Nwosu in Okoro and Asogwa (2012) said that the clamour for the revision of secretarial studies curriculum (where shorthand dominate), is necessitated by the fact that the skills, attitudes and knowledge previously acquired in the curriculum were inadequate to arm today's OTM graduates with the competencies needed to adjust to the rapidly changing needs of the society.

Despite all these, Okoro and Asogwa maintained that shorthand is not moribund, it is desirable. The authors advocated that experts should have a cursory look into its future and its survival as a course. Ademiluyi (2012) affirmed that shorthand retains as much of its positive impressions as the negative ones even in

the present era of OTM. It is useful at work. It moulds the personality of the secretary and is very useful in improving English language capacity of a secretary.

Despite the fact that shorthand credit hours and speed limits have been drastically reduced in the OTM curriculum, still there are signs of students' disinterest which produces poor results in semester examinations. Many experts in the field attribute this problem to many reasons. Ohijobi and Orji in Chukwuma (2013) revealed that lack of mastery of English language is the greatest reason. Bayard in Chukwuma identified awkward outlines, misinterpretation of words, and lack of punctuation symbols as reasons for that. Obi in Chukwuma (2013) saw lack of interest, students' mood and capability, theoretically simple but difficult outlines to write if not practiced for some time as reasons for the failure and disinterest in the subject.

Sequel to this, Wahab in Chukwuma (2013) remarked that, it is disheartening to observe that countries where ICT has advanced, still value the use of shorthand in the office. In Nigeria, students and some stakeholders are happy that shorthand would be removed from the OTM curriculum. Chukwuma advocated that various educational bodies, like the NBTE, as well as curriculum planners should have a re-think before taking any decision on expunging shorthand from OTM curriculum. Shorthand is an invaluable tool to OTM graduates. Agitation for expunging it completely from OTM curriculum could be as a result of students' failure in the subject. However, students' failure in shorthand may

have many reasons. Nwosu (2013) identified some of them to include teaching methods, quality of teaching resources and students' interest. These and many others could make OTM students to believe that with the advent of computers, shorthand is no longer necessary. Therefore, Nwosu (2013) advised that for OTM students to imbibe the spirit of love for shorthand, all the identified problems must be solved. The lecturers should be motivated by providing adequate ICT gadgets like projectors and software that could facilitate dissemination of shorthand knowledge to the students.

OTM graduates perform many functions in an office. Agboola and Ademiluyi in Agboola, Ademiluyi and Ademiluyi (2014) listed thirty-four functions. Importantly, one of the functions is taking dictation and transcribing it on the computer. This signifies the importance of shorthand in the labour market. Agboola, Ademiluyi and Ademiluyi (2014) re-iterated that, even at the age of office automation, taking dictation/transcription (shorthand) is still relevant in automated offices. The writers advocated that secretaries must keep abreast of development in office technology, but they should not let their shorthand skills die.

Keyboarding Course Unit

Keyboarding, formerly referred to as typewriting in secretarial studies curriculum, is one of the course units offered in OTM curriculum. The grand objective of the course unit, according to the NBTE (2004) is to enable the students type effectively various office jobs and acquire a copying rate of 40 and 50 words a

minutes (wam) on passages of not below 1.30 syllabic intensity (SI) with 98 percent accuracy at the ND and HND levels respectively. Keyboarding plays a significant role in today's offices. The advent of technology could not have any negative impact on the course unit, since computer keyboards are similar to that of a typewriter. Aina (2008) posited that typewriting (keyboarding) is such a dynamic subject especially with ever changing office technology.

Office Technology and Management graduates need keyboarding skills so as to enable them type at a high speed on a typewriter or computer. If this is achieved, organization's time is saved. With keyboarding proficiency, OTM graduates could manipulate computer keyboards at a fast speed and with accuracy. Omeje (2008) held that the ability of a secretary to type accurately, input and edit data in a computer using keyboarding is an essential skill for any secretary.

Keyboarding, unlike typewriting is offered only at ND level of OTM programme. It is offered at the first, second and third semesters. According to the NBTE (2004), the aim of keyboarding in the first semester is to enable students master the keyboard and carry out sentence drill effectively. In the second semester, keyboarding is to equip the students with the ability to type day-to-day office assignments and acquire a copying rate of 25 wam on passages not below 1.3 SI with 98 percent accuracy. While in the third semester, keyboarding is to equip the students with the ability to type efficiently various office jobs and acquire a copying rate of 35 wam on passages not below 1.3 SI with 98 percent accuracy.

In the former secretarial studies curriculum, the contact hours for typewriting were 8 hours per week. However in the OTM curriculum, the contact

hours have been drastically reduced to 4 hours per week. Nwosu (2008) stated that the reduction of contact hours from 8 hours to 4 hours per week is because of the current influx of technologies in offices which calls for the allocation of more hours to ICT based course units. To Ike (2008), reduction of the contact hours remedies the fears and worries of stakeholders on the dominant roles played by shorthand and typewriting in the secretarial studies curriculum. Similarly, the reduction of the contact hours is tantamount to graduating OTM students who may likely face the problem of speed and accuracy needed in a busy office. Okoro and Asogwa (2012) lamented that the inability of some secretaries to operate the keyboard efficiently and effectively, due to the reduction of contact hours of keyboarding in the OTM curriculum, is a threat to the continuous acceptance of the secretary as quintessential office personnel.

The terminal speed of keyboarding in OTM curriculum is 35 wam, a reduction of 15 wam attainable in secretarial studies curriculum. Even though, Nwosu (2008) attributed this to the influx of technologies in the offices, he maintained that it is done in good faith so as to make secretaries computer literate. Despite the fact that OTM programme is a computer accentuate programme, there is a compelling need to train the students how to input data at a speed and accuracy on computer based course units like desktop publishing, webpage design and others. Oborah and Eze (2013) confirmed that secretaries, who are knowledgeable

in keyboarding, input data to a computer with greater speed and accuracy than secretaries who lack keyboarding knowledge.

In most advertisements for confidential secretaries, typewriting (keyboarding) speed limit of 50 wam at ND and 60 wam at HND is specified. With this, the OTM graduates may lose a lot of vacancies. Oborah and Eze (2013) said the role of speed and accuracy test in keyboarding has been found to be useful in identifying candidates for employment in secretarial/office management positions.

Office Technology and Management graduates should possess a mastery of office skills. These enable them to demonstrate an ability to perform their duties without direct supervision. The operational office skills here, are for the secretary to type or input any data in a computer at a high speed and accurately as opined by Etonyeaku (2010). These skills may assist them in operating and easily manipulating office information systems. Oborah and Eze (2013) re-iterated that keyboarding skills are essential requirements for students of OTM programme. The writers opined that, keyboarding skills particularly speed and accuracy is highly needed by a secretary.

Keyboarding skills play significant role even in automated offices. OTM graduates in automated offices perform the task of typing/typesetting, composing replies, mail merge, typing of minutes, memos, reports and so on. The ability of a secretary to be equal to these tasks makes him relevant. This is confirmed by Agboola, Ademiluyi and Ademiluyi (2013), that relevance of OTM graduates may be attributed to their ability to prepare documents.

For effective teaching of keyboarding, there must be adequate laboratories and equipment. NBTE (2004) directed that, before accrediting any OTM department, keyboarding laboratory must be provided with the following equipment: (a) 35 manual typewriters, at least one typewriter per student and five typewriters as standby during practices (b) One electric/electronic typewriting laboratory with 35 electric/electronic typewriters for the National Diploma classes, or one typewriter per student and five typewriters as standby or (c) One computer laboratory equipped with 35 computers and their accessories. According to the NBTE (2004), the major aim of ensuring that these facilities are provided before accreditation is to ensure that schools attain, sustain and ultimately exceed minimum standard in curriculum, staffing, physical facilities and equipment.

The provision of these facilities, help in making the OTM programme efficient. Ugwuanyi and Eze (2008) posited that the success of any programme is affected by the facilities available in carrying it out. The writers recommended that adequate facilities must be provided in OTM programme so as to ensure effective implementation of secretarial mandate. Okoro (2010) advocated that to facilitate any new programme, schools should be ready to provide all infrastructural facilities.

Records Management Course Unit

Business organizations and offices depend much upon records. Records are the pivot upon which the wheel of any organization rotates. Organizations' records

such as personnel records, letters/correspondences, memos, reports, minutes, statistics, cheques, vouchers etcetera must be preserved for future use. Effective records management is one of the responsibilities of a secretary in any organization for efficiency and effectiveness. This calls for the teaching of the course unit in the OTM curriculum so as to prepare the graduates for office challenges. Elandu (2010) defined records management as the supervision and control of records so that the system works efficiently and economically. Smith, Alexander and Medley (1986) explained that record management encompasses both the order, and logical sequence in which records are maintained and the physical methods of storage. To Arora (2006), records management is the process of records creation, distribution, maintenance, retention, preservation, retrieval and disposal. Therefore, records management is the management of any written or recorded entry of events or activities taking place in a particular organization for the purpose of referencing, auditing, evaluating and/or decision making which may either be of books, pamphlets, files, electronic devices or any written materials.

Sequel to the above, NBTE (2004) introduces a course unit in the OTM curriculum and names it records management. The course unit is offered in the third semester of ND II. The goal of the course unit, according to NBTE (2004), is to enable the students understand/know how records are properly managed, processed and protected in office. The general objectives of the course units is ability of the students to understand records management; information processing

circle; organization of records; various records systems and facilities; various types of filing systems and their equipment and importance of security in records management.

The content of records management curriculum is designed to be taught in 15 weeks. This conforms to NBTE (2004) regulations of a semester system, that each semester shall be of 17 weeks duration, made up of 15 weeks of teaching, (i.e. teaching, practical exercises and quizzes), and 2 weeks for examinations and registration. The course has two contact hours per semester divided equally among the theory and practical aspects. In the 1st and 2nd weeks, the students will be taught meaning of record keeping, importance of record keeping and different types of records available in modern offices. In the 3rd and 4th weeks, the students will be taught information processing circle and its effect on records management. During 5th to 7th weeks, the students will be taught filing and its importance, essentials of good filing system, various locations of files, files classification, indexing, records retention and importance of file follow-up. For the 8th to 11th weeks, the students are expected to learn storage system, photography, reproduction and their advantages and disadvantages. In the 12th and 13th week, definition of filing and various filing methods will be taught to the students. In the 14th and 15th week, the students will be taught security, types of security, relevance of security in record management and security measures that can be used to protect records (NBTE, 2004). This laudable effort of the NBTE may not be

unconnected with the fact that managing correct, accurate and easily accessible records any time is important task for any secretary. Therefore, it is necessary for him to learn it from the school.

The equipment needed for teaching this course unit, according to NBTE (2004), include file jacket, filing cabinets, micro filming cameras, microfilms, microfiche, computer and floppy discs are too inadequate to cater for today's office demand on records keeping and retrieval. Ezenwafor (2012) opines that secretaries are the centre of information processing in any organization, because employers/supervisors often rely on them to provide comprehensive, accurate and up-to-date information promptly to facilitate management decision. Therefore, the equipment/facilities needed for this course unit must be able to provide comprehensive and accurate up-to-date information.

Ezenwafor and Okeke in Fadare (2014) observed that changes in today's office environment brought about by increased computerization in information technology leave no doubt that if students are not trained with the necessary equipment, they cannot perform to their employer's expectation. Even though, the curriculum has provided for teaching of electronic forms of record management, it is silent on the constraints of these technologies which the students are supposed to understand right from the school. Ibezim and Agumo (2008) maintained that electronic recording, as an efficient and effective tool for information storage and retrieval is vulnerable to alterations either by individual users or by changes caused

by electronic computers during communication. Therefore, for the contents of records management to be comprehensive, this element must be incorporated in the curriculum.

Records management is vital to every organization. Arora (2006) listed the following as the purposes of records management:

- (a) To keep an orderly account of progress.
- (b) To prepare statement of true conditions.
- (c) To make comparison and,
- (d) To detect errors and wastes.

These purposes may be the reasons for the inclusion of records management course unit in the OTM curriculum by the NBTE. The two contact hours per week allocated to this course unit, (that is one hour for the practical and one hour for theory) is inadequate to cover what is expected in every module. Looking critically at the contents of filing, for example, some important contents like filing procedures, tracing file movement, transfer of files to archive, etcetera are missing. The elements to be taught are outdated in today's technological world. Omeje (2008) stated that, the content is considered too old and incomprehensive to equip OTM graduates with relevant and adequate competencies for modern secretarial practice.

Another important variables missing in record management curriculum are the qualities of records custodian/personnel. A dishonest/non-challant attitude records

custodian will jeopardize the image and secrecy of the organization. Mamman (2010) posits that for a record to be properly kept, the custodian must ensure its safety, security and confidentiality. He must make sure that record is properly stored, easily retrieved and is well protected from any form of distraction/alteration by whatever measures.

Communication Skills Course Unit

Communication, as an interchange of thought or information to bring mutual understanding and confidence or good human relations in an organization is a very important aspect that forms the basis of mutual understanding between members of an organization. Thus, NBTE (2004) introduces a course unit in its curriculum termed as communication skills. The aim of communication skills according to NBTE (2004) is to assist the students to know how to interact positively with employers, colleagues and customers at work. The course unit is taken in the final semester of national diploma programme. It has four credit/contact hours: one hour for theory and three hours for practical.

