

## The State of Postgraduate Supervision in Sudan

Mohamed Albdri Sliman Bashir. University of Khartoum, Faculty of  
Arts, Department of Archaeology

Ahmed Abdelmoniem. University of Khartoum, Faculty of Arts,  
Psychology Department

### Abstract:

*The aim of this study is to highlight the status of postgraduate supervision in Sudan, its strengths and weaknesses, and to examine the factors that influence the quality of postgraduate supervision from the perspective of students and supervisors. The study will provide information on the scientifically sound understanding of the status of supervision of post-graduate students in Sudan, its achievements and challenges; an assessment of the current situation based on the results of a recent questionnaire completed by students and supervisors from different Sudanese universities.*

**Keywords:** postgraduate education, postgraduate research supervision, styles, challenges, efficiency, quality.

المستخلص:

تهدف هذه الدراسة إلى تسليط الضوء على حالة الإشراف على الدراسات العليا في السودان، وذلك للوقوف على نقاط القوة والضعف فيها، ودراسة العوامل التي تؤثر على جودة الإشراف الأكاديمي على الدراسات

العليا من وجهة نظر الطلاب والمشرفين. توفر الدراسة معلومات عن الفهم العلمي السليم لحالة الإشراف على طلاب الدراسات العليا في السودان، إنجازاتها وتحدياتها. تقدم الدراسة تقييم للوضع الحالي بناءً على نتائج استبيان حديث قام بتعبئته طلاب ومشرفون من جامعات سودانية مختلفة.

#### كلمات مفتاحية:

الدراسات العليا، الإشراف على بحوث الدراسات العليا، الأساليب، التحديات، الكفاءة، الجودة.

### **Introduction:**

The field of postgraduate education and supervision has gained prominence internationally as part of the global competitiveness debate, nationally as a means of promoting industrial and social innovation, and within universities as a key indicator of the efficiency, quality, and status of higher education. (Frick and Mouton 2021, 43; Poyatos 2012, 163; Ngulube 2021, 256).

Consequently, postgraduate education has received noticeable attention in African countries to improve their higher education systems, develop knowledge that addresses important local problems, and produce highly skilled graduates who can assume leadership positions in their societies (Cross and Backhouse 2014, 155). The importance of higher education for socioeconomic development has come to the fore in sub-Saharan Africa since the 1990s and has become part of the policy agenda in many countries. Today, it is believed that Africa needs many more doctoral students to develop the knowledge products needed to promote development and to replace aging faculty in many universities (Mouton and Frick, 2019).

In the main, postgraduate education in Sudan is developing rapidly. It is now argued that Sudan needs a high number of graduates as there must be enough to support the transformation of society and meet the challenges and opportunities of the twenty-first century (Beshir, et al 2020, 129). The higher education system here is characterized by a number of higher education institutions, including public and private universities, private colleges, and technical colleges. Statistics from 1975 to 2018 show a total of 128 higher education

institutions, including 36 public universities, 20 private universities, 53 private colleges, and 19 technical colleges (Ministry of Higher Education, 2020). There are 36 public universities spread across 26 cities in Sudan and 20 private universities spread across six cities, namely Barbar, Khartoum, Omdurman, Wad Medani, and Kosti (Beshir, et al 2020, 125).

