East African Journal of Education Studies
eajes.eanso.org
Volume 8, Issue 2, 2025
Print ISSN: 2707-3939 | Online ISSN: 2707-3947
Title DOI: https://doi.org/10.37284/2707-3947

EAST AFRICAN NATURE & SCIENCE ORGANIZATION

Original Article

Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions

Robert Turyamureeba, PhD[1*]

[1] Bishop Stuart University, P. O. Box 09, Mbarara City, Uganda.
[*] Author for Correspondence ORCID ID; https://orcid.org/000-0003-2566-4703; Email: rturyamureeba@gmail.com

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

Date Published:

08 May 2025

Keywords:

Supervision, Graduate, Research, Uganda, Realities, Problems, Challenges, Myths & Tensions.

ABSTRACT

University graduate student research supervision and completion rates in Uganda have increasingly gained traction and may require urgent attention. Myths, realties and conceptual tensions have always vividly afflicted the pace and rate of research student completion. Against this backdrop, this study aimed at establishing the salient features of student-research supervision regulations, guidelines and procedures in Ugandan universities; determining the challenges and problems in research supervision; factors affecting the success of research students; and the myths, realities and conceptual tensions of research supervision. Accordingly, it was found that the student-supervisor wide gap, coupled with the unconducive learning environment characterized by economic hardships afflict the pace and rate of student completion. Further, several tensions identified included those between scholarship and training, between originality and collaboration, between apprenticeship and employment, and between student independence and membership of a team, between the supervisor as a professional and the supervisor as an individual; and that between student dependence and student independence. To deal with such tensions, it's recommended that supervisors pay particular attention to the specific academic needs of the students to ensure that students get what they desire to progress and complete on time. At institutional level, student centricity should be the norm in all university activities since students form the biggest clientele of the institutions. Likewise, the centricity of post-graduate research should be key in government educational financial planning. Earmarking a reasonable financial percentage for postgraduate research enables research students to address some of the economic hardships that afflict their academic progress.

APA CITATION

Turyamureeba, R. (2025). Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions. *East African Journal of Education Studies*, *8*(2), 309-325. https://doi.org/10.37284/eajes.8.2.2969

CHICAGO CITATION

Turyamureeba, Robert. 2025. "Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions". *East African Journal of Education Studies* 8 (2), 309-325. https://doi.org/10.37284/eajes.8.2.2969

HARVARD CITATION

Turyamureeba, R. (2025) "Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions", *East African Journal of Education Studies*, 8(2), pp. 309-325. doi: 10.37284/eajes.8.2.2969

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

IEEE CITATION

R. Turyamureeba "Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions" *EAJES*, vol. 8, no. 2, pp. 309-325, May. 2025. doi: 10.37284/eajes.8.2.2969

MLA CITATION

Turyamureeba, Robert. "Research Student Supervision in Uganda: Myths, Realities and Conceptual Tensions". *East African Journal of Education Studies*, Vol. 8, no. 2, May. 2025, pp. 309-325, doi:10.37284/eajes.8.2.2969

INTRODUCTION

Teaching, research and community engagement are among the core duties of academic staff, and they are mutually reinforcing. A university teacher who does not conduct research is bound to be fallible and ineffective. Moreover, promotion up the academic ladder is conventionally pegged on the volume and quality of a lecturer's research and resultant publications. In Uganda, the National Council for Higher Education (NCHE), the body responsible for regulating tertiary education, expects universities to be "centers of research, academic excellence, scholarship, knowledge generation and publication" (NCHE, 2014, p. 17). That is partly why university students are taught how to use existing information and knowledge, and how to search for, and generate, new knowledge. Actually, most universities require both undergraduate and postgraduate students to take a course in *Research Methods* and to conduct research in their respective disciplines, which makes research supervision a key university function. But beyond serving these internal university requirements, university research has wider community, societal, national and global purposes. As Delany notes, "In knowledge-based economies, governments see universities as engines for change and expansion of prosperity. The work of postgraduate students constitutes a vital component of a university's research effort and contributes significantly to the institution's research profile (Delany, 2009, p. 3).

According to Brew (2001), experienced university-research supervisors subscribe to four different concepts of research: as a series of tasks to be accomplished; as a production process; as a series of theories where the researcher is absent; and as an encounter where the researcher is transformed. The quality of supervision is likely to depend on which one of these concepts, or which combination of them, a research supervisor adopts. At the same time, Meyer (2007) discovered that students espouse eight different concepts of research. These include research as information gathering; as discovering the truth; as insightful exploration and discovery; and as analytical inquiry and discovery. The others are: research as incompleteness (as an endless process); as the re-examination of existing knowledge; as identifying and solving problems; and as a set of misconceptions. Should a student's concept of research be excessively narrow, the quality of his or her research is likely to be equally myopic. Similarly, should a student's concept of research differ significantly from that of his or her supervisor, the supervision process and outcomes are likely to be undermined.

A NOTE ON METHODOLOGY

This paper is purely based on secondary sources, most importantly the regulations and guidelines by the Uganda National Council of Higher Education (NHCE); this provided critical insights and standards. It also gained from the author's own experiences as a student-researcher who went through the system to become a supervisor in the same system. Such experiences helped in highlighting realities, myths and, underscoring the conceptual tensions in research supervision, the roles and qualities of a good supervisor, and challenges and problems in research supervision in Ugandan context.

POSTGRADUATE-RESEARCH SUPERVISION

According to Kimani (2014), without producing high-quality research output, higher education institutions cannot play their role as engines of knowledge. Therefore, the quality of postgraduate-

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

research supervision is critical to the status of higher education institutions and to national and world development. Conventionally, university students conduct research under the supervision of one or more academic staff members. As Taylor (1995) aptly observes, research supervision was for a long time regarded as an adjunct of research, and "it was assumed that "if one can do research then one can presumably supervise it" (Rudd, 1985, cited in Taylor, 1995). Indeed, current opinion is that "research supervision is a specialized form of teaching," (Ketteridge & Shiach, 2009, p, 166) and "probably the most complex and subtle form of teaching in which we engage" (Brown and Atkins, 1988, p. 115). This view is echoed by Kimani (2014, p.63) when he writes, "It is not contestable that postgraduate supervision is a complex style of teaching through research work …." In Taylor's (1995) view, research supervisors "need to actively teach candidates about how to research, and support them to become independent researchers." That is why Ketteridge & Shiach (2009, p,167) are right when they note, "Supervision involves the fundamentals of good teaching, among them, concern for students, interest in their progress, and the provision of thoughtful and timely feedback." More specifically, Lategan (2008, p. 4) defines postgraduate research supervision as

"the active engagement of a supervisor in assisting the postgraduate student in identifying a line of enquiry, delineating the scope of the project within that line of enquiry, and providing guidance for successful completion of the project and dissemination of the results."

