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Trainee Teachers Attitudes toward Macro-Teaching: Resource Impact and Mentors Perspectives

Isaac Amoako¹, Robert Kwadwo Siemoh², Vera Arhin³, Ruth Keziah Annan-Brew⁴, Adu Joseph⁵,
Kenneth Asamoah-Gyimah⁶

¹ Department of Education, Atebubu College of Education, Atebubu, Ghana.

Email: isaac.amoako2@stu.ucc.edu.gh

² Department of Science, Atebubu College of Education, Atebubu, Ghana. Email: rsiemoh@gmail.com

³ College of Distance Education, University of Cape Coast, Cape Coast, Ghana. Email: varhin@ucc.edu.gh

⁴ Department of Education and Psychology, University of Cape Coast, Cape Coast, Ghana.

Email: ruth.keziah@ucc.edu.gh

⁵ Department of Education, Atebubu College of Education, Atebubu, Ghana. Email: adujoseph350@gmail.com

⁶ Department of Education and Psychology, University of Cape Coast, Cape Coast, Ghana.

Email: kasamoah-gyimah@ucc.edu.gh

Correspondence: Vera Arhin. Email: varhin@ucc.edu.gh

Abstract

Macro-teaching is a technique used to prepare trainee teachers for the real classroom setting. This technique enables trainee teachers to experiment and learn relevant teaching skills through interactions with their lead mentors and mentors. This study assessed the attitude of trainee teachers towards macro-teaching from the perspective of lead mentors and mentors. The study also assessed the importance of school resources in macro-teaching exercise. Using a qualitative case study research design, and Braun and Clarke's inductive thematic analysis approach 194 respondents' responses were used for analysis. The study findings revealed a positive attitude among trainee teachers toward the macro-teaching exercise. It also revealed that school resources, particularly infrastructure and teaching and learning resources were inadequate and also not available in some public basic schools in the Bono East region. The findings found this to adversely affect trainee teachers' competency development in the teaching profession. The study recommends that the Ministry of Education through the Ghana Education Service should provide school resources such as staff common rooms and reading materials for basic schools in the municipality to promote quality teaching and learning in schools.

Keywords: Macro-teaching, Mentors, School, Trainee-teacher, Resource

1. Introduction

The achievement of Sustainable Development Goal four (SDG4), which focuses on ensuring inclusive, equitable, quality education and lifelong learning, is indeed pivotal for the strength and sustainability of societies worldwide. Quality education is not only a fundamental human right but also a key driver of economic growth, social development, and individual well-being. While progress has been made in advancing education and learning

opportunities globally, continuous improvements are essential, especially in light of evolving knowledge prospects and the changing landscape of education and learning. This assertion was highlighted in a study by Unterhalter (2019), underlining the need for ongoing efforts to enhance the quality of education and promote lifelong learning opportunities. The High-level Political Forum on Sustainable Development (HPFSD) in 2019 underscored the critical role of qualified teachers in achieving SDG4. This recognition reflects the significance of educators as central actors in the educational process and, by extension, in the overall advancement of societies towards sustainable development.

In Ghana, the pre-tertiary teacher education programme focuses on preparing teachers for basic and secondary schools (Ministry of Education [MoE], 2012). This programme aims to equip trainee teachers with pedagogical skills to provide quality education. Among the various components of the curriculum for trainee teachers, teaching practice stands out as a vital aspect (MoE, 2017). During teaching practice, trainee teachers have the opportunity to apply the theories and skills they have learned during their training period in actual classroom settings, under the supervision of experienced educators. This experience helps bridge the gap between theory and practice and determines the quality of readiness a trainee teacher carries into their future teaching career.

The term "teaching practice" encompasses the range of experiences that student teachers undergo while working in real classrooms and schools, as highlighted by Marais and Meier (2004). This practical application of learned concepts is crucial for a trainee teacher's transition into a professional teaching role, as explained by Kwatubana and Bosch (2019). Thus, teaching practice involves a trainee teacher leading a group of students in a school setting, where they are observed and evaluated by both mentors and host teachers. This process enables constructive feedback, critique, and correction, which is essential for the trainee teacher's growth.

