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An examination of teaching practice experiences for undergraduate students: A case study from the department of mathematics and science education at the university of Botswana

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ABSTRACT

This study aimed to document the experiences of undergraduate student teachers specializing in Mathematics and Science Education during their Teaching Practice in Botswana. The sample consisted of third- and fourth-year students from the Mathematics and Science Education department at the University of Botswana who had participated in Teaching Practice. A concurrent embedded design was utilized, and data was gathered from 150 student teachers using questionnaires and interviews. The results indicated that student teachers perceived teaching practice as an essential experience for developing teaching skills. The findings also suggested that the placement system was adequate. Nonetheless, the study identified several challenges including poor communication between the Teaching Practice Office and schools, lecturers hastily conducting the supervisory process, insufficient resources in schools, and limited support from mentor teachers. Additionally, the study found that the duration of the teaching practice was insufficient. As a result, it was recommended that the university strengthen its partnership with host schools by organizing awareness seminars, formulating and implementing relevant policies, and facilitating effective two-way communication to foster a supportive environment. The study also recommended that the university develops and executes policies and programmes to provide sufficient time for Teaching Practice to improve its effectiveness.

Contribution/ Originality: This study focused on the experiences of student teachers who participated in Teaching Practice in the Department of Mathematics and Science Education at the University of Botswana, which is under the Faculty of Education. This area has not been extensively studied in previous research. The outcomes of this study provide valuable insights that contribute to the little literature on the preparation of teachers in mathematics and science disciplines.

1. INTRODUCTION

Education is one of the platforms for realising the potential of every individual. Through education, everyone should be able to identify and realise their full potential, allowing them to apply the diverse skills and experiences they have gained through their social lives. Moreover, education is anticipated to be crucial in several ways as nations work to improve their socioeconomic and cultural status. Nevertheless, without academically qualified and professionally accountable teachers in the classroom, it is hard to imagine providing a high-quality education.

Teacher education is one of the most crucial elements and cornerstones of any country's educational system. Banja and Mulenga (2019) contend that teacher education provides the foundation for delivering high-quality education since no educational system can be superior to the quality of its teachers. Teaching Practice is one of the most important components of a teacher education programme. As part of their curriculum, all schools of education worldwide include Teaching Practice. Thus, a student must complete the Teaching Practice process to graduate from the teacher education programme, and Botswana is no exception. Moreover, in addition to theoretical knowledge of the school, students, teachers, and curriculum, gaining practical experience in these areas before a career is critical for becoming an effective teacher. Furthermore, as teachers have been pressured to meet the needs of diverse students and produce 21st-century learners, education delivery has undergone several changes to improve its quality. Given that Teaching Practice offers aspiring teachers valuable insights and hands-on experience, it is important to explore the obstacles they might face and the potential strategies to address these challenges. Broadbent (1998) claims that Teaching Practice is the most difficult experience for student teachers in the teacher education programme even though school experience is an important part of learning how to teach. Given the challenging and complex nature of Teaching Practice, this study investigates student teachers' experiences during Teaching Practice with an emphasis on the implementation of teaching practice, its challenges, and its influence on their perception of the teaching profession. Examining the lived experiences of student teachers can shed light on certain challenges encountered throughout teacher preparation that hinder the achievement of successful teaching outcomes. Understandings could help teacher education institutions reevaluate their Teaching Practice strategies and support the intended results of this exercise.

2. BACKGROUND TO THE STUDY

Teaching Practice, in one form or another, has remained an undisputed, crucial component in the training of successive generations of teachers since the founding of training colleges in the middle and late 19th centuries (Cohen, Manion, & Morrison, 1996). The Practice is deeply rooted in the desire to educate and train competent and professional teachers. Through this hands-on learning experience, student teachers can demonstrate and enhance their pedagogical skills over time in authentic classroom settings (Salawu & Adeoye, 2008). At the University of Botswana, Teaching Practice is regarded as an essential component of teacher education programmes. Usually, two months are set aside for Teaching Practice, which is completed twice until the student graduates. Classes are not held during this time, allowing student teachers and supervisors to focus on teaching practice. Most universities worldwide use the block period for Teaching Practice, so it appears to be the accepted paradigm even though there are variations within it, particularly in terms of duration. Similarly, at the University of Botswana, students are obliged to engage in Teaching Practice on two separate occasions: once in their second year (level 200) and again at the end of their third year (level 300). During these times, classes for other educational courses and their associated teaching subjects from other faculties are not conducted. Students are placed in various schools, where they are required to fulfill a 7-week practice for each Teaching Practice session. They are paired with university supervisors exclusively from the Department of Mathematics and Science Education, who are supposed to supervise the students during the Teaching Practice, and mentor teachers who are chosen according to their abilities. Following their observation of the mentor teachers, the student teachers start their lessons, and the mentor teachers keep a close eye on every facet of the student teachers' experience.