However, as Delany (2009, p. 4) notes, "… despite the importance and almost exalted role of graduate education, formal research on the psychological, social, and educational aspects of research supervision only began during the 1970s**.**" This was partly because, for a long time, postgraduate supervision was regarded as "a private act between consenting adults and pressure to open this to observation [was likely to] raise hackles as well as ethical issues [although] it could provide us with very helpful data" (Lee, 2008, p. 3). Delany (2009) further notes that it was not until 1975, when Rudd (1975) published *The Highest Education: A Study of Graduate Education in Britain,* that it was revealed that the quality of research supervision varied widely, and that "lazy or unmotivated supervisors had a demoralizing effect on their students." It is this observation that led Rudd to recommend the creation of graduate schools as an institutional mechanism for raising the overall quality of postgraduate-research supervision (Delany, 2009, p. 4).

Some universities responded by introducing optional training modules in research supervision, but these have "progressively been replaced, particularly in the UK, continental Europe and Australasia, by comprehensive and, in some cases, compulsory programs" (Manathunga, 2005). As Delany (2009, p. 4) notes, "Within Europe, this trend is part of a broader EU drive to harmonize academic degree standards and quality assurance standards across Europe, as codified in the 1999 Bologna Accords (European Commission, 2008). However, as Green and Lee (1995) observe, current pressure to make universities more productive and accountable has driven research that focuses on "policy issues and questions, and on the organization and administration of the postgraduate research degree" to the detriment of research on pedagogical issues in the supervision of postgraduate research.

The Postgraduate-research Supervisor

This proposal began with Bell (1999, p. 33) proclaiming that "…*a good supervisor is like gold dust … by far the most valuable resource we have*". But, what exactly is a good supervisor? Any attempt to define a good supervisor must begin by defining a supervisor. Generally, concepts of a supervisor include those of a supervisor as a foreperson, an overseer, a coach, a facilitator and a coordinator (Kimani, 2014:63). As the literature reveals, the

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

nature and roles of the university research supervisor have been variously conceived. Kimani (2014:63) asserts that the most suitable definition of a postgraduate research supervisor is a person "in a position of trust, to guide the student in the course of the research work, while being held responsible for the quality of the work and performance in line with the research guidelines and expectations of [the] Graduate School/Board and the university." For their part, Mainhard et al. (2009, p.360), cited in Agu and Odimegwu (2014, p. 1-2), opine that doctoral supervisors "must provide the time, expertise, and support to foster the candidate's research skills and attitudes and to ensure the production of a thesis of acceptable standard."

It is arguable that while Kimani perceives a supervisor as essentially a project manager, Mainhard et al. view the supervisor as a facilitator. In our view, the most comprehensive concept of a university-research supervisor was provided by Brown and Atkins (1988, p.120). According to them, a research supervisor is not only a director, a facilitator, an advisor, a teacher and a guide, he or she is also a critic, a liberator, a supporter, a manager, a friend and an examiner. This paper adopted Delany's (2009, p. 3) definition of a good supervisor as one who plays all these eleven roles and "achieves high completion rates, has candidates submit [their dissertations] within the normally expected time frame, engages in multiple supervisions, and receives excellent supervisory reports."

Relationship between University-research Supervisor and Student

The relationship between the supervisor and the student or supervisee is critical for the success of a research project. According to Dinham and Scott (1999), while "the student-supervisor relationship has the potential to be wonderfully enriching and productive, it can also be extremely difficult and personally devastating" (cited in Delany, 2009, p. 5). Scholars view the relationship between the postgraduate-research supervisor and student differently. For example, while Connell (1985) describes PhD supervision as "the most advanced level of teaching [and] a genuinely complex teaching task" (cited in Delany 2009:7), Knowles (1999) describes postgraduate-research supervision in general as "critical conversations" between the supervisor and the supervisee (cited in Delany 2009, p. 7). Therefore, while Connell (1985) implies that postgraduate supervision involves two unequal players, a supervisor and a student, in an asymmetrical relationship where the supervisor passes knowledge and skills on to the student, Knowles (1999) implies that the relationship between the supervisor and the student is symmetrical, involving two adults in a more or less equal relationship, freely exchanging ideas and sharing experiences about a research topic. Mid-way between these two extreme positions is that of Taylor (1995) who proposes that postgraduate-research supervision is "mentorship [more than] instruction" (cited in Delany 2009, p. 7). It can, therefore, be concluded that scholars' views of the supervisor-student relationship constitute a continuum, ranging from the asymmetrical teacher-student or master-apprentice relationships at the lower extreme, to the symmetrical collaborative or partnership relationship at the higher extreme.

Factors Affecting the Success of Research Students

While the study focused on research supervision as a factor influencing completion rates, prolonged candidature and dropout, research supervision is not the only factor affecting these phenomena. According to Tinto (1975), there are four sets of primary conditions essential to student success: student expectations, student support, feedback and student involvement or engagement. Tinto argues that the expectations students have of a degree program partly determine the way they apply themselves to their studies, which in turn influences their performance. Secondly, the nature and availability of student support services and facilities, such as counseling, mentoring and library

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

facilities, influence the performance and success rate of students. Thirdly, feedback from the supervisor, especially during the phase of report writing, affects both the quality of a student's work and the timeliness of completion. Fourthly and finally, student involvement or engagement, in the form of attending lectures, using learning support services, interacting with faculty outside the classroom, and engaging in extra-curricular university activities, also influences student success.