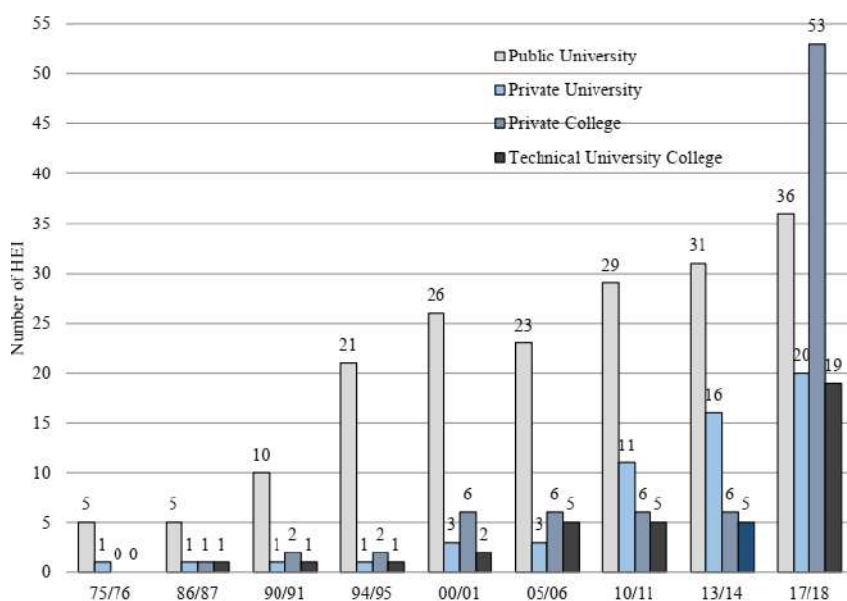


Figure 1. Higher Education institutions statistics in Sudan from 1975 to 2018

Source: Ministry of Higher Education 2020)

These institutions offered three types of postgraduate programs, as per the East African Qualifications Framework (STANDARDS AND GUIDELINES FOR POSTGRADUATE STUDIES IN EAST AFRICA, 2018, ii-iii). The postgraduate diploma, offered to enhance the professional skills of undergraduate graduates; the master's degree, which provides advanced training in the student's specific knowledge

discipline; and the doctoral degree, which is considered the highest degree awarded to individuals who have demonstrated a high level of competence in conducting independent research that contributes significantly to the advancement of fundamental or applied knowledge.

In all of these categories, supervision is considered a key element in the success of doctoral students. However, it represents a major challenge in higher education (Gunnarsson et al., 2013). For example, the success of the doctoral degree depends on the supervisors. In this sense, supervisors need to provide expertise, time, and support to foster research skills and attitudes in candidates and ensure that the dissertation is of an acceptable standard (Alhassan and Ibrahim 2017, I).

A number of challenges and problems encountered by candidates in their postgraduate studies have been highlighted in many previous studies (e.g., Ayiro and Sang, 2011; Dysthe, Samara, & Westrheim, 2006; Edwards, 2002; Löfström & Pyhältö, 2014). The most important of these are supervision, lack of resources, lack of focus, poor research design to inadequate conceptualization of research questions, inadequate research background, lack of training in methodological and writing skills, and lack of research facilities.

This study attempts to examine and evaluate the current state and challenges of supervising doctoral students during their candidacy from the perspective of supervisors and the candidates themselves. It aims to draw attention to improve the quality of postgraduate supervision in Sudan and assess the gaps that need to be filled so that it can be considered as a descriptive and analytical study for the current situation and future development prospects.

### **Research context:**

Supervision has been identified as a fundamental process for the success of postgraduate study and engagement in an academic community of practice (Conrad 2003; Dysthe, Samara, and Westrheim 2006; Halse & Malfory 2010). Again, mentoring is seen as key to quality and efficiency in college research (Bastalich 2017, 1145).

There is much insightful work on supervising doctoral students (Cryer 1997; Taylor and Beasley 2005), which includes a list of tasks for the supervisor and some suggestions for anticipating and dealing with problems (Lee 2008, 267).

As the number of doctoral students in Sudan has increased, so has the number of supervisors, who are faced with increasingly complex and diverse research tasks (see Gatfield 2005, 312).

The literature on supervisors assumes that supervisors know what makes the supervision process successful. Specifically, supervisors are assumed to know the aspects of the supervision process that are more likely to lead to success, as well as the supervision styles that are appropriate for students during their candidacy (Gatfield 2005, 312). The role of the supervisor is determined by the management style or approach he or she uses, which includes advisor, counselor, quality controller, professional facilitator, coach, and mediator (Dietz et al., 2006; Mouton, 2001).

Supervision styles and approaches can be used in an individual, team, or networked context. In the individualistic, traditional, or dyadic model, candidates conduct their research under a single supervisor in a

one-to-one relationship. In contrast, team or network supervision (also called co-supervision or committee/panel supervision) can also take two forms. Teamwork, in which two or more supervisors work with a student, or a team or cohort of students working on a joint project under one supervisor, who may be a principal investigator supported by a cohort of supervisors (Ngulube 2021, 256; De Lange et al., 2011).

There is no standard model for postgraduate supervision that can be applied in all situations and in all disciplines. Each supervision model has its challenges, and the drawbacks of collaborative supervision can expose students and supervisors to various risks (Ngulube 2021, 256-257; Finn 2005).

Nonetheless, the effective way for supervision to work is that it must be an evolving process that focuses on meeting the needs of diverse students, programs, and administrative structures (Egan et al. 2009: 338, cited in Mouton& Frick, 2019).