In the context of teacher education in Ghana, teaching practice is divided into two distinct phases: micro-teaching (on-centre teaching practice) and macro-teaching (off-centre teaching practice). Both phases are compulsory for aspiring trainee teachers enrolled in teacher preparation programmes, and they serve as crucial components of the professional development of the trainee teacher. Micro-teaching is the initial phase of teaching practice and takes place within the trainee teacher's own educational institution (college or university campus). During this phase, trainee teachers engage in peer teaching under the supervision of tutors from their respective institutions. The primary goal of micro-teaching is to provide a controlled and familiar environment for trainees to practice teaching and receive feedback. By teaching their peers, trainee teachers can enhance their self-confidence and hone their teaching skills. This phase also allows educators to reinforce the concepts taught in classrooms, and also helps trainee teachers refine their professional competencies before progressing to macro-teaching.

The macro-teaching is the advanced phase of teaching practice and involves trainee teachers teaching in real classrooms, facing the challenges and complexities of actual educational settings. During this phase, trainee teachers are supervised by tutors or lecturers from their institutions, as well as experienced teachers from the placement schools where they conduct their teaching. The purpose of macro-teaching is to provide trainee teachers with an opportunity to apply their content knowledge, teaching methodology, and pedagogical skills in authentic teaching scenarios. This phase is particularly demanding, as it signifies the critical transition from initial teacher education to the professional teaching career. Research consistently demonstrates that teaching practice exercise, such as macro-teaching, offer trainee teachers the opportunity to acquire essential skills including lesson structuring, effective lesson planning (Mufidah, 2019), adept question formulation, classroom management, utilisation of diverse teaching materials (Saban & Coklar, 2013), as well as the ability for self-reflection and critical analysis of their teaching practices (Fernandez, 2010; Putnam & Borko, 2000).

Macro-teaching takes place in mentoring schools, usually at the basic school level. In this context, lead mentors (head teachers) are responsible for assigning trainee teachers to mentors (experienced teachers) and oversee their activities within the school. Mentors work collaboratively with trainee teachers in classroom settings. While mentors play a vital role in guiding trainee teachers, lead mentors have a more comprehensive role, including instructing, monitoring, and supervising various aspects of daily activities, such as lesson planning, teaching and learning resource development, classroom instruction, and student's assessment.

Attitudes play a pivotal role in determining how trainee teachers engage with the programme, interact with students and mentors, and ultimately, how they develop as educators. Positive attitudes among trainee teachers can significantly enhance their commitment to learning, help develop resilience when faced with challenges and feedback, and ultimately foster their professional growth, adaptability, and enthusiasm for the teaching profession.

Studies outside and within Ghana have highlighted common challenges and patterns related to teaching practice programmes and the attitudes of trainee teachers. These studies provide valuable insights into how these factors can impact the effectiveness of teacher education. For studies conducted outside Ghana, Adekunle (2000) found inadequate time allocated for teaching practice, and an unserious attitude among trainee teachers leading to trainee teachers not acquiring the necessary skills, confidence, and knowledge required for effective classroom management. This emphasizes the importance of allocating sufficient time for trainee teachers to engage meaningfully in teaching practice and take it seriously as a critical part of their professional development.

A study by Nwanekezi et al. (2011) highlighted issues related to inadequate preparation and short practice periods. These factors can result in trainee teachers not having the opportunity to fully engage in the teaching process, leading to negative attitudes during the practice exercise. This underscores the significance of providing thorough preparation and adequate time for trainee teachers to engage in comprehensive teaching practice experiences. Benjamin et al. (2011) demonstrated the correlation between student teachers' attitudes and their performance during teaching practice. While the overall attitude towards teaching practice was negative, those with a positive attitude performed significantly better than those with a negative attitude. This indicates that fostering a positive attitude among trainee teachers can lead to improved performance and better outcomes in their future teaching careers. However, a study conducted by Özonur and Kamışlı (2019) in Turkey, found positive attitude among preservice teachers during teaching practice programme.