Succinctly, human relations will be taught to the students. Ahukannah and Ekelegbe (2008) defined human relations as the relationship which subsists among people employed and working in an organization. The authors maintain that, it involves the formal and informal activities and relationships from the interaction of two or more people in the organization. This aspect of the course unit is essential because it aids in increasing productivity margins. Addressing colleagues and

people appropriately poster harmonious working relationship and respect. Harrisson, Odina and Fosu (1998) posit that harmonious relationship exists in an organization when a secretary is capable of doing work on his initiative, treating all matters in the office with confidentiality extracting essential facts contained in reports and magazines for the organization's consumption. These give the executive the opportunity to study them in details. Amoor (2013) maintained that addressing every person in an organization with his proper name and title/designation poster harmony and feelings of belonging. Expressing the importance of this module, Njoku (2012) advanced that OTM students do not need skills in computer only but other communicative skills too.

The course unit ensures that the students are taught the importance of secretary in an organization, his general attitudes, competency and intelligence in the profession. In summary, this module is intended to teach OTM graduates qualities and attributes of a good secretary. Elandu (2010) listed the following attributes that could assist secretary to maintain good image in the organization. Firstly, the secretary must be able to communicate effectively. Secondly, the secretary must be qualified and knowledgeable. The secretary must be familiar with the various functions of the organization, the characteristics of the executive leadership and a good knowledge of organizational structure. Thirdly, secretary's attributes towards work and people is another major quality that will assist in maintaining good image of a secretary. Ahukannah and Ekelegbe (2008)

maintained that a secretary must display the following attitudes for the sustenance of his good image in an organization. The secretary should have the personal attributes, that is neatness and personal appearance (because first impression last long), disposition, that is humane and pleasant (easy going and gets on well with people at all time), thirst for knowledge, personal composure and decorum, honesty and trust worthiness. The author listed some business attributes like education: expression on paper, oral expression and numerical abilities as variables for good image.

The students will also be exposed to pleasant working atmosphere, how to handle tasks within short time and how to avoid unpleasant situations. In summary the students will be exposed to ergonomics. Ahukannah and Ekelegbe (2008) posited that to maintain a pleasant working condition, there must be space management. The aim of space management is to ensure that personnel and equipment are located within the available floor space in such a manner as to ensure optimum utilization of space. Baba (2014) posited that pleasant working condition is achieved through ergonomics. Ergonomics is all about comfort and efficiency which enhances productivity and work force satisfaction. The writer maintains that temperature, ventilation, humidity, lighting and noise if properly controlled enhance pleasant working condition and if otherwise will lead to unpleasant working condition.

This course unit exposes the students to the importance of listening skills, note taking techniques and asking questions for clarification. Suku (2013) advanced that effective secretaries need more complete hands-on understanding of all the details of an organization, as well as more initiative approach to handling people. More specifically, the secretary must have active listening and comprehension techniques and the ability to ask questions for clarifications on any unclear statement. Listening techniques are the most important attributes of a secretary. Harrison, Odina and Fosu (1998) explained that for a secretary to be competent and command respect from his boss/executive, the secretary must have the ability to listen attentively to instructions given to him by the employer. Listening ability includes the ability of a secretary to understand, recall and interpret oral messages.

Rabiu and Kado (2010) observed that for a secretary to master the techniques of note-taking, he needs to establish a purpose, write some important details of what the speaker says, write important points in his understanding and must be brief and concise. All these elements should be taught to the students. Understanding and applying these techniques properly by OTM graduates in any organization will boost his morale and goodwill.

The course unit will teach the students professionalism. Prah (2014) defined professional competency as the ability of a secretary to perform a certain task related to a job with the skill of good quality. It is the habitual and judicious use of

communication, knowledge, technical skills, reasoning, emotions, and values of reflection in daily practice for the benefit of the individual, organization and the community being served.

OTM Programme

OTM programme is a relatively new academic programme in Nigerian tertiary institutions designed to replace the former secretarial studies programme. Olawole and Abuya (2011) stated that the need to prepare and make students of former secretarial studies programme competent, skillful and employable in the world of work, which is being driven by technological content in the curriculum of erstwhile secretarial studies programme in the nation's tertiary institutions, gave birth to OTM.

The OTM programme is designed to equip students with secretarial/office skills for employment in various fields of endeavour. NBTE (2004) asserted that, in addition to the acquisition of vocational skills in OTM, the students are equipped with effective work competencies which would be very essential in everyday interaction with others at work environment.

In designing OTM programme, Oludele and Dosunmo (2013) opined that six components were incorporated which include: Office Applications, Office Technology, Business and Administrative Management, Numerical Component, General Studies and Students Industrial Work Experience Scheme. OTM

programme prepares students with in-depth administrative office preparation so as to cope with demands and challenges in today's volatile work environment.

The programme prepares the graduates obtain marketable skills which could be applied to various careers as well as private establishments. The objectives, theoretical contents of the curriculum are geared towards integrating graduates of OTM into the evolution of technology. Ike (2008) opined that OTM programme was tailored towards the direction of integration in the following areas:

- a) Competency based approach, that is, functional literacy
- b) Increased academic, critical and problem solving skills development
- c) Entrepreneurship based delivery

d) Incorporation of establishment and utilization of production units within business institutions for practical work training and self-reliance and

- e) ICT based training/learning approaches.

Objectives of OTM Programme

Like any other educational programme, OTM programme according to NBTE (2004) had three grand objectives stated as follows:

- 1) Acquisition of Secretarial Skills: This includes at ND level, the ability of the graduate to write in shorthand three minutes varied materials of 1.3 SI dictated at 80 wpm and transcribed on the typewriter with a minimum of 95 percent accuracy. The graduates should be able to type effectively various office jobs and acquire a

copying rate of 40 wam on passages not below 1.30 SI with 98 percent accuracy. At HND level, the NBTE stated that the students should write in shorthand for three minutes varied materials of 1.4 SI dictated at 100 wam and transcribe on the typewriter with a minimum of 95 percent accuracy. The students should also be able to effectively type various office jobs and acquire a copying rate of 50 wam on passages not below 1.30 SI.

The NBTE categorically stated that the graduates of ND/HND should fit properly into the office of any computerized organisation and perform professionally the functions of secretary. The functions as enumerated by NBTE includes relating the functions of the office to the whole organisation, attending meetings and providing information as may be required. The graduates should also be able to make accurate records of proceedings, filing and retrieving information, taking appropriate action independently when faced with challenging secretarial office problems. The graduates should be able to show personal qualities and attributes that are conducive and co-exist with the work group.

2) Acquisition of General Education: OTM graduates should be given wide education on general studies course units like Citizenship Education, Communication Skills, Social Psychology and so on. These course units aims at making the graduate fit properly in any work environment and interact socially with subordinate, colleagues, superiors and visitors.

3) Laying foundation for advance studies. Kazaure (2011) stated that NBTE approved the mountain of Post Higher National Diploma for any polytechnic that has the facilities and manpower.

Frank (2010) stated that OTM is designed to equip secretarial and office students to acquire vocational skills in OTM and socio-psychological work skills for employment in any organisation Employment.

OTM Curriculum contents and Course Offerings

Office Technology and Management curriculum was designed according to NBTE (2004) consisting of four main components for the ND/HND. These components are: General Studies/Education Course Units, having a code of GNS. Foundation Course Units, with BAM Code, Professional Courses with OTM Code and SIWES programme also with OTM code.

According to the NBTE, the general education component of OTM curriculum accounts for not more than 15 percent of total contact hours for the programme. The foundation courses include coursed in Economics, Business Administration, Accounting, Nigerian Legal System etc. Foundation courses accounts for 10-15 percent of the contact hours of each semester.

The professional courses are those courses that give the students the theory and practical skills they need to practice as secretaries. These course units accounts for between 60-70 percent of the contact hours. SIWES shall be taken during the long vacation following the end of the second semester of the first year. It accounts for 5 percent of the total marks in the final evaluation of the student (NBTE, 2004).

The curriculum is drawn in unit courses. This is in keeping with the provisions of National Policy on Education, which stresses the need for introducing the semester credit units, which enables a student, who so wishes to transfer the units already completed in an institution to another of similar standard. The curriculum was designed in consonance of modular approach by end product. This provides the student with practical knowledge which they can use for employment purposes self-and other wise. The course offerings are presented as Appendix I at page

Employment Prospects of OTM Graduates

Office Technology and Management graduates perform out a range of administrative and information technology related tasks, depending on the organisation they found themselves. The duties of OTM graduate may vary from administrative side of an organisation to supervising all the administrative activities that facilitate the smooth operating of the organisation. Although, the duties of OTM graduates differ greatly, they have the responsibility for ensuring that their organisation excel.

Office Technology and Management graduates perform different functions in private establishments which include interviewing job applicants, managing payroll and even re-imbursing members of the firm for out-pocket business expenses (Lucas, 2007). Lucas stated that, in public establishments, OTM graduates serve as the coordinator of work system and is responsible for planning, organizing and controlling the clerical aspect of the organisation, including the

preparation, communication, coordination and storage of data to support production and other important operations.

Sequel to the above important roles, OTM graduates have the opportunity of being employed in public and private establishments. Ammani (2011) stated that the opportunities rapidly open for OTM graduates in government, banks, insurance companies and many other private establishments. Ammani outlined the following employment prospects for OTM graduates:

1) **Opportunities in Public Service:** These are establishments owned by the government, either Federal, State or Local Government areas, including commissions, agencies and parastatals. OTM graduates are employed in these types of establishments and perform job in compliance with the rules and regulations laid down by the civil service commission. In this type of organisation, OTM graduates fill the civil service application form or could apply on-line on the prescribed organisation web-site. They may be employed as Confidential Secretary on salary Grade Level 08 as a graduate or its equivalent. The graduates have the opportunity of growth on the job to Grade Level 14. OTM graduates can attain a high position through conversion to administrative cadre. This employment prospect can be sourced through advertisement in dailies and filling civil service commission forms.

2) **Opportunities in Private Establishments:** Private establishments like banks, companies, engineering firms, publishing companies, legal firms etc. also employ

OTM graduates. OTM graduates serve as nerve centre in these types of establishments. They render both administrative and clerical duties as posited by Ammani (2011). These types of establishments provide in-service trainings for the OTM graduates to advance in their profession. They also encourage OTM graduates to register and sit for professional examinations. OTM graduates get high remuneration as compared to those employed in public establishments. The employment prospects in these establishments are sourced on advertisements in national dailies, professional bodies and request from OTM departments.

3) Employment in Tertiary Institutions: OTM graduates have employment prospects in tertiary institutions. Samaila (2012) stated that OTM graduates may be appointed as Confidential Secretary in tertiary institutions and assigned to Principal Officers. Samaila narrated that, OTM graduates may be employed as instructors in polytechnics and colleges of education to teach secretarial course units. They may grow in the career by embarking upon a post-graduate programme. Samaila re-iterated that OTM graduates may be employed as administrative staff at higher institution where they may rise to the position of registrar. These employment prospects are sourced through the establishment divisions of the institutions. It could be sourced through OTM departments and adverts in professional journals.

4) Opportunities in Secondary Schools: OTM graduates may be gainfully employed in secondary schools to teach typewriting, shorthand, office practice and

business studies. Since they are graduates, OTM graduates have the prospects of rising to the position of a supervisor of education. This employment prospects are sourced through civil service commission.

5) Self-employment: OTM graduates could equally go into self-employment. This may be achieved through various ways which include establishment of private commercial schools for training candidates for NABTEB, NECO and SSCE examinations. They may establish business centres where people can type, photocopy and bind documents on commercial basis. They may establish computer training centres as well as cyber- café. Nura (2014) said that through these, the OTM graduates would not only provide means of livelihood for themselves and their families, but also be helping the economy further by providing gainful employment opportunities for others. Mohammed (2016) affirmed Nura's assertion. Mohammed stated that OTM graduates may be self-employed through opening up of business centre, cyber café and consultancy service where they may provide services of establishing modern records management procedures, selling of ICT and secretarial facilities and equipment and designing and maintenance of web-sites.

Related Empirical Studies

Adequacy of ICT contents of OTM curriculum

Esene (2014) conducted a survey design research titled "Office Technology and Management Curriculum and New Technologies: The Challenges for Office

Educators in Polytechnics in South-South Nigeria”. The purpose of the study was to find out the challenges facing OTM educators as a result of the new OTM curriculum and technologies. Four research questions were posed. The population of the study was 130 OTM educators. Data was collected using structured questionnaire comprising 65 items. The data generated in the study were analysed using mean scores and standard deviation. It was found out that the curriculum fulfilled the requirements of ICT which made the OTM graduates cope with the challenges of workplace. The study is related this study, in the sense that the present study seeks to find out the adequacy of the OTM curriculum contents in some professional course units. Both researchers used questionnaire as instrument for data collection, even though the population and questionnaire items varied significantly. Esene’s research has no formulated and tested hypotheses.

Garba (2015) conducted a survey design research titled “Assessment of Effective Utilization of ICT Skills by OTM Graduate Workers in Kano polytechnic”. The purpose of the study was to assess effective utilization of word processing and spreadsheet of the OTM graduate workers. Two research questions guided the study and two null hypotheses were tested at 0.05 level of significance. The population of the study comprised 45 principal officers in Kano polytechnic. Structured questionnaire was the instrument used for data collection. The instrument was validated by panel of experts. Descriptive statistics was used to answer the research questions and inferential statistics was used to test the null

hypotheses. It was found out that the OTM graduates effectively utilize word processing skills, and were barely ineffective in utilizing spreadsheet.