According to students, a good supervisor should be well-informed and interested in the project, available and easy to reach when questions or problems arise, provide comments and feedback on written products, and ensure that the project and thesis are of good quality and scope (Mouton& Frick, 2019).

In Sudan, with few exceptions, supervision of postgraduate students, especially doctoral students, is reserved for professors and associate professors, but due to bottlenecks, assistant professors are now allowed to supervise masters and Ph. students to supervise (see Ahmed 2013, 119). In contrast, the capacity of supervision varies greatly depending on qualifications, experience, and available resources, and

there is an obvious gap between old and new universities in this regard. Most new universities lack experience and the established norms, traditions, and culture of mentoring (Ahmed 2013, 119).

There are few published studies that measure the quality of postgraduate supervision and student-supervisor relationships in Sudan (Taha et al 2019; Alhassan and Ibrahim, 2017; Ahmed 2013). The aim of this study is to highlight the status of postgraduate supervision in Sudan, its strengths and weaknesses, and to examine the factors that influence the quality of postgraduate supervision from the perspective of students and supervisors.

The study will provide information on the scientifically sound understanding of the status of supervision of doctoral students in Sudan, its achievements and challenges; an assessment of the current situation based on the results of a recent questionnaire completed by students and supervisors from different Sudanese universities.

## **Materials and Methods**

The context of this study is Sudanese universities. The purpose of the study was to determine the characteristics of supervisors' experiences and students' evaluation or impression of the supervision they received from their supervisors during their postgraduate studies. The main principles and practices are considered good because they promoted good outcomes and the shortcomings that affected good outcomes. The good practices were presented as a framework that can be adopted by other supervisors in the computing disciplines (see Daramola 2021, 6).



The study used two different uniform questionnaires with multiple-choice questions that were distributed to both supervisors and enrolled and recent Master's and Ph.D. candidates in several Sudanese universities. The questionnaire for the students consisted of different parts, starting with questions about the student's background data, the type of postgraduate program, the motivation for participating in the program, the college that awarded the postgraduate program, the reason for choosing the specific program, and the process of enrollment.

Candidates were asked (9) questions to assess the support or guidance they received from their supervisors in various aspects of supervision. Each question was rated on an ordinal scale as satisfied (yes) or dissatisfied (no). Approximately 50 candidates from seven leading Sudanese universities received our questionnaire. The typical response rate from each college ranged from 6.0 to 36%.

The questionnaire for supervisors consisted of five questions, beginning with institution, department, affiliation, and years of supervisory experience. The other questions were related to how they enrolled in their institutions, the problems and challenges of supervision, and their suggestions for improving the quality of supervision in higher education in Sudan.

40 supervisors from eight universities participated in the survey. The response rate is as follows: Khartoum University (42.5%), Shendi University (15.0%), Omdurman Islamic University (10.0%), Sudan University (7.5%), Kassala University (7.5%), Ibn Siena University (7.5%), International University of Africa (5.0%), and Holly Quran University

(5.0%).The researcher sent the questionnaire to the personal email/WhatsApp of each participant. The supervisors and students were asked to respond and submit their answers in the form of a Google Docs file. Fifteen leading Sudanese universities participated in the study. A total of about 90 candidates and supervisors received our questionnaire. The results received were analyzed to identify patterns reflecting candidates' opinions about the level of supervision, relationships with supervisors, the enrollment process, and the challenges of postgraduate study.

Data for each question in both questionnaires are presented in tables or charts. Each table contains a question and the multiple choice answers as indicated in the questionnaire. The results were analyzed to determine the level of postgraduate studies supervision in Sudan, assess the current situation, and identify the challenges and future prospects.

## **Results:**

### **Questioner1, analysis and results:**

As mentioned earlier, the first questionnaire was designed specifically for undergraduates and consisted of nine questions. (50) Postgraduate students, (18) doctoral students, and (32) master's candidates from various seven universities participated.