Other factors that have been identified include student deficiencies and inappropriate research environments (Gardner, 2008). Student deficiencies relate such factors as whether the student is a full-time or a part-time student or an employee, whether or not he or she is resident at the university, age and socio-economic background. For their part, inappropriate research environments have to do with such factors as the degree of availability of necessary research facilities, and the level of motivation and overall effectiveness of academic staff, which correspond to what Tinto (1975) calls student support services. As Delany (2009, p. 6) rightly observes, "Although much of the literature on graduate education and supervision has focused on the impact of students variables," such as age, gender and national and linguistic backgrounds, on the students' PhD experiences, "Cullen et al. (1994) found that the demographics of the supervisor population", such as age, gender, graduate education background and teaching responsibilities, "also had a significant effect on how they conduct supervision", and, implicitly, on student success.

Theoretical Review

At least eleven (11) theories or models have been advanced to explain the research supervision process, ranging from the five (5) models advanced by Lee (2008) to the tripartite model suggested by Maxwell & Symth (2011). For purposes of this study, the research supervision process is viewed from the perspective of Dysthe's three models of research supervision which adequately subsume all the others, and cover research in the social sciences and the natural sciences. These three models are summarized below while the other theories or models are discussed in the literature review section.

- ***Dysthe's three research supervision models***

Dysthe (2002, p.17) identifies three aptly named models of research supervision: the teaching model, the partnership model and the apprenticeship model. According to Dysthe (2011, p. 17), the teaching model "describes a traditional teacher-student relationship defined by an emphasis on asymmetry, status difference, and dependency." In this asymmetrical or unequal power relationship, "feedback is seen as correction, and students rarely hand in exploratory texts" (Ibid). Dysthe further notes that this model is driven either by the supervisor's conceptualization of the relationship or "by the student's expectations and a joint focus on effectiveness in relation to producing an acceptable thesis" (Ibid). This appears to me to be the dominant model of research supervision in Ugandan universities, and it is interesting to establish the veracity of this impression.

Dysthe's second model, the partnership model, is more progressive, democratic and desirable. In this more symmetrical model, "the student's thesis is seen as a joint project", the supervisor's feedback is "presented in dialogue, and exploratory texts [from the student] form a basis for discussion" (Dysthe, 2011, p. 17). In Dysthe's view, while a "pedagogical philosophy" appears to underpin this model, "the supervisor aims at fostering independent thinking" (Ibid).

Finally, Dysthe's third model, the apprenticeship model, "is characterized by the student's learning by observing and performing tasks in the company of the supervisor", and while "the student and the supervisor may be involved in a joint project, … there is no doubt about who is the master" (Dysthe, 2011, p. 17). In the partnership model, unlike in the

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

apprenticeship model, "the supervisor assumes a much clearer authority base that is recognized by both partners" (Dysthe, 2011, p. 17-18). The apprenticeship model also differs from the teaching model in that the former is essentially "cooperative … [and] often part of a larger research team" (Dysthe, 2011, p. 18).

FIDINGS AND DISCUSSION

Postgraduate-research Supervision in Uganda

- ***Postgraduate study programs***

Higher education in Uganda is regulated by a governmental agency, the National Council for Higher Education (NCHE); and postgraduate research in Ugandan universities and other degree-awarding institutions (ODAIs) is commonly conducted in an academic department coordinated by a Graduate School or a similar entity. Formal postgraduate education includes four main categories of programs of study: postgraduate certificates, postgraduate diplomas, Master's degrees, and doctoral degrees (ordinary and higher). While all postgraduate certificate and diploma programs include coursework, most diploma and degree programs include both coursework and research components. Although some doctoral degree programs are by research or publications only, higher doctorates do not include any coursework and they are not supervised (NCHE, 2014; IUCEA 2018)

NCHE recommends three main modes of conducting Master's degree programs: by coursework and research, by coursework and a project, and by research only; and the duration of a Master's degree program is a minimum of two years and a maximum of three years (NCHE, 2014, p. 12-3). However, regardless of the mode adopted, all Master's degree candidates must take two examinable, cross-cutting courses: *Scholarly Writing and Communication Skills, and Computer Applications in Research*. In the case of doctoral degree programs, NCHE recommends four modes of delivery: by coursework and research, by research only, by publications, and by integrating a Master of Philosophy (M.Phil.) and a Doctor of Philosophy (PhD) degree programs. All doctoral candidates, except those for Honorary and Higher doctoral degrees, are required to take 5 cross-cutting courses: *Philosophy of Knowledge/Epistemology* (or *Philosophy of Science/Philosophy of Social Sciences*), *Research Methodology*, *Introduction to Institutional Pedagogy*, *Scholarly Writing and Publication Skills, and Computer Applications in Research.* NCHE *(Benchmarks for Postgraduate Studies*, p. 47) recommends 2 to 3 research supervisors for doctoral candidates. At Uganda's premier university, Makerere, 15% of PhD students complete their studies on time, 36.4% drop out, and 48.6% experience prolonged candidature (Wamala, Ocaya & Oonyu, 2012). At Makerere University Business School, 11.5% of MBA and MAF students complete their study programs on time (David Onen, in Maicibi and Kaahwa, 2004, p. 75-85). The written research outcome or product of a postgraduate degree student is often interchangeably called a dissertation or a thesis. For purposes of postgraduate degree benchmarks, NCHE uses the terms "thesis" for the product of doctoral research, and "dissertation" to designate a Master's degree product (NCHE, 2014, p.39).

