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Exploration of the implementation of the supported teaching in school programme in colleges of education

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EXPLORATION OF THE IMPLEMENTATION OF THE SUPPORTED TEACHING IN SCHOOL PROGRAMME IN COLLEGES OF EDUCATION

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JUNE, 2023

DECLARATION

STUDENT'S DECLARATION

I, **Ferdinand Ellis**, declare that this Thesis, except quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature: _____

Date: Tuesday, 27 January 2026

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

Mr. Eric Ofosu-Dwamena (Supervisor)

Signature:

Date: Tuesday, 27 January 2026

DEDICATION

To students and Teachers in Ghana, Africa and the World.

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ABSTRACT

This study explored the implementation of the Supported Teaching in Schools (STS) Programme in Ghana's Colleges of Education, examining its alignment with national teacher education reforms and its effectiveness in bridging theoretical training with classroom practice. Framed by Kolb's Experiential Learning Theory and the Competency-Based Approach, the research employed an explanatory sequential mixed-methods design to assess the interplay of mentorship, resource availability, and institutional support in shaping trainees' professional development. Findings revealed that the STS Programme fostered critical pedagogical competencies, such as reflective teaching and lesson planning. However, systemic challenges emerged, including time allocation constraints that disrupted programme coherence, trainees' struggles in conducting action research and writing reflective portfolios, and limited preparedness to support learners with disabilities. Mentors faced heavy workloads and inadequate incentives, impacting their capacity to model inclusive practices. While hands-on school experiences enhanced trainees' confidence, gaps in academic writing skills and specialised training for diverse learners persisted, reflecting broader curricular and logistical shortcomings. The study underscores the need for structural reforms to address time management inefficiencies, integrate research literacy modules, and prioritise inclusive education training. Recommendations include revising STS schedules to balance theory-practice integration, institutionalising mentorship support for academic writing, and embedding disability-responsive pedagogies into the curriculum. By situating these insights within Ghana's teacher education landscape, this research advocates for policies that harmonise programme design with trainees' holistic development, ensuring equitable preparation for 21st-century classrooms.

Keywords: Supported Teaching in Schools (STS), Teacher Education, Inclusive Pedagogy, Experiential Learning, Action Research, Ghana.

CHAPTER ONE

INTRODUCTION

1.0 Overview

Teacher Education was upgraded to tertiary status in 2018 with a 4-year Bachelor of Education Degree in areas like Early Childhood Education, Primary Education, and Junior High School Education. Supported Teaching in School (STS) became a significant part of the new curriculum. A 2019 survey by Transforming Teaching, Education and Learning (T-TEL) revealed that new teachers tend to teach in the same style they were taught, based on their schooling or observations (T-TEL, 2019). Since the implementation of STS in Ghana's Colleges of Education, stakeholders, including student teachers and basic schools, have faced challenges (Abudulai, 2021). This study explores the overall implementation of STS in Ghana's Colleges of Education since 2018, providing recommendations for further research, policy changes, and practicality. The study adopts two theories: The Competency-Based Approach (CBA) (Chomsky, 1968) and the Experiential Learning Theory (ELT) (Kolb, 1984), whose implication directly relates to the practicality of the STS.

1.1 Background to the Study

Teacher education plays a crucial role in shaping the quality of education in any nation. Globally, countries have recognised the importance of equipping teachers with both theoretical knowledge and practical teaching experience to improve learning outcomes (Darling-Hammond, 2017). In recent decades, education systems worldwide

have shifted towards competency-based teacher training, emphasising field experience and mentorship to bridge the gap between theory and practice (OECD, 2019). Many developed countries, including Finland and Singapore, have integrated extended school-based teaching practices into their teacher education programs, ensuring that trainees acquire hands-on experience before transitioning into full-time teaching (Schleicher, 2018).

In Africa, countries such as Kenya, Nigeria, and South Africa have also adopted similar school-based teacher training approaches to enhance teacher preparation (Lauwerier & Akkari, 2015). However, challenges such as inadequate infrastructure, limited supervision, and a lack of mentorship support continue to hinder the effectiveness of these programs (Mulkeen, 2010). Ghana, in its bid to improve teacher education, introduced the Supported Teaching in Schools (STS) Programme as part of the Bachelor of Education (B.Ed.) curriculum in 2018 (National Teacher Education Curriculum Framework, 2017). The STS Programme was designed to ensure that teacher trainees acquire professional values, knowledge, and practical teaching skills through structured mentorship and extended classroom experience.