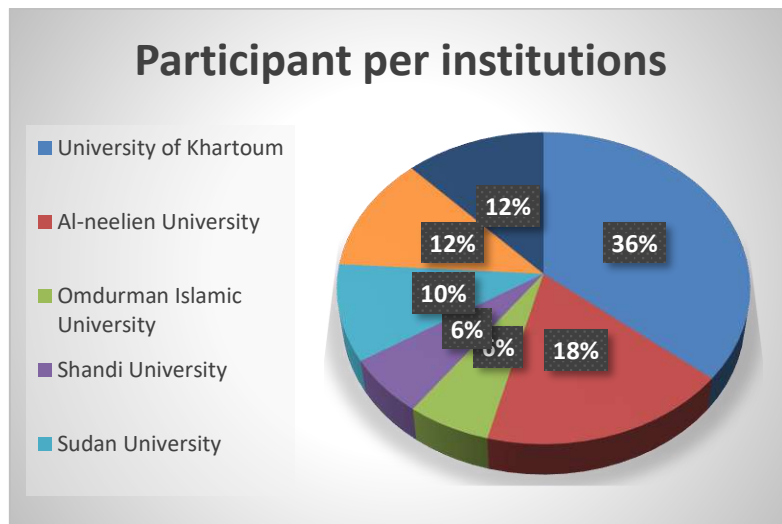


Figure 2. Candidates Participant per institutions

The results as follows:

#### Qu.1. why did you decide to study towards a Ph.D.?

Reasons	Frequency	Percent
I'm interested in attaining higher education for promotion	23	46.0
Because of my family and community	17	34.0
General knowledge	8	16.0
Anything else	2	4.0
<b>Total</b>	<b>50</b>	<b>100.0</b>

Table 1. The reasons for choosing postgraduate study

About (46.0%) of all candidates' motivation for postgraduate study is that they are interested in higher education. Obtaining a higher

degree will improve their skills and status in the workplace by allowing them to be promoted or seek better employment elsewhere. (34.0%) of them are pursuing doctoral studies because they believe that the degree represents social prestige. Some of them also realize that the advanced knowledge they acquire will also benefit them professionally and career-wise.

This is an interesting result in that dominant discourses construct the Ph.D. as a path to better employment. The samples of my students show that there are other important reasons to pursue a Ph.D. degree. This is encouraging because we must not lose sight of the personal value of the Ph.D. or its contribution to society and not just to economic development.

(16.0%) of students continue their postgraduate studies to gain general knowledge, they believe that knowledge is a power in society. They do not think about the job market or improving their position, they are only interested in knowledge and high status.

(4.0%) have a different motivation. They believe that it is impossible to find a suitable job with their current qualification due to high unemployment and unstable economic situation. They believe that a higher degree will increase their chances of finding a job inside or outside Sudan, especially in the Gulf countries.

Qu.2. how did you come up with your study topic?

Choice	Frequency	Percent
I chose it by myself	36	72.0

Suggested by one of my colleagues	5	10.0
suggested by my supervisor	9	18.0
<b>Total</b>	50	100.0

Table 2. Reasons of choosing a specific research topic

Self-determination in choosing a major reflects the extent to which the student knows and loves the subject they are studying. (72.0%) of the students chose their subjects because they believe in that field of study, (10.0%) accepted their peers' suggestions, and (18.0%) chose their subjects at the request of their advisors.

The significant number of students in the first category proves that students have a good insight into the literature in their field of study, so they could easily indicate a research gap.

Qu.3. Did you have a choice to select your supervisor?

	<b>Frequency</b>	<b>Percent</b>
Yes	14	28.0
No	36	72.0
<b>Total</b>	50	100.0

Table 3. The Supervisors allocation

(28.0%) of students have the choice to select their supervisor depending on what they want to do and whether the person they choose is acceptable. This is virtually always the case when the supervisor has a field project that allows the student to work under their project umbrella.

In some cases (72.0%), the department chair made a final decision, e.g., if a student's proposal touched on a specific area or needed more oriented methods, the chair made a selection depending on available senior academics and experience in the department.

Qu.4. How was the study form (obtaining the degree)?

	Frequency	Percent
By research	32	64.0
By course and research	18	36.0
Total	50	100.0

Table 4. Study models

(64.0%) of students pursued their studies through research. (36.0%) did it through course and research.

A study conducted by Ahmed (2013, 118) shows that structure is one of the major weaknesses of postgraduate studies in Sudan. In most institutions, the doctoral program is only in the form of a thesis. Students are not required to take any courses. What they need is a proposal, and then they are assigned supervisors. The research product depends on the type of supervision and the type of relationship between the supervisor and the student (see Ahmed 2013, 118). Despite many problems related to supervision and time allocated to students in Sudan.

Qu.5. how would you describe the enrolment procedures for the postgraduate study in your institution?

	Frequency	Percent
Easy	23	46.0
Complicated	27	54.0
Total	50	100.0

Table 5. Enrolment procedures

(46.0%) of the students described it as simple/easy (54.0%) of them believed it was complicated.