Garba's study is related to the present study in the sense that both studies possessed ICT skill as a variable. Even though, the present study covers a wide area and a large population than that of Garba. It tried to fill the gap of Garba's research of inadequacy in the population and area of study.

Adequacy of Shorthand contents of OTM curriculum

Bature (2012) conducted a research on the problems and prospects of OTM graduates in labour market. The purpose of the research was to identify problems faced by OTM graduates in Katsina state and assess their prospects. Bature adopted a survey research design using a population of 52 executives in government ministries of Katsina state. Five point structured questionnaire validated by experts was the instrument used to collect data. Two research questions guided the study. The data was analysed using mean ratings and standard deviation. It was found out that shorthand speed given to students at the institution fell below the stipulated speed needed by the executives and therefore, their prospects is at danger. The present research is related to Bature's research. Both researches have similar variable (shorthand) and fell within the same research area. But, Bature's research has only 52 executives as the population, and hypotheses were not formulated. This may serve as a gap.

Liti (2014) conducted a survey research design titled “Assessment of Challenges Faced by OTM Graduates Employers and Implication on OTM Curriculum in Katsina State”. The purpose of the study was to find out the challenges being faced by OTM graduates and how they affect OTM curriculum. Three research questions guided the study. A population of 30 employers was used. The researcher used self-structured questionnaire to collect data. The instrument was validated by a group of experts from OTM department. The data generated were analysed using mean and standard deviation. It was found out that OTM graduates could not take shorthand dictation at 120 words a minute. It was also found out that majority of them face proper filing and indexing problems. The present study is related to the Liti’s study in the sense that, the present study assesses the adequacy of the curriculum content of some professional OTM course units relative to employment requirements in North-West Nigeria, which includes shorthand and records management. Even though they were related, Liti’s research had a gap of inadequate population, area of study and lack of hypotheses which could make generalization of findings relatively unreliable.

Adequacy of Keyboarding Contents of OTM curriculum

Abdullahi (2013) conducted a survey research titled “Appraisal of the Standard of OTM Graduates Performance in Manipulative Course Units in Hassan Usman Katsina Polytechnic”. The purpose of the research was to determine the standard performance of OTM graduates in manipulative skills course units by

their employers. Data was collected using 42 item self- structured questionnaire. The population of the study comprises 40 supervisors in Hassan Usman Katsina polytechnic. The data were analysed using descriptive statistics of mean and standard deviation. It was found out that majority of the OTM graduates could not type 60 words per minute. Abdullahi's study is related to the present study based on the fact that, the present study intends to find from the employers of OTM graduates, whether the course contents of the curriculum of ICT, shorthand, keyboarding, records management and communication skills of the curriculum were adequate enough for the employment requirements. Despite the fact that present research is related to Abdullahi's research, but, the population in the research conducted by Abdullahi was meager, and hypotheses were not formulated and tested.

Isah (2014) conducted a survey research on the "Contemporary Challenges in Office Technology and Management Programme: Need for Curriculum Review". The purpose of the research was to re-examine the contents of OTM curriculum in terms of relevance and adequacy. The population of the study comprises 25 executives of OTM graduates in Katsina State civil service. 60 item 5 point modified Likert type questionnaire was used as an instrument for collecting data. The instrument was validated by group of experts. The internal consistency of the questionnaire was established through a pilot study conducted outside the research area.

The researcher found out that office practice, keyboarding and office administration and management course units of OTM curriculum were not adequate in contents. The research was related to this study. Its relevance was based on the premise that both researchers had the same research area, and the present research intends to find out from the employers of OTM graduates on the adequacy of the contents of ICT, keyboarding, shorthand, records management and communication skills course units. Even though Isah's research is related, but, the population used in Isah's research was too small to make generalization of its findings.

Adequacy of Records Management contents of OTM curriculum

Prah (2010) conducted a research titled "The Secretary and Effect of Modern Office Technologies on Records keeping in Some Private Establishments of Katsina and Zamfara States. The purpose of the study was to find out the effect of modern records keeping on the secretary's performance. Two research questions guided the study. Also, two null hypotheses tested at 0.05 level of significance were formulated. The population of the study comprised 28 executives in some selected private establishments. Four points structured questionnaire was the instrument used to collect data, which was validated by panel of experts. It was found by the researcher among others, that majority of the secretaries are ineffective in modern records keeping.

The study is related to the present study, in the sense that, both studies possessed one common variable and a similar area of study. But, the population in Prah's study was inadequate to make generalization of the findings.

Maikudi (2013) conducted a study titled "Effectiveness of Records Keeping Skills by Secretaries in Federal Polytechnic Kaura Namoda". The purpose of the study was to ascertain the effectiveness of records keeping skills of secretaries in Federal polytechnic Kaura Namoda. Three research questions guided the study. The researcher adopted a survey research design. The population of the study comprised 20 head of departments. Structured questionnaire was used for data collection. Mean and standard deviation were used to answer the research questions. The researcher found out that the head of departments in the polytechnic were dissatisfied with records keeping skills of the secretaries.

The present research is related to Maikudi's research in the sense that both researches equates on records management as a variable, but, the population used in Maikudi's research was too small to make generalization of its findings.

Adequacy of Communication Skills contents of OTM curriculum

Ekwue (2009) conducted a survey research titled "The Roles of Communication Skills toward Secretary's Productivity in Ahmadu Bello University Zaria". The population of the research composed of 56 supervisors of confidential secretaries in Ahmadu Bello University Zaria. Three research questions guided the study. Structured questionnaire consisting 30 items was used

to collect data. The instrument was validated by an expert from the department of OTM, Nuhu Bamalli polytechnic Zaria. The researcher found out that communication skills assist secretaries in discharging their primary assignment. This study is related to the present study. The present study aims at finding out the adequacy of OTM curriculum contents from employers, which includes among others, communication skills course unit. Even though this study is related to the present research, but hypotheses were not formulated and tested, and the respondents' variable differs. Ekwue's respondent variable was a university, while, the present research respondents variable is polytechnic. Also, the population used by Ekwue is inadequate to make generalization of findings.

Esene (2012) conducted a survey research design titled "Factors that can Influence Curriculum Evaluation of OTM Programme of Polytechnics in Delta States". The purpose of the study was to examine the criteria that influence curriculum evaluation in OTM programme. The population of the study comprises of 58 OTM lecturers. Six research questions guided the study. Structured questionnaire consisting 62 items was the instrument used to collect data. The researcher found among others that, organization of the course contents needs to be reviewed to be in consonance with occupational purposes. The study is related to the present research in the sense that, the present research intends to collect data from the employers of OTM graduates in North-West Nigeria on whether, from their work interaction with the graduate, the course unit contents of ICT,

keyboarding, shorthand, records management and communication skills are adequate enough to the needs of the employers. Even though it is related to the present research, but hypotheses were not formulated and tested.

Summary of Review of Related Literature

Related literature was reviewed under conceptual framework, theoretical framework, theoretical studies, and some related empirical studies. In the conceptual framework, key concepts in the study like assessment, adequacy, OTM programme curriculum and employment requirements were reviewed from the views of several authors and in the context of the present study. Three theories were reviewed each supporting the need for feedback from employers of OTM products for curriculum improvement. Works of authors were reviewed on theoretical studies of OTM programme, objectives of OTM programme, OTM curriculum contents and course offerings, employment prospects for OTM graduates, professional course units of OTM programme like shorthand, keyboarding, records management and communication skills and challenges of office and business environments of the current era.

Fourteen related empirical studies on adequacy of ICT, shorthand, keyboarding, records management and communication skills contents of OTM curriculum were reviewed. Based on the reviewed literature, the researcher observed that there is a gap between what employers require from OTM graduates,

particularly in shorthand and keyboarding and what the OTM contents of these course units provide. It is envisaged that this study fill the existing gap.

CHAPTER THREE

METHOD

This chapter describes the method used in conducting the research. It discusses the research design, area of the study, population for the study, sample, sampling techniques, instrument for data collection, validation of the instrument, reliability of the instrument, method of data collection and method of data analysis.

Research Design

This study is an ex-post facto research design due to the fact that the independent variable has been provided in unit contents. This was in line with the definition of Cohen, Mannion and Morrison (2008), of ex-post facto research as a method of teasing out possible and antecedents of events that have happened and cannot, therefore, be controlled, engineered or manipulated by the researcher. This research is also partly descriptive survey research design due to the fact that opinion of employers of OTM graduates in North-West Nigerian polytechnics were sought on adequacy of some professional course units in the OTM curriculum. This was in line with Nworgu (2006) definition of a descriptive survey research, that, it is a type of research in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. Also, Cohen, Mannion and Morrison (2008) opined that survey gather data at a particular point in time with the intention of describing the nature of existing condition or identifying standards

against which existing conditions can be compared, or determining the relationships that exist between events. More so, Bankole and Dauda (2009), Adeyemi and Adeyemi (2014) adopted these research designs in their various researches successfully. Since the opinions of the employers of labour will be sought, and questionnaire items structured from the provisions of NBTE curriculum, ex-post facto and descriptive survey adopted are suitable and appropriate.

Area of the Study

The area of the study is North-West States of Nigeria which comprises Kano, Kaduna, Sokoto, Katsina, Jigawa, Kebbi, and Zamfara States. The area is bounded by Bauchi, Borno, Niger, Plateu States and Niger Republic. The major occupation of the people in the area is agriculture which comprises farming and livestock rearing. The area is famous in commercial and educational activities, with Kano being the commercial centre for Northern Nigeria, and Kaduna Polytechnic being the premier polytechnic in the Northern Nigeria. Each state in the zone has Federal and/or State polytechnic with private companies where OTM graduates are employed. The area is chosen for the study based on these business labour outlets and the fact that the researcher came from the area is part of stakeholders in secretarial studied education and research of this nature has never been conducted in the zone.

Population of the Study

The population of the study comprised all 456 (374 and 82) executives in the polytechnics and registered private establishments in North-West Nigeria who have secretaries with ND/HND OTM qualification attached to them. Specifically, these executives in the polytechnics comprise the Rectors, Registrars, Bursars, Directors and Head of Departments. All the principal officers in the various private establishments in North-West Nigeria are also part of the population. The population distribution by establishment is presented as Appendix II at page 134

Sample and Sampling Techniques

The researcher used all the population as sample for the study because the number is manageable, to enhance greater reliability.

Instrument for Data Collection

The researcher used 5-point rating scale questionnaire titled “Questionnaire on Adequacy of OTM Curriculum for Employability Skills Acquisition” (QAOTMCESA) as instrument for data collection. The questionnaire was developed based on the contents of the existing OTM curriculum, insight gained from related literature reviewed and the research questions. It has two main sections, namely: Sections A and B. Section A contained information on demographic data of the respondents covering gender and type of establishments, while section B contained five clusters of B1, B2, B3, B4 and B5 with 26, 13, 12, 23 and 19 items respectively. Response options in Section B are VA (Very

Adequate), AD (Adequate), BA (Barely Adequate), IA (Inadequate) and VI (Very Inadequate).

Validation of the Instrument

The structured instrument was validated by three experts as follows: one lecturer each from Department of Vocational Education and Department of Educational Foundations, Nnamdi Azikiwe University Awka, and Office Technology and Management Department, Hassan Usman Katsina Polytechnic, Katsina. The validators were given the title of the study, purpose of the study, research questions alongside the instrument. The validators were requested to face validate the instrument on its possibility to elicit the needed information, on its scope, language, clarity and overall adequacy of the items as well as make modifications as they deem fit. The format and contents of the letter of transmittal, response options were corrected. Also, one section of the instrument which contained items in other sections was recommended for dropping, questionnaire items were reduced and the research topic changed to reflect the contents of the research. In consultation with the researcher's supervisor, and based on his advice, the comments and observations of the validators were effected. This gave rise to the current form of the instrument.

Reliability of the Instrument

The instrument was subjected to reliability test so as to determine its internal consistency. Split half method was used where 20 copies of the instrument were

distributed to the principal officers who have OTM graduates as their secretaries in the public and private establishments in North Central zone of Nigeria. Data were analysed with Pearson Product Moment Correlation Coefficient and reliability coefficients of 0.97, 0.70, 0.72, 0.95 and 0.75 were obtained for the clusters. K.R-20 statistical formula was used to establish the overall reliability of the instrument and 0.86 coefficient value was obtained. Based on this, the instrument was adjudged to be reliable as posited by Nworgu (2006), that any instrument with r value from 0.75 and above is considered to be reliable.

Method of Data Collection

The researcher personally administered the questionnaire with the help of four research assistants who were guided on what to do. The researcher administered the instrument to the respondents from Hassan Usman Katsina Polytechnic, Katsina, Hussaini Adamu Federal Polytechnic, Kazaure and those in private establishments in these two states. One research assistant was delegated to administer to respondents from Kano and Jigawa polytechnics and those in private establishment in the two states. Another research assistant did the same in respect to the respondents from Federal polytechnic Kaura Namoda and Abdu Gusau Polytechnic, Talata Mafara and private establishments in the states. One research assistant administered the instrument to the respondents from Sokoto State Polytechnic and Waziri Adamu Federal Polytechnic Birnin Kebbi and those in private establishments. The fourth research assistant did the same in respect to the

respondents from Nuhu Bamalli Polytechnic, Zaria and Kaduna Polytechnic, Kaduna and to the respondents from private establishments in the states.