- ***Research supervision guidelines in Uganda's postgraduate study programs***

For all postgraduate degree programs with a research component, NCHE defines the primary role of the research supervisor as essentially emancipatory, that is, "to act as a mentor to the candidate" (NCHE, 2014, p. 18 & 44-5). More specifically, NHCE (Ibid) states that the supervisor is "*required to:*

- *Provide an environment that stimulates and encourages candidates to learn and work independently.*
- *Provide guidance on the planning and execution of the research project.*

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

- *Guide the candidate on ethical considerations and intellectual property rights.*
- *Advise the candidate on relevant conferences and peer-reviewed journals where the candidate can submit papers for publication.*
- *Create an ethos of collegiality so that learning takes place within a community of scholars.*
- *Respect the student's reasonable views and ideas on his/her research."*

To guard against overloading supervisors with work, NCHE (*Benchmarks for Postgraduate Studies*, p. 20 & 47) recommends that a "*supervisor shall be allocated no more than eight Master's degree students*" and that "*Where the supervisor also has PhD students, the following alternatives shall apply:*

- *No more than 8 Master's degree students at any one time.*
- *No more than three doctoral students and two Master's degree students at any one time.*
- *No more than two doctoral students and four Master's degree students at any one time.*
- *No more than one doctoral student and six Master's degree students at any one time."*

Challenges of Postgraduate Research Supervision

By the end of 2017, Uganda had 60 universities and Other Degree Awarding Institutions (ODAI). These included 9 public universities, 41 private ones, and 10 ODAI. However, according to the National Council for Higher Education (NCHE, 2018, p. 2), at the end of 2017, all these institutions recorded a total of only 290 ongoing research projects, 205 or 71% of them at Makerere University, the country's oldest, biggest and best-performing institution of higher learning. And yet, even at Makerere University, research students are reported to experience a number of problems, including insufficient teaching and learning materials, unsupportive and abusive supervisors, and inadequate financial resources (David Onen, cited in Maicibi and Kaahwa, 2004, p. 75-85). For their part, Eyangu et al (2014) have identified many challenges facing Master's degree research students at Makerere University Business School. These challenges include lack of proper guidance by supervisors; external examiners' delays in assessing research reports submitted to them; lack of commitment to research on the part of students, and, where a student has two supervisors, disagreements between supervisors over a student's work.

Moreover, Uganda does not have enough PhD holders to sustain high-quality research supervision. According to the National Council for Higher Education,

"PhD holders in academia are not adequate for the existing demand; those who choose to maintain teaching jobs are often shared on [a] part-time basis, a practice which … tends to increase their workload thereby affecting their quality of curriculum delivery" (NCHE, 2018, p. 39).

The same NCHE (2018:41) report further reveals that, in 2016/17, Ugandan universities and other tertiary institutions had a total of 13,967 academic staff, but only 1,865 (13.4%) of them were PhD holders, which is not acceptable by NCHE standards. The acceptable percentage of PhD holders in any Ugandan university should be at least 15%. Worse still, over 60% of all the PhD holders, were at a single institution, Makerere University.

Partly as a result of the problems besetting research supervision, student completion rates are low and completion periods are often prolonged beyond the maximum duration. According to Sssenyonga & Nakiganda (2020: p. 2), in Uganda, "most of the Master's students successfully finished [*sic*] their first year [but] do not succeed in completing the second year that has the research component. Besides, doctoral students make little progress [in] their research projects". At Makerere University,

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

the estimated rate of extended or prolonged candidature for PhD candidates was found to be 48.6% while withdrawal or dropout stood at 36.4% (Wamala et al. (2012). Therefore, by 2012, while only 15% of the students enrolled into PhD programs completed their studies on time, 36.4% never completed at all. At the same university, preliminary studies from the Academic Registrar's Office show that out of 3,110 postgraduate students registered in 2016, only 1,310 (42%) completed their postgraduate studies in time. For his part, Agaba (2019) notes that between 2014 and 2018, an average of only 44% of all the postgraduate students at Makerere University completed their degree programs within the minimum graduation period.

Elsewhere, Eyangu et al. (2014) note, that at Makerere University Business School (MUBS), only 13.8% of Master of Business Administration (MBA) students completed their study program on time while the corresponding figure for Master of Science in Accounting and Finance (MsAF) students was a mere 9.2%. At Mbarara University of Science and Technology, of the 12 students who enrolled in the 2-year Master of Science degree program in Information Systems in 2017, only 4 (33%) were able to graduate in 2019 (personal communication from one of the 12 students).

As Aina (2017) (cited in Agaba, 2019) aptly notes, not completing a study program in time increases the cost of doing it due to hidden costs incurred by the student, the sponsor and the university; and delayed graduation leads to waste of resources and delayed economic returns to individuals, families and governments.

Therefore, this paper attempts to assess the quality of postgraduate research supervision in Ugandan universities so as to identify current weaknesses and challenges in the function, and proposes remedial measures.

Postgraduate Student Research

The general purpose of research is to extend knowledge, "not the knowledge of any particular individual or group, but the pool of existing knowledge available to anyone with the equipment to use it" (Evans, 1984, p. 2). While there are many methods of obtaining knowledge, Amin (2005, p. 3) rightly contends that "the scientific method … is generally regarded as the one that provides the most reliable and objective means of obtaining knowledge about empirical relationships". Research enables us not only to increase our understanding of empirical reality but also to solve real-life problems and improve human welfare. In universities, research also enables students and lecturers to attain academic qualifications and develop their academic careers.

Myths and Realities of Research Supervision

Like many other human activities undertaken by a coterie, research is often shrouded in myths which tend to obscure the reality. Phillips and Pugh (1999) identify three such myths as the *ivory tower* myth, the *teamwork* myth and the *scientific method* myth.

The ivory tower myth is the misconception that university research, especially postgraduate research, "is an ivory tower activity far removed from reality and from social contact with others" (Phillips and Pugh, 1999, p. 11). But, as the same authors aptly observe, while there are periods when a researcher may have to work alone in a laboratory or library, thinking or writing, research involves interaction as well. Such interaction is normally with fellow researchers, supervisors, research participants or respondents, library staff, and participants in workshops and seminars. Indeed, in socio-scientific research, especially action research, the researcher normally begins by compiling a list of stakeholders and determining the appropriate types and levels of interaction he or she should have with each category of stakeholders. The types and levels of interaction may include merely informing,

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

obtaining permission to conduct research, consulting, and working in partnership.

The teamwork myth is equally widespread, especially in the basic sciences where a PhD is normally awarded for original work, and where several candidates often pursue their research under a single professor. According to Philips and Pugh (1999, p. 13-14), the teamwork myth holds that the supervising professor and all the research students under him or her operate as a team in a collaborative venture. However, the reality is often that each student deliberately tries to work in a degree of isolation, shielding his or her procedures and findings from the other students, in a competitive framework. According to the same authors, the reason for this is the fear by each of the students that another student may use their procedures or findings to beat them to an original discovery, or to render their own work worthless or second best.