Although there is a relative lack of literature to support, the widespread outcry about the quality of school resources available for most trainee teachers who undergo this practice, Marais and Meier (2004) opined that the effectiveness of the teaching practice can be diminished or eroded by a range of challenges, such as geographical distance, low and uneven levels of teacher expertise, lack of school resources as well as lack of discipline among a wide cross-section of learners and educators. A study conducted by Makori and Onderi (2014) on school resources (library, textbooks, laboratory, classroom, furniture, staffing level, workshops, playground and sports facility) found that lack of teaching and learning resources: libraries, laboratories, textbooks, classrooms, furniture, staffing level, playground, and sports facility affect teachers output. The authors stated that unfavourable access to teaching and learning resources raises serious concerns in the teaching and learning process. Quick and Sieborger (2005) assert that the challenge of lack of resources, if not addressed, may affect trainee teachers' performance and affect their perception of the teaching profession in the long run.

Studies conducted within Ghana provided valuable insights into the experiences of trainee teachers during teaching practice. However, they point out certain gaps in the existing literature. A study conducted in Ghana, by Yidana and Aboagye (2018) sheds light on the mentorship experiences of trainee teachers during teaching practice. The finding that some mentors contribute to professional development while others abandon trainee teachers highlights the importance of effective mentorship in guiding and supporting trainees during their practical experiences. Another study conducted by Adu-Yeboah and Kwaah (2018) focuses on the benefits of on-campus practical experience for trainee teachers. This type of experience provides a controlled environment for trainees to develop their pedagogical skills and improve their knowledge. These benefits could be further enhanced by integrating practical experiences with theoretical knowledge, creating a well-rounded preparation for teaching careers. While these studies provide insights into certain aspects of teaching practice in Ghana, they also highlight areas that have not been extensively explored. Amankwah et al. (2017) among other variables found that lack of teaching aids is one of the challenges faced by trainee teachings in their delivery during teaching practice period. The availability and quality of school resources have far-reaching effects on the teaching practice experience. Adequate resources can lead to more engaging and effective teaching, increased student engagement, and better learning outcomes. On the other hand, resource shortages can hinder teaching effectiveness, create disparities in education, and impact overall morale among educators. This presents an opportunity for further research to address this gap and contribute to a more comprehensive understanding of teacher education in the Ghanaian context.

Kant's (2000) Theory of Judgement underpins this research. In Kant's theory, the notion that experience involves reasoning and the active exercise of the mind aligns well with the complex process of teaching practice. Trainee teachers not only engage with the practical aspects of teaching but also actively reflect on their experiences and form judgments about how they will approach teaching and learning. This theory enables a nuanced analysis of how trainee teachers' prior knowledge, expectations, and reflections shape their understanding of effective teaching methods and the learning environment. As Kwatubana and Bosch (2019) demonstrated, applying Kant's theory to educational research can yield valuable insights. Thus, understanding how trainee teachers make judgments about their teaching practice experiences can provide a holistic view of the impact of these experiences on trainee teachers' professional development. By grounding our research in this theoretical framework, this study has the opportunity to contribute to the understanding of how trainee teachers' active judgments and reflections shape the effectiveness and outcomes of teaching practice exercises.

2. Research Objectives

The objectives of the study were to:

1. Explore the attitudes of trainee teachers towards macro-teaching.
2. Assess impact of school resources on trainee teachers macro-teaching.

3. Methods

The study adopted a qualitative case study design. According to Yin (2014), this design is suitable when seeking a comprehensive and detailed understanding of a social phenomenon. Thus, the design aligns well with the study's aims of investigating 'how,' 'why,' 'what,' and 'who' questions concerning trainee teachers' attitudes and the impact of school resources on the macro-teaching exercise.

The study focused on the Bono East Region of Ghana, specifically involving Atebubu College of Education, two districts and the municipality in which it conducts macro-teaching placements. By concentrating on a single public teacher training institution and its associated districts and municipality, the research scope is manageable, enabling a thorough investigation into trainee teachers' attitudes and the impact of school resources in the macro-teaching exercise within this specific context.

