Doctoral Education in Context

Perspectives from Africa

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CHAPTER 21

Supervisor–student relationship as a determinant of PhD thesis quality at the University of Buea, Cameroon

Sophie Ekume Etomes

Cameroon, in West Africa, has a population of approximately 28.5 million. The country has 11 public universities and 244 accredited private higher education institutions under the mentorship of state universities (Ministry of Higher Education, 2017). Only two private higher education institutions have accreditation to run doctoral programmes, while all state universities offer doctoral programmes.

The **University of Buea** is the first Anglo-Saxon university in Cameroon, established in 1993 with 768 students in four units (three faculties and one school). In 2022, it had grown to a student population of 19 331 with 672 academic staff members hosted in 11 units (eight faculties, two colleges and one school). Between 2020-2022, the University of Buea produced 211 doctoral graduates across six faculties and in 2023 it had enrolment of 154 doctoral candidates.

1. Introduction

Higher education institutions in Cameroon began with the creation of the first state university in 1962, the Federal University of Cameroon, following presidential decree 62DF/289 of July 1962. Thirty-one years later, the 1993 reforms on higher education created six state universities. Today, Cameroon has eleven state universities with three newly created ones with respect to Presidential Decree No. 2022/003 of 5 January 2022 and a host of private higher education institutions. Currently, 10 higher education institutions produce PhDs in Cameroon, eight state universities and two accredited private higher education

institutions in varied disciplines. With the creation of more higher education institutions, there is a need to train many more PhDs to strengthen the capacity of these institutions. But training alone is not enough, the PhD graduates are expected to be of high quality. To that end, this study considers supervisory relationship as a major factor. Effective supervisory processes will reduce attrition rate, provide students with in-depth knowledge in a particular field of study and research, and lay a solid foundation for continuity as today's graduates are tomorrow's supervisors.

In executing any project involving more than one person, the quality of the relationship and collaboration between parties have an impact on the project outcome. This is not different in the case of doctoral supervision, and perhaps even more so, since supervision is considered one of the most influential factors in the doctoral experience (Sverdlik et al., 2018). The student–supervisor relationship is a key issue in doctoral education, as identified by Jones (2013) after examining 1 995 papers written over 40 years (1971-2012) on doctoral studies. He emphasised that the supervisory relationship is likely have a significant impact on the doctoral candidature regardless of any other element that may support it. This interaction not only determines how students acquire knowledge and research skills, but also influences doctoral student completion and attrition rates (Doloriert et al., 2012). Therefore, while the educational institution plays a notable role in shaping the doctoral student into a future academic or practitioner (McAlpine & Amundsen, 2012), it is the doctoral supervisor who is fundamental to this transition and in refining the future roles that these future expert researchers will play in society and academia.

The study reported in this chapter investigated the relationship between a supervisor and student and its effects on the quality of the doctoral thesis. The study was guided by the following three research objectives: examine the effects of (1) policy regarding choice of supervision, determine how (2) supervisor–student contact hours and (3) feedback affect the quality of a PhD thesis. An exploratory survey research design of quantitative approach was adopted for the study. Open-ended questionnaires were used to collect data from 56 participants: 32 PhD students and 24 PhD supervisors from varied disciplines in the University of Buea. The findings indicated that the allocation process for pairing students with supervisors, the frequency of student-supervisor contact, and the quality of feedback are key components of the supervisor-student relationship that significantly influence the quality of PhD theses produced. Effective supervisory processes may reduce attrition rates, provide students with in-depth knowledge in a particular field of study and research, and lay a solid foundation for continuity of graduates as future supervisors.

2. Background to the study

The Doctor of Philosophy (PhD) qualification is acknowledged as the engine of knowledge production of economies across the world (Confait, 2018), but the quality and tempo of knowledge created therein remain concerns. Many economies, including Cameroon, have put in major efforts to increase the production of PhDs. In the case of Cameroon, this effort is aimed at attaining its vision to become a middle-income country by 2035. As such, over the past six years, there has been an increase in the enrolment and production of PhDs in Cameroon. An example is the case of the University of Buea, as seen in Table 1.

Table 1: Trends in the Production of PhDs at the University of Buea (2010-2019)

Year	2010	2012	2014	2015	2017	2019
No. of PhDs	5	10	7	21	40	24

It is evident on Table 1 above that the production of PhDs has been increasing considerably every year. This growth has raised concerns for the production of quality theses, which of course requires quality supervision. The supervisory process is the most relevant aspect of a PhD journey and the quality of relationship between the supervisor and the PhD student determines the quality of supervision, the end product (thesis), and the potential of the student as an emerging researcher.

The relationship between the doctoral supervisor and the student is a complex one. When this relationship is neither effective nor efficient, it will yield negative consequences: a delay in completion of the doctoral programme, student dropout and a breakdown in interpersonal relationships between supervisor(s) and supervisee are common outcomes (Diamandis, 2017). Katz (2016) added that a poor supervisor–supervisee relationship can ruin a doctoral project regardless of other elements that may support it. In this relationship, the supervisor(s) has more institutional and knowledge power than the student, especially in making decisions. Quality research and skills of doctoral students are assets to universities for continuity, and to communities for societal development and improvement. In addition, the quality of an institution and society is determined by the quality of its graduates. It is accepted that an effective supervisor–supervisee relationship is more likely to produce a PhD of acceptable quality. However, we observe in the Cameroonian context that many students take long to complete, many more drop out, while others end up producing theses of questionable quality. These problems necessitate an investigation for which the following specific research objectives were set:

1. To examine the effect of policy regarding choice of supervisor on the quality of theses.
2. To determine how supervisor-student contact hours affect the quality of theses.
3. To find out the effect of feedback on the quality of theses.

