QUALITY CONTROL IN POST-GRADUATE SUPERVISION IN LIBRARY SCHOOLS: A STUDY OF LIBRARY AND INFORMATION TECHNOLOGY DEPARTMENT, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA

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Abstract

The paper examined quality control in postgraduate supervision in library schools with particular reference to the Department of Library and Information Technology (LIT), Federal University of Technology, Minna, Nigeria. Mixed methods research design was adopted for the study. The total population of the study comprised all the 67 candidates of the Department of Library and Information Technology, who registered with the School of Postgraduate Studies between 2013 and 2016 with the 12 available supervisors. Total enumeration was used to cover the entire population. A self-designed instrument tagged "Quality Control in Postgraduate Supervision Questionnaire" (QCPGS) with the reliability co-efficient of 0.79 was administered to both the supervisors and the postgraduate students. Statistical Package for Social Science (SPSS) was used to analyse the data. Findings of the research show that the number of postgraduate students admitted in LIT between 2013 and 2016 is commensurate with the number of supervisors available and that the appointment of co-supervisors/supervisory committee enhanced quality of supervision. The study concluded that high quality has been maintained in postgraduate supervision in the surveyed Department especially as regards balanced supervisor/supervisee ratio but not with consistency. The study recommended the following amongst other. Trimming the size of would be postgraduate students to match the number of available supervisors which has been a practice in LIT should be continued and this should be a practice in all other library schools in Nigeria. To ensure that the best candidates are admitted into the postgraduate programmes, pre-admission screening test should be conducted for all would be postgraduate students in LIT and in all other library schools in Nigeria.

Keywords

Quality Control; Postgraduate Supervision; Library Schools; Department of Library and Information Technology; Federal University of Technology, Minna, Nigeria.

Introduction

Quality control put succinctly refers to all steps taken towards ensuring and maintaining standard for a particular operation: programme, organisation, product, services etc. Quality control is geared towards removing all extraneous factors that could affect the anticipated standard for a particular operation including postgraduate supervision. Jaiyeoba and Atanda (2005) posits that quality control is synonymous with standard, efficiency, excellence, relevance and worthiness. Similarly, Aigboje (2007) describes quality in terms of excellence as more of societal values embodied in the school curricula. This involves stages and activities that take place until certificates are issued. Okeke (2001) views quality control as the aggregate of all efforts from the top management to the lowest rung of the organisational hierarchy geared towards doing the right thing first and all the time and continually striving for improvement. Quality control in this paper, therefore, refers to all attempts to strive for excellence and efficiency on a continual basis in post graduate supervision in library schools

in Nigeria. It is a process undertaken to ensure that the standards and goals of postgraduate supervision are both realistic, achievable and are being met.

Quality control in postgraduate supervision in library schools in Nigeria and across the globe could be affected by a good number of factors. The factors include the following amongst others: supervisor/supervisee ratio; pre-admission screening test; the knowledge level of the supervisor/supervisee; appointment of supervisory committee; thoroughness on the part of the supervisor; supervisor/supervisee relationship; plagiarism; availability of resources; social and physical environment; change of supervisors; internal and external pressures on the supervisors to stick to completion period. It should be emphasised that the practice of postgraduate supervision requires a high quality research and learning environment for both the graduate student and supervisor (James and Baldwin, 2010). Researches have shown that when students work closely with and communicate effectively with their supervisors, the quality of their research and their educational experiences improve. (Wisker, 2005, Lee, 2008 James and Baldwin, 2010, Zeithaml and Berry, 2012),

The concept of post graduate supervision could be depicted as a process of facilitating the development of the student (supervisee) to becoming an independent professional researcher and scholar in his or her field; capable of adapting to various research arenas, whether university or industry based (Abiddin, Ismail and Ismail, 2011). However, internal and external pressures on the supervisors to ensure that the students they are supervising finish on time could constitute great threat to the quality of supervision and research work (Deuchar, 2008). Researches have revealed that clear and frequent communication is considered a key element of successful postgraduate supervision (Ramani, Gruppen and Kachur, 2006, James and Baldwin, 2010, Eraut, 2013).