The administration of the instrument took two weeks. After the administration of the instrument for one week, the researcher and the research assistants gave the respondents two days to study and fill the questionnaire for a meaningful response. Five days was used to retrieve the completed questionnaire. The research assistants were given honorarium for transport and other logistics.

Method of Data Analysis

The arithmetic mean and standard deviation were employed to analyse data in respect to the research questions. While the mean scores were used to answer the research questions, the standard deviation was utilized to determine the homogeneity or otherwise of the respondents views. The decision rule used is to consider any item with a mean rating equal to or greater than 3.50 as adequate and any mean rating that is less than 3.50 as inadequate. Inferential statistics of z-test was used to test the null hypotheses at 0.05 level of significance. The null hypotheses were rejected if calculated z-value is equal to or greater than the critical z-value, otherwise, the null hypotheses were not rejected.

CHAPTER FOUR

PRESENTATION AND ANYLYSIS OF DATA

This chapter dealt with presentation and analysis of the data as well as statistical tests conducted in connection with the hypotheses formulated. A total number of 456 copies of questionnaire were distributed to the respondents and 418 copies were filled and retrieved. A total number of 312 copies of the filled and retrieved copies of questionnaire represent male gender and 106 represents female gender. More so, 340 filled and retrieved copies of questionnaire were responses from executives in public establishment and 78 copies of the filled and retrieved copies of the questionnaire were from the executives of private establishments.

Analysis of Data Relating to Research Questions

Research Question 1

How adequate is ICT skills component of OTM curriculum for graduates' employability skills acquisition?

The data relating to this research question are presented in Table 1

Table 1**Employers Mean and standard deviation rating on adequacy of required ICT skills component of OTM curriculum**

N= 418

S/No.	Required ICT Related Skills:	Mean \bar{X}	Standard Deviation	Remarks
	Ability to:			
1.	Use programme manager	4.34	0.63	Adequate
2.	Open a window	4.57	0.51	Adequate
3.	Close a window	4.55	0.53	Adequate
4.	Load application software	4.37	0.58	Adequate
5.	Import data file	4.25	0.65	Adequate
6.	Import chart	4.28	0.66	Adequate
7.	Set page orientation	4.33	0.63	Adequate
8.	Insert header and footer	4.48	0.54	Adequate
9.	Create documents	4.56	0.59	Adequate
10.	Use special symbols	4.25	0.71	Adequate
11.	Search and replace	4.19	0.80	Adequate
12.	Mail merge	3.35	1.20	Inadequate
13.	Use Spread sheet	3.50	0.93	Adequate
14.	Plan a spread sheet	3.50	0.94	Adequate
15.	Place numerical table titles	3.54	0.93	Adequate
16.	Move from cell to cell	3.55	0.97	Adequate
17.	Create an arithmetic formula	3.54	0.93	Adequate
18.	Use columns and rows	3.59	0.96	Adequate
19.	Use spread sheet to solve problem	3.55	0.93	Adequate
20.	Create quality and attractive text	3.80	0.90	Adequate
21.	Create new publication	3.96	0.85	Adequate
22.	Save master page	4.52	0.73	Adequate
23.	Composite proof	4.56	0.65	Adequate
24.	Change background colour	4.42	0.77	Adequate
25.	Edit text	4.64	0.68	Adequate
26.	Save any document	4.62	0.95	Adequate
Cluster Mean		4.11	0.78	Adequate

As shown in Table 1, all the items related to ICT required skill were rated adequate except item No. 12. They had mean ratings ranging from 3.50 to 4.64 which fell within the decision rule of equal to or greater than 3.50. More so, the cluster mean for all the items was 4.11 which also fell within the decision rule of

“adequate”. Therefore, employers in North-West Nigeria opined that, ICT related skills component of OTM curriculum were adequate.

Research Question 2

How adequate are shorthand contents of OTM curriculum for graduates’ employability skills acquisition?

The data relating to this research question are presented in Table 2

Table 2

Employers mean and standard deviation ratings on adequacy of required shorthand skills component of OTM curriculum

N= 418				
S/No.	Required Shorthand Related Skills:	Mean \bar{X}	Standard Deviation	Remarks
	Ability to:			
27.	Take office correspondence in shorthand	1.53	0.76	Inadequate
28.	Write report	1.83	0.85	Inadequate
29.	Takes minutes of meeting	1.95	0.79	Inadequate
30.	Write at 80 wam	1.59	0.74	Inadequate
31.	Write at 100 wam	1.30	0.57	Inadequate
32.	Write at 120 wam	1.28	0.57	Inadequate
33.	Transcribe what was taken accurately	1.46	0.74	Inadequate
34.	Produce mailable documents	1.60	0.77	Inadequate
35.	Have interest to write in shorthand	1.42	0.68	Inadequate
36.	Use shorthand in interviewing secretaries	1.29	0.60	Inadequate
37.	Compose during dictation	1.35	0.68	Inadequate
38.	Understand that shorthand saves time	1.22	0.41	Inadequate
39.	Understand that shorthand is a pride to his profession	1.32	0.65	Inadequate
	Cluster Mean	1.47	0.68	Inadequate

Information contained in Table 2 presented the mean ratings and standard deviation with respect to research question 2. All the items on required shorthand related skills were rated inadequate. The 13 items had mean ratings ranging from 1.22 and 1.95 which fell below the decision rule. The cluster mean (1.47) also fell

below the decision rule. This rendered it inadequate. Therefore, it could be inferred that employers in North-West Nigeria, rated shorthand required related skills of OTM curriculum inadequate.

Research Question 3

How adequate are keyboarding contents of OTM curriculum for graduates' employability skills acquisition?

The data relating to this research question are presented in Table 3

Table 3

Employers' Mean and standard deviation ratings on adequacy of required keyboarding skills component of OTM curriculum

N= 418				
S/No.	Required Keyboarding Related Skills:	Mean \bar{X}	Standard Deviation	Remarks
	Ability to:			
40.	Type office correspondence accurately	2.81	0.56	Inadequate
41.	Type office correspondence at 35 wam	2.69	0.57	Inadequate
42.	Type office correspondence at 50 wam	1.79	0.70	Inadequate
43.	Type office correspondence at 60 wam	1.62	0.49	Inadequate
44.	Produce documents as at when due	2.06	0.93	Inadequate
45.	Input data accurately to a system	2.43	0.53	Inadequate
46.	Type various kind of office work	2.44	0.53	Inadequate
47.	Understand correction signs	2.47	0.51	Inadequate
48.	Understand combination signs	2.11	0.91	Inadequate
49.	Display tabular work appropriately	1.98	0.94	Inadequate
50.	Apply keyboarding skills to all ICT Course units	1.48	0.50	Inadequate
51.	Differentiate the uses of various paper size	2.35	0.62	Inadequate
	Cluster Mean	2.91	0.65	Inadequate

Information contained in Table 3 showed that, all the 12 items related to keyboarding skills were rated inadequate by employers in North-West Nigeria based on the fact that their mean ratings fell within 1.48-2.81, which are below the cut-off mean of 3.50. Likewise, the cluster mean for all the items (2.19) fell below

the cut-off mean. Therefore, it could be concluded that employers in North-West Nigeria opined that required keyboarding related skills of OTM curriculum were inadequate.

Research Question 4

How adequate are records management contents of OTM curriculum for graduates' employability skills acquisition?

Analysis of data relating to research question 4 are presented in Table 4

Table 4
Employers' mean and standard deviation ratings on adequacy of required records management skills component of OTM curriculum

N= 418

S/No.	Required Records Management Skills	Mean \bar{X}	Standard Deviation	Remarks
	Ability to:			
52.	Apply filling rules and procedures	3.94	0.65	Adequate
53.	Properly use action sheet	3.99	0.61	Adequate
54.	Open a new file	4.13	0.67	Adequate
55.	Open a new volume	4.12	0.67	Adequate
56.	Open a temporary file	4.13	0.69	Adequate
57.	Page number document in a file	4.07	0.71	Adequate
58.	Make cross-referencing	3.05	1.11	Inadequate
59.	Transfer correspondence from one file to another	3.72	0.81	Adequate
60.	Classify files	4.34	0.63	Adequate
61.	Grade files	4.57	0.51	Adequate
62.	Properly index files	4.55	0.53	Adequate
63.	Use transit index	4.37	0.58	Adequate
64.	Understand B U procedures	4.25	0.67	Adequate
65.	Use B U procedures	3.17	1.00	Inadequate
66.	Transfer files to archives	1.87	1.15	Inadequate
67.	Microfilm files	1.67	1.29	Inadequate
68.	Apply information processing cycle	3.49	1.10	Inadequate
69.	Save documents in CD/plash drive	3.95	1.24	Adequate
70.	Use microfilming cameras	1.55	1.14	Inadequate
71.	Prevent office documents from backdoors	1.43	0.98	Inadequate
72.	Protect office documents from dumpster Driving	1.45	1.02	Inadequate
73.	Protect office documents from data dandling	1.62	1.12	Inadequate
74.	Protect office document from hacking	2.14	1.38	Inadequate
	Cluster Mean	3.29	0.88	Inadequate

As showed in Table 4, out of the 23 items, 13 items had a mean ratings ranging from 3.94-4.57, which fell within the decision rule of adequate. The analysis also indicated that ten items, that is, items (58, 65, 66, 67, 68, 70, 71, 72, 73 and 74) had a mean rating from 1.43-3.49 which fell below the cut-off mean. The cluster mean for this table was 3.29 which felt below the decision rule of 3.50. Therefore, it was concluded that employers in North-West Nigeria opined that records management required skills of OTM curriculum was inadequate.

Research Question 5

How adequate are communication skills contents of OTM curriculum for graduates' employability skills acquisition?

Analysis of data relating to the above research question is presented in Table

Table 5**Employers' mean and standard deviation ratings on adequacy of required communication skills component of OTM curriculum**

N= 418

S/No.	Required Communication Skills	Mean \bar{X}	Standard Deviation	Remarks
	Ability to:			
75.	Work harmoniously with chief executive	3.88	0.93	Adequate
76.	Work harmoniously with other executive	3.92	0.76	Adequate
77.	Work harmoniously with colleagues	4.11	0.72	Adequate
78.	Work harmoniously with junior staff	4.07	0.79	Adequate
79.	Work harmoniously with community Member	4.12	0.70	Adequate
80.	Freely with visitors	4.08	0.75	Adequate
81.	Address people with their names	3.94	0.82	Adequate
82.	Address people with their designation	3.74	0.72	Adequate
83.	Represent executive in function	3.52	0.83	Adequate
84.	Present and address at an occasion	3.46	0.88	Inadequate
85.	Dress appropriately at an occasion	3.87	0.70	Adequate
86.	Withstand work pressure	3.90	0.60	Adequate
87.	Handle a difficult boss	3.93	0.61	Adequate
88.	Handle a difficult visitors	3.92	0.61	Adequate
89.	Listen attentively to chief executive	4.11	0.67	Adequate
90.	Comprehend instructions easily	3.94	0.64	Adequate
91.	Take notes when interacting with boss	3.94	0.62	Adequate
92.	Ask question for clarification	3.96	0.60	Adequate
93.	Work under any condition	3.93	0.58	Adequate
	Cluster Mean	3.91	0.71	Adequate

The data in Table 5 indicated that employers in North-West Nigeria rated required communication skills component of OTM curriculum adequate. All the items had mean rating ranging from 3.50-4.12 except item 84 which had a mean rating of 3.46. The cluster mean for all items (3.91) fell within the decision rule. Therefore, it could be inferred that communication skills component of OTM curriculum was adequate.

Result of Test of Null Hypotheses

Hypothesis 1

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of Information and Communication Technology skills component of OTM curriculum as a result of gender

The result of the z-test conducted in respect of this hypothesis is presented in

Table 6

Table 6

z-Test analysis of male and female employers mean ratings on the adequacy of ICT skills component of OTM curriculum

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z-Cal	z- Critical	Decision
Male	312	4.10	0.79	416	0.05	2.17	1.96	Rejected
Female	106	4.12	0.74					

Information contained in Table 6 depicted that at 0.05 level of significance and 416 degree of freedom, the calculated z-value is 2.17 and z-critical is 1.96. Since the calculated z-value is greater than the critical value of 1.96, the null hypothesis was rejected. In effect, employers of labour in North-West Nigeria differed significantly in their mean ratings on the adequacy of ICT skills component of OTM curriculum as a result of gender. In effect, female gender, rated adequacy of ICT skills component of OTM curriculum higher than male gender.

Hypothesis 2

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of Information and Communication Technology skills component of OTM curriculum as a result of establishment type

The result of z-test conducted in respect of hypothesis 2 is presented in Table 7

Table 7**z-Test analysis of type of establishment employers mean ratings on the adequacy of ICT skills component of OTM Curriculum**

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z- Cal	z- Critical	Decision
Public Establishment	340	4.08	0.77					
Private Establishment	78	4.24	0.78	416	0.05	2.10	1.96	Rejected

In Table 7, the calculated z-value stood at 2.10 at 0.05 level of significance and 416 degree of freedom and z-critical =1.96. Therefore, since z- calculated is greater than z-critical, the null hypothesis was rejected. It implies that the employers of labour in North-West Nigeria differed significantly in their mean ratings on the adequacy of ICT skills component of OTM curriculum as a result of type of establishment.

Hypothesis 3

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on adequacy of shorthand skills components of OTM curriculum as a result of gender.

The result of z-test conducted in respect of hypothesis 3 is presented in Table 8.