Atebubu College of Education, the sole public teacher training institution in the Bono East region, operates within two districts and one municipality: Pru West, Pru East, and Atebubu-Amantin. These areas are utilised for assigning trainee teachers for macro-teaching. As a result, the participants for this study were selected from Atebubu College of Education, the aforementioned two districts, and one municipality within the region.

To provide specific details, the Atebubu-Amantin municipality consists of 91 Primary Schools and 36 Junior High Schools. In Pru East, there are 56 Primary Schools and 32 Junior High Schools, while Pru West has 51 Primary Schools and 24 Junior High Schools. The educational landscape also includes 127 head teachers in Atebubu-Amantin (both Primary and JHS), 88 head teachers in Pru East (both Primary and JHS), and 75 head teachers in Pru West (both Primary and JHS). Additionally, subject teachers are distributed as 1390 in Atebubu-Amantin, 840 in Pru East, and 750 in Pru West, respectively (Bono East Education Directorate, 2022). Considering the study's focus on the Atebubu College of Education, the sole case institution under scrutiny, the research specifically targeted its final-year students, numbering 380 (Atebubu College of Education Academic Affairs, 2022). To ensure a balanced representation, the quota sampling technique was utilised to select 50 trainee teachers for each of the three areas; Pru West, Pru East, and Atebubu-Amantin municipality - assigned for the macro-teaching exercise. This meticulous approach yielded a total of 150 participating trainee teachers. Again, the study employed convenience sampling to gather insights (Yin, 2003) from a group of 100 head teachers, who function as lead-mentors. Similarly, 120 teachers (who served as mentors) from Basic Schools were selected through convenient sampling. Their responses provided a valuable insight into trainee teachers' attitudes. In all 370 participants were sampled for the study.

The study utilised an interview schedule derived from existing literature, including works by Singh and Harun (2020); Royal-Dawson and Baird (2009); and Bricout et al., (2008), to investigate teaching practice activities. The selection of this schedule was based on the recognition of the importance of gathering accurate information through direct face-to-face interactions with participants, focusing on aspects related to the significance of the macro-teaching exercise. This interview schedule comprised two dimensions. The first dimension gauged the attitudes of trainee teachers towards the teaching practice experience, encompassing areas such as their initial reporting behaviour, punctuality, interactions with learners and mentors, and their commitment to teaching tasks and associated activities, involving a total of four items. The second dimension aimed to explore the influence of school resources (both infrastructure and teaching and learning resources) on the macro-teaching exercise, consisting of four items as well. Overall, the schedule incorporated eight items distributed across these two sub-dimensions.

Quality Control Strategies

After meticulously developing the interview schedule items, the researchers enlisted an expert's assistance to review and ensure content representation. Additionally, a pilot testing (involving 10 teachers', 10 head teachers and 15 students outside the sampled used for the study) was conducted to assess both the interview questions' efficacy and the interviewing approach. During the pilot sessions, the plausibility of responses and participants' demeanor were scrutinised to validate their trustworthiness. The researchers also sought corroborative evidence supporting participants' testimonies and ensured confirmability by sharing transcripts with participants for endorsement. These quality control measures employed in the pilot phase were faithfully upheld during the main data collection stage.

3.1. Ethical Protocols

This research study adhered to ethical guidelines by obtaining approval from the research project coordinating team at Atebubu College of Education and also sought permission from the respective institution heads. A study conference was organised in each school, during which participants were fully briefed on the study's purpose and significance. Additionally, participants were assured of their confidentiality and anonymity rights throughout the study and were informed of their freedom to withdraw from the study whenever they wished. Prior to data collection, participants willingly provided their informed consent by signing a consent form and also indicated their preferred interview time slots. For anonymity of respondents, no name was used for the analyses.

3.2. Procedures

All researchers mentioned in this paper actively participated in conducting the interview sessions with the participants. Prior to data collection, participants shared their available time slots with their designated interviewers for scheduling. The majority of participants preferred to be interviewed after school hours. These interviews, conducted across different schools, were allocated a duration of 30 minutes each. With participants' consent, interview data were recorded using both phones and recorders. The interviews centered on the two primary themes outlined in the interview schedule; trainee teachers' attitudes towards macro-teaching and availability of school resources.