Quality of postgraduate supervision in library schools could also be enhanced by the appointment of co-supervisor or a supervisory panel. The benefits accruable to co-supervisor ship or supervisory panel include: the supervisee benefits from the different perspectives and expertise of the supervisors, the supervisors benefit from sharing the responsibility, particularly if problems ever arise; there will always be a support for the student if for some reasons a co-supervisor becomes unavailable; and junior academics can be initiated into good practice by experienced supervisors (Nightingale, 2005). Library schools in Nigeria refer to any institution or school specialising in the teaching of library and information science. The pedagogical media of training of librarians should be such that take into cognizance emerging

changes of the digital age. Ashcroft (2005) observes that training in such formal institutions should take into account the diversity of information work in the 21st century.

Federal University of Technology, Minna, Nigeria is one of the specialised universities established by the Federal Government of Nigeria in 1982. The desire to make Nigeria a technologically viable and sound country through formal training and inculcation of requisite skills into men and women necessitated the establishment of this institution. The Department of Library and Information Technology (LIT) was established at the Federal University of Technology in 2002 with the mission and vision of producing graduates who are technological sound and information smart as regards the library and information world of the 21st century. The choice of this library school for a study of this nature is deliberate and purposive. The library school has about 40% of IT and 60% of library and information science content in its curriculum. The aim is to produce a crop of balanced librarians/information technologist experts who can fit into any spectrum of the society especially the information market. The postgraduate programme of LIT started in 2013. The modalities of postgraduate supervision and issues that affect its quality in LIT and which could affect other library schools in Nigeria are examined.

Statement of the Problem

Post graduate supervision is the highest level of research in universities where highest level of quality research in terms of input/output ratio is expected. The researchers through their personal investigation discovered that the post graduate supervision in the Department of Library and Information Technology (LIT) has not met the envisaged standard. The reasons for this could be due to: lack of pre-admission screening (aptitude test) that could be used to test the knowledge level of the applicants: lack of researchable topic; absence of commitment on the part of the students; shallow knowledge of the supervisors etc. The study, therefore, considered quality control in postgraduate supervision in the Department of Library and Information Technology, Federal University of Technology, Minna.

Objective of the Study

The main objective of the study is to examine the effect of quality control on postgraduate supervision in Library and Information Technology Department, Federal University of Technology, Minna, Nigeria. The specific objectives are to:

1. Determine the effect of supervisor / supervisee ratio on quality of postgraduate student's supervision.

2. Investigate whether the pre-admission screening test affects the performance of the postgraduate student's supervision.

3. Find out whether the level of supervisor's knowledge input affects the quality of postgraduate student's supervision.

Research Questions

The following research questions guided the study.

1. What is the effect of supervisor / supervisee ratio on quality of postgraduate student's supervision?
2. How does pre-admission screening test affects the performance of the postgraduate student's supervision?
3. How does the level of knowledge input of the supervisor affect the quality of postgraduate student's supervision?

Hypothesis Testing

The following null hypothesis was tested at 0.05 level of significance.

1. There is no significant relationship between supervisor's input and quality of postgraduate research work.

Research Methodology

Research design adopted for this study is mixed methods research design. This implies the combination of both qualitative and quantitative methods to collate, present and analyse data. The justification for adopting such a design is based on the idea that both methods have their weaknesses and strength. Therefore, combining both in one single study, the weaknesses of one method will be complemented by the strength of the other. The target population of the study is all the admitted candidates of the Department of Library and Information Technology, who registered with the School of Postgraduate Studies between 2013 and 2016. The accessible population was 67 students who enrolled for the postgraduate programmes: Postgraduate Diploma (6), Master's (55), and Ph.D (6) and 12 available Supervisors. The population was not sampled because of its manageable size.

Data Presentation

Data are presented based on interview conducted and frequency counts and percentages of response obtained from copies of questionnaire distributed.