3. Literature review

While a significant volume of literature exists conceptualising and theorising supervision, empirical research on determinants of supervisors, the process of supervision, its challenges and outcomes remain limited, particularly in the broader African context. Pyhältö et al. (2015) suggest that the fit between the students' and supervisors' perceptions of supervisory activities was related to students' satisfaction with their studies and the supervisory relationship. Similarly, Ives and Rowley's (2005) longitudinal study on the patterns evident in the relationships PhD students and supervisors developed highlighted the allocation of supervisors to students and continuity of supervision in relation to student progress and satisfaction with supervision as key to student success. Results revealed that students who felt involved in supervisor selection, whose topics were matched with their supervisor's expertise, and who developed good interpersonal working relationships with supervisors were more likely to make progress in their studies and be satisfied with the supervisory process. In a related study, Van Rooij et al. (2019) studied factors that influenced PhD candidate success and found that the quality of the student–supervisor relationship depended on the doctoral student's sense of belonging, the amount of freedom in the project, and working on a project closely related to the supervisor's research area were positively related to satisfaction and negatively correlated with dropout intentions.

Recently, Omona (2020) examined cordial relationships (pleasant, genial affective, warm, jovial and amiable characterized by respect, trust, freedom and friendship), conflictual relationships (no harmony between parties which may emanate from gender, power dynamics, age differences, content knowledge, lack of emotional awareness, unethical behaviour, disrespect, lack of motivation and cultural issues) and mixed relationships (prone to both cordiality and confliction caused by mood swings, behavioural change and attitude of either the supervisor or supervisee) as indicators of supervisor–student relationships

that can possibly affect doctoral students' completion rates. Findings revealed that all three types of relationships determine students' completion rates. Masek (2017) highlighted deliberative, sceptical and trustworthy relationships as determinants of quality of supervision. I believe that trust is built when both the student and the supervisor fulfil their respective roles effectively.

The studied literature revealed that the field is underexplored in the African context and the studies surveyed did not look at the three objectives mentioned above, and particularly not from both student and supervisor perspectives. No study of this nature known to the researcher has been conducted in the Cameroonian context. While this presents a problem, it also justifies research into this field in Cameroon.

4. Methodology

An exploratory survey research design of quantitative approach was adopted for the study. Open-ended questions were used to collect data for the study. Relationships are complex. As such, in-depth information was required to understand, qualify and clarify these complex issues between supervisor and supervisee. The sample population comprised 32 PhD students (out of 54) and 24 PhD supervisors (12 senior lecturers, 8 associate professors and 4 professors, out of a population of 34) drawn from various disciplines (arts, education, sciences, and management sciences) at the University of Buea, Cameroon. Proportionate, purposive and snowball techniques were used to this end. Only PhD supervisors with at least two years of experience and only PhD students who had started research work in 2019 were selected for the study considering that these students must have worked with their supervisors for at least one year following the university curriculum. Data for the study were collected in August 2020. Policy documents on supervision from the Cameroonian Ministry of Higher Education, which is applicable to the University of Buea, and other empirical study findings were used to corroborate data obtained from questionnaires. Quantitative content analysis was used to analyse the data. This includes themes and frequencies or groundings. Themes are umbrella words which capture the main idea of the participants' statements with respect to the research questions, while frequency represents the number of times that a particular theme/concept surfaces from the direct statements of the participants. Ethical approval was given by the University of Buea research unit.

5. Findings and discussion

5.1 Policy on choice of supervisor and quality of supervision

In this section, the study sought to find out whether (1) students choose their supervisor(s); (2) the allocation process takes into consideration the supervisor's area of specialty; and (3) the number of supervisors allocated to a student. Policy documents on supervision were analysed alongside results from the data collected.

In Cameroonian universities, the selection of candidates for supervision is defined by the Ministerial Order No. 18/00617/MINESUP/SG/DAJ of 2018 that spells out the modalities for the allocation of PhD and master's students to supervisor(s). Section 2 article 3 of this policy document states that supervision is designated by the head of the university following a proposal from the dean or director of the faculty or school respectively, after the student has successfully completed their course work. Section 2 article 4 of the document stresses that supervision should respect the area of specialty and the ethical/moral attributes of the supervisor, while article 9 of section 3 holds that students can choose their supervisors, as long as their choice is mindful of the number of students per supervisor. It further encourages co-supervision across disciplines depending on the student's area of interest. The number of students allocated to a lecturer is entirely dependent on the number of teachers in the disciplines, number of theses to be supervised, mobility of the lecturer, and workload. Nevertheless, lecturers cannot supervise more than ten theses at any point in time (according to article 11(1), section 3). In terms of the policy document, students are therefore expected to select their supervisors based on their research interests, while the final allocation is done by the academic department taking into consideration the workload and expertise of the supervisor.