Despite the introduction of the STS Programme, concerns have been raised regarding its implementation in Colleges of Education in Ghana. Several studies (Abudulai, 2021; Coffie et al., 2021; Otoo et al., 2021) have pointed out issues such as a lack of adequate resources, poor mentorship structures, and limited support for trainees. These challenges have raised critical questions about the effectiveness of the programme and its ability to achieve its intended objectives. Therefore, this study seeks to assess the implementation of the STS Programme in Colleges of Education in the

southern sector of Ghana, examining the availability of resources, the effectiveness of mentorship, and the challenges faced by trainees and mentors.

1.2 Statement of the Problem

The Supported Teaching in Schools (STS) Programme was introduced to bridge the gap between theoretical teacher training and practical classroom experience (National Teacher Education Curriculum Framework, 2017). However, since its implementation in 2018, the programme has faced several challenges, raising concerns about its effectiveness in preparing future teachers. One of the key challenges is resource availability. Studies (Coffie et al., 2021; Abudulai, 2021) indicate that many Colleges of Education and partnership schools lack adequate teaching and learning resources, making it difficult for trainees to fully engage in classroom activities. Additionally, mentorship quality varies widely across institutions, with some mentors lacking the necessary orientation and training to support student teachers effectively (Otoo et al., 2021).

Furthermore, student teachers have reported issues such as insufficient supervision, poor communication with mentors, and inadequate feedback mechanisms (Abudulai, 2021). These issues compromise the overall learning experience and professional development of teacher trainees, potentially affecting their confidence and competence when they transition into full-time teaching roles.

1.3 Purpose of the Study & Research Gaps

Given the challenges identified, the purpose of this study is to explore the implementation of the STS Programme in Colleges of Education in the southern sector of Ghana. Specifically, this study aims to:

- Investigate the availability and adequacy of resources that support the implementation of the STS Programme.
- Examine the levels of mentorship support, supervision frequency, and trainee engagement in the STS Programme.
- Assess the perceptions of teacher trainees regarding the extent to which the objectives of the STS Programme have been achieved through their training experiences.
- Identify the challenges encountered by both teacher trainees and mentors in the implementation of the STS Programme.

Although some studies have explored the perspectives of teacher trainees on STS implementation (Otoo et al., 2021; Coffie et al., 2021), there is limited research on the experiences of mentors, the effectiveness of supervision, and the overall resource availability within Colleges of Education in the southern sector of Ghana. This study aims to fill these gaps by evaluating the implementation of the STS Programme, focusing on mentorship support, supervision frequency, and trainee engagement through quantitative survey analysis and qualitative interviews.

1.4 Research Objectives

The objectives of this study are to:

1. Examine the availability of resources for implementing the STS Programme in Colleges of Education in the southern sector of Ghana.
2. Analyse mentorship support, supervision frequency, and trainee engagement levels in the STS Programme.
3. Assess teacher trainees' perceptions of the extent to which the STS Programme objectives have been achieved.

4. Identify the challenges faced by teacher trainees and mentors in the implementation of the STS Programme.

1.5 Research Questions

The following research questions guide this study:

1. What resources are available for the implementation of the STS Programme?
2. What are the measurable levels of mentorship support, supervision frequency, and trainee engagement in the STS Programme?
3. How do teacher trainees perceive the achievement of the objectives of the STS Programme?
4. What challenges do teacher trainees and mentors face in implementing the STS Programme?

1.6 Significance of the Study

This study is practically, theoretically, and policy-relevant:

- Practical Significance: Findings will help teacher trainees, mentors, and Colleges of Education improve the implementation of STS by identifying best practices and areas requiring support.
- Theoretical Significance: This study contributes to teacher education research by providing empirical evidence on the effectiveness of field-based teacher training programs.
- Policy Implications: Policymakers, including the Ghana Education Service and the Ministry of Education, can use findings to enhance mentorship training, resource allocation, and overall teacher education policies.