The third myth, the scientific method myth, conceals two misconceptions. The first is the misconception that the scientific method is inductive or "that the formulation of scientific theory starts with the basic, raw evidence of the senses – simple, unbiased, unprejudiced observation" (Phillips and Pugh, 1999, p. 14). However, as Phillips and Pugh observe, while the hypothetico-deductive method describes the logical approach to much research work, it does not describe the psychological behavior that brings it about. This behavior is a lot "more holistic, and involves guesses, re-workings, corrections, blind alleys and, above all, inspiration in both the deductive and hypothetic components" (Ibid). However, this less orderly behavior process is concealed by the more serial and logical order of the final research report or thesis that it produces. Phillips and Pugh conclude that much of what passes for "scientific method" is actually a way of writing up or presentation of research; it is not necessarily a way of doing research. These myths apart, there are also conceptual tensions in research supervision.

Conceptual Tensions in Research Supervision

University research supervision exhibits major conceptual tensions, and it is these tensions that largely underpin the maladies that afflict research supervision in many universities. Brown and Atkins (1988, p. 117) identify four of these tensions as those between scholarship and training, between originality and collaboration, between apprenticeship and employment, and between student independence and membership of a team. All these tensions are practically interrelated. Elsewhere, Lee (2008, p. 10) identifies 2 additional tensions: that between the supervisor as a professional and the supervisor as an individual; and that between student dependence and student independence.

The tension between scholarship and training revolves around the status of the graduate student: should he or she be treated as a scholar in a phase of inductive scholarship or as a trainee under the tutelage of the supervisor? Treating the student as a scholar implies that he or she should work largely independently. But, treating him or her as a trainee demands that he or she be closely supervised, directed and given regular tasks to accomplish to the satisfaction of the supervisor or master. Perhaps it is best to treat the graduate research students as part scholar and part apprentice.

The tension between originality and collaboration involves two significantly divergent concepts and practices: the research student working independently on a unique topic or problem as opposed to the student working on a topic that is only a facet of a wider project of which the student is only a collaborating team member. While working independently on a unique topic promotes originality and individual achievement, working as a team member, and only on a facet of a wider research problem, blurs the line between individual achievement and collaborative effort.

The third tension, between apprenticeship and employment, is particularly common where

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

doctoral research students are also required to teach in their respective departments. Sometimes, such students have to devote up to 20 percent of their total credit units to teaching (Hellberg and Anner in Maicibi and Kaahwa, 2004). Treating a research student as an apprentice to a master craftsman (supervisor) is akin to regarding the student as a trainee, without, however, according him or her all the freedom that a scholar in a phase of inductive scholarship may enjoy or require. On the other hand, while treating the student as an employee of his or her department is certainly desirable for students pursuing a teaching career, it may be an unnecessary burden for students with different career aspirations. Regardless of the career aspirations of a postgraduate-research student, the obligation to teach can be diversionary and detrimental to research work. A rare exception to this is when a research student is lucky to teach a course, or segments of a course, closely related to his or her research.

The fourth tension, that between student independence and student membership of a team, was identified by Brown and Atkins (1988, p. 117), but it is already subsumed under the second tension that pits originality against collaboration. It, therefore, need not detain us here.

The fifth tension, that between the supervisor as a professional and as an individual, manifests itself in a variety of ways. For example, it could pit the professional requirement for completion against the personal desire for quality, or the institutional requirement (sometimes financial) to increase postgraduate enrolment (mass production) versus the personal desire to provide personalized education. It could also pit the disciplinary requirement to adhere to set standards versus the personal desire to ensure that the student passes (Lee, 2008, p. 10).

The sixth and final tension, that between student dependence and student independence, pits the concept of a postgraduate student as an independent researcher, planning and executing his or her work independently, and simply being facilitated by the supervisor, against the concept of the postgraduate student as an apprentice dependent on the supervisor (master) for guidance and direction.

These six tensions relate to the three models of research supervision evoked by Ocheng (In Maicibi and Kaahwa, 2004, p. 39): the *directive model*, the *non-directive model* and the *collaborative model*. The directive model engenders the perception of the research student as a trainee or apprentice under the direction of the supervisor; the non-directive model promotes the treatment of the research student as an independent scholar in a phase of inductive scholarship; and the collaborative model ordains that the research student be treated as a member of a research team, working only on a facet of a wider research project. As stated earlier, these conceptual tensions, and the research supervision models that underpin them, give rise to a number of problems in research supervision.

Theories or Models of Postgraduate Research Supervision

Most models of research supervision exhibit a major weakness: they presuppose the traditional face-to-face forms of interaction between a single supervisor and his or her student, in a situation where the latter is a full-time student who lives either at, or in close proximity to, the campus (Agu & Odimegwu, 2014). This presupposition ignores the fact that, today, many postgraduate students combine full-time employment with their studies, are not resident at their university campus or in the country where their university is located, have more than one supervisor, and their interaction with their supervisors is mainly online. Various scholars have suggested a variety of models of research supervision some of which are interrelated (Lee, 2008; Lategan, 2008; Tinto, 1975 and 1993). Some of these models are reviewed in the following sub-sections, beginning with Lee's (2008, p. 2) 5 concepts or models of research supervision.

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

Lee's Five Postgraduate Research Supervision Models

A model is a simplified representation or explanation of reality or of a system while an approach is a way of doing, or dealing with, something. Therefore, in the sense that an approach may be presented or explained as a system, a model may be a simplified representation of an approach. Lee (2008, p. 2) identifies five (5) models of, or approaches to, the supervising doctoral research students: the functional, enculturating, critical thinking, emancipation and relationship-building models. While these approaches were derived from research on doctoral research supervision, they apply to pre-doctoral research supervision as well. Depending on which model or approach a supervisor adopts, he or she will perform his or her role differently, will require or use different knowledge and skill sets, and will elicit or encourage different student reactions. According to Lee (2008, p. 2), "… there are two influences on the supervisor's approach to supervision: … their concept of research supervision and … their own experience as a doctoral student." Logically, the quality of supervision, completion rates and student success will be significantly influenced by the concept or model of supervision a supervisor adopts. Table 1 below summarizes the relationships among concepts or models of research supervision, supervisory activity, supervisor's requisite knowledge and skills, and possible student reactions.