Samuel (2010) traces the inception of teacher education to the master-apprentice paradigm, which posits that the most efficacious method for novice teachers to acquire knowledge is by imitating the behaviors of seasoned teachers. Nonetheless, according to Menter (1989) the literature has evolved about the concepts of school experience and Teaching Practice, which are associated with apprenticeship and experiential models, respectively. Lave and Wenger (1991) assert that irrespective of its conceptualisation, the notion of Teaching Practice is fundamentally anchored in experiential learning, initially proposed by Dewey (1938) and Vygotsky (1978) social

cognitive theory, as well as contextual learning. Accordingly, the goal of teaching practice in Botswana is to provide a genuine setting in which student teachers can experience the intricacy, diversity, and vibrancy of a teaching reality. The Teaching Practice process fosters proficiency and helps the student-teacher bridge the knowledge gap between classroom theory and practice. Nonetheless, despite its importance, in many cases, support for new teachers is uneven and inadequate. According to Saphier, Haley-Speca, and Gower (2008) Teaching Practice provides a challenging yet rewarding experience of working with students in actual classrooms as well as developing professional competence. Kiggundu and Nayimuli (2009) observe that Teaching Practice can be demoralizing and frightening at times. Considering this background, it is critical to investigate student teachers' experiences during teaching practice, focusing on implementing Teaching Practice, its challenges, and the impact on their perception of the teaching profession.

3. THE PURPOSE OF THE STUDY

This study aims to investigate the Teaching Practice experiences of University of Botswana Mathematics, Science, and Computer Science education student teachers, focusing on implementing Teaching Practice, challenges, and its impact on their perception of the teaching profession. Such a study will serve as a foundation for future improvements. The findings of this study may draw attention to some issues and challenges encountered by student teachers while on the field. As a result, this study attempts to share these issues to assist educational stakeholders in minimising these challenges to achieve the goals of Teaching Practice for prospective teachers fully.

4. LITERATURE REVIEW

One of the foundational courses in teacher education programmes is Teaching Practice, wherein institutions send student teachers to various schools to apply their knowledge under the guidance of seasoned teachers. According to Elmabruk (2020) asserts that Teaching Practice provides student teachers with the chance to implement the knowledge and skills they have gained during the theoretical phase of their training, enabling them to develop into competent practicing teachers. Similarly, Davidson (2005) defined Teaching Practice as a system of systematic exposure to real classroom situations for teachers in training. According to Hassan (2000) it is a time when trainee teachers can gain experience in observing and actively engaging in a variety of instructional activities within the school under normal school conditions in specific cooperating schools. According to Stones and Morris (1972) the phrase "practice teaching" refers to three main ideas: the development of teaching skills and the experience of being a teacher; the variety of experiences that students have in the classroom; and the practical components of the course as opposed to theoretical studies. No matter how Teaching Practice is defined, the key point to remember is that it aims to help student-teachers learn how to teach before they become professional teachers through practical training.

Researchers like Perry (2004) and Maphosa, Shumba, and Shumba (2007) describe teaching practice as a crucial part of teacher preparation. In other words, a student teacher needs to finish teaching practice in order to fulfill the criteria for becoming a qualified teacher. Depending on the organisation, Perry (2004) claims that Teaching Practice can be carried out in a variety of ways. Student teachers may be sent for two to six weeks block, one day a week, or for a semester for teaching practice. In Botswana, Teaching Practice is regarded as the cornerstone of the teaching and learning programme. For instance, the University of Botswana, Faculty of Education requires student teachers to demonstrate their ability to apply the theories and knowledge they have learned in the university. Student teachers typically go for Teaching Practice at the end of their second year and after their third-year semester. It lasts about seven weeks, with one week dedicated to observation and six weeks dedicated to actual teaching. Nevertheless, Perry (2004) emphasizes the significance of recognizing that Teaching Practice, regardless of its form, seeks to fully immerse student teachers in the teaching field. In light of this, student teachers are expected to carry out all of the duties of a teacher, which Perry (2004) describes as both thrilling and challenging.