Table 1: Number of Students Admitted and Supervisor/Supervisee Ratio

Programmes & Session		No of Students Admitted	No of Supervisors Available	Supervisor/Supervisee Ratio
1. Post Graduate Diploma	2013/2014	1	2	2.1
	2014/2015	N1L	N1L	N1L
	2015/2016	5	10	2.1
2. Masters Degree	2013/2014	30	10	1.3
	2014/2015	N1L	N1L	N1L
	2015/2016	25	12	1.2
3. P h. D Degree	2013/2014	N1L	N1L	N1L
	2014/2015	N1L	N1L	N1L
	2015/2016	6	10	2.1

It is obvious from Table 1 that a single candidate was admitted to the post graduate diploma in 2013/2014 session, with the supervisor / supervisee ratio of 2.1; no candidate was admitted in 2014/2015 session and 5 candidates were admitted in 2015/2016 session with the supervisor/supervisee ratio of 2.1. Moreover, 30 candidates with the supervisor / supervisee ratio of 1.3 were admitted to the masters degree programme in 2013/2014 session, none was admitted in 2014/2015 session while 25 candidates with the supervisor/supervisee ratio of 1.2 were admitted in 2015/2016 session. Furthermore, no candidates was admitted for the Ph. D degree in 2013/2014 and 2014/2015 sessions respectively while 6 candidates with the supervisor/supervisee ratio of 2.1 were admitted in 2015/2016 session.

Table 2: Appointment of Co – Supervisors/Supervisory Committee.

Programmes& Session		No of Students Admitted	Major Supervisors	Co- Supervisor
1. Post Graduate Diploma	2013/2014	1	1	1
	2014/2015	N1L	N1L	N1L
	2015/2016	5	5	5
2. Masters Degree	2013/2014	30	10	13
	2014/2015	N1L	N1L	N1L
	2015/2016	25	12	N1L
3. P h. D Degree	2013/2014	N1L	N1L	N1L
	2014/2015	N1L	N1L	N1L
	2015/2016	6	4	8

It is clear from Table 2, that supervisory committee/co- supervisors were appointed for postgraduate diploma candidates of 2013/2014 and 2015/2016 sessions respectively. While co- supervisors were appointed for the 2013/2014 master degree candidates, none was appointed for the 2015/2016 masters degree candidates. Finally, supervisory committee was appointed for the 2015/2016 Ph. D degree candidates.

Table 3: Pre-admission Requirements

Requirement for Postgraduate Admission Requirement	Indicate
Five credit O' Level in WAEC, NECO, NABTEB and GCE. A candidate applying for Postgraduate Studies in the Federal University of Technology, Minna must have obtained five (5) Credits in WAEC, NECO, NABTEB and GCE (O'Level) or their equivalents including English Language and Mathematics at not more than two sittings. No admission shall be made on the basis of any awaiting O/Level paper result and no exemption is made for admission into any programme.	√
Master Degree holder applying for the Ph.D. Programmes of the University must have maintained a weighted score average of 60% or a 'B' grade or a **CGPA** of 3.50 on a 5.00 scale in overall performance in the Masters Degree programme	√
A Minimum of Second Class Honours (Lower Division) degree from Federal University of Technology, Minna or any other recognised university.	√
A Third Class Honour Degree with at least 3 years Post degree qualification experience	√

in relevant fields may be considered, in some areas, passing a qualifying examination to be administered by the Department of the candidates in consultation with the Postgraduate School may be required	
Candidates with HND with a minimum of Lower Credit, ND Lower Credit and a Postgraduate Diploma in relevant field with, at least a minimum of Lower Credit and one year graduation experience may be considered.	√
For avoidance of doubt, candidates with **PASS** grade at any level Degree, PGD, HND and ND do not qualify for admission to the Masters Degree Programmes. No Diploma candidate with **CGPA** less than **2.50** qualifies for admission into the Masters Degree Programmes.	√
Entrance Examination for Postgraduate programme	Nill

From Table 3, it is clear that the major pre- admission screening requirement is five credit pass in O'level including English Language and Mathematics at not more than two sittings for all postgraduate programmes in the University. 3.50 CGPA for Ph.D Programme, a minimum of second class lower for master's programme and a Third Class Honour Degree with at least 3 years postgraduate experience in relevant fields may be considered. Consequently, candidates with pass grade at any level degree, PGD, HND and ND do not qualify for admission to the masters degree programmes