Table 8**z-Test analysis of male and female employers mean ratings on the adequacy of shorthand skills component of OTM curriculum**

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z-Cal	z- Critical	Decision
Male	312	1.50	0.71	416	0.05	1.86	1.96	Accepted
Female	106	1.39	0.55					

Information contained in Table 8 showed that at 416 degree of freedom and 0.05 level of significance, the calculated z-value (1.86) is less than the critical z-value (1.96) thus, the null hypothesis was accepted. Therefore, employers of labour in North-West Nigeria did not differ significantly in their mean ratings on adequacy of shorthand skills component of OTM curriculum as a result of gender.

Hypothesis 4

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of shorthand skills component of OTM curriculum as a result of type of establishment.

The result of z-Test conducted in respect of hypothesis 4 is presented in

Table 9

**Table 9
z-Test analysis of type of establishment employers mean ratings on the adequacy of shorthand skills component of OTM curriculum**

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z- Cal	z- Critical	Decision
Public Establishment	340	1.46	0.67	416	0.05	1.90	1.96	Accepted
Private Establishment	78	1.55	0.71					

Information contained in Table 9 showed that at 0.05 level of significance and 416 degree of freedom, z-calculated (1.90) is less than the z-critical (1.96). Since z-cal is less than z-critical, the hypothesis was accepted. Therefore, in effect, employers of labour in North-West Nigeria did not differ significantly in their mean ratings on the adequacy of shorthand skills component of OTM curriculum as a result of type of establishment.

Hypothesis 5

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of keyboarding required skills component of OTM curriculum as a result of gender.

The result of z-test conducted in respect to hypothesis 5 is presented in Table 10

Table 10

z-Test analysis of male and female employers mean ratings on the adequacy of keyboarding required skills component of OTM curriculum

Group	N	Mean (\bar{X})	SD	Df	Level of Significance	z-Cal	z- Critical	Decision
Male	312	2.20	0.65	416	0.05	1.63	1.96	Accepted
Female	106	2.16	0.64					

Information contained in Table 10 revealed that at 0.05 level of significance and at 416 degree of freedom, z-calculated was 1.63 and z-critical was 1.96. Since z-critical was greater than z-calculated, the hypothesis was accepted. Thus, employers of labour in North-West Nigeria did not differ significantly in their

mean ratings on the adequacy of key boarding skills component of OTM curriculum as a result of gender.

Hypothesis 6

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of keyboarding required skills component of OTM curriculum as a result of type of establishment

The result of z-test analysis conducted in respect to hypothesis 6 is presented in Table 11

Table 11

z-Test analysis of type of establishment employers mean ratings on the adequacy of keyboarding required skills component of OTM curriculum

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z- Cal	z- Critical	Decision
Public Establishment	340	2.21	0.64	416	0.05	1.61	1.96	Accepted
Private Establishment	78	2.19	0.65					

From Table 11, the calculated value of z-cal stood at 1.61, z-crit 1.96 $\alpha = 0.05$ and $df = 416$. Since z-calculated is less than the z-critical the null hypothesis was accepted. Therefore, there is no significant difference in the mean ratings of employers of labour on the adequacy of keyboarding skills component of OTM curriculum as a result of type establishment.

Hypothesis 7

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of records management required skills of OTM curriculum as a result of gender

The result of z-test analysis conducted in respect to hypothesis 7 was presented in Table 12

Table 12

z-Test analysis of male and female employers mean ratings on the adequacy of records management required skills of OTM curriculum

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z-Cal	z- Critical	Decision
Male	312	3.18	0.93	416	0.05	3.60	1.96	Rejected
Female	106	3.13	0.88					

Table 12 revealed as followed: z-cal = 3.60, z-crit = 1.96, df = 416, $\alpha = 0.05$.

This indicated that the z-cal is greater than z-critical. Hence the null hypothesis was rejected. It was therefore concluded that, there was significant difference in the mean ratings of employers of labour on adequacy of records management skills required for OTM curriculum as a result of gender

Hypothesis 8

Employers of labour in North-West Nigeria do not differ significantly on the adequacy of records management skills of OTM curriculum as a result of type of establishment

The result of z- test analysis conducted in respect to hypothesis 8 is presented in Table 13

Table 13

z-Test analysis of type of establishment employers mean ratings on the adequacy of records management required skills of OTM curriculum

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z- Cal	z- Critical	Decision
Public Establishment	340	3.13	0.85	416	0.05	2.74	1.96	Rejected
Private Establishment	78	3.04	1.16					

The data in Table 13 revealed that at 416 degree of freedom and 0.05 level of significance, the z-cal (2.74) was greater than the z-crit (1.96). Therefore the null hypothesis was rejected. It is therefore, concluded that employers of labour in North-West Nigeria did not differ significantly on their adequacy of records management skills of OTM curriculum as a result of type of establishment.

Hypothesis 9

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of gender.

The result of z-test analysis conducted in respect to hypothesis 9 is presented in Table 14

Table 14**z-Test analysis of male and female employers mean ratings on the adequacy of communication skills component of OTM curriculum**

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z-Cal	z- Critical	Decision
Male	312	3.93	0.73	416	0.05	2.35	1.96	Rejected
Female	106	3.87	0.65					

Table 14 showed that at 416 degree of freedom and 0.05 level of significance, z-cal was 2.35 and z-crit was 1.96. Since z-cal is greater than z-crit, the hypothesis was rejected. Therefore, employers of labour in North-West Nigeria differed significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of gender.

Hypothesis 10

Employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of type of establishment.

The result of z-test analysis conducted in respect to hypothesis 10 is presented in Table 15

Table 15**z-Test analysis of type of establishment employers mean ratings on the adequacy of communication skills component of OTM curriculum**

Group	N	Mean (\bar{X})	SD	df	Level of Significance	z- Cal	z- Critical	Decision
Public Establishment	340	3.87	0.68	416	0.05	2.10	1.96	Rejected
Private	78	4.11	0.78					

Establishment

Information contained in Table 16 revealed that at 416 degree of freedom and 0.05 level of significance, $z\text{-cal}$ (2.10) was greater than $z\text{-crit}$ (1.96). Therefore the null hypothesis was rejected. It implies that employers of labour in North-West Nigeria differed significantly in their mean ratings on the adequacy of communication skills component of OTM curriculum as a result of their establishment type.

Summary of Findings

The following were findings of the study as deduced from the results of the analysed data.

1. ICT skills components of OTM curriculum were found to be adequate. Equally, hypotheses 1 and 2 were rejected.
2. Shorthand skills components of OTM curriculum were found to be inadequate. Likewise, hypotheses 3 and 4 were accepted.
3. Keyboarding skills component of OTM curriculum were found to be inadequate. Similarly, hypotheses 5 and 6 were accepted.
4. Records management skills component of OTM curriculum were found to be inadequate. In addition, hypotheses 7 and 8 were rejected.
5. Communication skills component of OTM curriculum were found to be adequate. Hypotheses 9 and 10 were rejected.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter presents the discussion of the findings, conclusion and recommendations of the study as well as the implications of the findings and suggestions for further research.

Discussion of Findings

The discussion of the results was organized under the five analysed research questions as follows:

Adequacy of ICT contents of OTM curriculum

The result of the analysis presented showed that employers rated ICT contents of OTM curriculum as adequate. Scanning properly into the table revealed that OTM curriculum was adequate in word processing aspects. This may be connected with the routine duties performed by secretaries. In most offices, OTM graduates perform word processing activities. Therefore, employers rely greatly on OTM graduates in this aspect. The finding were in agreement with Ernest (2010) assertion that OTM concerned production of graduates who can quickly access data or information, process, disseminate, store and retrieve for future use as demanded by their employers. Furthermore, Ndinechi and Ementa (2013) upheld that a word processing skill is important skill needed by business education students for office use as well as for personal life. More so, the findings

confirm the views of Nwanewezi (2013) that OTM graduates must have adequate ICT knowledge for them to perform effectively in modern offices. The findings also agrees with the views of Okoye and Agholor (2014) that ICT based course units in OTM curriculum was meant to make the OTM graduates relevant in the present day office environment. Also, the findings was in agreement with Esene (2014) finding that OTM curriculum fulfilled the requirements of ICT which makes the OTM graduates cope up with the challenges of work place.

Even though, ICT aspects of spreadsheet were rated adequate by the OTM employers, but, as compared to the other ICT aspects, the mean rating was very low. This may not be unconnected with the phobia in calculations by both the OTM lecturers and OTM students as viewed by Okeke and Ezenwafor (2012) that most tertiary institution lecturers themselves possessed low extent skills in spreadsheet. This may metamorphose to the OTM students. Consequently, this finding was in disagreement with the views of Maurison (2013) that, observations reveals many OTM students may not be performing excellently in ICT related courses based on the simple fact that OTM students could not even make on-line registration themselves, but depend on the services of cybercafé attendants.

The test of hypothesis indicated that employers of labour in north-west Nigeria differed significantly on the adequacy of ICT component of OTM curriculum based on gender and type of establishment. This indicates that gender and type of establishment has influence on their responses.

Adequacy of shorthand contents of OTM curriculum

The results of the analysis with respect to research question 2 revealed that shorthand contents of OTM curriculum was rated inadequate. In essence, the contents of the course unit (shorthand) fell short of employers' preference. This confirmed Bature (2012) findings that OTM graduate employers require 100/120 words a minute respectively for ND/HND OTM graduates as stipulated by the scheme of service. The mean ratings depicts that all the items contained were rated inadequate. Therefore, inadequacy in shorthand curriculum was a result of agitations by stakeholders that the course unit has no relevance in the present technological age, and therefore, should be expunged from the curriculum or the contact hours be reduced. Nwosu (2008) maintained that present terminal speed of shorthand (100 wam) was no longer considered relevant, but the course unit should be retained in the curriculum. Ike (2008) affirmed the assertion of Nwosu (2008) that OTM curriculum reduced the attainable shorthand speed by 20 words and the syllabic intensity by 0.01. This reduction made the curriculum inadequate to cater for the needs of employers.

Most OTM students have phobia in shorthand. They perceived shorthand as a difficult subject which has no relevance, but a waste of time. Thus, Ademiluyi (2012) narrated that students' regard shorthand as difficult, time-consuming, demanding and discouraging. In the views of Nwosu (2013), most OTM students seems not to be interested in shorthand owing to the teaching method of some

teachers, the quality of teaching resources, time allocation for teaching the subject and learning difficulties. Nwosu (2013) maintained that, with the availability of computers, many students seem to think that shorthand is no longer necessary. The findings confirmed Liti (2014) finding that OTM students could not take shorthand dictation at 120 words a minute.

The study indicated that the respondents do not differ significantly in their mean ratings on adequacy of shorthand required skills of OTM curriculum based on gender and type of establishment. This revealed that both respondents (gender and type of establishment) rated OTM graduates inadequate in their shorthand skills based on the contents of the shorthand course unit in the OTM curriculum.

Adequacy of keyboarding contents of OTM curriculum

The results of the analysis with respect to research question 3 showed that respondents rated adequacy of keyboarding contents of OTM curriculum inadequate. OTM graduates could not type 50 and 60 wam. They could not produce documents as at when due. This was a great predicament to this cadre of office employee, as they could not relief their executives. This finding contradicts Miller, Okoro and Ojianaegbu (2011) views that OTM graduates are expected to greatly take-off pressure of work from executives through faultless and timely delivery of mailable correspondence. Therefore, since the OTM graduates could not type at these stipulated speeds, they could not take off-office pressures of their

executives. The inability of OTM graduates to produce documents as at when due, may not be unconnected to the reduction of the contact hours allocated to keyboarding course unit in OTM curriculum to 2 hours is a serious set-back of the OTM programme. Abdullahi (2013) explained that the present scheme of service emphasizes 50 wam for ND students and 60 wam for HND students. Therefore, the OTM curriculum fell short of what the scheme of service requires. In effect, this makes OTM graduates loose vacancies during interviews or be relegated by employers. Oborah and Eze (2013) stated that selection requirements for secretarial personnel give emphasis to speed in keyboarding. The authors maintained that most advertisements for the position of confidential secretary required keyboarding speed of either 50 wam or 60 wam.

The test of hypothesis indicates that employers of labour in North-West Nigeria do not differ significantly in their mean ratings on the adequacy of keyboarding required skills components of OTM curriculum as a result of either gender or type of establishment. This meant that, gender and type of establishment respondents agreed that keyboarding component of OTM curriculum was inadequate to cater for the employers' needs and expectations.

Adequacy of Records Management contents of OTM Curriculum

The results of the analysis on the adequacy of required records management contents of OTM curriculum indicated that the executives of public and private

establishments considered it inadequate. This finding confirms Aminu (2009) views that secretary is responsible for establishing and maintaining organisations records and document including minutes of meeting, reports and other vital documents. More so, the finding agrees with the assertion of Ezenwafor (2012) that secretaries are at the centre of information processing in any organisation. Ezenwafor (2012) maintained that provision of comprehensive, accurate and up-to-date information to facilitate quality management decision was an important duty of a secretary. This could be attained through effective records management skills. Similarly, Mohammed (2013) upheld the view that secretaries by their nature of training are the storehouse of information. Information creation, recording, maintaining and retrieving forms an integral part of their duty. All these were contained in records management. The finding was in a disagreement with Maikudi (2014) findings that supervisors were dissatisfied with records keeping skills of OTM graduates in Federal polytechnic Kaura Namoda.