1.7 Delimitation of the Study

This study focuses on exploring the implementation of the STS Programme in Colleges of Education in the southern part of Ghana. It examines key areas such as

mentorship, supervision, resource availability, and trainee engagement. The study does not extend to other teacher training programs or alternative internship models outside the STS framework.

This study employs a mixed-methods approach, combining quantitative surveys and qualitative interviews. The quantitative method allows for measuring the levels of mentorship support, supervision frequency, and trainee engagement, while the qualitative method provides in-depth insights from trainees and mentors. This design is justified because it provides a comprehensive understanding of STS implementation, capturing both numerical data and subjective experiences. The study is limited to Colleges of Education in southern Ghana, focusing on final-year teacher trainees and their mentors while excluding other educational institutions and stakeholders such as policymakers. The study is limited to Colleges of Education in southern Ghana, focusing on final-year teacher trainees and their mentors while excluding other educational institutions and stakeholders such as policymakers.

1.8 Limitations of the Study

As with most studies, the data collection instruments in this study have some limitations. Although the study used questionnaires and interview guides, it did not include direct classroom observations of teacher trainees practising STS. A visual appreciation of how trainees implement STS through teaching observations could have provided additional insights into their practical skills. However, this limitation is mitigated by in-depth interviews, which allowed for a detailed exploration of the trainees' and mentors' perspectives. Future research could consider using observation guides to better understand the actual classroom implementation of STS in Colleges of Education in Ghana.

1.9 Definition of Terms

To ensure clarity, the following key terms are defined as they relate to the study:

- Supported Teaching in Schools (STS) Programme: A structured school-based teacher education initiative designed to provide pre-service teachers with hands-on teaching experience, mentorship, and professional development opportunities in partnership schools.
- Implementation: The process of executing the STS Programme, including planning, mentorship, supervision, and resource allocation in Colleges of Education.
- Colleges of Education: Teacher training institutions in Ghana are responsible for preparing pre-service teachers for the basic education system.
- Partnership Schools: Public basic schools where teacher trainees undergo practical teaching as part of the STS Programme, under the guidance of trained mentors.
- Mentorship: A structured guidance process where experienced teachers (mentors) support, assess, and provide feedback to teacher trainees to enhance their instructional skills.

1.10 Organisation of the Study

This study consists of five chapters. Chapter One denotes the Introduction, which encompasses the background, problem statement, theoretical framework, study objectives, research questions, study significance, study delimitation, the definition of terms, study organisation, and a summary. Chapter Two examines relevant literature under specified headings. Chapter Three outlines the methodology employed in the study, covering research design, population, sample and sampling procedures, research instrument, data collection procedures, and data analysis procedures. Chapter Four

presents the results and discussions, while Chapter Five summarises the main findings, draws conclusions, provides recommendations based on the findings, and suggests areas for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter is to review existing literature related to the implementation of the Supported Teaching in School (STS) Programme within Colleges of Education in Ghana. The review is systematically organised to align with the study's specific objectives. The chapter is structured into six main sections: Conceptual Review, Theoretical Review, Empirical Review, Theoretical Framework, Conceptual Framework, and Summary of Literature. The review critically examines relevant concepts, theories, and empirical findings that provide insight into the STS Programme's implementation.

2.1 Conceptual Review

This section defines and explains key concepts central to the study, including teacher education reforms, supported teaching in school (STS), mentorship in teacher training, and practical teaching experiences.

2.1.1 Teacher Education in Ghana

The history of teacher education in Ghana dates back to the colonial era when the primary goal was to produce teachers for Missionary Schools (Mereku, 2019). According to studies, the current teacher education system in Ghana was modelled after the colonial teacher-training education system (Mereku, 2019). The first teacher-training institution in Ghana was established by Christian Missionaries and served as

the blueprint for subsequent institutions (Mereku, 2019). This institution offered training programs that were identical to the pattern used in the European Teacher Education System at the time. In the post-colonial era, the training of teachers in Ghana was based on a modified version of the traditional nineteenth-century European pattern of training teachers (Mereku, 2019).

