# Teaching and Supervision as Determinants of Post-Graduate Studies Completion Time in Vocational and Technical Education Programmes in South-South Nigerian Universities

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*Authors' contributions*

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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## ABSTRACT

This study was necessitated due to the need for post-graduate students to complete their programmes within the stipulated time. It examined the extent teaching and supervision determine post-graduate studies completion time in vocational and technical education programmes in South-South Nigerian Universities. One research question guided the study and two null hypotheses were tested at 0.05 level of significance. Descriptive survey research design was employed for the study. The population consisted of 204 graduates of vocational and technical education programmes in South-South Nigerian Universities. There was no sampling since the population was manageable. The instrument for data collection was a structured questionnaire. Method of internal consistency was used to determine the reliability of the instrument using Cronbach Alpha and the reliability coefficient of 0.79 was obtained. The data collected for the study were analyzed using descriptive statistics of mean and standard deviation to answer the research question and further determine the

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closeness of the respondents' mean ratings. The t-test and ANOVA were used for testing the null hypotheses. Findings of the study revealed that teaching and supervision contribute to a great extent to post-graduate studies completion time in vocational and technical education programmes. Based on the findings of this study, it was concluded that teaching and supervision factors outstandingly determined post-graduate studies completion time in vocational and technical education programmes. It was recommended among others that, heads of school of post-graduate programmes should ensure that, only lecturers that are committed to work should be assigned as post-graduate course lecturers and supervisors.

## 1. INTRODUCTION

Post-graduate education programmes involve learning and studying for academic or professional degrees, academic or professional certificates, academic or professional diplomas, or other qualifications for which a first or bachelor's degree is required for entry [1]. Alexander [2] defined it as any higher education undertaken after a bachelor's degree. It is a step higher from undergraduate studies. According to Eze, Nwakanma and Obidile [3] expansion in the programmes has become a desideratum because the recipients are perceived to constitute intellectual think-tanks of the nation. Although, there is an increasing rate of enrollment and admission into post-graduate studies in universities across the country, but there seems to be reduction in the rate of completion. For example, the National Universities Commission [4] reported that in 2013, there were 2,509 post-graduate students in selected Nigerian universities out of which 1,814 (70%) were Master's students. In 2015, NUC [5] observed that there were 3,914 post graduate students admitted in selected Nigerian universities out of which 3,145 (80%) were masters students. Apart from the increase in enrollment into post-graduate studies, NUC [4] observed that 43% of those admitted in masters' pogramme during 2011/2012 academic session in selected Nigerian universities completed their studies within the stipulated time. The same outcome was similar with those in doctoral programme. NUC also observed that in 2007/2008 academic session, 2,159 students were admitted into doctoral programme in selected universities in Nigeria, but 253 students completed their studies within the stipulated time. NUC [6] also reported that 7% of those admitted in doctoral programme in selected Nigerian universities during 2008/2009 academic session completed their studies within the stipulated time. The trend is evident more in the Faculty of Education to which vocational and technical education belongs [7].

According to the National Policy on Education [8], Vocational and Technical Education refers to those aspects of educational processes involving in addition to general education, the study of technologies and related science and acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic and social life. It provides skills and manpower for industry and other engineering services required by the society. Vocational and Technical Education provides the foundation for productive and satisfying career by offering the learner thorough and specialized preparation for paid or self-employment through its broad training programme [9]. One of the goals of Vocational and Technical Education is to give training and impact the necessary skills to individuals who shall be economically self-reliant. This goal might not be achieved when most students do not complete their studentship on time in post-graduate programmes.

Various factors have been attributed to post-graduate studies completion time. These factors of post-graduate studies completion time are determinants that directly influence the completion time of the studies. They are elements that control the completion time of the studies [10]. Badmus and Omoifo [11] defined determinants of post-graduate studies completion time as conditions that predict the completion time of studies. In the context of this study, they are factors that make timely completion of studies possible or impossible. Prominent among the determinants are the teaching and supervision factors.