Table 1: A Framework for Concepts of Research Supervision

	SUPERVISORY MODEL				
	Functional	**Enculturating**	**Critical thinking**	**Emancipation**	**Relationship development**
Supervisory Activity	Rational progression through tasks	Gate-keeping	Evaluation; Challenge	Mentoring; supporting; Constructivism	Supervising by experiences; Developing a relationship
Supervisor's knowledge and skills	Directing; Project management	Diagnosis of deficiencies; Coaching	Argument; Analysis	Facilitation; reflection	Emotional intelligence
Possible student reaction	Obedience; organized	Role modeling	Constant inquiry, fight or flight	Personal growth; Reframing	Emotional intelligence

Source: *Adopted from Lee (2008:2)*

The Functional Model

The functional model is the one most closely associated with the professional role of the academic, as commonly reflected in instructional manuals on effective academic supervision (Lee, 2008, p. 4). In this model, the supervisor focuses on providing practical advice, direction and guidance; and his role is essentially that of a director and a project manager. As a result, the student is expected or constrained to simply obey the supervisor. While widely adopted, especially by pedantic and conservative supervisors, in conservative institutions, the functional model has the potential disadvantage of suppressing student creativity and originality, and promoting academic and intellectual conformity; and it is being gradually discarded.

The Enculturation Model

According to Lee (2008, p. 5), in the enculturation model, attaining a postgraduate degree, especially a PhD, is viewed as tantamount to securing

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

membership of an academic discipline. Therefore, the supervisor acts as a master or guru while the student is treated as an apprentice. The supervisor also acts as "a gatekeeper to learning resources, specialist opinions and networks", thus wielding immense power over the student. In this model, it is even possible for the student's ideas to be suppressed if they contradict those of the supervisor, and for ownership of the final research product to be disputed between the supervisor and the student. Characteristically, this model acculturates the student into both the university, the community of the discipline, the country and the dominant epistemology; and the student may find it difficult to attain intellectual independence. Therefore, the enculturation model exhibits power asymmetry to the detriment of the student.

The Critical Thinking Model

The critical thinking model is much more symmetrical in its power relations than the enculturation model, in that, in the former model, the student is not excessively subordinated to the supervisor, and is treated as a partner. The critical thinking model constitutes the core of traditional PhD supervision. According to Browne and Freeman (2000, p. 301),

> "*… critical thinking comes in many forms, but … [they] all presume that human arguments require evaluation if they are to be worthy of widespread respect. Hence critical thinking focuses on a set of skills and attitudes that enable a listener or reader to apply rational criteria to the reasoning of speakers and writers."*

Lee (2008, p. 6) adds that this "approach addresses such questions as what is the underlying conceptual framework, what are arguments for and against, what has been considered and what has been left out.", which enable both the supervisor and the student to identify gaps in knowledge, scope and methodology. The critical thinking model has also been called "Gently Socratic Inquiry" (Jackson (2001) or "Cooperative Inquiry" as opposed to "adversarial Socratic inquiry" (Johnson and Johnson, 2001).

The Emancipation Model

This model rests on the premise that research supervision is essentially a facilitative process which involves providing educational tasks and activities, such as "progressing the candidatures, mentoring, coaching and sponsoring student participation in academic practice" (Lee, 2008, p.7). All this should lead to the emancipation of the student from excessive dependence on the supervisor, and to the self-realization or actualization of the student as an independent scholar.

The Relationship-building Model

The relationship-building or development model is premised on the realization that emotional intelligence and flexibility play a large part in successful student supervision. Poor emotional intelligence and a mismatch in the styles of the supervisor and the student can result into low completion rates. A mismatch could occur when, for example, the student is dependent but the supervisor's style is one of "benign neglect" (Lee, 2008, p.8), or when the student is independent-minded but the supervisor is dominating and controlling.

The Supervisor-student Alignment Model

This model was advanced by Gurr (2001:86) who theorized that graduate supervision is a means of transforming students into independent or autonomous scholars by using communication and dialogue between the supervisor and his or her student to align the supervisor's supervisory style to the needs of the student at each stage of the thesis development. In Gurr's view, this requires that the supervisor's style oscillates between the "hands-on" and the "hands-off" approaches at different stages of the supervisory process. Cullen et al. (1994) identifies three such stages, the first of which is

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

characterized by a considerable input of time and effort by the supervisor, helping the student to formulate a research problem or question. In the second stage, during which the student collects, processes, analyzes and interprets data, the supervisor monitors him or her, but allows him or her to operate with greater independence than in the first stage. In the final stage, during which the student writes up the dissertation, the supervisor increases the time and effort devoted to the student.

Maxwell and Smyth's Tripartite Model of Research Supervision

In Higher degree research supervision: From practice to theory, Maxwell and Smyth (2011, p.4) advance the tripartite concept of research supervision, and they argue that while the common view of research supervision as concerned with only the dichotomy of teaching and learning was necessary, it was insufficient for a full understanding of the supervisory process. In their opinion, research supervision must be conceptualized beyond the teaching-learning dichotomy because while teaching and learning are about what is already known, doctoral research is supposed to produce new knowledge, and "the research project itself, the creation of new knowledge, is also central" to supervision (Maxwell and Smyth, 2011, p.7). That is why Maxwell and Smyth rightly conclude that research supervision is about three (3) other elements: the student, the knowledge (substantive content and research process(es), and the research project.

Roles of the Research Supervisor and Characteristics of a Good Supervisor

Brown and Atkins (1988, p. 120) identify eleven roles of the university research supervisor, some of which overlap. Whether or not a supervisor performs all these roles, and how he or she does so, largely depend on how he or she perceives his or her roles, the relevant knowledge, skills and experience he or she possesses, and other personal and contextual factors. These other personal and contextual factors include the professional or ethical integrity and motivation of the supervisor, and the overarching administrative structures, provisions and overall environment in which research supervision takes place.