The Presbyterian College of Education (PCE), Akropong-Akuapim in the Eastern Region, was the first Teacher Training College in Ghana. It was established in 1848 by the Basel Mission, and by 1937, there were six teacher training institutions in Ghana (Mereku, 2019). The other five mission training colleges were the Evangelical Presbyterian College of Education, Amedzope, Wesley College at Aburi, OLA Training College in Cape Coast, St Francis Training College in Hohoe, and St John Bosco Training College, Navarino (Mereku, 2019). Before 1950, there were twelve teacher training colleges, with only two being established by the central government (Mereku, 2019). This finding did not take cognisance of the history of the establishment of the Accra College of Education, formerly Accra Training College.

Accra College of Education was established in 1902 in Accra New Town as a Government Teacher Training College (Accra College of Education, 2022). The College has since moved to its current location at East Legon and has offered various programs such as Certificate ‘A’ 4-year Post Middle, Certificate ‘A’ 2-year Post Secondary, 2-year Modular Post Middle for pupil teachers, Certificate ‘A’ 3-year secondary, 3-year Diploma in Basic Education, and currently offers a 4-Year Bachelor in Primary Education and a 4-year Bachelor in Junior High Education programmes with specializations largely in the Social Sciences (Accra College of Education, 2022).

Concerning the housing of teacher trainees in the context of the boarding school system, several researchers indicated that the boarding school system was meant to instil discipline in the teacher trainees (Mereku 2019). Mereku added that Training Colleges in Ghana preserved most characteristics of mission boarding schools in terms of their curriculum and social life, including the introduction of the boarding system, which means the Teacher Training Colleges are to be located outside communities. Mereku further indicated that discipline was strictly enforced with rules and regulations including dressing, exeats, response to bells, and punctuality as well as doing keep-fit exercises and punishments. Mereku concluded that teacher trainees had few opportunities to be responsible for their affairs due to the controlled nature of the teacher education system in Ghana.

2.1.1.1 Reforms in Teacher Education in Ghana

Reforms are very important in every institution, and the education sector is no exception. There have been several reforms in Teacher Education in Ghana to meet societal changes and demands, which have a direct impact on pre-tertiary education in Ghana. Many countries all over the world, after independence, decided to reform their education to meet economic growth and development, and Ghana's first post-independence president, Dr Kwame Nkrumah, saw education as the key to social and economic development (Akyeampong, 2007). Akyeampong further indicated that Analysts of Ghana's development history have often compared Ghana to South Korea and Malaysia, discussing how all three countries have started on the same economic level, and how South Korea and Malaysia have achieved faster economic growth, whilst Ghana struggles to break through into middle-level income status.

It has become a debatable question as to how Ghanaian leaders planned the future of Ghana's Education with the country's socio-economic development. But literature has it that at the time of independence, ''Ghana had a carefully articulated plan of how education was going to support the efforts to become a prosperous economy'' (Akyeampong, 2007, p. 1). Teacher education reform initiatives in Ghana have largely been influenced by socio-political changes. (Adu-Gyamfi & Otami, 2020). Adegoke (2003) indicated that ''Education is a condition for development and the teacher is the ultimate definer of the reality'' (p. 3). Adu-Gyamfi and Otami (2020) noted that reforms in education are attempts to make changes in policy, practices, or organisation, or to address an identified issue. It has become prudent for every government to take a critical look at the education system and make changes to teacher education to be able to meet societal demands. With the reforms in Teacher Education in Ghana, different kinds of teachers have been produced over time to be able to teach at the public basic schools as well as the senior high schools. Studies indicated that the changes in teacher education have been due to certain arguments against its objectives and contents.

Typical of such arguments is the 2002 education reforms, of which the committee identified that there were problems with teacher education in Ghana, referring to insufficient training for teachers from the Initial Teacher Training colleges (Ministry of Education, Youth and Sports (MEYS), 2004). The term Initial Teacher Training Colleges was coined from a 1993 Ministry of Education report, which stated that Teacher Education in institutions outside the traditional universities that prepare pre-service teachers for basic schools is known as Initial Teacher Training Colleges (Ministry of Education (MEO), 1993).