Teaching according to David, Garvin and Annn [12] is an engagement with learners to enable their understanding and application of knowledge, concepts and processes. It includes design, content selection, delivery, assessment

and reflection. To teach is to engage students in learning; thus teaching consists of getting students involved in the active construction of knowledge. A teacher requires not only knowledge of subject matter, but knowledge of how students learn and how to transform them into active learners. Good teaching, then, requires a commitment to systematic understanding of learning. The aim of teaching is not only to transmit information, but also to transform students from passive recipients of other people's knowledge into active constructors of their own and others' knowledge. The teacher cannot transform without the students' active participation. Teaching is fundamentally about creating the pedagogical, social, and ethical conditions under which students agree to take charge of their learning, individually and collectively.

During post-graduate studies, teaching assumes two fundamentally different dimensions. The first is that teaching appears as instructor-centered activity in which knowledge is transmitted from someone who has acquired that knowledge to novice learners; teaching serves as knowledge transmission. On the other hand, teaching also appears as learner-centered activity in which the instructor ensures that learning is made possible for novice learners, the instructor supports, guides, and encourages them in their active and independent creation of new knowledge; teaching serves as assisted knowledge creation. The aim of teaching is simple: it is to make students' learning possible. To teach is to make an assumption about what and how students learn; therefore, to teach well implies learning about students' learning [13]. At University level, the teacher has a crucial and demanding role to play in the process of students' learning, by creating a context in which the students' desire and ability to learn could work most effectively.

The task of the teacher in post-graduate studies has many dimensions: it involves the provision of a broad context of knowledge within which students can locate and understand the content of their more specific studies; it involves the creation of a learning environment in which students are encouraged to think carefully and critically and express their thoughts, and in which they wish to confront and resolve difficulties rather than gloss over them; it involves constantly monitoring and reflecting on the processes of teaching and students' understanding and seeking to improve them.

Most difficult of all perhaps, it involves helping students to achieve their own aims, and adopting the notion that underlies higher education that, students' learning require from them commitment, work, responsibility for their own learning, and a willingness to take risks [14].

The set of characteristics of good teaching, as opined by Ramsden [15] includes:

- A desire to share your love of the subject with students.
- An ability to make the material being taught stimulating and interesting.
- A facility for engaging with students at their level of understanding.
- A capacity to explain the material plainly.
- A commitment to making it absolutely clear what has to be understood at what level and why.
- Showing concern and respect for students.
- A commitment to encouraging independence.
- An ability to improvise and adapt to new demands.
- Using teaching methods and academic tasks that require students to learn actively, responsibly and co-operatively.
- Using valid assessment methods.
- A focus on key concepts, and students misunderstandings of them, rather than covering the ground.
- Giving the highest quality feedback on student work.
- A desire to learn from students and other sources about the effects of teaching and how it can be improved.

Highly rated lecturers most times genuinely want students to learn, understand and develop critical thinking abilities, as well as master contents and learn skills. They demonstrate an empathy with student thinking, anticipate misconceptions and allow students to develop understanding in a variety of ways. They observe students in the class for signs that they are failing to keep up, are bored, or do not understand. They are flexible in responding to student needs. They encourage students' feedback on their teaching, and often seek informal feedback during classes. Outside class time, they make a point of being approachable and willing to help students. They try to avoid "spoon-feeding" and encourage students to take active role in working through their difficulties, but would take time to work though concepts in detail with those who

genuinely have difficulties. Highly rated lecturers show enthusiasm for their subject, professional area and teaching roles. Students usually find these motivating and most times comment that they look forward to coming to classes. The researchers observed that the frequent personal attributes of the highly rated lecturers were their easy going, relaxed or open manner, and the conducive atmosphere in the classroom. Highly rated lecturers in post-graduate studies see their teaching roles as vitally important. They work hard at making the most of their class contact time to maximize student learning and interest in the subject. While some may feel that they are fortunate in having natural teaching ability, they all emphasize the considerable amount of time they have spent in lecture and resource preparation. While teaching remains an integral determinant of post-graduate studies completion time, supervision and the role of supervisors are also crucial.