The study indicates that the curriculum is inadequate on how to transfer files to archives, inability to microfilm file, use microfilming camera, inability to present office documents from backdoors, dumpster diving, data dandling and hacking. In this technological environment, these form a great setback for secretaries and OTM curriculum. Shuaibu (2013) revealed that, at this time of technological development, secretaries must be conversant of diverse ways of protecting documents from hackers. The hackers, presently, are great threat to

security of office documents and the entire organization. The test of hypothesis indicated that employers in North-West Nigeria do not differ significantly on the adequacy of records management required skills of OTM curriculum based on gender and type of establishments. This indicates that both employers in public and private establishments and male and female employers maintained that the contents of records management course unit of OTM curriculum is inadequate.

Adequacy of Communication Skills Contents of OTM Curriculum

The result of the analysis on the opinion of the employers of labour in north-west Nigeria on the adequacy of communication skills contents of OTM curriculum indicates that the curriculum is adequate. All items on required communication skills were rated adequate. Likewise, the grand mean was also adequate. This affirms the findings of Rabi'u and Kado (2010) that secretaries as the nerve centre of the organization must have a command of communication skills. Iro (2013) asserted that secretary must be skillful in written communications as he will often be called upon to draft and edit correspondence on behalf of the organization to outside groups as well as internal members. Also, Ognajifor and Nwogu (2014) viewed that secretaries must have a habitual and judicious use of communication and technical skills, clerical reasoning and values of reflection in daily practice for the benefit of the organization and the community being served.

The null hypothesis of no significant difference in the mean ratings on the adequacy of communication skills component of OTM curriculum as a result of gender and type of establishment was rejected.

Implications of the study

The findings of this study have some important implications such as the following:

Even though, the mean rating on ICT was adequate, but the mean rating on spread sheet was discouraging (Table 1). It seemed the OTM graduates are not performing effectively in spread sheet. Less training on spread sheet would definitely tarnish the image of the OTM products. This could lead to the graduates loosing many vacancies in labour market.

The study revealed that required shorthand skills component of OTM curriculum was inadequate (Table 2). This inadequacy had a lot of problem to OTM graduates. The scheme of service stipulates that holder of ND certificate must possess 100 wam in shorthand and 120 wam for HND holders. Therefore, graduating HND OTM student at 100 wam was a serious impediment. This could make their appointment and promotion a problem.

The study also revealed that required keyboarding skills component of OTM curriculum was rated inadequate (Table 3). This also could bring a problem to OTM graduates since it contravenes the scheme of service which stipulates 50 and

60 wam for holders of ND and HND respectively. Therefore, the graduates will be relegated in labour market.

The study also revealed that OTM curriculum is adequate on required records management skills (Table 4). But, the curriculum was inadequate in some aspects of filing. Filing is an important variable in office routine duties. Also, the curriculum is inadequate in training OTM students on modern ways of preventing documents from cybercrime. This aspect is very important as far as modern office duties are concerned.

The study also revealed that OTM curriculum is adequate in required communication skills component (Table 5). This implies that the OTM graduates will be able to perform effectively and efficiently in any organization. The OTM graduates will uphold the image of any organization.

Conclusion

Based on the findings of the study, it was concluded that the current OTM Curriculum is perceived not to be adequate for employability skills acquisition by the products.

Recommendations

On the basis of the findings and conclusion, the following recommendations were made:

1. The OTM students should be properly drilled by lecturers on spreadsheet, shorthand and keyboarding aspect of OTM curriculum. Furthermore, modern records keeping and its security must be taught to the students. This could make them relevant in the present Nigerian offices where cybercrime becomes a great problem to the documents.
2. Employers of labour, particularly federal and states department of establishment and training/offices of Head of Service and representatives of private establishment should be oriented by OTM head of departments on the OTM curriculum. In future OTM curriculum review, members of these establishments should be incorporated in the membership of the committee by NBTE.
3. Department of OTM departments of Nigerian polytechnics should as a matter of necessity form departmental course leaders in all the courses offered in the departments (Shorthand, ICT, Keyboarding and others course leaders). These course leaders would be responsible for overseeing that the lecturers taking various courses follow strictly what the curriculum provided. They should also supervise newly appointed

staff on the methods of teaching. Heads of OTM Department should be organising in-house workshop for the lecturers.

4. National Board for Technical Education should as a matter of urgency form a sensitization committee. The committee should be responsible for orienting employers of labour, namely Federal/State department of establishment and training/office of Heads of Service and representatives of private establishment on the contents of OTM curriculum. This could lead to the review of scheme of service of secretaries where shorthand and keyboarding were given much preference and ICT neglected. The board should incorporate members of these organizations in the further OTM curriculum review. The board should reconsider expunging shorthand in the curriculum.
5. OTM lecturers should be conversant with new methods of imparting knowledge to OTM students by attending workshops and conference so as to be aware with new teaching methods. This could make them to impart the required knowledge to the students.
6. Government should consider given special funds to the OTM department so as to procure the necessary and modern equipment found in Nigerian offices in the training of OTM graduates. Government should consider immediate review of OTM curriculum.

Suggestions for Further Research

The present study cannot be said to be exhaustive. It is suggested that further researches be undertaken in the following areas:

1. Ratings of adequacy of foundation courses of OTM curriculum by employers of labour in north-west Nigeria or any geo-political zone.
2. Instructional competence required of OTM lecturers for effective teaching of professional course units of OTM curriculum.
3. Analysis of the impediments of OTM graduates employment in a labour market.

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Appendix I OTM Course Specifications

ND I First Semester

Course Code	Course Title	T	P	CH
GNS 101	Use of English I	2	2	4
GNS 111	Citizenship Education	1	1	2
BAM 111	Introduction to Business I	2	1	3
OTM 111	Shorthand I	2	2	4
OTM 113	Information and Communication Technology I	1	7	8
OTM 114	Office Practice I	1	3	4
OTM 112	Keyboarding I	2	2	4
	Total	11	18	29

Source: OTM Curriculum and Course Specifications (2004)

ND I Second Semester

Course Code	Course Title	T	P	CH
GNS 102	Communication in English	2	2	4
GNS 121	Citizenship Education II	1	1	2
BAM 113	Principles of Law	1	1	2
BAM 126	Introduction to Entrepreneurship	1	2	3
OTM 123	Information and Communication Technology II	1	7	8
OTM 125	Career Development	2	2	4
OTM 121	Shorthand II	2	2	4
OTM 124	Modern Office Technology	1	3	4
OTM 122	Keyboarding II	2	2	4
	Total	13	20	31

Source: OTM Curriculum and Course Specifications (2004)

ND II Third Semester

Course Code	Course Title	T	P	CH
GNS 201	Use of English II	2	2	4
GNS 228	Research Techniques	2	2	4
ACC 111	Principles of Accounting	1	3	4
OTM 211	Shorthand III	2	2	4
OTM 213	Desktop Publishing	1	5	6
OTM 214	Office Practice II	1	3	4
OTM 212	Keyboarding III	2	2	4
	Total	11	19	30

Source: OTM Curriculum and Course Specifications (2004)

ND II Fourth Semester

Course Code	Course Title	T	P	CH
GNS 202	Communication in English II	2	2	4
BAM 114	Principles of Economics I	2	1	3
OTM 222	Records Management	1	1	2
OTM 223	Webpage Design	1	7	8
OTM 221	Peoples Communication Skills	1	2	4
OTM 226	SIWES	-	(2)	(2)
OTM 225	Project	-	4	4
	Total	7	18	25

Source: OTM Curriculum and Course Specifications (2004)

HND I First Semester

Course Code	Course Title	T	P	CH
GNS 411	Social Psychology	2	2	4
BAM 214	Business Law	2	2	4
OTM 311	Shorthand IV	1	3	4
OTM 313	ICT Office Application I	2	6	8
OTM 314	Office Administration and Management I	2	2	4
OTM 312	Business Communication I	2	2	4
	Total	11	17	28

Source: OTM Curriculum and Course Specifications (2004)

HND I Second Semester

Course Code	Course Title	T	P	CH
BAM 324	Human Capital Management	2	2	4
BAM 427	Nigerian Labour Law	2	2	4
OTM 321	Business Communication II	2	2	4
OTM 322	ICT Office Application II	2	6	8
OTM 324	Research Method	1	3	4
OTM 325	Professional Career Development	2	2	4
OTM 323	Office Administration and Management II	2	2	4
	Total	13	19	32

Source: OTM Curriculum and Course Specifications (2004)

HND II Third Semester

Course Code	Course Title	T	P	CH
BAM 324	Elements Human Capital Management	2	1	3
GNS 402	Literary Appreciation and Oral Composition	1	1	2
OTM 413	Database Management Systems	1	3	4

OTM 414	Oral Communication Skills	1	3	4
OTM 415	Advanced Desktop Publishing	2	6	8
OTM 411	Advanced Transcription	1	3	4
	Total	8	17	25

Source: OTM Curriculum and Course Specifications (2004)

HND II Fourth Semester

Course Code	Course Title	T	P	CH
BAM 426	Entrepreneurship Development	2	2	4
OTM 432	Management Information Systems	1	3	4
OTM 424	Professional Ethics and Social Responsibility	2	2	4
OTM 425	Advanced Webpage Design	2	6	8
OTM 422	Project	-	4	4
	Total	7	17	24

Source: OTM Curriculum and Course Specifications (2004)

Appendix II

Population Distribution by Establishments

S/ N	Public Establishments	No.	Private Establishment	No.
1.	Kaduna Polytechnic, Kaduna	56	Dana Steel Rolling Mills, Katsina	08
2.	Nuhu Bamalli Polytechnic, Zaria	35	Alba Bello General Enterprise, Zaria	20
3.	Kano Polytechnic, Kano	47	Sharada Industries Ltd. Kano	30
4.	Jigawa Polytechnic, Dutse	27	Sesame Processing Company, Dutse	04
5.	Hussaini Adamu Polytechnic, Kazaure	21	Abdallah Confectionary, Gusau	06
6.	Hassan Usman Katsina Polytechnic, Katsina	45	Sokoto Cement, Sokoto	11
7.	Federal Polytechnic, Kaura Namoda	05	Labana General Enterprises Birnin Kebbi	03
8.	Abdu Gusau Polytechnic, Talata Mafara	31		
9.	Sokoto state Polytechnic, Sokoto	30		
10.	Waziri Adamu Polytechnic, Birnin Kebbi	31		
	Total	374		82

Source: Establishment division of the Establishments (2015).

Appendix III

Transmittal Letter

**Department of Vocational Education,
Faculty of Education,
Nnamdi Aikiwe University, Awka.**

Sir/Madam

Request to complete a questionnaire

I am a Ph. D student from the above institution. I am conducting a research study on Assessment of the adequacy of the curriculum contents of Office Technology and Management in relation to employment requirements in North-West Nigeria.

The attached questionnaire is designed for data collection for the study. I humbly request you to assist me by completing the questionnaire so that I can achieve the purpose of the study. Be assured that your responses will be treated with a high degree of confidentiality and will be used for the stated academic purpose only.

Thank you for your cooperation.

Yours Sincerely,

Signed

Iro, Dikko Mani
07033460821
Researcher

Appendix IV

Request to Validate Research Instrument

**Department of Vocational Education
Faculty of Education
Nnamdi Azikiwe University, Awka**

.....

.....
.....
.....

Dear

Request to Validate Research Instrument

The attached questionnaire is designed to collect data for a study titled Assessment of the adequacy of the curriculum contents of Office Technology and Management in relation to employment requirements in North-West Nigeria. I humbly request you to assist me validate the instrument on the following:

- a. The possibility of the questionnaire items to collect reliable data from the respondents
- b. The extent to which the questionnaire items cover the subject matter
- c. The language and clarity of the questionnaire items.

Sir, You may recommend any amendments and/or addition to enhance the validity of the instrument. Attached are the extract of chapter one and Validation Report Form.

Yours faithfully,

Signed

Iro, Dikko Mani
07033460821.

QUESTIONNAIRE ON EMPLOYERS' ASSESSMENT OF ADEQUACY OF OFFICE TECHNOLOGY AND MANAGEMENT CURRICULUM FOR GRADUATES' EMPLOYABILITY SKILLS ACQUISITION IN NORTH -WEST NIGERIA

Section A- Demographic Data

Instruction- Please tick (✓) the appropriate box on the information about yourself.

1. Gender: Male [] Female []
2. Type of establishment: Public establishment [] Private establishment []

Section B

Assess the adequacy of the curriculum contents of Information and Communication Technology, Shorthand, Keyboarding, Practical, Records Management and People's Communication Skills Course Units Components of Office Technology and Management curriculum based on your work interaction with the OTM graduate. Use the following rating scale to guide you in determining the level of adequacy.