3.3. Dataset

Dataset 1 comprised 100 individual interviews conducted with Lead Mentors, focusing on the core topics of school resources and trainee teachers' attitudes, which were under investigation. The interview schedule consisted of 4 items, and throughout the interviews, inductive probing techniques were employed. Through inductive thematic analysis, responses to the four questions led to the identification of 53 distinct codes, each representing a new response. The study's sample displayed high homogeneity. Based on a thematic code threshold of 50%, the interview process concluded after the 53rd interviewee. At this juncture, the proportion of new information introduced by the final interview surpassed the 50% thematic code threshold. It was apparent that the addition of novel insights was declining, signifying that saturation had been achieved by the 53rd interview.

Dataset 2 encompassed 120 individual interviews involving mentors, focusing on one of the primary themes outlined in the interview schedule: Trainee teachers' attitudes towards macro-teaching. Interviews were scheduled

according to participants' convenience. All participants in this category were required to address the four items in the interview schedule. Similar to the Lead Mentors' dataset, the interviews were guided by inductive probing techniques. The interview questions yielded 65 distinct codes, representing 65 maximum responses.

Dataset 3 involved 150 individual interviews conducted with trainee teachers, centering on the focal topic of school resources being investigated. Four primary questions were posed to address the objective, including inquiries about logistical challenges and infrastructural issues at their practice schools, as well as the availability of tables and chairs for conducive classroom arrangements and the existence of a resource centre for children with special needs. Inductive probing techniques guided the interviews. The responses led to the identification of 76 distinct codes, each signifying a new response. The study sample displayed high homogeneity, and following the 50% thematic code threshold, the interview process concluded after the 83rd interview. At this stage, the percentage of new information introduced by the final interview surpassed the 50% threshold for thematic codes. It was evident that the infusion of novel insights was diminishing, indicating that saturation had been achieved by the 76th interview.

Dataset 4 incorporated a focus group discussion aimed at corroborating the emergent themes from the individual interviews. This discussion involved five lead mentors and centered on the significance of school resources in the context of macro-teaching. The responses from the discussion corresponded with the two main themes identified in the individual trainee teachers interviews. The alignment between the focus group discussion themes and the individual interview themes provided confirmation of the inductive thematic saturation of the data. Furthermore, a group of six teachers (mentors) participated in a similar interview concerning the relevance of school resources in macro-teaching.

Upon completing the data collection phase, transcription was carried out systematically, followed by data cleaning in preparation for processing and analysis. Transcribed data were organised based on identified themes in a sequential manner. The study employed Braun and Clarke's (2006) thematic approach for qualitative data analysis. Themes pertinent to the research objectives that had guided the study's execution were formulated. The research team independently reviewed all excerpts attributed to subthemes to ensure their coherent alignment.

Thematic analyses were conducted on both individual and focus group interviews, offering insights into the experiences of head teachers, teachers, and students in relation to macro-teaching, with specific emphasis on the relevance of school resources and trainee teachers attitude toward macro-teaching. The subsequent section provides a comprehensive account of the subthemes, accompanied by illustrative quotes that illuminate key themes and subthemes.

4. Results

In a retrospective analysis, the researchers of this study conducted interviews with both lead mentors and mentors to address objective one, focusing on the attitudes of teacher trainee teachers towards the macro teaching exercise. During the interview sessions with lead mentors, intriguing trends emerged concerning the initial behaviour of trainee teachers. These trends were characterised by a pronounced "enthusiasm towards the teaching profession" and a strong sense of "efficacy for the teaching tasks." Notably, these insights were corroborated by data collected from the mentors, as highlighted in Tables 1 and 2. Highlighting these points further, the responses from lead mentors indicated that trainee teachers exhibited zeal, displayed significant passion for their teaching responsibilities. They also conveyed a readiness to embrace the new teaching tasks during the macro-teaching period. Head teachers echoed this sentiment, noting that trainee teachers exhibited an eagerness by reporting to their duties promptly, signifying their enthusiasm for their roles in the macro-teaching exercise.