Supervision in the opinion of Smith [16] is direction, guidance and control of working force with a view to see that they are working according to plan and are keeping to time schedule. It is also regarded as the activity of managing a department, project, or individuals and of making sure that things are done correctly and according to the rules. Many undergraduate and postgraduate students are required to write a project report, dissertation or thesis, which will be the largest piece of academic work they undertake. The supervisor acts as facilitator, introducing a structured approach to writing and enabling students to adapt it to their projects. Integrating the dimensions of projects, including time, writing and conceptualization, helps students to develop an understanding of the type of writing that would be involved throughout the project process. This could enable them to begin writing at an early stage in the project.

Many academics say supervision is one of the favorite, but most challenging and most fulfilling parts of their job. Supervision plays a vital role in enabling students to fulfill their potential thereby helping them to become independent researchers. Graduate research supervision has conventionally been treated as research [17]. It is geared towards producing a research based written thesis and the efforts of both parties; student and supervisor, are directed to reach the finish line in time. It is assumed that if supervisors can do research they can supervise as well [18]. Typically, a supervisor acts as a guide, mentor, source of information and

facilitator to the student as they progress through a research project. Every project's supervision is unique. It varies depending on the circumstances of the student, the research they plan to do, and the relationship between supervisor and the student. The roles of supervisors in students' research studies according to Routledge [19], include helping students to:

- Formulate their research project and question;
- Decide what methods of research to use;
- Become familiar with the wider research community in their chosen field;
- Evaluate the results of their research;
- Ensure their work meets the necessary standards expected;
- Keep to deadlines;
- Use feedback to enhance their work;
- Overcome any problems they might have;
- Present their work to other students, academics or interested parties;
- Prepare for the next steps in their career or further study.

Those roles can be played well if supervisors manifest good and attractive qualities. Janssen [20], revealed ten most important qualities of the ideal graduate research supervisor. The qualities include support, availability, interest and enthusiasm, knowledge and expertise in the field surrounding the PhD, interest in the student's career, good communication, constructive feedback, provides direction and structure, approachability and rapport, and experience and interest in supervision. In terms of support, Janssen revealed that supportiveness is the quality that students value most highly in supervisors. This involves supervisors being encouraging, mentoring, and aware that students' lives extend beyond the post-graduate programmes. Supportive supervisors make an effort to understand how the student prefers to work. In addition, the supervisors attend to the student as a whole person, rather than purely as a research student. Students also value availability in their supervisors. This involves supervisors meeting with students regularly, setting aside adequate time for students, and being contactable through several media such as email, and phone calls, particularly if they are not physically present.

Students likewise portray the ideal supervisor as someone who is interested and enthusiastic about the student's work. This could be achieved

by supervisors who are positive, empowering, motivational, and committed. Such supervisors are often in the vicinity of their students and are likely to show interest in the student's progress. Also, ideal supervisors are those who have expertise in the field surrounding the student's research. Students value highly a supervisor who can use their knowledge of the area to understand and demonstrate how the student's research topic fits within the wider field. Students do not necessarily expect the supervisor to have expertise in the precise topic of their research, however. Having a supervisor with expertise in the methodologies required in their research is particularly important. The problem of a supervisor who is not up to date with the field means the supervisor is unable to help problem-solve and advise. This is particularly problematic for students who also lack access to those who do maintain a current knowledge of the literature. In some areas, being out-of-date with the field means supervisors are ignorant of the optimal techniques and theories that exist. This has implications for the quality of research that can be performed.

Supervisors are appreciated when they show interest in the student's career. They help to provide support for the establishment of the students' career in several ways. These include having good contacts and introducing students to their network of colleagues, looking out for and informing students of conferences and seminars relevant to their research and career, and encouraging and facilitating the publication of the student's research. More so, ideal supervisors have good communication skills. In particular: good listening skills; the tendency to maintain an open dialogue about the project, its progress and problems; the ability to communicate in an open, honest, and fair manner about issues that arise as they arise; and making expectations clear with regard to matters such as the process of completing a PhD or Master's thesis, budget considerations, and the role each party must play in performing the project research. Problems arise for students when they feel unclear or in disagreement with their supervisors about what the aims of the project are or how to best use and interpret their findings. A failure to discuss the direction and progress of the research poses problems to the student and their research studies.