Table 4: The Level of Knowledge Input of the Supervisor

Contribution	Very well	Well	Rarely	Not at all	Mean	Remark
My supervisor is kind and supportive to my research	29(57%)	19(37%)	1(2%)	2(4%)	3.5	Accepted
My supervisor directs and points me to the source of relevant literature related to my work	20(39%)	26(51%)	3(6%)	`2(4%)	3.3	Accepted
My supervisor helps me in conceptualizing the research project	21(41%)	23(45%)	3(6%)	4(8%)	3.2	Accepted
My supervisor gives constructive and timely response to my written work	17(33%)	27(53%)	5(10%)	2(4%)	3.2	Accepted
My supervisor is readily available when needed for project perusal	15(29%)	27(53%)	3(6%)	6(12%)	3.0	Accepted
My supervisor is	5(10%)	34(67%)	34(67%)	2(4%)	2.7	Accepted

knowledgeable and resourceful in my work						
My supervisor is open, listening and flexible	3(6%)	15(29%)	29(57%)	4(8%)	1.8	Rejected
My supervisor is an expert in my research area	14(27%)	4(8%)	30(59%)	30(59%)	2.6	Accepted
My supervisor encourages me to plan and work independently	6(12%)	16(31%)	16(31%)	13(25%)	2.2	Rejected
My supervisor ensures that I meet the set targeted time	10(20%)	30(59%)	5(10%)	30(59%)	2.9	Accepted
My supervisor assist me in shaping the research topic	4(8%)	9(18%)	18(35%)	9(18%)	2.1	Rejected
My supervisor has excellent interpersonal skills	10(20%)	20(39%)	15(29%)	6(12%)	2.7	Accepted
My supervisor has vast and varied experience in research	6(12%)	26(51%)	26(51%)	6(12%)	2.5	Accepted
My supervisor has good working knowledge of research methods/designs	16(31%)	3(6%)	5(10%)	5(10%)	2.2	Rejected
My supervisor is willing to share his wealth of knowledge with me	14(27%)	28(55%)	3(6%)	6(12%)	3.0	Accepted

Table 4: shows how the level of supervisor's knowledge input affects the quality of postgraduate student's supervision with emphasis on the academic and professional development of the supervisor. Majority of the postgraduate students were of the view that they obtain maximum co-ooperation and mentoring from their supervisors. The first three items that were very well agreed to are: My supervisor is kin and supportive to my research 48(94%); My supervisor directs and points me to the source of relevant literature related to my work 46(90%) and; My supervisor helps me in conceptualizing the research project 44(86%); while majority also very well disagreed with some statement such as: My supervisor is open, listening and flexible 33(65%); My supervisor encourages me to plan and work independently 29(56%) and; My supervisor assist me in shaping the research topic 27(53%). The mean count of the positive statements are 2.5 and above while those of the negative statements are below 2.5 mean count.

Hypothesis Testing

Ho$_1$ There is no significant relationship between supervisor's knowledge input and quality of postgraduate research work

This hypothesis determines whether there was any significant relationship between supervisor's knowledge input and quality of postgraduate research work

Table 5: Relationship Between Supervisors Knowledge Input and Quality of Postgraduate Research Work

Variable	Correlation	Supervisor's Knowledge Input	Quality of Postgraduate Research Work
supervisor's knowledge input	Pearson Correlation	1	.450**
	Sig. (2-tailed)		.001
quality of postgraduate research work	Pearson Correlation	.450**	1
	Sig. (2-tailed	.001	

**. Correlation is significant at the 0.01 level (2-tailed).

From the output in Table 5, it is obvious that the correlation coefficient between supervisor's knowledge input and quality of postgraduate research work is 0.450 and the *p*-value for two-tailed test of significance is less than 0.005 (vsalues less than 0.005 are shown as 0.001 in SPSS outputs). From these figures it could be concluded that there is a strong positive correlation between supervisor's knowledge input and quality of postgraduate research work and that this correlation is significant at 0.01 level significance. Hence, the null hypothesis (Ho$_1$) which stated that there is no significant relationship between supervisor's knowledge input and quality of postgraduate research work is rejected.