While the policy document clearly addresses the above three questions on selection, specialty of supervisor and the number of supervisors allocated to a student, the extent of application may vary and may determine the outcome of the supervisory process and the quality of the thesis produced, which is detailed below.

5.2 Choice and specialty of the supervisor

This section examines whether students choose their supervisors, if the supervisor's specialty is in line with that of the student, and its effects on the

production of quality thesis. Table 2 presents the views of students on the choice and specialty of the supervisor.

Table 2: Students' views on the choice and specialty of supervisors

Themes	Frequency	Sample quotations
Supervisors assigned to students by area of interest/choice	24	"Students are assigned to supervisors according to their area of interest." "Students are allocated to supervisors of their choice. This is so because students will work with those they best understand, making the process less stressful to supervisees." "Students are allocated to supervisors with explicit knowledge of their topic." "Well, I am comfortable with my supervisor because he is an expert on my research area." "I think the procedure used by the faculty is appropriate but it is advisable to listen to a student who in the course of working with the supervisor encounters difficulties which are beyond their control." "The policy is good because it links the student to the supervisor who has mastery of the student topic."
Proposed supervisors not respected	8	"The policy is not the best because most at times, the supervisors proposed are not the ones given to the students." "Some students are allocated to supervisors who were not amongst the ones chosen to work with." "Students' opinion needs to be taken into consideration but this is hardly done as students are at times assigned to supervisors which they did not choose."
Supervisors assigned to students not based on specialty/outside their faculty	6	"According to me, students and supervisors should be based on the field or domain of studies. A student carrying out research on a particular field should be assigned to a competent supervisor within the field but this is not the case as students are forced to work with supervisors out of their faculty." "Students should be allocated following the area of research."
Students' choice based on personal relationship	5	"Allocation of supervisors should not be based on students' choice because some may choose supervisors with whom they are emotionally or socially related and this will affect the quality of research work." "When allowed to make a choice, most students choose their supervisors based on personal interest and do not bother about the quality of the thesis."

Table 2 above shows that while some students (n=24) reported that supervisors are assigned to students based on students' choice and area of study, others (n=8) indicated that students are assigned to supervisors that they did not propose/choose as reported by some of them. Some of the students (n=6) also reported that supervisors are allocated to students who are not from the students' department/field of study. When asked if they would prefer a situation where students are allowed to choose supervisors, five students (n=5) were of the opinion that students should not be given the right to choose supervisors because some might choose supervisors based on affinity.

The students' findings are in line with that of the supervisors (n=24), who agreed that while students are allowed to propose supervisors, the final allocation is done by the department taking into consideration the specialty of the supervisor, workload of proposed supervisor and availability of staff. When all these factors are put together, some students end up with supervisors they proposed, while others are allocated to other qualified staff members. Some supervisors (n=6) also revealed that some students' selection of a particular supervisor is not often motivated by specialty but based on other subjective variables such as social relationships/personal attachments and other affiliations, and the supervisor's achievements in graduating students. Nine supervisors (n=9) also acknowledged that students are sometimes supervised by supervisors outside their area of specialty, but that this decision is often based on what some of them termed 'the situation on ground' which included limited staff, the fact that those proposed by students may be overloaded, and that the topic may not be of interest to any supervisor in the academic department. In such situations, colleagues in associated fields are co-opted as supervisors. There is also the fact that the number of doctoral students successfully supervised by an associate professor determines his/her promotion to the rank of professor, which has also determined the allocation of students to various supervisors.

Given that Ives and Rowley (2005) found that students who felt involved in supervisor selection, whose topics were matched with their supervisor's expertise, and who developed good interpersonal working relationships with supervisors were more likely to make good progress and be satisfied, the practice of involving students in the selection process should constitute best practice. Nevertheless, students who select their supervisors on the basis of personal reasons could run the risk of being supervised by academic staff members who have little expertise in their area of research (Gube et al., 2017). It is therefore the duty of the university administration to ensure that policy is implemented for the production of quality theses.

The findings indicated that the policy is being implemented. However, it was largely accepted by respondents that aspects such as limited staff and co-opting supervisors from associate disciplines may negatively impact the supervisory process. The respondents also agreed that supervisors in the associate professor rank put in more effort in terms of quality and duration of supervision than supervisors who had already attained professorship. That notwithstanding, it was revealed that some theses defended within the timeframe prescribed were of poor quality because the supervisors were eager to use the candidates' successful completion of studies for promotion to the rank of professor. A similar situation is presented by Davis (2019), where newly graduated PhDs

were quite bitter that supervisors were more interested in the students' work for the purpose of adding publications to their curriculum vitae rather than focusing on the students' progress.