Moreover, Students see an ideal supervisor as one who provides feedback and criticism of their work that is constructive and prompt. In addition

students value consistency in the feedback given. Some value consistency across time. This is often a sign that the supervisor and student share the same focus regarding the project. In addition, where more than one supervisor is responsible for providing feedback, consistency between supervisors is important. Some supervisors display selfishness and a lack of respect for their students. Students find it difficult to work with supervisors who only look at their own gains from the students' research studies, push the research down paths that interest them but not necessarily the student, treat the student as "their property", and expect students to do work that extends beyond the realms of their PhD or Master's research. Students also find it concerning when they are not treated as colleagues, despite being at the final stages of their studies. Students struggle when their supervisors fail to recognize and respect that they have lives that extend beyond their thesis work.

The ideal supervisor also, is perceived to be one who provides an appropriate amount of direction and structure to the student's research project. She or he is prepared to create deadlines, challenge, and push the student a little when required. Such a supervisor is informative and helpful when it comes to areas of uncertainty. Furthermore, the ideal supervisor helps to encourage good work habits in the student, thereby helping the student to achieve the desired outcomes from their research. Part of being experienced and interested in supervision, a key quality of an ideal supervisor, is having a complete understanding of the requirements and processes of completing a thesis. In addition, students value supervisors who consider the needs of particular subgroups of the student population (e.g., international students, those with children, those with disabilities, and those with cultural differences). It is important that supervisors recognize the individual supervisory needs of each student. These vary between students and between different stages of their studies. It requires committed and skilled supervisors to train and guide students to successfully complete their course of studies. Without effective teaching and proper supervision of students, new knowledge could hardly ever be produced [21]. Adekule [22] stated that post-graduate supervision is an active engagement by the supervisors through the research processes. They guide students to solve research problems. The supervisors and supervisees working relationship could determine

completion time of the programmes. Some researchers have identified unclear motives and purposes of supervision, supervisor's preference of some supervising roles over other roles, sexual harassment, gender issues in supervision and lack of research skills among supervisors as major obstacles to completion time of programmes [23,24]. According to Makinde [25], some supervisors assigned to post-graduate students are not trained on the newest research methods that could help them in guiding their supervisees in the research work.

Livine [26] acknowledged that, given the length and complexity of students' supervision, it is understandable that various difficulties could arise due to organizational and professional factors. Organizational factors could include: policies and procedures established or not established for graduate students' supervision; the manner in which they are communicated to by supervisors and students; the number of students being supervised; the supervisor's ability to manage a research group effectively and inadequate support services and facilities. Professional factors, according to the author include: misinformed or inadequately prepared supervisor; or even supervisors whose research interests are different from those of the students. It was on that note that Ogwu [27] advocated that schools should ensure that students are assigned to supervisors who have interest and expertise in the students' research areas. Change of supervisors due to transfer to other institutions, retirement, going on sabbatical and death could determine completion time of post-graduate programmes. Cases abound when lectures and supervisors face protracted ill-health or personal problems which deprive them from carrying out their responsibilities, thus determining completion time of programmes of the affected students [28]. Moreover, academic overload by supervisors could determine completion time of post-graduate programmes of students. In some universities, it is observed that a supervisor is assigned to supervise more than six full-time doctorates and six full-time masters' students as against the regulations [29]. These supervisors according to Obi [30] are busy academics and researchers, often juggling teaching, research, pastoral or administrative roles. Lack of proper motivation and poor working environment can also affect the psychological state of supervisors toward accomplishing their task of teaching and supervision.

Considering that post-graduate studies completion time in vocational and technical education programmes in South-South Nigerian universities is dependent on various factors, it is essential to examine teaching and supervision as variables that will enhance timely completion of studies.

## 2. STATEMENT OF THE PROBLEM

Post-graduate programme is a maturing process that requires timely and appropriate support. Students on the programme are under increasing pressure to complete their studies within particular time frames. The universities are also under similar pressure to graduate the students within the stipulated time. The major challenge to the certification of students of post-graduate programmes has been the issue of timely completion of their studies [31]. Timely completion of post graduate programme is an important outcome for the students, universities, employers and the nation. However, non-completion of the programme within the stipulated time could lead to emotional problems, loss of opportunities and additional costs in terms of fees for students. Delayed completion of studies can cause students to abandon the programme and deter prospective students from enrolling in the programme, which in turn, may negatively affect the universities, employers of labour and the society.