To give student teachers in educational institutions possibilities, teaching practice is crucial. It exposes aspiring educators to the authentic teaching and learning setting (Marais & Meier, 2004; Ngidi & Sibaya, 2003). According to Marais and Meier (2004) Teaching Practice refers to the the range of experiences student teachers have while working in classrooms and schools is referred to as teaching practice. It highlights how the actual context offered by teaching practice exposes student teachers to the complexities of the real teaching world. Additionally, teaching practice offers a chance for new teachers to integrate into the profession (Furlong, Hirst, & Pocklington, 1988). According to Endeley (2014) Teaching Practice enables student teachers to develop teaching skills and competencies. Therefore, in addition to bringing about significant changes in their students, student teachers can use the principles they learned in the courses they took to teach; create lesson plans and work schemes that use relevant concepts and generalisations to help students learn; choose, and employ a range of teaching strategies and instructional resources that are appropriate to meet the goals outlined in their lesson plans, among other things.

While the majority of student teachers view their teaching experience as an engaging opportunity to apply their teacher training education, certain issues and difficulties come with it. Mostly in developing countries, Marais and Meier (2004) argue that Teaching Practice is a challenging yet essential part of teacher preparation. The difficulties faced by student-teachers during their teaching practice have been thoroughly examined by numerous researchers from a variety of settings. For example, some researchers found that student teachers encounter difficulties in their teaching practice, such as applying theories, a lack of resources and supplemental materials in schools, a lack of communication from the administration, a lack of support and confidence from mentor teachers, and a lack of clear policies governing teaching practice (Kiggundu & Nayimuli, 2009). Al-Momani's (2016) study conducted in the Kingdom of Saudi Arabia examined the challenges associated with teaching at the Faculty of Education from the viewpoints of pre-service teachers and supervisors. The results showed that common difficulties included communication skills, putting theories into practice, and fear of teaching. In addition, handling a large class size, having a subpar lesson plan, and creating differentiated tasks were typical (Ball, Thames, & Phelps, 2008; Scott, 2015).

Additionally, Yassin (2004) investigated the challenges faced by academic supervisors during student teaching and found that these supervisors do not regularly meet with student teachers to talk about the challenges they face. The findings also showed that student teachers do not receive enough support from university supervisors for their work, nor do they receive enough help from mentor teachers to obtain textbooks and teacher guides. Moreover, the results indicated that student teachers do not receive enough explanations of the necessary skills nor appropriate guidance to inspire them to carry out classroom activities. While examining the challenges that student teachers face in South Africa during their Teaching Practice, Leke-ateh, Assan, and Debeila (2013) found that most mentors are unaware of their duties and responsibilities to student teachers during their practice. The authors observed that mentors view their role as supervising student teachers as a university assignment. Leke-ateh et al. (2013) also found that supervisory responsibilities assigned to university assessors are inconsistent. They claim that university lecturer supervisors do not frequently visit practicing schools, and some student teachers reported that university assessors never visited them, although their visits and contributions greatly enhance the practice's success. It is impossible to accomplish the goals of Teaching Practice with all these drawbacks for student teachers. As a result, it is critical to identify some of the challenges that University of Botswana students face during Teaching Practice.

5. RESEARCH METHOD

The research was conducted at the University of Botswana, in the Department of Mathematics and Science Education. The study followed a concurrent embedded mixed-method approach. Creswell (2012) claims that this design allows researchers to simultaneously gather and examine qualitative and quantitative data, with one type of data assisting the other. The qualitative data is embedded into the quantitative data. That is, qualitative research

supported the interpretation of quantitative data. The mixed-method approach was chosen for this study because it could lead to a better understanding of the student teachers' experiences of the Teaching Practice.