The 2002 committee report gave certain recommendations to be implemented to develop teacher education in Ghana. The report recommended the establishment of the National Teaching Council (NTC) as a body to be responsible for the licensing of teachers and also called for the upgrading of all Teacher Training Colleges into Diploma awarding institutions to be affiliated with the education-related universities. The committee also recommended that remedial programmes should be provided for teachers for technical, agricultural, vocational, and Special Education, as well as French. Teachers' conditions of service were also recommended by the committee. The committee recommended that conditions of service should be improved to make the teaching profession attractive as well as inspire confidence and efficiency. In addition, the committee recommended that special training should be given to teachers who opt for Guidance and Counselling Programmes. The committee also called for incentives to be offered to encourage teachers to accept transfers from the urban centres to rural areas (Ministry of Education, Youth and Sports (MEYS), 2004).

Before the conversion of Teacher Training Colleges into Diploma awarding institutions and a subsequent change of name to Colleges of Education, Akyeampong (2003) indicated that teacher education may not be effective since the system lacks the structure to meet the demands of time. Supporting his claims, Akyeampong said that from 1993 to the time of his argument, the entry requirement for candidates into Colleges of Education was an Ordinary Level Certificate and Senior Secondary Certificate Examination holders. Speaking on the selection mode, Akyeampong noted that the Teacher Education Division under the Ghana Education Service screened the applicants to ensure that the best candidates were being offered admission. The screened applicants were interviewed by the respective college of education for the final selection (Akyeampong, 2003). The selection interview process was abolished after the

2010 admission process was conducted, where only Ordinary Level (O Level) and Senior Secondary School Certificates were accepted with the cut-off point being D7 in the best three core subjects and best three elective subjects for West African Senior Secondary Certificate Examination (WASSCE) or its equivalent of ‘’E’’ in the SSCE.

The latest reform in Teacher Education in Ghana has to do with the introduction of Bachelor of Education Degrees and a four-year College duration, as well as the affiliation of Colleges of Education to five public universities in the country. The New Curriculum for Colleges of Education was introduced by the. The Institute of Education (2014) introduced a new curriculum to give a new direction to teacher preparation for basic schools. The content of the curriculum offered pre-service teachers the opportunity to pursue 4-year Bachelor of Education Programmes in Early Grade Education, Primary Education, as well as Junior High School Education upon completion. The new Bachelor of Education Curriculum is directional and aimed at transforming Initial Teacher Education and securing the training of highly qualified, motivated teachers who can inspire their learners to achieve better results in basic education (Abudulai, 2021). The University of Cape Coast started the degree in basic education in 2018, after which the other mentoring Universities started in 2019.

Abudulai further indicated that the Bachelor of Education (B.Ed.) programme also aims at turning out teachers who are effective and fully prepared to teach the basic school curriculum. The STS programme is part of the five pillars of the new B.Ed. Curriculum for Colleges of Education in Ghana, which started in 2018. It is the core part of the new curriculum and is meant to enable student teachers to develop and apply their professional values and attitudes, knowledge, and practice so they are competent to teach by the end of their training, and through this, be able to demonstrate they meet

the Teachers' Standards in a manner appropriate to a beginning teacher. (National Teacher Education Curriculum Framework, 2017).

Teacher education in Ghana has undergone multiple reforms to enhance the quality of teacher preparation. The shift from the Certificate 'A' and Diploma in Basic Education (DBE) to the Bachelor of Education (B.Ed.) The 2018 programme marked a significant evolution in pre-service teacher training. The new B.Ed. The curriculum integrates competency-based training and extended practical experience through the STS Programme (National Teacher Education Curriculum Framework, 2017).

Despite these advancements, structural inefficiencies, inadequate teaching resources, and inconsistencies in mentorship frameworks persist in the Ghanaian teacher education system (Otoo et al., 2021). The limited availability of well-trained mentors and teaching-learning resources poses significant obstacles to effectively executing the STS Programme. Addressing these issues requires strategic policy interventions, including enhanced funding, structured mentorship training, and improved coordination between Colleges of Education and their partner schools (Abudulai, 2021).