The simple requirements and time limit of the registration procedures support students through their time management and encourage them to complete their thesis in a limited time. In all institutions, the registration procedures depend on institutional and faculty policies, rules, and goals. For example, at the Graduate College of the College University of Khartoum, the application process takes about 4 to 6 months. Here, the student applies for a specific area of study. The application is forwarded directly to the department, and the department chair approves the application and submits it to the faculty chair, who makes the final decision. These requirements typically took a lot of time and negatively impacted students.

Qu.6. how would you describe your relationship with the supervisor?

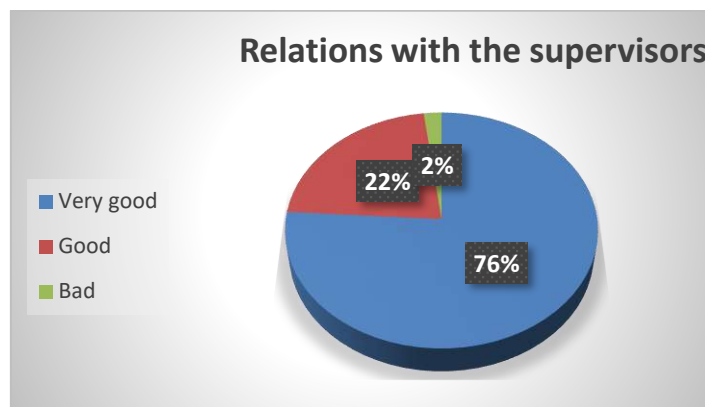


Figure 3. Student-supervisor relationship

(76.0%) of the students describe their supervisory relationship as very good. (22.0%) of them describe it as good and (2.0%) describe it as poor.

The supervision ratio has been identified as one of the main factors that influence student satisfaction and success or disappointment (Jairam & Kahl, 2012; Katz 2016, 107). A study conducted by Protivnak and Foss (2009) indicated that the working relationship between students and their tutors was an important factor in successful completion of the doctoral program. The study reported that many students found tutoring to be the most helpful experience of their doctoral studies; likewise, some students had difficulty with tutoring and felt let down. In addition, Holbrook et al. (2014) related doctoral students' expectations to their satisfaction and well-being, ultimately concluding that a satisfied student naturally feels comfortable as a candidate in a doctoral program.



Qu.7. the question has multiple choices in the Assessment of quality of supervision, as outlined in the table;

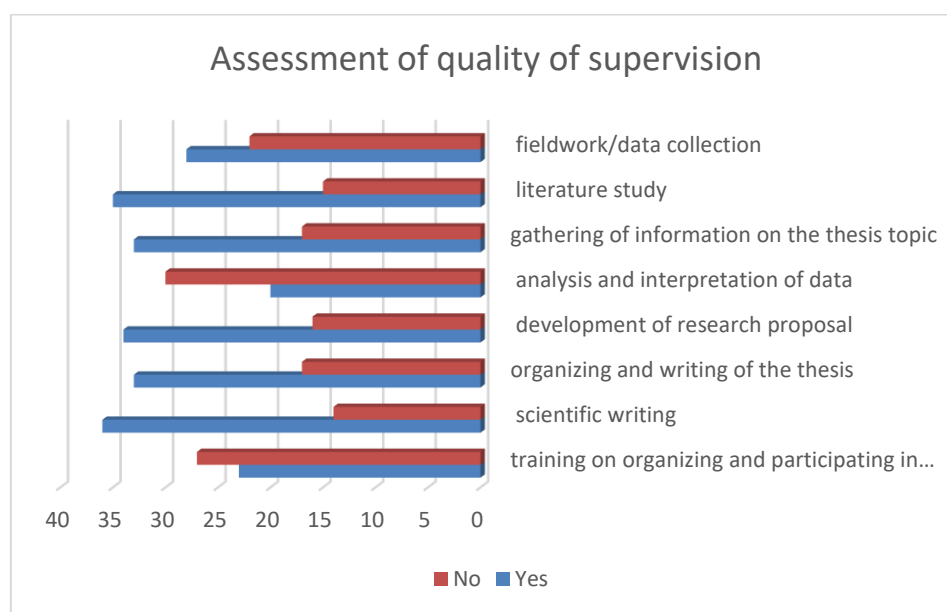


Figure 4. Assessment of quality of supervision

Charts4 explain the stratification of students and their dissatisfaction with the excellent supervision they received from their supervisors and with the encouragement they received from their supervisors to become independent researchers.