5.3 The number of supervisors allocated per student

The policy on the selection and allocation of PhD students to a supervisor recommends a maximum of ten PhD students per supervisor and encourages co-supervision (section 3, article 11(1)). I think 10 PhD students per supervisor is too much for quality assurance. Considering that most supervisors also have other master's students to supervise and administrative duties, this may be too many to handle which may affect the time spent with students, ability of in-depth review of students' work, and building a working relationship with students. This study supports the work of Gube et al. (2017), which viewed supervisor expertise as key to the development of 'insider' knowledge of doctoral research and for doctoral students to develop expertise in a particular field of study. Apart from research direction, some discipline-expert supervisors were able to give students content-related feedback. Although the alignment between the research interests of doctoral students and supervisors is desirable (Moxham et al., 2013), matching the research expertise between supervisors and doctoral students can be challenging partly due to the rising number and diversity of students enrolled in postgraduate research programmes (McCallin & Nayar, 2012).

When asked about the number of supervisors assigned to each student, a majority of the students (n=28) indicated that they were supervised by more than one supervisor. This finding is in line with section 3 article 10(1) of the policy document. Nevertheless, four of the students (n=4; 13%) were each allocated a single full professor supervisor. It is usually said 'two heads are better than one'. In research supervision, allocating more than one supervisor per student has the tendency of improving the quality of the thesis, especially in research work that is multidisciplinary. But the specialty of the supervisors and extent to which they agree and disagree on the thesis process also determines the quality of a thesis produced under co-supervision. Wisker and Robinson (2013) see co-supervisors as relevant to make up for colleagues who may be on leave, sick or busy with other administrative responsibilities, thus avoiding abandonment of the student. Co-supervision in addition provides an opportunity for experienced colleagues to train junior academics and early-career researchers (Guerin, 2021). Table 3 depicts supervisors' views on the number of supervisors assigned to a student and the justifications thereof.

Table 3: Number of doctoral students assigned to supervisor(s)

Number of doctoral students assigned to supervisor(s)	Frequency	Reasons	
		Themes	Sample quotations
Two	18	Mentoring of lecturers	"Two supervisors for a junior colleague to be mentored by a senior colleague." "Usually, two supervisors mentor the lecturer." "Two because we practise mentorship of younger colleagues in supervision as well." For mentoring in the case of PhD."
		To improve on work quality	"Usually, two to improve on the quality of the work."
Three	12	Few numbers of candidates	"Three depending on the number of candidates." "Depending on the number of students available."

With respect to the number of supervisors allocated per student, eighteen supervisors (n=18) reported that the number of supervisors assigned to doctoral students is two which is in line with findings from students. One of the major objectives of co-supervision is to encourage mentorship of less experienced colleagues by the experienced and also to improve on the quality of the thesis. This is in line with the study of Guerin (2021) that mentorship is relevant in the supervisory process. Also, some of the doctoral supervisors (n=12) indicated that three supervisors are sometimes assigned to students, which largely depended on the number of students available. That is, the fewer the number of students, the more the number of supervisors per student. This is to ensure that all those eligible for supervision have a student from each batch of admission.

5.4 Student–supervisor contact and quality of thesis

Student contact with supervisor is relevant for guidance, follow-up and intellectual input to their research. During such meetings, the students can discuss their challenges in the research process which stimulates critical thinking. The frequency and purpose of the meeting may determine the quality and duration of completion of the research project. Table 4 depicts students' views on the frequency and substance of their meetings with their supervisors.

Table 4: Students' views on the frequency and substance of supervisory meetings

Frequency of meeting	Frequency	Purpose of meeting with supervisor(s)		
		Themes	Frequency	Sample quotations
Once a month	24	To get directives and correction of work	24	"For corrections and to collect instruction on more exercises". "To discuss corrections of the work done so far". "To provide feedback on corrections". "Corrections and guidance". "Directions and corrections". "To discuss and correct the work".
Twice a month	14	Discuss work progress	10	"Discussion on the progress of the thesis". "To know how far the research has gone". "To discuss the progress of the work". "To discuss research and other teaching and learning issues". "To find out the students' progress with the assigned task".
Very often	8	Clarification of doubts	8	"Clarification of doubts". "To ask questions to enhance understanding".
Twice a week	6	Discussion of supervisors' feedback	6	"To discuss feedback made by the supervisor". "To discuss the comments he made on my work and to guide the structure". "Meetings are to discuss the correction and the way forward".
Not very often	2	To address difficulties	2	"To address the difficulties encountered". "To ask for a way forward when I get stock".
Once a week	2			
Twice in four months	2			

Table 4 suggests that most of the students do not have a scheduled time of meeting with their supervisor(s). Of the total sample, 24 students have meetings with their supervisor once a month, while 10 students reported that they have meetings with their supervisor(s) twice per month, and 6 students discussed their work with their supervisors up to twice per week. The rest of the student respondents either have weekly meetings (n=2), or only twice in four months (n=2). Based on the purpose of the meeting, there was a general consensus that meeting with the supervisor enabled students to get valuable feedback and to discuss the progress of their work. Clarifications of doubts, discussion of supervisor feedback, and addressing difficulties faced were other reasons for student–supervisor meetings. This implies that, on average, the majority of the students have contact with their supervisors once every two months, but that there is quite a variation in the frequency of supervisory meetings across the sample. This result is in line with Heath's (2002) research, who argues that

the success of the PhD student heavily depends on the supervisors, who must provide the time, expertise and support to foster the students' research skills and attitudes, and to ensure the production of a thesis of acceptable standard. Importantly, he concludes that although the frequency of meetings between supervisors and students is essential, the quality of these meetings is even more so (cf. Li & Seale, 2007). Table 5 depicts students' views on the factors that affect students' contact with their supervisors.