Undoubtedly, completion of post-graduate studies within the stipulated time in South-South Nigerian universities is a serious problem. The present researchers are worried by this ugly situation because of its effects on vocational and technical education programme. The extent teaching and supervision determine post-graduate studies completion time in the graduation of students in these universities is not clearly known. Hence this study is imperative.

### 2.1 Purpose of the Study

The main purpose of the study is to examine the extent to which teaching and supervision determine post-graduate studies completion time in vocational and technical education pro grammes in South-South Nigerian universities.

### 2.2 Research Questions

The following research question guided the study:

1. To what extent do teaching and supervision factors determine post-graduate studies completion time in Vocational and Technical Education in South-South Nigerian universities?

## 2.3 Null Hypotheses

The following null-hypotheses were tested at 0.05 level of significance.

1. Full time and part time graduates of post-graduate studies do not differ significantly in their mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time.
2. Graduates of post-graduate studies do not significantly differ in their mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time based on discipline (Technical Education, Business Education, Agricultural Education and Home Economics Education).

## 3. METHODS

This study adopted a descriptive survey research design. The population for this study consisted of 204 graduates of post-graduate studies of the four common programmes in Vocational and Technical Education in public universities who completed their studies in the 2017/2018 academic session. The entire population for this study consisting of 204 graduates of post-graduate studies in Vocational and Technical Education Programmes in South-South Nigerian universities was used as a sample size since the population was not too large and was manageable. The instrument for data collection is a structured questionnaire arranged on a five-point rating scale of Very Great Extent (VGE), Great Extent (GE), Moderate Extent (ME), Small Extent (SE) and Very Small Extent (VSE). The reliability of the instrument was established using a pilot test involving 20 graduates of post-graduate studies who have graduated in Department of Vocational Teacher Education, University of Nigeria Nsuka, Enugu State, which is outside the study area. Data collected for the pilot study were analyzed using Cronbach alpha. The reliability coefficient value of 0.79 was obtained. The researchers sent copies of the questionnaire to the respondents' e-mail boxes. Out of 204 copies of questionnaire sent, 197

copies of questionnaire, representing 97 percent, were returned and used for analysis. The data collected for the study were analyzed using the arithmetic mean and standard deviation to answer the research question and determine the closeness of the responses to the mean. The t-test and Analysis of Variance (ANOVA) statistical tools were used to test the null hypotheses at 0.05 level of significance. A null hypothesis was rejected where the calculated p-value was less than the 0.05 level of significance; it meant that there was a significant difference. Conversely, where the calculated p-value was greater than or equal to the level of significance (0.05), it meant that there was no significant difference and the hypothesis was not rejected. However, where there was a disagreement among the three groups in the case of the null hypotheses tested with ANOVA, the Scheffe Post-hoc test was conducted to determine the group in which such disagreement relates.

## 4. RESULTS

### 4.1 Research Question

To what extent do teaching and supervision factors determine post-graduate studies completion time in Vocational and Technical Education in South-South Nigerian universities?

Data collected in respect of the research question were analyzed and presented in Table 1.

Data in Table 1 show that item numbers 1, 2, 3, 5, 6, 9, 10, 11, 12, 13 and 14 have mean ratings ranging from 3.54 to 4.40 meaning that the items contribute to programme completion time to a great extent. Items 7 and 8 have mean ratings of 4.50 and 4.60 respectively meaning that they contribute to a very great extent while item 4 has a mean rating of 3.49 which means that it contributes to a moderate extent. The cluster mean of 4.06 indicate that, in the opinion of the respondents, teaching and supervision factors determine post-graduate studies completion time in vocational and technical education in south-south Nigerian universities to a great extent. The standard deviations of 0.41 to 0.53 show that the respondents are homogenous in their responses.

### 4.1.1 Hypothesis 1

Full time and part time graduates of post-graduate studies do not differ significantly in their

mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time.

Data obtained in respect of hypothesis 1 were analyzed and presented in Table 2.