5.1. Participants of the Study

The study focused on 340 undergraduates who completed Teaching Practice during their second and third years, majoring in Science Education (Mathematics, Chemistry, Biology, Physics, and Computer Science) for secondary-school teaching in the Bachelor of Education programme. The Bachelor of Education Degree in Science was chosen because it is one of Botswana Basic Education's priority learning areas. To get a better representation of the subjects, all student teachers who were willing to participate in this study and had experience with Teaching Practice were chosen. Samples of 60 third-year and 70 fourth-year students for the 2023/2024 academic year were the subject of the study. In addition, 20 students were selected for qualitative interviews. These twenty (20) students' teachers did not complete the questionnaires for quantitative data. The complete sample of 150 students had already experienced Teaching Practice once or twice. The researchers attempted to acquire an in-depth insight into the student teachers' experiences with the programme through information-rich samples (Boyce & Neale, 2006).

Questionnaires were employed to obtain quantitative data, which were filled out by student teachers in a classroom setting under the researchers' observation. The study also employed semi-structured in-depth interviews to obtain qualitative data, with participants encouraged to reflect on their placement experiences, support, guidance during teaching practice, and student behavior. The researchers analysed data collected through questionnaires using descriptive statistics. The content and thematic analysis method was used to analyse the data from the semi-structured in-depth interviews with the student teachers.

5.2. Ethical Considerations

The following ethical and moral concerns were addressed: harms and benefits for research participants' well-being were assessed, informed consent was obtained (participants' understanding of what it means to participate in the study was ensured), and privacy and confidentiality were maintained.

6. RESULTS

Table 1 results demonstrate that most student teachers were assigned to their preferred schools and that their placements occurred on schedule (81% and 82% respectively). A small percentage (25%) of student teachers said that they were not placed in their desired schools. Furthermore, 23% of the student teachers stated that they were not placed on time. According to the findings in Table 1, most student teachers felt welcome where they were assigned. Most of them stated that the school administration and departments inducted them. Of student teachers who were inducted, 92% agreed that the induction procedure was beneficial to their teaching practice. What the student teachers revealed throughout the interviews is similar to what is shown in Table 1. For instance, one student teacher said, "I *was placed at the school I applied for, and the school leadership welcomed us with open hearts".*

Table 1. Students' experience on placement.

Question	Yes	%	No	%
Were you placed at the school of your choice?	105	81	25	19
Were you placed on time at the school for your teaching practice?	107	82	23	18
Did the school administration induct you?	117	90	13	10
Did you feel welcome?	117	90	13	10
Were you inducted by the department in which you were assigned?	122	94	8	6
Was the induction beneficial to you?	119	92	11	8

On the other hand, some student teachers said that, despite being placed in their preferred schools, they encountered difficulties on their first day of Teaching Practice. One student teacher explained that,

> *My coworkers and I were assigned to the school we requested; however, we had to jump through hoops to get accepted. When we got to the school for our reporting day, we were informed that the University had not informed the school of our arrival. We were not allowed to proceed until we got help from the education regional offices. We noticed that our letters were sent to the regional office, not to the school. It was a struggle, and I was disappointed.*

The experiences shared by student teachers in Table 1 indicate that the University of Botswana's Faculty of Education is successful in placing students for Teaching Practice, with many being placed in their desired schools. Nevertheless, there is still an opportunity for improvement in the Teaching Practice office's placement process to guarantee that all enrolled student-teachers are assigned to their preferred schools for their Teaching Practice and receive adequate support from mentor teachers. Additionally, it is evident that some schools are not being informed promptly by the Teaching Practice office regarding student teachers designated to their schools. Effective communication among all partners is essential. Effective communication with schools is important. The results also indicate that most of the student teachers were introduced by the departments they were placed in. An induction session is crucial for student teachers as they begin their journey in teaching practice. Induction supports student teachers in becoming self-directed during their training. Additionally, engaging in induction exercises allows student teachers to become familiar with the department's culture.

Table 2. Supervision and assessment during teaching practice.