A female head teacher provided her perspective, stating:

"I had four trainee teachers in my school, and upon their arrival, they exhibited punctuality and a strong dedication to school-related tasks. They consistently adhered to their scheduled reporting time, and showed a remarkable commitment." (School 1).

A male head teacher expressed:

"They arrived on the specified reporting day as instructed. All six mentees were present at the school on the designated reporting day." (School 2).

Another male head teacher shared:

"To be honest, they displayed exceptional punctuality right from the outset of the exercise. Their commitment to work was evident, reflected in their punctual arrival at the school. Their dedication was noteworthy, and we acknowledged their consistent punctuality. In fact, none of them arrived late, and even the school's log book confirms this fact." (School 3).

Another male head teacher shared:

"Indeed, the group of six mentees assigned to my school demonstrated commendable diligence in terms of reporting for duty. The majority of them were punctual and arrived early, aligning with our expectations. Although one individual was unable to report on the reopening day, the individual communicated the absence through a colleague." (School 4).

Mirroring the sentiments expressed by lead mentors, the teachers who served as mentors for the trainee teachers confirmed the genuine enthusiasm and commitment exhibited by the trainee teachers at the outset.

A female teacher contributed:

"The trainee teachers adhered to the designated date for commencing the teaching practice exercise. Beyond their reporting, during the initial sessions of the exercise, they displayed substantial dedication to school activities, engaging in tasks such as aiding children in sweeping, organising assemblies, and participating in non-curricular activities." (School 3).

A male teacher also shared:

"I can affirm that upon their arrival, they excelled in all aspects of engagement, actively participating in various activities including teaching, sports, assemblies, and more." (School 3).

Tables 1 and 2 provide a concise overview of the respondents' perspectives regarding trainee teachers' attitudes toward the macro-teaching exercise.

Table 1: Perspectives of Head Teachers (Lead Mentors)

Questions	No. Resp.	% of Resp.	Responses
How was the behavior of trainees on the reporting day?	52	52	"They came on the day that they were asked to report. All six mentees were here in the school at the reporting day." (Similar responses from Lead mentors).
What can you report about the punctuality of trainees?	50	50	"It was one of the best, even we told them that we've been through this system with a lot of students but for their group, it was the best. They always sought for permission before absenting themselves." (Similar responses from Lead mentors).
How did trainee teachers relate with their mentor teachers?	43	43	"It was so cordial, very cordial, always you see them at the place where the mentors are. They worked together and whatever information they wanted to tell the lead mentor, they told their mentors to tell me which was an indication of good relationship." (Similar responses from Lead mentors).
What was their commitment toward teaching and related tasks?	53	53	"Trainee teachers were very committed to all the activities of the school. They were supportive in the teaching of various subjects, preparation of terminal reports, marking of attendance register and organizing of co-curricular activities for the children." (Similar responses from Lead mentors).

Source: Field Data (2022)

Table 2: Teachers' Perceptions on Attitudes of Trainee Teachers toward Macro-Teaching (Mentors)

Questions	No. Resp.	% of Resp.	Responses
How was the behavior of trainees on the reporting day?	65	54	"Trainees' behavior on the reopening day for the macro-teaching was impressive. They reported in their numbers and on time." (Similar response from mentors)
What can you report about the punctuality of trainees?	60	50	"The trainee that was assigned to me was very punctual. Notice of absence was always delivered in days of absence. I testify that an attitude of this nature is good for a beginner teacher." (Similar response from mentors)
How did trainee teachers relate with their mentor teachers?	51	43	"For me, trainees who were assigned to me related well with me. We discussed issues together, they shared their challenges with me, and we worked together as professionals in a community of practice." (Similar response from mentors)
What was their commitment toward teaching and related tasks?	45	38	"This batch of trainees was very helpful. They almost did every activity in the school. They performed every bit of activity that was assigned to them, both academic and non-academic tasks." (Similar response from mentors)

Source: Field Data (2022)

The active participation and dedication of trainee teachers in school activities during the macro-teaching period significantly determine the quality of relevant experience they gain for their future teaching roles. The feedback from the respondents overwhelmingly indicated that trainee teachers' attitudes were predominantly positive. Their engagement encompassed reporting to schools on time, assisting children in cleaning their surroundings and classrooms, promptly preparing lesson plans, teaching various subjects, and actively participating in co-curricular activities.