2.1.1.2 Reforms in Basic Education in Ghana

Basic Education serves as the basis for higher education in Ghana and lays the groundwork for developing work-related skills (Oduro, 2000). (Oduro (2000) assessed the performance of the basic education sector since the initiation of education reforms in 1987 and found that the public sector is the primary provider of education at the primary and tertiary levels. The study also revealed that while most secondary schools are public, vocational schools are predominantly private. Before the 1987 education reforms, the basic school system was structured for students to complete pre-university

education in 13 to 15 years. The variation in the minimum number of years was due to the adoption of a three-track system. However, students who completed primary school could choose to take the middle school track and finish their education after four years (Oduro, 2000).

Although it was possible to take the middle school track, Oduro (2000) indicated that students had the option to skip it and enter secondary school by passing the common entrance examination in primary 6. Those who went through the middle school track were required to spend one or two additional years before taking the entrance examination for secondary school. Before the 1987 education reforms, Ghana's education system consisted of six years of primary school, four years of middle school, seven years of secondary school, and three to four years of tertiary education, a model considered one of the best in sub-Saharan Africa in 1960 (Akyeampong, 2010).

The 1987 reforms brought significant changes to Basic Education in Ghana, replacing the three-track system with a one-track system that mandated all children to spend nine years in basic school – six years in primary school and three years in Junior Secondary School (JSS). Afterwards, they could either enter the workforce or continue to secondary school. Preschool education was not made compulsory under the 1987 reforms (Oduro, 2000). Ghana adopted the 6-3-3-4 education system, with children entering primary school at age 6, spending six years at the primary level, three years at the Junior Secondary school level, three years at the Senior Secondary School level, and four years at the tertiary level. Despite the goal of making basic education compulsory for all relevant age groups, universal primary education has not yet been achieved in Ghana (Oduro, 2000).

The ninth year of basic education culminates with the Basic Education Certificate Examination (BECE), which serves as the official selection process for students. Those who wish to continue formal education can choose to attend senior secondary schools, technical schools, or vocational schools. The reforms were initiated in 1987, with the first intake of students in Junior Secondary School. The senior secondary school system was established in 1990, and the first examination was administered in 1993. The middle school system was phased out in 1989, with the final set of students taking the middle school leaving certificate. The 'O' and 'A' level systems were phased out in 1994 and 1996, respectively (Oduro, 2000).

In 1994, a committee was established to review education in Ghana, leading to recommendations on Compulsory Basic Education that had been neglected since the 1987 reforms. The implementation of the Free Compulsory and Universal Basic Education (FCUBE) Policy in 1996 aimed to address the weaknesses of the 1987 reforms (Akyeampong, 2004, 2010). Despite the 1987 reforms, there were still challenges with student achievement, prompting a review to identify issues related to teacher preparation and learning outcomes (Akyeampong, 2003).

Assessing students has been crucial within the context of the 1987 education reforms to facilitate the academic progression of students from Junior Secondary School (JSS) to Senior Secondary School (SSS). As part of this process, a trimester system was introduced for both JSS and SSS students. At the end of each term, terminal examinations were conducted for class progression, and Junior Secondary School three (JSS3) students were required to take the Basic Education Certificate Examination (BECE) to qualify for Senior Secondary Schools (Adu-Gyamfi et al., 2016).

In 2007, after winning the 2000 elections, the John Agyekum Kufuor-led government introduced a reform in education in Ghana to make Basic Education more inclusive. Two years after winning the 2020 election, Anum (2016) stated that a presidential committee was inaugurated by President John Agyekum Kuffour to review the existing education system in Ghana, chaired by Professor Josephus Anamuah-Mensah, the Vice Chancellor of the University of Education, Winneba. The 2007 reforms were guided by principles such as developing human capital for industrial growth, preserving cultural identity and indigenous knowledge, and promoting advancements in science and technology (Anum, 2016). The 2007 Anamuah-Mensah report introduced two years of Kindergarten in Universal Basic Education. The recommendations in the Anamuah-Mensah report of 2007 were not significantly different from the 1987 Evans Anfom Reforms, with the only distinction being the addition of a two-year Kindergarten, resulting in an 11-year structure for basic education (Anum, 2016).