Question	Yes	%	No	%
Were you paired with a mentor during your teaching practice?	129	99	1	1
Did your mentor observe you?	113	87	17	13
Were the observations and supervision by the mentor helpful?	99	76	31	24
Did lecturers from the University of Botswana visit you?	127	98	3	2
Were you observed by the University of Botswana lecturers while teaching a lesson?	83	64	47	36

Student teachers were asked if they received support from their schools and the University of Botswana during their Teaching Practice. The results show that 99% of the student teachers were paired with mentor teachers during their Teaching Practice. The findings also show that their mentor teachers observed 87% of the student teachers during their classroom lessons. Furthermore, Table 2 shows that most student teachers (76%) who received supervision and observations from mentor teachers reported finding the mentoring beneficial, while approximately 31% did not. The findings from the interviews align with the results presented in Table 2. For instance, one student teacher said, *"My mentor observed me once every two weeks and discussed her observations after class"*. Approximately 80% of the student teachers who were interviewed held this opinion.

When asked about the importance of mentorship from mentor teachers one interviewed student teacher had this to say, *"Everything about my teaching experience—from lesson planning to classroom management to department culture—was greatly aided by the mentorship. His observations in the classroom were insightful to me as well"*. While over 50% of student teachers interviewed shared this perspective, some agreed with the 24% of student teachers in Table 2 who expressed dissatisfaction with the mentorship. One student teacher voiced his concern in the following manner.

> *I only encountered my mentor when he was presenting me to the class I had been assigned to. He never returned to my class again. He filled out the observation forms without actually going to class to observe. I had to agree to the setup because of marks. In all honesty, we never had a sit-down conversation about class issues.*

The findings concerning the influence of mentors in the present study indicate that the majority of the mentors effectively performed their responsibilities of guiding student teachers. Under their supervision, they provided direction and examples of what to do as a teacher. The results are similar to Marais and Meier (2004) study, which showed that mentors acted as exemplary role models, setting a good example to follow. A small number of student teachers expressed dissatisfaction with their mentors. They mentioned that their mentors had very limited time to offer them mentorship. This is consistent with Nakpodia (2011) results, which revealed that some supervisors have limited time to discuss observations and recommendations with student teachers. Mentors must offer helpful feedback to assist student teachers in developing necessary skills and making improvements to their professional capabilities (Mosas, 2019). Furthermore, 98% of the student teachers indicated that the University of Botswana lecturers visited them during their Teaching Practice. Of those who the lecturers visited, 47% reported that the lecturers did not observe them while teaching. Interviews revealed that some student teachers were only visited once and were not observed while teaching. For example, a student-teacher who specializes in Mathematics teaching had this to say.

> *I only had one visit from a lecturer who was not a specialist in the subject that I was teaching, Mathematics. The lecturer did not have time to observe my lesson since he was too busy assisting other student teachers in his subject. He only checked my file and gave me feedback in less than 10 minutes. The lecturer was in a rush hence our conversation was very short.*

Another student teacher expressed the same opinion and said the following.

> *I was visited once towards the end of the term. There were no lessons by that time because it was the end-of-term examination period. As a result, I was not observed by anyone from the university.*

These perspectives complement the questionnaire results. The results indicate that a significant number of student teachers were dissatisfied with the quality and duration of supervision provided by lecturers during school practice due to limited frequency and rushed interactions. Based on the findings reported in this section, the situation could be linked to a few lecturers rushing to examine huge numbers of student teachers in the field. The phenomenon may also be attributed to supervisors' limited field time and financial resources. As a result, the quality of supervision was degraded. According to Slick (1998) university supervisors are vital to the support of student teachers since they act as advisors, motivators, resources, and assessors. As a result, unobserved student teachers were deprived of the chance to benefit from the extensive expertise of university lecturers.

Table 3. Student teachers benefit during school experience.

No.	Statement	SA	A	DA	SD
1	University methodology courses had a positive impact on my teaching practice.	33 25%	91 70%	6 5%	0 0%
2	I could apply what I had learned at university during my teaching practice.	42 32%	77 59%	8 6%	3 2%
3	Teaching practice enabled me to broaden my subject knowledge.	64 49%	51 39%	11 8%	4 3%
4	Teaching practice has taught me how to properly plan, prepare, and present my lesson topics.	82 63%	44 34%	4 3%	0 0%
5	Teaching practice has taught me how to use reinforcement and assessment skills properly.	38 29%	91 70%	0 0%	1 1%
6	Teaching practice, in my opinion, is critical in preparing student teachers for future teaching employment opportunities.	92 71%	30 23%	5 4%	3 2
8	My teaching experience allowed me to effectively manage the classroom and engage in close communication with the students.	56 43%	73 56%	1 1%	0 0%