Scale	Code
Very Adequate	VA
Adequate	AD
Barely Adequate	BA
Inadequate	IA
Very Inadequate	VI

B1- Adequacy of required ICT skills

S/NO	Required ICT Related Skill: Ability to:	VA	AD	BA	IA	VI
1	Use programme Manager					

2	Open a Window					
3	Close a Window					
4	Load Application Software					
5	Import Data File					
6	Import Chart					
7	Set Page Orientation					
8	Insert headers and footers					
9	Create Documents					
10	Use Special Symbols					
11	Search and replace					
12	Mail Merge					
13	Use spreadsheet					
14	Plan a spreadsheet					
15	Place numerical table titles					
16	Move from cell to cell					
17	Create an arithmetical formula					
18	Use columns and rows					
19	Use spreadsheet to solve problems					
20	Create quality and attractive text					
21	Create new publications					
22	Save master page					
23	Print composite proof					
24	Change background colour					
25	Edit text					
26	Save any document					

B2- Adequacy of required Shorthand skills

S/NO	Required Shorthand Skill: Ability to:	VA	AD	BA	IA	VI
27	Take Office Correspondence in shorthand					
28	Write Reports					
29	Takes minutes of meeting					
30	Write at 80 wam					
31	Write at 100 wam					
32	Write at 120 wam					
33	Transcribe what was taken accurately					
34	Produce Mailable documents					
35	Have interest to write in shorthand					
36	Use shorthand in interviewing secretaries					
37	Compose during dictation					
38	Understand that shorthand saves time					
39	Shorthand is a pride to his profession					

B3- Adequacy of required Keyboarding Skills

S/NO	Required Keyboarding skill: Ability to:	VA	AD	BA	IA	VI
40	Type office correspondence accurately					
41	Type office correspondence at 35 wam					
42	Type office correspondence at 50 wam					
43	Type office correspondence at 60 wam					
44	Produce documents as at when due					

45	Input data accurately to a system					
46	Type various kind of office work					
47	Understand correction signs					
48	Understand combination signs					
49	Display tabular work appropriately					
50	Apply keyboarding skills to all ICT course units					
51	Differentiate the uses of various paper sizes					

B4- Adequacy of required Records Management Skills

S/NO	Required Records Management Skill: Ability to:	VA	AD	BA	IA	VI
52	Apply filing rules and procedures					
53	Properly use action sheet					
54	Open a new file					
55	Open a new volume					
56	Open a temporary file					
57	Page number document in a file					
58	Make cross-referencing					
59	Transfer correspondence from one file to another					
60	Classify files					
61	Grade files					
62	Properly index files					
63	Use transit index					
64	Understand B U procedures					
65	Use B U procedure					
66	Transfer files to archives					
67	Microfilm files					
68	Apply information processing cycle					
69	Save documents in CD/plash drive					
70	Use microfilming cameras					
71	Prevent office documents from backdoors					
72	Protect office document from dumpster diving					
S/NO		VA	AD	BA	IA	VI
73	Protect office document from data dandling					
74	Protect office document from Hacking					

B5- Adequacy of required Secretarial Communication Skills

S/NO	Required Peoples' Communication Skill: Ability to:	VA	AD	BA	IA	VI
75	Work harmoniously with the Chief Executive					
76	Work harmoniously with other executive					
77	Work harmoniously with colleagues					
78	Work harmoniously junior staff					
79	Work harmoniously with community member					
80	Interact freely with visitors					
81	Address people with their names					
82	Address people with their designation					

83	Represent executive in a function					
84	Present an address at an occasion					
85	Dress appropriately at any occasion					
86	Withstand work pressure					
87	Handle a difficult boss					
88	Handle a difficult visitor					
89	Listen attentively to chief executive					
90	Comprehend instructions easily					
91	Take notes when interacting with boss					
92	Ask questions for classifications					
93	Work under any condition					

Appendix VI

Calculation of Reliability of Instrument Using Pearson Moment Correlation Coefficient

Section BI

S/No	X	Y	XY	X ²	Y ²
1	3.02	2.92	8.82	9.12	8.53
2	2.60	2.50	6.50	6.76	6.25
3	2.70	2.86	7.72	7.29	8.18
4	2.79	2.90	8.09	7.78	8.41
5	2.50	2.62	6.55	6.25	6.86
6	2.37	2.51	5.95	5.62	6.30
7	2.87	3.01	8.64	8.24	9.06
8	2.75	2.87	7.89	7.56	8.24
9	2.25	2.32	5.22	5.06	5.38
10	2.81	2.85	8.01	7.90	8.12
11	2.91	3.06	8.90	8.47	9.36
12	2.55	2.68	2.83	6.50	7.18
13	2.43	2.54	6.17	5.90	6.45
14	2.28	2.35	5.36	5.20	5.52
15	2.67	2.75	7.34	7.13	7.56
16	3.03	2.98	9.03	9.18	8.88
17	2.66	2.71	7.21	7.08	7.34
18	2.86	2.80	8.01	8.18	7.84
19	2.82	2.82	7.95	7.95	7.95
20	2.76	2.79	7.70	7.62	7.78
	53.63	54.80	147.89	144.79	151.19

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{[(N\sum X^2) - (\sum X)^2] [(N\sum Y^2) - (\sum Y)^2]}}$$

145

$$= \underline{20 \times 147.89 - 53.63 \times 54.80}$$

$$\sqrt{[(20 \times 144.79) - (53.63)^2] \times [20 \times 151.19) - (54.80)^2]}$$

$$\underline{2957.8 - 2938.24}$$

$$\sqrt{[(2895.8) - (2876.18)] \times (3023.8) - (3003.04)}$$

$$= \underline{19.56}$$

$$\sqrt{(19.62) \times (20.76)}$$

$$= \underline{19.56}$$

$$\sqrt{407.31}$$

$$= \underline{19.56}$$

$$20.18$$

$$= \underline{0.97}$$

Section B2

S/No	X	Y	XY	X ²	Y ²
1	3.00	3.22	9.66	9.00	10.37
2	2.67	2.78	7.42	7.13	7.73
3	2.55	2.44	6.22	6.50	5.95
4	3.00	2.63	7.89	9.00	6.92
5	3.11	2.78	8.65	9.67	7.73
6	2.80	2.50	7.00	7.84	6.25
7	3.22	2.89	9.31	10.37	8.35
8	2.66	2.66	7.08	7.08	7.08
9	2.00	2.18	4.36	4.00	4.75
10	3.22	3.11	10.01	10.37	9.67
11	2.67	2.33	6.22	7.13	5.43
12	2.89	2.89	8.35	8.35	8.35
13	2.55	2.66	6.78	6.50	7.08
14	2.56	2.56	6.55	6.55	6.55
15	2.08	1.82	3.79	4.33	3.31
16	2.67	2.33	6.22	7.13	5.43
17	3.00	3.00	9.00	9.00	9.00
18	2.56	2.44	6.25	6.55	5.95
19	2.55	2.78	7.09	6.50	7.73
20	2.67	2.67	6.94	7.13	7.13
	54.43	52.67	144.79	150.13	140.76

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

$$\begin{aligned}
& \sqrt{[(N\sum X^2) - (\sum X)^2] [N\sum Y^2) - (\sum Y)^2]} \\
&= \underline{20 \times 144.76 - 54.43 \times 52.67} \\
& \sqrt{[(20 \times 150.13) - (54.43)^2] \times [20 \times 140.76) - (52.67)^2]} \\
& \qquad \underline{2895.20 - 2866.83} \\
& \sqrt{[(3002.6) - (2962.62)] \times (2815.2) - (2774.13)} \\
&= \underline{28.37} \\
& \sqrt{(39.98) \times (41.07)} \\
&= \underline{28.37} \\
& \sqrt{1641.98} \\
&= \underline{28.83} \\
& \quad 40.52 \\
&= \underline{0.7}
\end{aligned}$$

Section B3

S/No	X	Y	XY	X²	Y²
1	2.44	2.60	6.34	5.76	6.76
2	2.67	2.33	6.22	7.13	5.43
3	2.80	2.50	7.00	7.84	6.25
4	2.63	2.50	6.58	6.92	6.25
5	2.88	2.50	7.20	8.29	6.25
6	2.90	2.80	8.12	8.41	7.84
7	2.10	2.40	5.04	4.41	5.76
8	2.50	2.63	6.58	6.25	9.92
9	2.30	2.32	5.34	5.29	5.38
10	2.60	2.80	7.28	6.76	7.84
11	3.00	2.98	8.94	9.00	8.88
12	2.22	2.30	5.11	4.93	5.29
13	2.90	2.95	8.56	8.41	8.70
14	2.55	2.40	6.12	6.50	5.76
15	2.25	2.25	5.06	5.06	5.06
16	2.56	2.56	6.55	6.55	6.55
17	2.75	2.50	6.88	6.25	7.56
18	2.5	2.75	6.88	6.25	7.56
19	3.00	2.63	7.89	9.00	6.92
20	2.55	2.40	6.12	6.50	5.76
	52.10	51.10	133.81	136.82	131.41

$$\begin{aligned}
 r &= \frac{N \sum XY - \sum X \sum Y}{\sqrt{[(N \sum X^2) - (\sum X)^2] [N \sum Y^2] - (\sum Y)^2]} \\
 &= \frac{20 \times 133.81 - 52.10 \times 51.10}{\sqrt{[(20 \times 136.82) - (52.10)^2] \times [20 \times 131.41] - (51.10)^2}} \\
 &= \frac{2676.2 - 2662.31}{\sqrt{[(2736.4) - (2714.41)] \times (2628.2) - (2611.21)}} \\
 &= \frac{13.89}{\sqrt{(21.99) \times (16.99)}} \\
 &= \frac{13.89}{\sqrt{373.61}} \\
 &= \frac{13.89}{19.33} \\
 &= \underline{0.72}
 \end{aligned}$$

Section B4

S/No	X	Y	XY	X²	Y²
1	2.60	2.80	7.28	6.76	7.84
2	2.80	2.50	7.00	7.84	6.25
3	2.30	2.60	5.98	5.29	6.76
4	2.80	2.50	7.00	7.84	6.25
5	2.90	3.10	8.99	8.41	9.61
6	2.30	2.50	5.78	5.29	6.25
7	2.10	2.60	5.46	4.41	6.76
8	2.50	2.50	6.25	6.25	6.25
9	2.10	2.40	5.04	4.41	5.76
10	2.30	2.40	5.52	5.29	5.76
11	2.90	2.80	8.12	8.41	7.84
12	2.70	2.70	7.29	7.29	7.29
13	2.50	2.50	6.28	6.25	6.25
14	2.20	2.10	4.62	4.84	4.41
15	2.70	2.50	6.75	7.29	6.25
16	2.90	3.00	8.70	8.41	9.00
17	3.20	3.20	10.24	10.24	10.24
18	2.20	2.30	5.06	4.84	5.29
19	2.80	2.80	7.84	7.84	7.84
20	2.60	2.80	7.28	6.76	7.84
	51.40	52.60	136.42	133.96	139.74

$$\begin{aligned}
 r &= \frac{N \sum XY - \sum X \sum Y}{\sqrt{[(N \sum X^2) - (\sum X)^2] [N \sum Y^2] - (\sum Y)^2]} \\
 &= \frac{20 \times 136.42 - 51.40 \times 52.60}{\sqrt{[(20 \times 133.96) - (51.40)^2] \times [20 \times 139.74] - (52.60)^2}} \\
 &= \frac{2728.40 - 2703.64}{\sqrt{[(2679.20) - (2641.96)] \times (2794.80) - (2766.76)}} \\
 &= \frac{24.76}{\sqrt{(37.24) \times (18.04)}} \\
 &= \frac{24.76}{\sqrt{671.81}} \\
 &= \frac{24.76}{25.92} \\
 &= \underline{0.95}
 \end{aligned}$$

Section B5

S/No	X	Y	XY	X²	Y²
1	2.50	2.80	7.00	6.25	7.84
2	2.92	3.10	8.79	8.53	9.61
3	2.41	2.92	7.04	5.81	8.53
4	3.00	2.75	8.25	9.00	7.56
5	2.56	2.81	7.19	6.55	7.90
6	2.75	2.90	7.98	7.56	8.41
7	2.45	2.60	6.37	6.00	6.76
8	2.98	3.00	8.94	8.88	9.00
9	2.60	2.58	6.71	6.76	6.66
10	2.77	2.62	7.26	7.67	6.86
11	3.25	3.10	10.08	10.56	9.61
12	2.65	2.70	7.16	7.02	7.29
13	2.89	2.95	8.53	8.35	8.32
14	2.78	3.01	8.37	7.73	9.06
15	2.95	2.82	8.32	8.70	7.95
16	2.98	3.03	9.03	8.88	9.18
17	3.05	2.96	9.03	9.30	8.76
18	2.87	3.00	8.61	8.24	9.00
19	2.47	2.55	6.30	6.10	6.50
20	2.57	2.67	6.86	6.60	7.13
	55.40	56.87	157.82	154.49	161.93

$$\begin{aligned}
 r &= \frac{N\sum XY - \sum X \sum Y}{\sqrt{[(N\sum X^2) - (\sum X)^2] [N\sum Y^2) - (\sum Y)^2]}} \\
 &= \frac{20 \times 157.82 - 55.40 \times 56.87}{\sqrt{[(20 \times 154.49) - (55.40)^2] \times [20 \times 161.93) - (56.87)^2]}} \\
 &\quad \frac{3156.40 - 3150.60}{\sqrt{[(3089.80) - (3069.16)] \times (3238.60) - (3234.20)]]} \\
 &= \frac{5.80}{\sqrt{(20.64) \times (4.40)}} \\
 &= \frac{5.80}{\sqrt{90.82}} \\
 &= \frac{5.80}{9.53} \\
 &= \underline{0.61}
 \end{aligned}$$

Applying Spearman Brown Prophecy Formula

$$\begin{aligned}
 r_t &= \frac{2r}{1+r} \\
 &= \frac{2 \times 0.61}{1+0.61} \\
 &= \frac{1.22}{1.61} \\
 &= \underline{0.75}
 \end{aligned}$$