Table 5: Students views on factors that affect students' meeting with supervisors

Themes	Frequency	Sample quotations
Unavailability of supervisor(s)	24	"His busy schedule and long distance make him unavailable all the time". "At times, he is not available". "Most often, they get busy when we need them". "He is too busy, hence as we move along, the frequency reduces". "My supervisor is very busy with other duties and hardly finds time to read the work. So, delay the process".
Imposing attitude from supervisor	8	"At times, he imposes his ideas on me" "He does not take the student's perspective into consideration".
Lack mastery of supervisee work	4	"My supervisor is not from my faculty and she does not really have a mastery of my research area". The fact that he is an administrator and I am a special education student made us have some challenges".
Unclear corrections	4	"He does not take time to explain corrections to be effected in a particular task. His corrections are sometimes not clear enough". "Lack of understanding of correction makes you stay in the same spot for a long period of time".
Supervisor not from supervisee department	2	"We are not from the same department". "Differences in opinion because our research interests differ which usually spurs conflict and tension between my supervisor and I.
Resistance of supervisor to new knowledge	2	"Supervisor is not flexible and resistant to update knowledge on new approaches while forcing students to stick to old principles".
Supervisors do not critique	2	"The supervisor corrects very little on the work and does not challenge me with questions".

When asked about the factors that affect students' contact with their supervisors, unavailability of supervisors was the most frequently mentioned challenge (n=24). This finding supported the study of Pearce et al. (2006) on throughput rates at one South African university, which found that only one out of 15 students interviewed had easy supervisor access, with 12 claiming inadequate contact. Frequency of contact can impact student motivation, build a cordial supervisor–student relationship, and create opportunities for better understanding of feedback. It is also an opportunity for students to contribute productively to the research process for quality output. But irregular contact

may lead to what Wisker and Robinson (2013) called 'doctoral orphans', which demotivates supervisees and delays their completion.

Eight (n=8) students reported that some supervisors impose their own ideas on students without taking into consideration students' own ideas. Research is a learning process for both the student and the supervisor. Students' contribution in a research project is relevant to stimulate their intuition, motivation and critical thinking which encourages the development of their scholarship. Student contribution is also relevant for the production of quality theses and to enable students to become independent researchers. The acknowledgement by both the supervisor and the supervisee that they are learners and therefore bringers and givers of knowledge could help support this process (Omona, 2020, p. 23).

Other factors mentioned included a lack of mastery of the supervisor's work (n=4), unclear corrections (n=4), resistance to new knowledge (n=2), and inadequate critical review of the work by supervisor (n=2). Unclear corrections and inadequate critique depend on the type of feedback that students receive from their supervisors. Students are expected to have discussions with their supervisors after corrections to enable proper understanding and for the student to properly effect corrections. Discussion of thesis corrections with the supervisor also enables the supervisor to better understand the student's work.

While students have their challenges, supervisors also expressed factors that affect their contact with students. Table 6 presents supervisors' views on the factors that affect their contact with students.

Table 6: Supervisors' views on factors that affect meeting with their students

Themes	Frequency	Sample quotations
Long duration to effect correction	8	"Some students take too long to make corrections". "Their inability to respect deadlines". "They usually delay in responding to feedback" "Time consciousness and meeting up with deadlines is a major problem".
Non-respect of deadline	6	"Some students do not respect deadlines". "They find it difficult to respect deadlines and schedules". "Meeting deadlines is a major challenge".
Non-respect of correction	6	"Some students do not follow corrections". "Rejection of new ideas and resistance to change".
Poor mastery of topic	3	"Some students have a poor mastery of their topic".
Laziness by supervisee	2	"Laziness on the part of some supervisees
Inconsistency	2	"Inconsistency in research".

From the results presented in Table 6, eight supervisors (n=8) reported that students take longer to effect corrections, while some students do not respect deadlines and corrections (n=6), lack adequate mastery of the topic (n=3), have inconsistencies in their work (n=2), or are deemed lazy (n=2). Such attitudes towards the research project also have a tendency of affecting the supervisor's attitude. Supervision requires input from the supervisor and the student, each has to fulfil their responsibilities and play their roles for effective outcome of the project.

5.5 Feedback and quality of supervision

Feedback is an important aspect in the supervisor–student relationship. It is through feedback that the student can understand that writing is a form of learning, as revising drafts after feedback can lead to a process of discovery, an integral part of PhD education. Feedback also allows the supervisee to engage in critical thinking and writing; thus, communicating ideas (Kumar & Stracke, 2007). In the present study, three aspects of feedback were examined: type of feedback, scheduled time for feedback, the regularity and duration of contact time on feedback, and discussion and challenges that the students encounter in the supervisory process. Table 7 presents the type of feedback that students receive from their supervisors as related by students and supervisors.

Table 7: Types of feedback students received from supervisor

	Feedback students received from supervisor		**Discuss feedback with supervisor**
	Types of feedback	**Frequency**	
Students' views	Verbal	2	
	Written Both	6 24	Yes (n=32)
	Total	**32**	
Supervisors' views	Verbal, Written and Discussion	To enhance understanding of correction/ follow up	"Verbal, written and discussion in case the student does not understand the written comment and has questions to ask". "Written and discussion for concrete and proper follow up". "I use all three methods to enhance the student's understanding as much as the quality of the work". "All of them to better cover loopholes".