According to Brown and Atkins (1988) the eleven roles of the research supervisor are those of:

- A director who determines the research topic, methodology and guiding principles;
- A facilitator who provides access to resources and expertise;
- An advisor who helps to resolve technical difficulties;
- A teacher of research techniques;
- A guide who suggests the work schedule [and procedure];
- A critic of research design and methodology;
- A liberator who allows the student to make personal decisions, and supports those decisions when they are sound;
- A supporter who encourages the student by showing interest in the latter's work;
- A manager who monitors the student's work regularly and provides prompt feedback;
- A friend who extends his or her interest to non-academic aspects of the student's life;
- An examiner of interim progress reports, chapter drafts and mock vivas.

Are all university research supervisors in Uganda aware of all, or at least enough, of these roles; and if they are, how effectively do they perform them? Similarly, are all university research students in Uganda aware of all these supervisory roles; and what is their assessment of their supervisors' performance of these roles?

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

Whatever may be the answers to the above questions, effective research supervision presupposes the existence of a supportive overall environment, and it is the responsibility of every university to create and sustain such an environment.

In the opinion of Cullen et al. (1994), a good supervisor should be approachable and friendly; supportive, with a positive attitude; open-minded and prepared to acknowledge his mistakes or weaknesses; organized and thorough; and stimulating and conveying enthusiasm for research (cited in Delany, 2009:7).

Postgraduate-research Student Completion Rates

Scholars have identified a number of factors influencing the completion rates of postgraduate-research students. For example, according to Delany (2009:5), "Significant differences in PhD time to completion (TTC) and successful completion arise between disciplines. Specifically, students in scientific areas tend to be more likely to successfully finish PhD than those in arts and humanities disciplines." This position is supported by Wright and Cochrane (2000) who "found that the only reliable predictor of successful submission was whether a student was researching a science-based or an arts and humanities-based subject" (cited in Delany, 2009:5). Moreover, according to Delany (2009:5), similar discipline-specific trends were found in Australia (Martin et al., 1999), the USA (Bowen and Rudenstine, 1992) and Canada (Seagram et al., 1998). Interestingly, according to Seagram et al. (1998), "the faster times to completion and higher completion rates associated with the sciences appear to arise from the fact that science students appear to meet more frequently with their supervisors, make an early start on their dissertation research compared to humanities, and have generally higher levels of financial support" (cited in Delany, 2009:5). For their part, Seagram et al. (1998), in their study of students at York University in Ontario, Canada, found that while there were no differences in the completion rates of male and female PhD students, the problems experienced by the students differed by gender: while male students reported suffering from academic problems or factors, females reported being more adversely affected by interpersonal problems.

Problems in Research Supervision

As we have already noted, in the opinion of Brown and Atkins (1988, p. 115), "Research and project supervision is probably the most complex and subtle form of teaching in which we engage". The research supervisor has to be skilled in enabling research students to acquire the methods and techniques of research without, however, stultifying or warping the intellectual development of the student (Ibid). Studies done in Britain indicate that university research supervision is not always adequate (SERC, ESRC, 1985 and CVCP 1985, all cited in Brown and Atkins, 1988). Among the problems cited are those associated with methodological difficulties, time management, writing- up, isolation, and inadequate supervision. According to Rudd (1985) and Welsh (1978, 1979 1980 and 1981), criticism of research supervision in Britain focuses on four areas: inefficiency, inappropriateness, fallibility and abuse of supervision.

Inefficiency in research supervision manifests itself in supervisors not taking genuine interest in their students' research, not meeting their students often enough, not giving their students timely feedback, and generally neglecting their students. This results into low completion rates and excessively long completion periods. Inappropriateness of research supervisions arises out of two tendencies. One is the tendency of supervisors to impose their outdated beliefs and approaches on the supervisee instead of highlighting the relevant competencies of both the supervisor and the supervisee. The other is the tendency of both the supervisor and the supervisee to regard the end of dissertation or thesis as more important than the acquisition of appropriate

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

research attitudes and skills by the student. For its part, the fallibility of research supervision is attributed to two factors: the lack of criteria or formal procedures for assessment, and the absence of full appeal rights for aggrieved students. Finally, supervisors are often accused of abuse of their position either through negligent supervision or through exploitative use of their supervisees as personal assistants, underpaid teachers and unacknowledged research collaborators. Some male supervisors have even been accused of sexually exploiting their female supervisees.

Other problems in research supervision arise out a mismatch between the interests of the institution and those of the supervisor, and between the personalities and approaches of the supervisor and the student. For example a university that is more interested in making money by enrolling as many postgraduate students as possible will overload, de-motivate and alienate supervisors that are more interested in academic quality than in monetary profits; and this will adversely affect the quality of research supervision. Similarly, when the personalities and approaches of the supervisor and the student are disharmonious, a problem that Edwards (2002) (cited in Delany, 2009: 5) refers to as students being at cross purposes with supervisors arises, with adverse consequences for student success. Yet other problems arise from excessive workload due to supervisors either being assigned, or themselves taking on, more teaching and supervision work than they can handle efficiently. In Uganda, this is partly due to a shortage of academic staff with doctoral degrees. As NCHE (2008, p. 39) notes, "PhD holders in academia are not adequate for the existing demand; those who choose to maintain teaching jobs are often shared on [a] part-time basis, a practice which, although good, tends to increase their workload, thereby[adversely]affecting their quality of curriculum delivery."

Another factor that partly explains excessive supervisor workloads is the emergency of a mercenary attitude to university teaching and research on the part of some academic staff. This attitude leads academic staff to simultaneously teach in multiple institutions, and take on more research students than they can supervise effectively, simply because they are more interested in the pecuniary rewards accruing to supervision than in the quality of supervision.

Apart from the problem of students being at cross purposes with supervisors that Edwards (2002) identifies, he also recognizes three other problems hindering timely PhD research completion: students finding few supporting structures; isolation; and confusion over resources (cited in Delany, 2009:5). The limited supporting structures usually include inadequate orientation procedures, library facilities and services, guidance and counseling facilities, and unclear student appeal possibilities and procedures in case a student is dissatisfied with any aspect of the supervisory process; and they can also contribute to the student's isolation as well as to confusion over resources. In Delany's (2009:6) view, while "much of the literature on graduate education and supervision has focused on the impact of student variables (e.g. age, gender and national and linguistic backgrounds), Cullen et al. (1994) found that the demographics of the supervisor population (e.g. age, gender, graduate education background and teaching responsibilities) also had a significant effect on how they conduct supervision", and thus on student success.