Overall Reliability of the Instrument using KR-20 Statistical Formula

$$\begin{aligned}
 &\frac{Kd^2}{D^2} - \frac{X(K-X)}{D^2(K-1)} \\
 &= \underline{0.86}
 \end{aligned}$$

APPENDIX VII**SUMMARY OF CALCULATION OF MEAN AND STANDARD DEVIATION**

SECTION B1

	MEAN	SD
1	4.34	0.63
2	4.57	0.51
3	4.55	0.53
4	4.37	0.58
5	4.25	0.67
6	4.28	0.66
7	4.33	0.63
8	4.48	0.54
9	4.56	0.59
10	4.25	0.71
11	4.19	0.80
12	3.35	1.20
13	3.50	0.93
14	3.50	0.94
15	3.54	0.93
16	3.55	0.97
17	4.54	0.93
18	3.59	0.96
19	3.55	0.93
20	3.80	0.90
21	3.96	0.85
22	4.52	0.73
23	4.56	0.65
24	4.42	0.77
25	4.64	0.68
26	4.62	0.95

C.MEAN/SD 4.11/0.78

SECTION B2

	MEAN	SD
27	1.53	0.76
28	1.83	0.85
29	1.95	0.79
30	1.59	0.74
31	1.30	0.57
32	1.28	0.57
33	1.46	0.74
34	1.60	0.77
35	1.42	0.68
36	1.29	0.60
37	1.35	0.68
38	1.22	0.41
39	1.32	0.65

C.MEAN/SD 1.47/0.68

SECTION B3

	MEAN	SD
40	2.81	0.56
41	2.69	0.57
42	1.79	0.70
43	1.62	0.49
44	2.06	0.93
45	2.43	0.53
46	2.44	0.53
47	2.47	0.51
48	2.11	0.91
49	1.98	0.94
50	1.48	0.50
51	2.35	0.62

C.MEAN/SD 2.19/0.65

SECTION B4

	MEAN	SD
52	3.94	0.65
53	3.99	0.61
54	4.13	0.67
55	4.12	0.67
56	4.13	0.69
57	4.07	0.71
58	3.05	1.11
59	3.72	0.81
60	4.34	0.63
61	4.57	0.51
62	4.55	0.53
63	4.37	0.58
64	4.25	0.67
65	3.17	1.00
66	1.87	1.15
67	1.67	1.29
68	3.49	1.10
69	3.95	1.24
70	1.55	1.14
71	1.43	0.98
72	1.45	1.20
73	1.62	1.12
74	2.14	1.38

C.MEAN/SD 3.29/0.88

SECTION B5

	MEAN	SD
75	3.88	0.93
76	3.92	0.76
77	4.11	0.72
78	4.07	0.79
79	4.12	0.70
80	4.08	0.75
81	3.94	0.82
82	3.74	0.72
83	3.52	0.83
84	3.46	0.88
85	3.87	0.70
86	3.90	0.60
87	3.93	0.61
88	3.92	0.61
89	4.11	0.67
90	3.94	0.64
91	3.94	0.62
92	3.96	0.60
93	3.93	0.58

C.MEAN/SD 3.91/0.71

APPENDIX VIII
Detailed calculations of Z-Scores

S/No.	Items on Required ICT skill	Calculated Z-Scores									
1	Ability to use programme manager	1.04	1.04	1.04	1.04	-0.54	1.04	-0.54	1.04	...	-0.54
2	Ability to open a window	0.83	0.83	0.83	0.83	-1.12	0.83	-1.12	0.83	...	0.83
3	Ability to close a window	-2.90	0.84	0.84	0.84	-1.03	0.84	-1.03	0.84	...	0.84
4	Ability to load application software	-0.64	-0.64	1.07	-0.64	-0.64	1.07	-0.64	1.07	...	-0.64
5	Ability to import data file	-0.38	-0.38	1.13	-0.38	-0.38	1.13	-0.38	1.13	...	-0.38
6	Ability to import chart	1.08	-0.42	1.08	-0.42	-0.42	1.08	-0.42	1.08	...	-0.42
7	Ability to set page orientation	-2.11	1.06	1.06	-0.53	-0.53	1.06	-0.53	1.06	...	-0.53
8	Ability to insert header and footer	-0.89	0.96	0.96	-0.89	-0.89	0.96	-0.89	0.96	...	-0.89
9	Ability to create documents	0.75	-0.94	0.75	-0.94	-0.94	0.75	-0.94	0.75	...	-0.94
10	Ability to use special symbols	1.04	-0.35	1.04	-0.35	-0.35	1.04	-0.35	1.04	...	-0.35
11	Ability to search and replace	-0.24	-2.75	1.02	-2.75	-0.24	1.02	-0.24	1.02	...	-0.24
12	Ability to mail merge	1.37	-0.29	-1.13	0.54	0.54	1.37	0.54	1.37	...	1.37
13	Ability to use spreadsheet	-0.54	-0.54	-0.54	0.53	-0.54	0.53	1.60	0.53	...	1.60
14	Ability to plan a spreadsheet	-0.54	-0.54	-0.54	0.53	-0.54	0.53	1.59	0.53	...	1.59
15	Ability to place numerical table titles	-0.57	-0.57	-0.57	0.50	-0.57	0.50	1.57	0.50	...	1.57
16	Ability to move from cell to cell	0.47	-0.57	-0.57	0.47	-0.57	0.47	1.50	0.47	...	1.50
17	Ability to create an arithmetic formula	1.57	-0.57	-0.57	0.50	-0.57	0.50	1.57	0.50	...	1.57
18	Ability to use columns and rows	0.43	-0.61	-0.61	0.43	-0.61	1.47	1.47	0.43	...	1.47
19	Ability to use spreadsheet to solve problem	-0.59	0.48	-0.59	0.48	-0.59	1.56	1.56	0.48	...	1.56

20	Ability to create quality and attractive text	0.22	0.22	-0.90	0.22	-0.90	1.33	1.33	1.33	...	1.33
21	Ability to create new publications	1.22	0.04	0.04	0.04	0.04	1.22	1.22	1.22	...	1.22
22	Ability to save master page	-4.81	-0.71	-0.71	-0.71	-0.71	0.65	0.65	0.65	...	0.65
23	Ability to composite proof	-3.94	-0.86	-0.86	-0.86	-0.86	0.69	0.69	0.69	...	0.69
24	Ability to change background colour	-4.42	-0.54	-0.54	0.75	-0.54	0.75	0.75	0.75	...	0.75
25	Ability to edit text	0.53	-0.95	-0.95	-2.42	-0.95	0.53	0.53	0.53	...	0.53
26	Ability to save any document	0.40	0.40	-0.65	-1.70	0.40	-3.80	0.40	0.40	...	0.40
Items on required shorthand skill											
27	Ability to take office correspondence in shorthand	1.92	1.92	-0.70	1.92	0.61	1.92	0.61	0.61	...	-0.70
28	Ability to write report	1.37	1.37	-0.98	0.19	1.37	1.37	-0.98	-0.98	...	0.19
29	Ability to takes minutes of meeting	1.32	1.32	-1.21	0.06	1.32	0.06	1.32	1.32	...	0.06
30	Ability to write at 80 wam	-0.80	1.89	-0.80	1.89	0.55	-0.80	1.89	1.89	...	-0.80
31	Ability to write at 100 wam	1.22	1.22	-0.53	2.97	-0.53	-0.53	1.22	1.22	...	-0.53
32	Ability to write at 120 wam	3.03	-0.49	-0.49	3.03	-0.49	-0.49	-0.49	-0.49	...	-0.49
33	Ability to transcribe what was taken accurately	2.09	2.09	-0.63	-0.63	0.73	-0.63	-0.63	-0.63	...	-0.63
34	Ability to produce mailable documents	0.52	1.83	-0.78	1.83	0.52	-0.78	-0.78	-0.78	...	-0.78
35	Ability to have interest to write in shorthand	2.31	2.31	-0.61	2.31	0.85	-0.61	-0.61	-0.61	...	-0.61
36	Ability to use shorthand in interviewing secretaries	2.84	-0.48	-0.48	2.84	-0.48	-0.48	-0.48	-0.48	...	-0.48
37	Ability to compose during dictation	2.43	2.43	-0.52	2.43	0.95	-0.52	-0.52	-0.52	...	-0.52
38	Ability to understand that shorthand saves time	1.89	1.89	-0.53	1.89	1.89	-0.53	-0.53	-0.53	...	-0.53

55	Ability to open a new volume	-4.63	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	...	-0.17
56	Ability to open a temporary file	-1.63	-0.18	-0.18	-4.53	-0.18	-0.18	-0.18	-0.18	...	-0.18
57	Ability to page number document in a file	1.31	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	...	-0.09
58	Ability to make cross-referencing	-0.04	1.76	-0.95	-0.04	0.86	0.86	0.86	0.86	...	-0.04
59	Ability to transfer correspondence from one file to another	-0.88	1.59	0.35	-0.88	0.35	0.35	0.35	0.35	...	0.35
60	Ability to classify files	1.04	1.04	1.04	1.04	-0.54	1.04	-0.54	1.04	...	-0.54
61	Ability to grade files	0.83	0.83	0.83	0.83	-1.12	0.83	-1.12	0.83	...	0.83
62	Ability to properly index files	-2.90	0.84	0.84	0.84	-1.03	0.84	-1.03	0.84	...	0.84
63	Ability to use transit index	-0.64	-0.64	1.07	-0.64	-0.64	1.07	-0.64	1.07	...	-0.64
64	Ability to understand B U procedures	-0.38	-0.38	1.13	-0.38	-0.38	1.13	-0.38	1.13	...	-0.38
65	Ability to use B U procedure	1.82	1.82	-0.17	-2.17	-0.17	-2.17	-0.17	-0.17	...	-0.17
66	Ability to transfer files to archives	1.86	2.73	-0.75	1.86	-0.75	0.99	0.99	0.99	...	0.12
67	Ability to microfilm files	2.04	2.90	-0.55	2.04	-0.55	2.04	0.31	0.31	...	-0.55
68	Ability to apply information processing cycle	-0.44	0.46	0.46	-2.26	0.46	-2.26	-2.26	-1.35	...	-0.44
69	Ability to save documents in CD/plash drive	0.84	0.04	0.04	-2.38	0.04	-2.38	-0.77	-2.38	...	0.04
70	Ability to use microfilming cameras	0.40	-0.48	-0.48	-0.48	1.28	-0.48	2.16	1.28	...	-0.48
71	Ability to prevent office documents from backdoors	2.63	-0.44	-0.44	-0.44	1.61	-0.44	-0.44	2.63	...	-0.44
72	Ability to protect office documents from dumpster diving	2.50	2.50	-0.44	2.50	1.52	-0.44	-0.44	-0.44	...	-0.44
73	Ability to protect office documents from data dandling	-0.56	3.01	-0.56	2.12	-0.56	-0.56	-0.56	-0.56	...	-0.56

74	Ability to protect office documents from hacking	-0.82	-0.82	-0.82	1.34	-0.82	1.34	-0.82	-0.82	...	-0.82
Items on required communication skill											
75	Ability to work harmoniously with chief executive	-2.02	-3.09	0.13	0.13	0.13	0.13	-3.09	-3.09	...	0.13
76	Ability to work harmoniously with other executive	-2.52	-3.84	0.11	0.11	0.11	0.11	0.11	-3.84	...	0.11
77	Ability to work harmoniously with colleagues	1.23	-4.34	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	...	-0.16
78	Ability to work harmoniously with junior staff	-1.36	-3.90	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	...	-0.09
79	Ability to work harmoniously with community member	1.26	-0.17	-0.17	-1.60	-0.17	-0.17	-0.17	-0.17	...	-0.17
80	Ability to freely with visitors	1.23	-0.11	-0.11	-0.11	-0.11	-1.45	-0.11	-0.11	...	-0.11
81	Ability to address people with their names	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	...	0.00
82	Ability to address people with their designation	0.36	0.36	-1.03	-1.03	-1.03	-1.03	0.36	1.75	...	0.36
83	Ability to represent executive in function	1.78	0.58	-0.62	-0.62	-0.62	-0.62	0.58	1.78	...	0.58
84	Ability to present an address at an occasion	-2.79	0.61	-0.52	0.61	-0.52	0.61	-0.52	1.74	...	0.61
85	Ability to dress appropriately at an occasion	-2.66	0.19	-1.24	0.19	-1.24	-1.24	0.19	0.19	...	0.19
86	Ability to withstand work pressure	1.84	0.17	0.17	0.17	0.17	-1.50	0.17	0.17	...	0.17
87	Ability to handle a difficult boss	0.12	0.12	0.12	0.12	0.12	-1.51	0.12	1.75	...	0.12
88	Ability to handle a difficult visitor	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	...	0.13
89	Ability to listen attentively to chief executive	-0.16	-0.16	-0.16	-0.16	-0.16	-1.65	-0.16	-0.16	...	-0.16

90	Ability to comprehend instructions easily	0.10	0.10	0.10	0.10	0.10	-1.46	0.10	0.10	...	0.10
91	Ability to take notes when interacting with boss	0.10	0.10	0.10	0.10	0.10	-1.50	0.10	0.10	...	0.10
92	Ability to ask questions for clarification	0.06	0.06	0.06	0.06	0.06	-1.61	0.06	0.06	...	0.06
93	Ability to work under any condition	0.11	0.11	0.11	-5.02	0.11	-1.60	0.11	0.11	...	0.11