(66.0%) of students felt that the guidance they received in making decisions about data collection, presentation, and interpretation of research results was satisfactory. The majority (56.0%) of students were assisted with fieldwork/data collection.

(34.0%) of students were satisfied with the guidance they received in deciding whether to use a purely theoretical approach or a theoretical approach plus empirical methods.

(%40.0) of students were satisfied with the support or guidance they received in presenting and interpreting research findings and (66.0%) in planning the research project and gathering information on the thesis topic.

(28.0%) of students are not satisfied with the support they received for scientific writing. Guiding students on scientific writing is very important in building their scientific careers. However, when students are properly guided, they become better at scientific writing, which also benefits the supervisor. This is because when so many students in a supervisor's group can write well, the supervisor can co-author many papers with the students from time to time (see Daramola 2021, 8).

The majority of students (54.0%) are not satisfied with the training on how to organize and participate in seminars and workshops.

Most students (60.0%) have not taken a course in research methods before beginning their studies, indicating a need for additional training in this area.

Qu.8. Do you think the time provided for supervision was enough?

	Frequency	Percent
Yes	35	70.0
No	15	30.0
Total	50	100.0

Figure 5. Time allocated for supervision

The vast majority (70.0%) of students were satisfied with the time allotted for tutoring. (30.0%) of students were also not satisfied with the accessibility of their supervisors.

In addition, the results show a significant difference in the overall pattern of meeting with the supervisor between students.

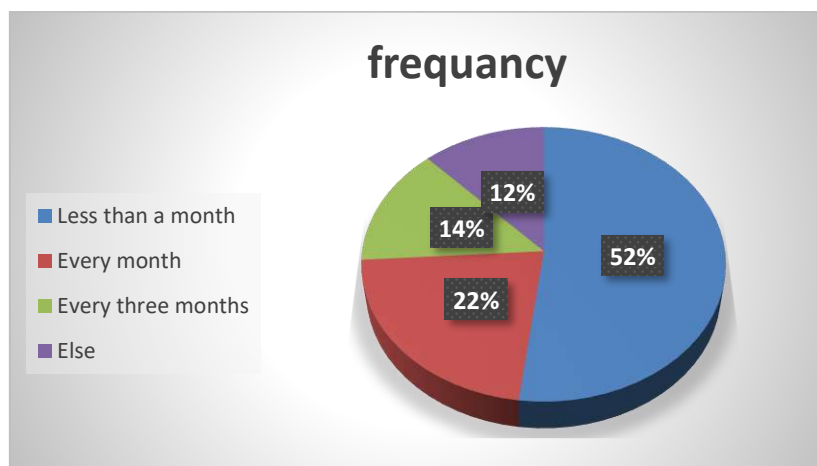


Figure 6. Pattern of meeting with the supervisors

(52.0%) of the students met with their supervisor every two or three weeks, while only (22.0%) of the students met with them once a month, which is a significant difference in this pattern. However, (14.0%) of students met with their supervisors every three months,

while only (12.0%) of students met them once in more than three months.

It is interesting to note that (52.0%) of the students were satisfied with the time allocated for supervision despite all the difficulties and problems in the study environment in Sudan.

A survey conducted by Hassan Elmnguri in 2006 in different Sudanese universities also shows that most supervisors (71.8%) do not have fixed times to meet their students. (Elmnguri 2006, 118). Supervisors usually combine supervising postgraduate students with their teaching responsibilities at the postgraduate and undergraduate levels. Some of them have small teaching loads that allow them to supervise more than they teach. In addition to teaching and mentoring, academics at institutions are also expected to engage with the community and serve on college committees. This is essential for promotion. Therefore, postgraduate supervision is in addition to other important activities. In each case, the supervisor must strike a balance to ensure that work time is distributed among the various roles (see Daramola 2021, 5).

Qu.9. what difficulties did you encounter while studying?