For research objective two, a series of interview sessions yielded responses from trainee teachers. These interviews unveiled two prominent themes derived from the participants' input on school resources. The first theme highlighted the scarcity of teaching and learning resources, while the second underscored the insufficiency of infrastructure. In the context of an apprenticeship-based learning model like macro-teaching, the absence of crucial resources such as children's textbooks, relevant charts, apparatus, and exercise books can impede the seamless execution of the exercise. Beyond the scope of teaching and learning resources, the inadequacy of infrastructure was also evident. For instance, at the Junior High Schools, essential facilities like staff common rooms were non-existent. The majority of staff at these schools operated in outdoor spaces like under trees or sheds. To provide a direct insight, some of the views of trainee teachers regarding the impact of school resources on the effectiveness of macro-teaching have been quoted verbatim.

A male trainee teacher provided this insight:

"In classrooms where the number of pupils is substantial, and there's an insufficient number of desks available, as is the case in our situation, you can observe that pupils are squeezed three by three onto a single desk. This setup has the effect of demotivating trainee teachers from engaging in practical activities with their pupils." (School 2).

Another perspective was shared by a female trainee teacher:

"Apart from the absence of a staff common room for teachers to prepare, our classrooms are overly crowded with pupils, impeding teachers' smooth movement during instruction. This situation could potentially hinder trainee teachers from gaining proper classroom management experiences." (School 1).

A female trainee teacher shared this:

"Dealing with the absence of textbooks has been a significant challenge. I find myself frequently writing passages on the board during English reading and comprehension classes. This has made teaching much more difficult for me." (School 7)

An experience shared by another trainee teacher:

"The school where I conducted my teaching practice suffered from a severe lack of infrastructure. We had classes conducted outdoors, and also have our staff common room under trees. As a result, when it rained, we couldn't hold classes. I often feel disheartened and saddened by the fact that our Basic schools lack the necessary resources to effectively support teachers in carrying out their responsibilities." (School 8).

In a focus group discussion, the researchers engaged five Lead mentors, and six mentors in a separate focus group discussion on the issue under investigation, they had the following to share:

Response 1: *Infrastructure is really a problem not only for my school but most of the basic schools around (Head teacher 23, Male, Sch. 23).*

Response 2: *For my school, we are really lagging behind in terms of infrastructure; we do not have staff common room for teachers, adequate number of classrooms and even place of convenience. This in my view does not help novice teachers' development (Head teacher 31, Male, Sch. 31).*

Response 3: *The kindergarten children in my school are taught under tress because we do not have classroom block for them. aside the problem of infrastructure, we also do not have textbooks, crayons and even chalkboards to use under the tree. How then do you expect trainee teachers to get the required experiential knowledge since they never got materials to practice? (Head teacher 29, Female, Sch. 29).*

Response 4: *Learning how to teach is to teach with the right materials, our schools do not have the right materials to aid trainee-teachers to learn how to teach properly. (Head teacher 40, Male, Sch. 40).*

Diverse challenges are present in various regular basic schools. While inadequate classroom desks posed a challenge for certain schools, others grappled with insufficient classroom infrastructure. Another insight was shared,

Response 5:

"Being a single-stream school, we possess just three block classrooms for grade 1 to grade 6. Our lower classes (i.e., grade 1 to grade 3) conduct their lessons under trees. This scenario could likely demotivate trainee teachers and dampen their enthusiasm for the teaching profession." (Head teacher 4, Male, School)

One teacher highlighted the issue by stating,

"I want to stress the lack of textbooks in our school. Over the past nine or ten years, the government hasn't supplied basic schools with textbooks, especially for subjects like English language. This situation has created difficulties for trainees as they need to find ways to teach without proper resources." (Subject teacher 1, Male, Sch. 3).