The findings from Table 7 show that out of the 32 students sampled, 24 received both verbal and written feedback from their supervisors, while only 2 received exclusively verbal feedback, and 6 received exclusively written feedback. All the students (N=32) agreed that they have a discussion with their supervisors after receiving feedback. On the side of supervisors, they agreed that they used verbal, discussion and written feedback because they wanted to enhance students' understanding of corrections and follow up actions required. They all agreed that discussion facilitated understanding of written and verbal feedback and also encouraged critical thinking in students.

The ability of students to understand feedback also depends on the duration taken to effect corrections. If students take a longer period than expected to effect corrections, they may lose focus. However, the ability of students to effect corrections on time depends on the timeframe given by the supervisors which may vary depending on the stage in the research process. Table 8 presents supervisors' views on scheduled time for feedback.

Table 8: Supervisors views on timeframe for feedback

Scheduled time for feedback		Themes	Frequency	Sample quotations
No	16	Pace	10	"No, they should work at their pace and get material they are requested to get".
		Students perceived as workers	6	"No. Many of the students are workers and have other responsibilities".
Yes	8	To sustain quick response to correction	8	"One week so that they do not forget the subject and keep up the trend". "Yes, in general, respect of deadlines is the hallmark of a good researcher". "I set deadlines and time frames for each section of the work".

When asked if supervisors had a scheduled time for feedback, most supervisors (n=16) reported that they do not. They also revealed that not having a fixed schedule enabled students to work at their own pace. On the contrary, 8 supervisors argued that scheduled time for students to respond to feedback ensured quick response to corrections, so that they do not forget what was discussed, and learn good scholarly habits. Table 9 presents students' views on feedback received from their supervisors.

Table 9: Students' opinions on feedback received from supervisor

Themes	Frequency	Sample quotations
Good	31	"Very good and efficient". "The feedback I received from my supervisor is good and I have learnt from it". "The feedback is generally positive because it provides a platform for understanding and continuity". "Feedback is generally good as I learned so much from him". "Very good and supportive". "Good and enlightening". "Feedback from my supervisor makes me work harder".
Not good	7	"Supervisors should try as much as possible as they can to first understand the student's reason for choices so as to know how best to make them understand the feedback they give". "Much time should be taken by supervisors to make the student understand clearly the feedback being given, rather than assume that the student has been taught research or will read books and understand". "Poor supervisor-supervisee relationship".

Findings from Table 9 show that while some of the students (n=7) reported that the feedback received from their supervisors was not good because of a poor supervisor–supervisee relationship, supervisors did not take time to read the work, and feedback was usually not clear, a majority of student respondents (n=31) indicated that feedback from their supervisors was of a high quality. Table 10 presents challenges in understanding feedback as presented by students and supervisors.

Table 10: Challenges students encountered in understanding feedback from supervisors

	Themes	Frequency	Sample quotations
Students' views	Unclear feedback due to supervisor not being a specialist in the field of study	10	"The fact that I have a different background from my supervisor, e.g. Special Education and Educational Administration, it is very difficult for me to understand his feedback". "My greatest challenge is that she does not understand my research area because we are from different departments".
	Clarity	8	"His feedback sometimes is inexplicit".
			"I find it difficult to understand some principles
			because of the limited explanation or corrections he
			makes".
			"I usually received mostly written feedback which
			is usually not explicit. Therefore, I am forced to
			work with other lecturers for better understanding".
	Inadequate	4	"The main supervisor does not always read the
	correction from		work to correct where necessary".
	supervisor		
	Feedback relating	4	"Since my supervisor is not from my faculty, she
	to supervisors'		tends to explain feedback on my variables relating

	Themes	Frequency	Sample quotations
	field of study		to her own area of study".
	Language barrier	2	"Language barrier since my supervisor has a
			French background. He finds it difficult to
			communicate the ideas he has on his mind".
	Imposing attitude	2	"Some supervisors refuse to exhibit flexibility and
	from some		do not consider opinions from students".
	supervisors		
Supervisors' views	Disregard for certain feedback	10	"Hard time accepting certain aspects of feedback that might be contrary to their opinion, etc." "Most students claim to have understood but repeat the same errors". "Assimilating new ideas and introducing new materials is a major challenge". "Some students do not take all corrections into consideration". "Misinterpretation of feedback".
	Misinterpretations	6	"They usually find it hard to understand the procedures".
	Unclear correction	4	"The comments or feedback may not be clear or may be different from what they know". "I have observed that written feedback without discussion makes students interpret feedback wrongly".
	Timeframe	4	"Some students take too long to make corrections. Sometimes the supervisor could not remember the details". "Some students take two months just to effect corrections which demotivates the supervisor, especially at the introductory chapter"

Some of the challenges faced by students in understanding feedback from supervisors include unclear feedback, misfit in the area of specialty/field of study, inadequate corrections, language barriers for supervisors of French background, imposing attitude from supervisors, and contradiction between supervisors for candidates that have more than one supervisor. On the part of the supervisors, the findings showed that non-respect of corrections, misinterpretation and unclear corrections were the most common challenges students face in supervisors' views. Supervisors also reported that many of their supervisors take long to effect corrections, do not respect deadlines for corrections, lack adequate mastery of their study topics, are inconsistent and seem to be lazy. Therefore, the attitude of the supervisee towards their work also affects the relationship with the supervisor.