CONCLUSION AND RECOMMENDATIONS

Graduate student supervision in Uganda remains one of the areas that require urgent attention. At supervisee level, students need to be empowered to realize their academic rights and work with a degree of latitude and independence. On the other hand, supervisors need to close the student-supervisor gap, act as 'understanding' mentors but also be mindful of the background and context in which their students operate from. Some students operate in very dynamic environment mainly characterized economic hardships compounded by the

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

dependency syndrome, among others. The supervisor's understanding of such unique operational environment is critical as they may feel the need to do more to ensure that student gets what he/she desires to progress and complete on time. At institutional level, student centricity in all university activities should be key as students are the main clients of the institutions. Likewise, the centricity of post-graduate research should be a priorityin government educational financial planning. Earmarking a reasonable financial percentage for postgraduate research enables research students to address some of the economic hardships that afflict their academic progress

REFERENCES

Agaba, J. (2019). An algorithm to predict the completion rate of postgraduate students in public universities in Uganda. A dissertation submitted to the faculty of Computing and Informatics in partial fulfillment of the requirements for the award of a Master of Science degree in Information Systems of Mbarara University of Science and Technology, Mbarara, Uganda

Amin, M.E. (2005). *Social science research: conception, methodology and analysis*. Kampala: Makerere University.

Bell, J. (2004). *Doing your research project: a guide for first time researchers in education and social science*. New Delhi: Viva Books. Brew, A. (2001). Conceptions of research: a phenomenographic study, Vol. 26, 2002, pp.271-285

Brown, G. & Atkins, M. (1988). *Effective teaching in higher education*. London: Methuen & Co.

Browne, M. and Freeman, K. (2000). "Distinguishing features of critical thinking classrooms". *Teaching in Higher Education*, Vol. 5, No.3, pp.301-309

Cullen, D., Pearson, M., Saha, L. J. and Spear, R. H. (1994). *Establishing effective PhD supervision.* Canberra: AGPS

Delany, D. (2009). A review of literature on effective PhD supervision, Dublin: Trinity College

Dysthe, O. (2002). Professors as mediators of academic text cultures: An interview study with advisors and master's degree students in three disciplines in a Norwegian university. *Written Communication*, Vol. 19, No. 4, pp. 493-544

Evans, K.M. (1984). *Planning small scale research* (3rd ed.). Windsor, Berkshire, UK NFER-Nelson Publishing Co.

Eyangu, S., Bagire, V. and Kibrai, M. (2014). An examination of the completion rate of Master's programs at Makerere University Business School. *Creative Education,* 5(22).

Gardner, S.K. (2008). Student and faculty attributions of attrition in high and low-completing doctoral programs in the United States. *Higher Education*, 58, 97-112

Gurr, G. M. (2001). Negotiating the "Rackety Bridge": AS dynamic model for aligning supervisory style with research student development. *Higher Education Research & Development*, Vol. 20, No.1, pp.81-92

Inter-University Council of East Africa (IUCEA 2018) Standards and Guidelines for Postgraduate Studies in East Africa

Johnson, D.W. and Johnson, R.T. (2001) Constructive controversy: energizing learning. https://www.researchgate.net.publication/232429064 (accessed on 13 September 2019)

Kimani, E. N. (2014). Challenges in quality control for postgraduate supervision. International Journal of Humanities, Social Sciences and Education (IJHSSE), Vol. 1, No. 9 pp. 63-70 www.arcjournal.org

Article DOI: https://doi.org/10.37284/eajes.8.2.2969

Lategan, L.O.K. (2008). *An introduction to postgraduate supervision.* Stellenbosch, South Africa: African Sun Media

Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Journal of Studies in Higher Education*, Vol,33, No,3, pp.267-281

Maicibi, N. A. & Kaahwa, Y. (Eds.). (2004). *Graduate studies supervision at Makerere University: ABook of Readings*. Kampala: Netmedia Publishers.

Martin Y. M., Maclachlan, M. and karmel, T. (1999). Postgraduate completion rates. 2001D Occasional Paper Series, Higher Education Division, Department of Education, Training and Youth Affairs

Maxwell, T.W. and Smyth, R., "Higher degree research supervision: From practice to theory*", Higher Education Research and Development 30(2), 2011* http://www.informaworld.com/openurl?genre=journal&issn-0729436 (Retrieved on 7 December 2020)

National Council for Higher Education (NCHE). (2018). *The state of higher education and Training in Uganda 2016/17*. Kampala, NCHE.

National Council for Higher Education (NCHE). (2014). Benchmarks for postgraduate studies. 2014. Kampala, NCHE.

Phillips, E. M. & Pugh, D. S. (1999). *How to get a PhD: A handbook for students and their supervisors.* New Delhi: Via Books.

Rudd, E. (1985).*A new look at postgraduate failure.* Guildford, UK: SRHE/NFER-Nelson.

Taylor, P. (1995). Postgraduate education and open learning: Anticipating a new order. *The Australian Universities Review,* 38, 28-31.

Ssenyonga, J. and Nakiganda, P.B. (2020). Postgraduate student research realities in Uganda, In *Postgraduate research engagement in low resource settings,* DOI:10.4018/978-1-7998-0264-8.ch009.

Wamala, R., Ocaya, B. & Oonyu, J.C. (2012). Extended candidature and non-completion of a PhD at Makerere University, Uganda. *Contemporary Issues in Education Research,* 5(3), 174-184.

Welsh, J. (1978). The supervision of postgraduate research students. *Research in Education*, 19, 77-86.

---------- (1979).*The First Year of Postgraduate Research Study*.Guildford, U.K: Society for Research in Higher Education.

---------- (1980). Predicting postgraduate performance. *Notes on University Teaching*, 1, 1-4.

---------- (1981). The PhD. student and work. *Studies in Higher Education*, 6 (2), 159-162.