Another teacher expressed:

"In an ideal scenario, I should be able to prepare the day's lesson material in collaboration with the teacher trainee. However, due to the lack of a teacher's handbook that could provide guidance, I often have to search for information online even before coming to school. This situation prevents trainee teachers from gaining a comprehensive teaching experience." (Subject teacher 3, Female, Sch 1).

Another teacher's perspective is shared as follows:

"Honestly, I don't believe that trainee teachers can effectively learn from their teaching practice because our school faces a significant issue – the lack of textbooks for teaching. For example, when we need to teach something like English reading, I have to write the entire passage on the board before the lesson starts. This situation causes stress and demotivation among most trainees." (Subject teacher 4, Male, Sch 4).

Most schools faced challenges related to the availability of teaching and learning resources, which had a substantial impact on the practice of trainee teachers. The constraints imposed by the lack of resources affect various aspects of trainee teachers' work. Without textbooks, visual aids, and other teaching materials, trainee teachers might find it challenging to explain complex concepts or provide varied learning experiences to their students. This can lead to monotony in teaching methods and limited opportunities for active student engagement. Again, insufficient resources like classroom furniture, chalks, and whiteboard markers can hinder trainee teachers' ability to manage the classroom effectively. Also, inadequate desks and writing tools can disrupt the flow of the lesson and negatively impact classroom discipline. Adhering to standard educational practices, classrooms should be well-organised to facilitate movement and enable a learner-centered teaching approach (World Bank, 2013). The lack of adequate desks can pose challenges to arranging classrooms effectively, leading to learners clustering around the limited available desks.

5. Discussion

The study's findings indicate that lead mentors and mentors all recognised the importance of cooperative and positive attitudes displayed by teacher-trainees during macro-teaching. These positive attitudes are seen as crucial in establishing an environment conducive to "on-the-job learning." Participants identified this positive attitude as a key factor in the success of macro-teaching, suggesting that the right demeanor greatly contributes to effective teaching experiences.

By implication, the positive attitude towards macro-teaching exhibited by learners shows a readily available human resource prepared for work. The study's results indicate that fostering a positive attitude towards macro-teaching has the potential to ignite complete dedication and cooperation from trainee teachers. This discovery aligns with a prior study conducted by Özonur and Kemişli (2019), who observed a similar positive attitude among preservice teachers participating in teaching practice programmes in Turkey. This positive attitude is also linked to a desire among trainees to experiment with different aspects of their teaching practice and to learn from these experiences. This inclination towards experimentation contributes to the optimistic perception of macro-teaching among trainees. However, the findings of this study disagree with that of Benjamin et al. (2011) study that revealed trainee teachers' negative attitude towards teaching practice.

Furthermore, a significant aspect of this study's findings lies in the impact of inadequate infrastructure and insufficient teaching and learning resources by trainees participating in the macro-teaching exercise. Inadequate classroom space in some of the schools had led to overcrowded classrooms, diminishing student-teacher interaction was identified through some of the study narratives, a concern echoed by a study conducted by Amankwah et al. (2017). The findings of this study revealed the impediment of lack of adequate school resources in the effective implementation of macro-teaching in the preparation of teachers for the teaching profession, thus hindering Ghana's progress towards SDG4 for quality education.

6. Conclusion

Based on the study's findings, it becomes evident that a positive attitude towards macro-teaching fosters a sense of complete dedication to work among trainee teachers. The findings also offer valuable insights into the significance of infrastructure and teaching and learning resources in the context of macro-teaching within Ghana, particularly within the study's setting in Bono East region. This dearth of resources critically impedes trainee teachers in the macro-teaching exercise from acquiring the crucial professional skills necessary for their development.

7. Limitations and Areas for Further Research

This study has several limitations, including potential issues related to sample size, generalizability, and subjective perception. The study involves a limited number of trainee teachers, lead mentors and mentors and as such the findings may not be representative of the broader population, reducing the generalisability of the results. Further,

attitudes are subjective and can be influenced by personal beliefs and experiences. The study might encounter challenges in objectively interpreting these attitudes. Future researchers can conduct a study to compare the attitudes of trainee teachers towards macro-teaching in different educational institutions or regions to shed light on how macro-teaching practices are influenced by cultural, contextual, or systemic factors.

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