In 2019, the Government of Ghana tasked the National Council for Curriculum and Assessment (NaCCA) with replacing the objective-based curriculum with a Standard-Based Curriculum and Common Core Programme Curriculum to align with international best practices (Apau, 2021). By 2020, NaCCA had introduced a Standard-Based Curriculum for Kindergarten to Primary 6 learners, recognising that the Objective-Based Curriculum was not adequately meeting modern educational needs. The shift aimed to address problems such as overemphasis on exam preparation at the expense of essential skill acquisition, content overload, and an assessment system that did not effectively support teaching and learning. The new curriculum prioritises basic skills – reading, writing, arithmetic, and creativity – to support lifelong learning and national development (Kpedator, 2019).

The Standards-Based Curriculum also focuses on developing 21st-century skills such as critical thinking, problem-solving, creativity, innovation, communication, collaboration, cultural identity, global citizenship, and digital literacy. These skills, known as core competencies, are integrated into the curriculum, along with values like respect, diversity, equity, and commitment to achieving excellence. The aim is to nurture literate, confident, engaged, and critical-thinking citizens (Addai-Mununkum, 2020; Ministry of Education (MEO), 2018). The implementation of the Common Core Programme, which was initially delayed, began with teacher training and was fully implemented in the 2021/22 Academic year. However, challenges related to the provision of textbooks for both the Standards-Based Curriculum and the Common Core Programme persist. Teachers have expressed concerns about the absence of textbooks affecting effective teaching and learning, but the former Executive Director of NaCCA disagreed, stating that resource materials based on the old textbooks could still provide teachers with significant ideas for creative and learner-centred pedagogies (Mereku & Armah, 2021).

Supporting their stance on the availability of textbooks, Mereku and Armah (2021) pointed out that previous curriculum reforms in Ghana did not have concurrent textbook publications. They mentioned the example of mathematics textbooks printed in 1988, utilised for the implementation of the 1987 reform, even though they were developed in the 1970s. The authors further noted that during the Free Compulsory and Universal Basic Education (FCUBE) reforms that began in 1996, it took over four years before the first set of textbooks for the new curriculum became available in schools across the country in 2000. While textbooks are important, they are not the sole requirement for successful curriculum implementation, as demonstrated by global best practices (Mereku & Armah, 2021).

2.1.2 Supported Teaching in School (STS) Programme

In Sub-Saharan Africa, studies showed that teacher education programmes were outdated, excessively theoretical, and failed to align with the school curriculum (Mulkeen, 2010; Lauwerier & Akkari, 2015). Mereku (2019) supported this view and highlighted how teacher education in Ghana idolised the colonial system. According to him, the post-colonial teacher training in Ghana was merely a slight modification of the traditional European model from the nineteenth century. Consequently, reforms were necessary to meet society's current demands and address identified issues (Adu-Gyamfi & Otami, 2020). To modernise teacher education and align with educational trends, Ghana adopted a new model comprising a three-year Diploma in Basic Education (DBE) programme followed by a four-year Bachelor of Education programme (Coffie et al., 2021).

This initiative was based on the National Teacher Education Curriculum Framework (NTECF), which focused on essential elements of the Initial Teacher Education (ITE) curriculum to develop competent teachers and provide a framework for reviewing all Teacher Education Curricula, including the four-year Bachelor of Education (B.Ed.) programme (National Teacher Education Curriculum Framework, 2017). The NTECF identified four pillars crucial for successful teacher education in Ghana: Subject and curriculum knowledge, Literacy studies (Ghanaian languages and English), Pedagogical knowledge, and the Supported Teaching in School (STS) Programme. The framework also included cross-cutting issues that resonate with these pillars.

The STS programme, as one of the four pillars of the NTECF, aims to transform Initial Teacher Education in Ghana. Its implementation began in the 2018/19 Academic Year at Ghana's Colleges of Education. The STS programme was introduced as part of

the new Bachelor of Education Curriculum when Colleges of Education were upgraded to full tertiary institutions in 2018. Its purpose is to fulfil the expectations outlined in the National Teachers Standards (NTS), which emphasise extended guided teaching periods and the integration of the three main domains of the NTS: knowledge, values, and skills teachers should acquire by the end of their training (National Teacher Education Curriculum Framework, 2017). The NTECF identifies three key factors essential for achieving the NTS through the STS: well-equipped schools, prepared mentors, and effective links between colleges/universities and schools. STS placements assist teacher trainees in developing and applying professional values, attitudes, knowledge, and effective teaching practices.