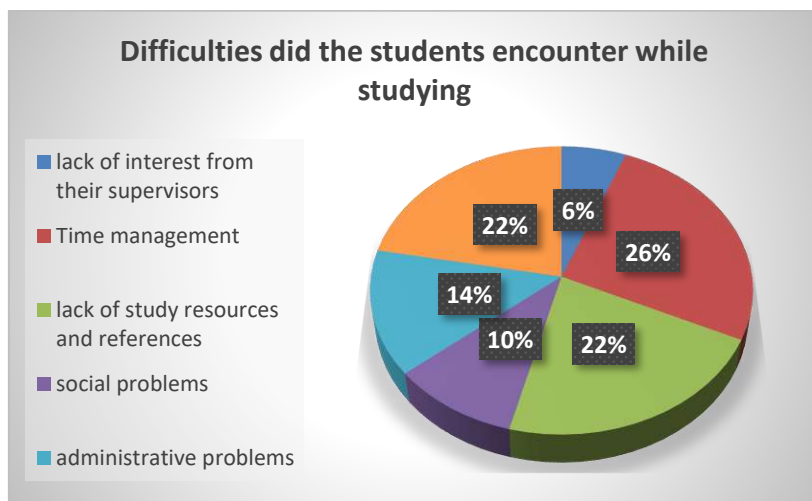


Figure 7. Difficulties during study time

In general, studies on postgraduate supervision (Dysthe, Samara, & Westrheim, 2006; Hasrati, 2005; Mackinnon; Löfström & Pyhältö, 2014) have highlighted a number of challenges and problems that candidates face in their studies. The most common challenges range from supervision, assessing the quality of doctoral students, lack of resources, lack of focus, poor research design, to insufficient conceptualization of research questions, insufficient research background, lack of training in methodological and writing skills, and lack of research facilities (Alhassan and Ibrahim 2017, 252). (10.0%) of the students faced social problems, (14.0%) faced administrative problems, while (6.0%) faced lack of interest from their supervisors. (22.0%) of the students faced lack of study resources and references, while (26%) of them faced time management problems, the others (22.0) faced some other problem.

## Questioner2, analysis and results:

The questionnaire for supervisors consisted of five questions beginning with institution, department, affiliation, and supervision experience in years and ending with suggestions for advancing the field of supervision in their institutions.

40 supervisors from (8) universities participated in the study, (27) from humanities and social sciences, and (13) from applied sciences. They have different affiliations (8) professors, (14) associate professors and (18) assistant professors. With different experiences, 14 with (2-5 years), 17 between (6-10 years) and 9 between (11 years and above). Participants' responses were as follows:

Qu.1. how would you describe the degree of demand for graduate studies in your department or college?

	Frequency	Percent
Huge	15	37.5
Middle	19	47.5
Little	6	15.0
Total	40	100.0

Table 6. Demand for postgraduate studies in the participant's institutions

Depending on the field of study, (37.5%) of the supervisors indicated that a significant number of the students were interested. (47.5%) of them mentioned an unlimited number, while (15.0%) said it was a small number.

Qu.2-3. Do you have an option to select doctoral candidates for supervision? And if not how could that happen?

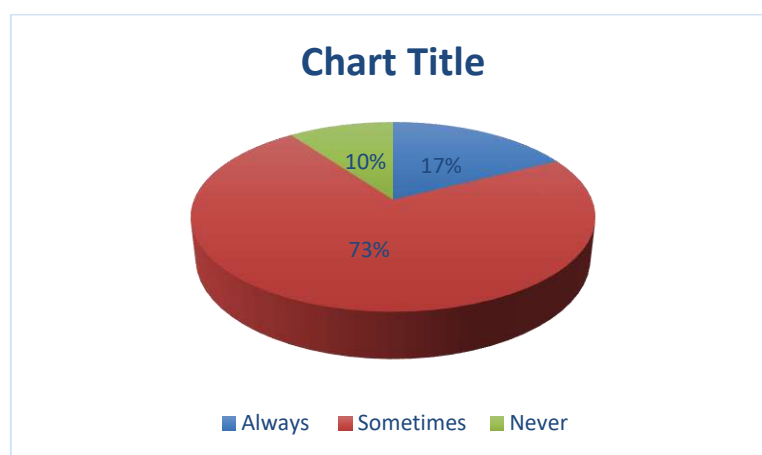


Figure 8. Student's allocation and recruitment

It is widely recognized that the selection of doctoral students is essential for effective and efficient supervision and a necessary condition to ensure the quality of the process (Mouton and Frick, 2019).

(17.5%) of supervisors indicated that they personally select the students they supervise in all cases. (72.5%) indicated that they personally select the students they supervise, but not in all cases. (10.0%) indicated that they do not personally select the students they supervise. Anecdotal evidence suggests that different rules and practices for review and selection are used at different universities and even within different faculties and departments at the same college. In some cases, academic departments do not have the right to reject potential candidates due to institutional policies or directives (Mouton and Frick, 2019).