The researchers were also interested in finding out from the participants whether their Teaching practices had a vast impact on their teaching careers. Table 3 illustrates that, of the responses received, most students strongly

agreed or agreed with items 1 through 8, with very few choosing to disagree with the statements. Contrary to the findings in the study by Marais and Meier (2004) where respondents found a discrepancy between the theory of education and the reality of instruction, the findings of this study demonstrate that student teachers gained immensely from being involved in Teaching Practice because they were able to relate and apply what they had studied in university. Student teachers reported that they applied the knowledge they acquired from the methodological courses to plan, and assess their students' work, present the lesson objectives effectively, and employ various reinforcement techniques. Additionally, student teachers mentioned that Teaching Practice developed their classroom management skills. Furthermore, student teachers said Teaching Practice was important for preparing them for employment as future teachers. This finding is positive since it indicates that students considered their time in school to be worthwhile. Table 3 corresponds with the information provided by student teachers' responses during the interviews. For instance, one student said,

> *Despite challenges, Teaching Practice has taught me a lot. I have various strategies for motivating students while maintaining classroom discipline. When students received appreciation for their efforts, I found that they became excited and engaged in the classroom activities. I am more aware of my strengths and weaknesses as a student teacher, and I'm confident in teaching my subject in an inclusive classroom.*

Teaching Practice is widely recognized as a crucial component of teacher education programs. Furlong et al. (1988) characterized it as the ultimate aspect of teacher training. This is particularly crucial since it allows student teachers to reflect on their teaching experiences and discuss them with lecturers and regular teachers. More significantly, during the Teaching Practice, student teachers are expected to observe mentor teachers in action to learn different teaching techniques they can use during their lessons. Moreover, according to Perry (2004) although students obtain much-specialized knowledge by attending lectures and working on assignments, Teaching Practice provides significance to this knowledge when a student teacher comes into direct contact with the real classroom setting. That is, this knowledge is validated in the context of Teaching Practice.

Table 4. Challenges experienced by student teachers during teaching practice.

No.	Statement	SA	A	DA	SD
1	The school lacked the teaching resources required for efficient instruction.	60 46%	39 30%	25 19%	6 5%
2	The mentor teachers overburden student teachers by assigning some of their duties to them.	30 23%	39 30%	40 31%	21 16%
3	I had sufficient time to practice	0 0%	0 0%	63 48%	67 52%

The researchers were also interested in examining student teachers' views on the challenges they faced during their Teaching Practice. Table 4 shows concerns identified by student teachers throughout their previous teaching experience. According to Table 4, 76% of respondents indicated that the lack of resources in Mathematics, Biology, Chemistry, Physics, and Computer Science teaching and learning was a challenge. In most cases, students had to improvise. However, improvisation has limitations as some educational materials are extremely technical. The interviewed student teachers also expressed this viewpoint. Interviewed student teachers lamented the ineffective use of Information and Communication Technologies (ICT) in mathematics and science teaching and learning in schools. These included computer and internet connectivity for research purposes. For example, one student teacher said, "Due *to the school's lack of internet access, I failed to implement new teaching methods employing technology. I was willing to utilize my laptop and personal internet at some point, unfortunately, the school did not have projectors".* This finding concludes that according to student teachers, secondary school facilities and resources are insufficient to enable the successful and long-term integration of ICTs into the teaching and learning of mathematics and science. Similarly, Edokpolor and Dumbiri (2019) found that using ICT for teaching and learning was hindered by poor

facilities. Similarly, research conducted by Mooketsi (2020) found that teachers believe that the facilities and resources available are insufficient for maximizing the use of ICTs for teaching and learning in secondary schools in Botswana.

The results of the interview also showed that the science laboratories were of low quality. The interviewee also mentioned that having only one or two laboratory rooms for all the students in school leads to overcrowding. As a result, there was limited time to complete laboratory activities according to each science discipline's schedule. The interview results also revealed that the limited labs accessible in schools frequently lacked necessary chemicals and reagents, preventing them from functioning properly. As a result, science learning became incomplete as students were unable to obtain practical skills from student teachers. This is consistent with the findings by Yandila, Komane, and Moganane (2003). Yandila et al. (2003) found that schools' poor science laboratory conditions are challenging. Yandila et al. (2003) identified three types of laboratory conditions: (i) new and well-designed with necessary equipment and materials, (ii) old but well-maintained with required equipment and materials, and (iii) old and run-down with insufficient equipment and materials for students. Approximately 70% of the laboratories were in Group Three. This finding revealed that numerous secondary science laboratories are not meeting the objectives outlined in the curriculum for their laboratory activities.