Data in Table 2 show that full time and part time respondents do not differ significantly in their mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time with mean scores of 3.50 and 3.53 while the corresponding standard deviation is 0.12 and 0.13. The Table indicated a t-value of -1.43, at degree of freedom of 195 and a p-value of 0.667. Testing at alpha level of 0.05, the p-value is not significant, since the p-value is greater than the alpha value (0.05). Therefore, the null hypothesis is not rejected; hence, the mean ratings of full time and part time respondents on the extent to which lecturers and supervisors determine post-graduate studies completion time in vocational and technical education programmes in south-south Nigerian universities do not differ significantly. Therefore the hypothesis was not rejected.

### 4.1.2 Hypothesis 2

Graduates of post-graduate studies do not significantly differ in their mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time based on discipline (Technical Education, Business Education, Agricultural Education and Home Economics Education).

Data obtained in respect of hypothesis 2 were analyzed and presented in Table 3.

Results in Table 3 show that there was a significant difference among the three groups (Technical Education, Business Education, Agricultural Education and Home Economics Education), in terms of their mean ratings on the extent to which lecturers and supervisors determine post-graduate studies completion time in vocational and technical education programmes in south-south Nigerian universities based on discipline. It was observed that at 0.05 level of significance, 3 is numerator and 193 of denominator, the calculated F-ratio is 13.126 and *P-value* 0.000 which is less than the 0.05 level of

significance. Therefore, the null hypothesis is rejected.

Results of the Scheffe test of multiple comparisons in Table 4 show that the difference was between Technical Education and Business Education and; between the Technical Education and Agricultural Education.

## 5. DISCUSSION

The findings revealed that graduates are of the opinion that teaching and supervision determines post-graduate studies completion time in vocational and technical education in South-South Nigerian universities to a great extent. The results revealed the major aspects of teaching and supervision which the graduates indicated that determine post-graduate studies completion time in vocational and technical education to a great extent. These include: commitment to lectures, covering of course contents, approval of research topic of interest, supervisor's research orientation, number of courses and supervisees, accessibility of lecturers and supervisors, among others. This is in agreement with Wells [21] who asserted that teaching and supervision of students are significant elements of post-graduate programmes. It requires committed and skilled lecturers and supervisors to train and guide students to successfully complete their course of studies. Without effective teaching and proper supervision of students, new knowledge could hardly ever be produced [21].

The above finding supports that of Pitch and Fack [32] who researched on supervision and course work as factors affecting timely completion of doctorate degree in Queensland University of Technology, Australia. The findings of their study indicated that availability of lecturers during course work, supervisor's health, age, knowledge of research process and availability were major factors for successful programme completion. This is also in agreement with Wright [28] whose study revealed that some lectures and supervisors face protracted ill-health or personal problems which deprive them from carrying out their responsibilities, thus determining completion time of programmes of affected students.

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**Table 1**. **Mean ratings of respondents on the extent teaching and supervision factors determine post-graduate studies completion time in vocational and technical education N=197**

| S/N | Aspects of teaching and supervision factors | Mean | SD | Decision |
|-----|---------------------------------------------|------|-----|----------|
| 1) | Commitment to lectures | 4.20 | .48 | Great Extent |
| 2) | Covering of course content | 4.10 | .43 | Great Extent |
| 3) | Method of teaching | 4.40 | .45 | Great Extent |
| 4) | Supervisor's preference of research topic | 3.49 | .46 | Moderate Extent |
| 5) | Approval of research topic of interest | 4.23 | .52 | Great Extent |
| 6) | Gender | 4.13 | .44 | Great Extent |
| 7) | Supervisor's research orientation | 4.60 | .41 | Very Great Extent |
| 8) | Number of courses and supervisees | 4.50 | .50 | Very Great Extent |
| 9) | Unfriendly disposition | 3.58 | .51 | Great Extent |
| 10) | Transfer of supervisor | 3.54 | .52 | Great Extent |
| 11) | Retirement of supervisor | 3.55 | .53 | Great Extent |
| 12) | Death of supervisor | 4.39 | .48 | Great Extent |
| 13) | Supervisor's health status | 4.20 | .48 | Great Extent |
| 14) | Accessibility of lecturers and supervisor | 4.10 | .43 | Great Extent |
| | Cluster Mean | 4.07 | | Great Extent |