Discussion of Results

Results of the study revealed a commensurate and manageable distribution of postgraduate students to supervisors in LIT Department. In other words, an equitable students/supervisor ratio was in place. Findings of this research affirm earlier findings of other researchers on the indispensability of personal contact, face to face meeting, and good rapport between the supervisor and the supervisee on quality of postgraduate supervision.(Abiddin and West, 2007; Zeithaml and Berry, 2012; Kimani, 2014).Similarly, findings of the research corroborate the findings of Hofstee (2006), Lessing (2009), and Brink (2010), and Eraut (2013) who in their various findings described lack of thoroughness on the part of the supervisor due to overcrowding as the bane of quality postgraduate supervision. The result of the study also shows that the appointment of co- supervisor ship but without consistence. The findings agree with the findings of Wat(t2011): and Holtman and Mokwada (2014) who reported that co-supervision is beneficial to novice supervisors, in that it helps them to cope with the problems that they experience and provide adequate guidance to postgraduate students.

Moreover, findings of the research show that postgraduate students were admitted on the basis of O'level paper qualifications and Cumulative Grade Point Average (CGPA). Aptitude/pre-admission test was not conducted. The findings of the study affirm the findings of Ololube, Egbezor and Kpolovie (2008) who discovered that pre-admission screening had little impact on the academic performance of students at the universally of PortHacourt, Nigeria. The findings of the study, however, disagree with the findings of other researchers who affirmed pre-admission screening and possession of requisite skills as sine qua non to getting the best candidates admitted (Adeyemi, 2009; Ayorinde, 2010; Okpilike, 2011; Otokunefor, 2011; Hoffman and Julie, 2012; Schutz, Gallagher and Tepe, 2011).

The results show that majority of the postgraduate students enjoyed maximum co- operation and mentoring from their supervisors Although few complaints in terms of lack of friendliness, assistance and encouragement were recorded The findings agree with that of Azure (2016) who indicated that effective supervision means that supervisors are able to establish good and professional relationships with students; give support and guidance; and provides continuous motivation and inspiration but disagree with his findings that state that supervisors are flexible and encourage students to work and plan independently.

The only null hypothesis was tested and it was found that there is a strong positive correlation between supervisor's knowledge input and quality of postgraduate research work The null hypothesis was thus rejected meaning that that supervisor's knowledge input affects the quality of postgraduate research work significantly. The findings corroborate the findings of Azure (2016) who posits that supervisors should possess academic PhD and attain senior lecturer's status which are relevant to graduate research work in universities in addition to good inter-personal relationship with their students. Supervisors should be friendly, approachable, flexible, knowledgeable and resourceful. They should also be stimulating and c enthusiastic to improve students' performance and facilitate early completion of postgraduate programmes.

Conclusion

It is apt to conclude from the study that there is enormous quality control in postgraduate supervision in the Department of Library and Information Technology, Federal University of Technology Minna. This quality control is visible in the areas of: manageable supervisor/supervisee ratio; appointment of supervisory committee which although was not consistent and trimming the size or outright refusal to admit students. However, absence of pre-admission screening test could serve as impediment towards admitting best students for the postgraduate programmes

Recommendations

The following recommendations are made in the light of the findings of the study.

1. Pre-admission screening or qualifying test should be conducted for all would be postgraduate students in the Department of Library and Information Technology (LIT), Federal University of Technology Minna, Nigeria and in all other library schools in Nigeria.

2. Supervisory committee or co-supervisors should be maintained in the postgraduate programmes of the Department to sustain quality supervision.

3. To enhance thoroughness and quality supervision the policy of trimming of the size of would be postgraduate students or outright refusal to admit candidates as currently practiced in LIT should be maintained and other library schools in Nigeria should follow suit.

4. To facilitate good research work, it is recommended that a supervisor should not have more than five (5) postgraduate students at a time.

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