Additionally, student teachers were asked whether mentor teachers overburdened them by delegating any of their responsibilities to them. Although some student teachers claimed a positive relationship with their mentors, several student teachers were unsatisfied with the relationship between them and their mentors. Most student teachers reported that mentor teachers frequently overwhelm them by delegating some of their responsibilities. They had similar feelings expressed by Maphosa et al. (2007) that mentors saw student teachers as relief teachers who eventually took on full loads while mentors took a backseat. One student teacher who participated in the interviews said: *"I recall that during our teaching practice, we used to cover lessons for other teachers. They will beg for our assistance while claiming to have some outside work to accomplish. The thing is they were overdoing it. Some teachers avoided examination invigilation, and we will be requested to cover up".*

The most crucial part of pre-service teacher education is the school experience phase, which helps student teachers advance their careers (Ben-Peretz, 1995). However, it should be noted that the respondents in this study reported that, despite the benefits of the Teaching Practice, the duration of the Teaching Practice period is insufficient. Table 4 clearly shows that the university does not provide enough time for student teachers to practice teaching. One interviewed student teacher shared their experience, stating, *"Teaching Practice lasts for a total of 7 weeks, with the first week dedicated to observations, thus we only have 6 weeks of teaching experience. Remember that there are also month-end tests and other activities in between. Truly, the time of the training needs to be increased".*

Another interviewed student teacher responded that.

> *Seven weeks of Teaching Practice is not enough. We learn important things during Teaching Practice, but a minimum of three months would be adequate. Numerous activities, including monthly tests and meetings, interrupt the seven weeks scheduled. Furthermore, we are compelled to work under pressure in a short period to excel, so we become ready for the assessments of the university lecturers. This pressure results from certain supervisors placing difficult expectations on us. They do not realise that this is a training session. In short, the duration of the Teaching Practice prevents us from learning with relaxed mindsets.*

It is evident from what the student teachers said that the university gives its students insufficient time for Teaching Practice. This finding is consistent with the research undertaken by Nakpodia (2011). According to Nakpodia (2011) the six-week duration is insufficient since it might not give student teachers enough chances to complete the exercise's goal of gaining sufficient practical experience. Araya, Hailu, and Kesete (2020) identified a short practice period as one of the key challenges experienced by student teachers during Teaching Practice. Nja and Sampson (2020) assessed the effectiveness of science education students' teaching practice using a sample of 200

student teachers. The study suggested that the period of Teaching Practice should be increased. Similarly, Merritt, Archambault, and Hale (2018) stated that lack of time for Teaching Practice is one of the key challenges that impair the success of the Teaching Practice process.

7. CONCLUSION

The study's findings provide useful insights into the Teaching Practice program that student teachers take part in. The results also add to the body of research in a variety of ways. First, the findings demonstrated that the Teaching Practice program is highly beneficial to student teachers and should be sustained. Furthermore, the findings revealed that for Teaching Practice to be successful, it requires the complete support of the university and host schools. Therefore, it is recommended that the university, through the Teaching Practice Office, improve its relationship with the host schools by holding seminars for awareness, formulating and implementing policies, and facilitating efficient two-way communication to ensure the provision of a conducive environment and good placement mechanism.

The study found that while the Teaching Practice exercise is beneficial for student teachers, several issues need to be addressed to ensure optimum advantages for student teachers. Because of these challenges, this study concludes that there is a shortage of lecturers for supervision. As a result, a significant number of student teachers were not observed, while others received little to no feedback from the university supervisors. As a result, it is recommended that the university continually examine the teaching practice exercise to find solutions. Furthermore, according to the findings of this study, there appears to be insufficient time for Teaching Practice. It is recommended that the university develops and executes policies and programmes to provide sufficient time for Teaching practice to improve its effectiveness.

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