31 supervisors said they got their students through a recommendation from the institution, 9 of them say they got them through other means.

Qu.4. what are the problems you face as a supervisor?

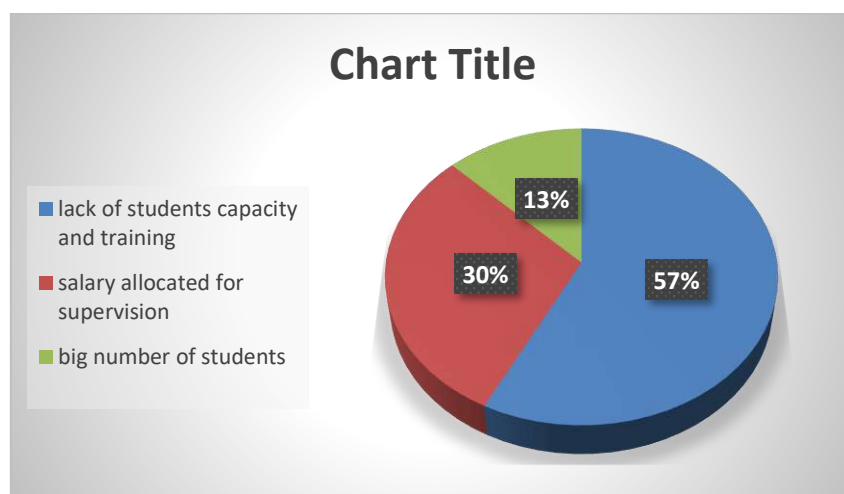


Figure 9. Supervisor's problems and challenges

(57.5%) of supervisors stated that the lack of capacity and training of students is the main problem, others (30.0%) say that the low salary provided for supervision is crucial, while (12.5%) believe that supervisor overload is the main challenge. At a college, a staff member can supervise an unlimited number of dissertations. A significant number of supervisors are overloaded by teaching at their institution and at other universities. In addition, staff members are busy evaluating dissertations as internal or external examiners, serving as advisors, and participating in community service. This hectic schedule leaves little room for thorough mentoring. (cf. Ahmed 2013, 119-120).



Qu.5. the last question was related to suggestions for improving the field of supervision in higher education institutions. Most of the supervisors' recommendations focused on:

- 1- Utilizing the experience and improving the study environment in universities and training centers, social life, digital libraries and internet services.
- 2- To increase the financial and moral support of the supervisors. In this regard, motivation and appreciation are urgently needed.
- 3- Revise regulations for postgraduate programs and qualification of their staff.
- 4- 4- Conduct an aptitude test for postgraduate applicants. This would result in the best prepared candidates coming from socially weaker backgrounds.

### **Conclusion:**

This study was able to provide important insights into the perceptions of doctoral students and supervisors by revealing which dimension of supervision quality should receive the most attention in order to gain a competitive advantage. Based on the study results, the study concludes that the doctoral candidates in question encountered several challenges and difficulties during the course of their studies that appeared to have a negative impact on the quality of the dissertations produced by the candidates. The most common challenges that emerged from the responses of the participating students are: lack of training in organizing and attending seminars and workshops (54.0% of all students), lack of feedback on analyzing and interpreting data or

fieldwork/data collection (60.0%, 44.0%), problems with time management (26.0%), i.e. conflicts between studies and work, the nature of social life in Sudan. These reasons slow down the process and hinder success at the end, and the lack of study resources and references (22.0%). In this context, language level could be one of the most important problems. Most Sudanese students do their research in Arabic, and their English skills are not good, so they suffer more and more from translating and updating their literature.

The supervisors also mentioned many problems related to their work as consultants. The most important of these is the lack of capacity and training of students. In this regard, there is an urgent need to reconsider the training of PhD students in research methodology in Sudan. In most universities, the courses offered are basic in nature and are not sufficient to enable students to write a PhD thesis. Most of the courses that are offered are theoretical in nature and aim at abstraction. In this sense, they are disconnected from practice (see Ahmed 2003, 123). Lack of salaries for supervision (30.0%), and this problem is due to the limited support from the national institutions that take care of higher education in Sudan.

Finally, Sudanese higher education institutions need to make more efforts to overcome the challenges and improve the training programs to produce the best future scholars.

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