**Table 2. Summary of t-test comparison of the mean ratings of full time and part time respondents on the extent to which lecturers and supervisors determine post-graduate studies completion time N=197**

| Gender | N | $\overline{X}$ | SD | α | Df | t-cal | P-value | Decision |
|--------|---|------|-----|------|-----|-------|---------|----------|
| Full-time | 115 | 3.50 | .12 | 0.05 | 195 | -1.43 | 1.96 | Not Significant |
| Part-time | 85 | 3.52 | .13 | | | | | |

**Table 3. Summary of analysis of variance on mean ratings of the respondents on the extent to which lecturers and supervisors determine post-graduate studies completion time**

| | Sum of Squares | df | Mean Square | F | P-value | Decision |
|--|----------------|-----|-------------|---|---------|----------|
| Between Groups | 399.851 | 3 | 139.426 | 139.426 | .000 | significant |
| Within Groups | 755.867 | 193 | 13.126 | | | |
| Total | 1054.718 | 196 | | | | |

**Table 4. Summary of scheffepost hoc test on mean ratings of the respondents on the extent to which lecturers and supervisors determine post-graduate studies completion time**

| (I) Discipline of Study | (J) Discipline of Study | Mean Difference (I-J) | P-value |
|---|---|---|---|
| Tech. Edu | Buss. Edu. | 4.26667[*] | .000 |
| | Agric. Edu. | .50000 | .860 |
| | Homec. Edu. | 1.54165[*] | .022. |
| Buss. Edu. | Tech. Edu | 4.26667[*] | .000 |
| | Agric. Edu. | -1.54167[*] | .028 |
| | Homec. Edu. | -1.53245[*] | .021 |
| Agric. Edu. | Tech. Edu | .50000 | .860 |
| | Buss. Edu. | 1.54167[*] | .028 |
| | Homec. Edu. | 1.26667[*] | .371 |
| Homec. Edu. | Tech. Edu | 1.54165[*] | .022. |
| | Buss. Edu. | 1.53245[*] | .021 |
| | Agric. Edu. | -1.26667[*] | .371 |

*Significant*

The findings also revealed that full time and part time respondents do not differ significantly in their mean ratings on the extent programme lecturers and supervisors determine post-graduate studies completion time in vocational and technical education programmes in South-South Nigerian universities. This finding is in agreement with Ogwu [27] whose study revealed that teaching and supervision affect programme completion time irrespective of mode of study. The findings of the study also revealed that there was a significant difference in the mean ratings of the respondents on the extent lecturers and supervisors determine post-graduate studies completion time in vocational and technical education programmes in South-South Nigerian universities based on discipline (Technical Education, Business Education, Agricultural Education and Home Economics Education). This finding is in agreement with Livine [26] whose study revealed that in terms teaching and supervision, discipline of study has effects on programmes completion time. Thus, lecturers and supervisors in the various disciplines of study in vocational and technical education programme will no doubt have considerable impact on post-graduate studies completion time in vocational and technical education.

## 6. CONCLUSION

Based on the findings of this study, it was concluded that teaching and supervision factors outstandingly determine post-graduate studies completion time in vocational and technical education programmes in South-South Nigerian universities.

## 7. RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

1. Heads of school of post-graduate programmes should ensure that supervisors are given proper and adequate orientation on research processes; only lecturers that are committed to work should be assigned as course lecturers and supervisors.
2. Heads of school of post-graduate programmes should ensure that the health, age, field of study and academic work load of prospective supervisors are given serious consideration before assigning them as supervisors.

## SUGGESTIONS FOR FURTHER RESEARCH

It is suggested that further research could be carried out in the following areas:

1. A study should be conducted to determine the rate of attrition in post-graduate studies in vocational and technical programmes in South-South Nigerian universities.
2. A study should be conducted to examine the influence of curriculum on post-graduate studies completion time in Vocational and Technical Education programme in South-South Nigerian universities.
3. This study could also be replicated in another area of study possibly in South-East Nigerian universities.

## CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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