A crucial element in becoming independent is effective feedback (Lantolf, 2000). In examining feedback for postgraduate students, East et al. (2012) explain that what students may wish to receive by way of feedback may differ from what supervisors give, thereby creating potential tension in the

relationship and hindering effective learning. Effective commentary on students' work is a key characteristic of quality teaching (Ramsden, 2003), and supervisors' constructive and detailed feedback on written work has been identified as a key characteristic of good research supervision (Engebretson et al., 2008). One of the ways that students can easily understand feedback is to work in groups with other doctoral students. According to McKenna (2017), the traditional model of supervision in which the single scholar charts their individual research path is giving way to a more collaborative learning environment. She emphasised that doctoral programmes in which communities of scholars work together enable the conceptual depth expected at the doctoral level. This approach has the tendency to improve on the quality of theses produced. Table 11 presents students' views on research communities.

Table 11: Students working with other doctoral students in the research process

Work with other students	Themes	Sample quotations
Yes 20	Editing of work	"Yes, I do. When I write, give some of my mates to read for editing".
	To seek help	"Yes, I seek help when I get stuck". "They are students who are experienced in research and I often seek their advice when I am struck". "Since my supervisor was not from my area of study, I had to work with other students". "Yes, since nobody knows all, when I encounter difficulties, I work with my mates and even when I am right, we discuss it". "Yes, I do because I am going to get the right direction, some mistakes they see that my supervisor did not".
	Sharing of ideas	"I relate with some of my mates to share ideas".
No 12	Working on different research topics	"No, because we have different research topics".

Findings from Table 10 above show that a majority of the doctoral students (n=20) indicated that they work with other students for editing of their work, sharing of ideas and seeking help from other sources. Some of the students (n=12) reported that they cannot work in a group because they are working on different research topics.

The findings from the students are similar to that of supervisors. While the majority of the supervisors encouraged a research community for students, some did not see the need. The findings are depicted in Table 12.

Table 12: Supervisors' views on how their supervisees work

Supervisees work in team	Reasons	
	Themes	**Sample quotations**
Yes 15	To increase self- efficacy	"Yes, discussing their difficulties to increase self-efficacy and to enable them to move ahead'.
	To enhance collaboration	"To provide feedback to each other in a bid to avoid making the same errors and corrections". "They discuss their projects and share related materials". "I give them some little tasks to work as a group and to foster collaboration among them".
No 9	Differences in topic and methodologies	"They work individually as per their topic and their pace after receiving an orientation as a group". No, but most often advised to consult each other for peer supervision". "They preferred to work individually because they have different research topics, methodology and study area".

Findings from Table 12 show that while some supervisors (n=15) encouraged their supervisees to work as a team to increase their self-efficacy and to enhance collaboration among them, others (n=9) did not because their students worked on different topics and used different methodologies. Though students may be working in different projects and methodologies, sharing a project problem and methodological issues with other researchers gives students a sense of belonging, which Van Rooij et al. (2019) found to be positively related to satisfaction and negatively related to dropout intentions of students. Working in a team can help students to break through major challenges in the research process.

In addition to the research community, the kind of support that students receive from supervisors facilitates their understanding and reply to feedback. Table 13 depicts the kind of support students received from their supervisors.

Table 13: The kind of support students received from supervisors

	Themes	**Frequency**	**Sample quotations**
Students' views	Academic support	20	"Academic support". "Purely intellectual support". "Academic support like skills in scientific writing and publishing". "Mostly academic support (Sources of research materials)".
	Moral support	10	"Moral support". "Moral and academic support". "Encouragement".
	Guidance/directives	10	"Guiding me on how to go about with my research work". "Suggestions on how to tackle the research topic". "Advice on how to do research sometimes". "Professional support". "He advised me on how to go about everything in the research process".

	Themes	Frequency	Sample quotations
	Material support	6	"Sometimes he gives me some documents to use for my work". "Material support". "Supply of relevant books".
	Financial	2	"Financial and academic".
Supervisors' views	Material support	16	"I get resources for them". "Documentation from the Internet". "Assist with books and other materials". "Research materials". "Provide them with materials and information".
	Counselling	3	"I send them links to journals and online materials, documents, and books". "Counselling". "Advise how to handle personal issues while undertaking research".
	Encouragement	1	"Encouragement".

The findings on Table 13 show that, in terms of support, students received mostly academic, material, followed by moral support, directives, and lastly, financial support and encouragement. Supervision is much more than reading a student's work and providing feedback for corrections. Students need support from the supervisor to effectively respond to feedback as seen on Table 13. This supports the findings of Le et al. (2021), that the supervisor helping a PhD student is one of the factors that were positively associated with PhD students' satisfaction with the supervisor's supervisory style.

5.6 Challenges faced by students and supervisors in the supervisory process

Exploring the challenges faced by students and supervisors in the supervisory process informs current practice on how to improve on the supervisory process. Table 14 captures the views of supervisors and students on the challenges faced in the supervisory process.

Table 14: Challenges encountered in the process of supervision

	Themes	Frequency	Sample quotations
Students' views	Unavailability of supervisors	20	"Some supervisors are not accessible". "Not meeting him all the time when there is need". "Difficulty in meeting the supervisor". "The supervisor had too much on his plate, hence he is not always available when we had a meeting". "Most often, my supervisor is not available". "Sometimes, the supervisors are too busy to attend to students".

	Themes	Frequency	Sample quotations
	Lack of mastery of students' work by supervisors	3	"Some supervisors assigned to students do not really have a mastery of the students' area of interest or the student research topic". "The fact that my supervisor was not from my area of specialty makes it very difficult for him to understand my topic".
	Inadequate meetings with supervisors	2	"Short meetings with supervisors". "Inadequate face-to-face meetings with the supervisor as he is highly mobile. He is in the administrative rank of the faculty thus making him not available".
	Imposing attitude of supervisors	2	"Some supervisors do not take the student's perspective into account". "Some supervisors are at times too hard and not considerate to accept students' views".
	Conflict of views	2	"Conflicting views on concepts, methods and approaches between supervisors and supervisee". "At times, the two supervisors have conflicting ideas".
	No support documents from supervisors	1	"Problem of support documents from my supervisor".
	Lack of adequate follow-up of students by supervisors	1	"Students with remote supervisors have insufficient follow-up".
	No supervisor motivation	1	"Little motivation of supervisee by supervisors".
	Time constraints	1	"Time management".
	Supervisor not from supervisee department	1	"The challenge is that my supervisor is not from my department".
	Financial constraints	1	"Financial constraints".
Supervisors' views	Supervisors supervising students outside their specialty	9	"Sometimes, experts in a particular domain are few and they are overloaded with work, So, supervisors may end up supervising in areas where they are not experts". "Some students are allocated to supervisors in other disciplines which bring friction in the process and delay of completion". "The issues of compatibility". "Wrong student, wrong supervisor pairing'. "Some supervisors have low professional rank".
	Low rank of supervisors	1	
	Inequality for supervisors	1	"Some supervisors are given more preference than others".
	Supervisors assigned out of students' interest	3	'Allocation is done without considering the student area of interest". "The topic vis-à-vis the supervisor's research interest".
	Accessibility of supervisors	1	"The issue of accessibility of supervisors".

The findings show that unavailability of supervisors was the most mentioned challenge some students faced in the process of supervision. Lack of adequate knowledge on the students' research topic because a supervisor was not from the student's specialty was another challenge that some students are faced with during the supervision process. Furthermore, a lack of adequate meetings with supervisors, imposing attitudes by some supervisors, conflicting ideas between supervisors, lack of supporting documents from supervisors, lack of adequate student follow-up and motivation from supervisors, students' laziness and financial constraints were other challenges that students are faced with during the supervision process. A contrary finding was presented by Ungadi (2021) on challenges in doctoral supervision in South African universities. PhD supervisors had a challenge of limited time spent with supervisees due to too much workload with respect to teaching, learning and administrative responsibilities. Overenrolled PhDs was another factor because the society and university want to graduate many more PhDs which is affecting quality. PhD students also had the challenge of limited time of meeting with the supervisor which supports the present study.

6. Conclusion

The study concludes that policy on supervision, student–supervisor contact and feedback, as constructs of supervisor-student relationships, affect the quality of theses produced at the University of Buea. The study has demonstrated that there is a policy in place at the university which determines the allocation of students to supervisors, and which speaks to general practice in other institutions. The data suggest that the policy is being implemented. However, several local realities constrain the application of this policy and continue to hamper the quality of supervision.

Though a majority of the participants agreed that choice of supervisor aligns with their specialty, a mismatch can be detrimental to the educational system because it may lead to dropout or delay in completion. This reduces the productivity of the institution. Therefore, the choice of supervisor should consider the specialty of the supervisor for optimal output. Most students have more than one supervisor which is in line with the policy document. While this is expected to strengthen the supervisory process, disagreement between supervisors negatively influenced the supervisory process.

The study concludes that the frequency and quality of time students spend with their supervisor(s) improve on the quality of their work. Students can understand and respond to feedback on time. This also enables the supervisor

and student to better understand each other for an effective working relationship. This improves the quality of the thesis. Based on feedback from supervisors, the study concludes that the type of feedback, scheduled time for feedback and the frequency at which the supervisee receives feedback improves on the quality of the thesis. In addition, the supervisor's attitude towards correction of feedback such as time taken to respond to feedback and the extent to which corrections are made determine the quality of the thesis.

While supervisors have their role in supervision, supervisees should also perform their responsibilities for a successful outcome. It is suggested that further research be carried out on doctoral studies especially in Cameroon and Africa to improve on the productivity of higher education. Further research on the same topic within private universities in Cameroon is essential for comparative analysis. Additionally, exploring other aspects of doctoral studies, such as the demand for PhDs in Africa, is necessary. This will have a multiplier effect on economic growth and development.

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