2.1.2.1 Implementation of the STS Programme

The STS programme is set to be instituted from levels 100 to 400, with various stakeholders including student teachers, tutors, link tutors, mentors, and district officers. These stakeholders are being provided with handbooks to understand the Supported Teaching in School Programme's requirements and their respective roles (School Placement Handbook Year One, 2018). The National Teacher Education Curriculum Framework (2017) expects teacher trainees who undergo the STS programme to have a positive impact on the progress and learning of pupils at basic schools. The Framework also states that teacher trainees must meet the expectations of the programme to demonstrate that they have met the National Teachers' Standards (NTS). Despite expectations that teacher trainees receive orientation on the STS Practice, Abudulai (2021) found that in the first three years of the programme, there was no orientation in colleges in the Northern part of the country. Tengepare (2020) supported this, arguing that incompetent mentors with little or no knowledge about their work during the STS Practice were prevalent. However, with the introduction of the

Standard-Based Curriculum for Primary Schools, Mereku and Armah (2021) indicated that teachers were oriented on the necessary changes and methodologies before implementation.

In schools, there is a strong emphasis on structured and organised learning experiences. Teacher trainees reflect on their mentors' teaching methods and the students' learning experiences. The mentors offer ample support to the trainees while exhibiting a high level of professionalism in their first year of college training. Mentors use various teaching approaches, and multimedia is used to capture these transactions for training purposes (Tengepare, 2020). Throughout the four years of the STS programme, trainees participate in class activities to prepare for in-service teaching. These activities include lesson planning, class management, lesson delivery, and evaluation of students' work (Amankwah et al., 2017; Tengepare, 2020; Abudulai, 2021).

According to Otoo et al. (2021), trainee teachers were given classes to teach during the STS programme. They received guidance from their mentors on how to prepare and effectively use technology-based learning materials. They also had discussions with their mentors about lesson delivery and received feedback on their performance. However, the trainees reported that they were not encouraged by some of the comments made by their mentors, which negatively affected their confidence when teaching. The STS programme is tailored to the trainees' specialisation, which includes Kindergarten to Basic 3, Basic 4 to Basic 6, and Junior High Schools. For TVET specialisations, training is divided between TVET schools and industry (School Placement Handbook Year Three, 2019).

The assessment components of supported teaching remain consistent throughout the four-year programme. These components include the Professional Teaching Portfolio, Classroom Practice, and Classroom Enquiry and Action Research. Regardless of specialisation, these components hold the same importance in every programme (School Placement Handbook Year Three, 2019). According to Appiah Dankwah et al. (2021), teacher trainees are required to create journals and portfolios documenting their weekly activities.

Table 2.1: Credit Weighing for STS Across all Four Years

Semester	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Credit	3	3	3	6	3	9	8	3	8

Credit Weighing for STS across all four years | Extracted from School Placement Handbook Year One (2018)

The implementation of the STS programme in the first and second years has similarities. It involves a twelve-week visit to partner schools, with one day per week spent observing. The First Semester lasts six weeks, followed by another six weeks for the second Semester. During the inter-semester break, trainees spend four weeks in school, working with and teaching small groups. The colleges are responsible for helping students select their schools (School Placement Handbook Year One, 2018; School Placement Handbook Year Two, 2018). In the third year, trainees observe the STS programme for six weeks, participating with the whole class and groups in School 3 through daily visits from their Colleges of Education. During the second semester, trainees spend six weeks working from home or in a residential setting in School 4, taking on 50% to 60% of classroom responsibilities and conducting small-scale classroom inquiry (School Placement Handbook Year Three, 2019). Trainees are

required to maintain weekly experience journals supervised by their tutors at any level. In the fourth year, trainees have a four-month practicum where they teach alongside their mentors in placement schools. Expect at least four major supervisions from the affiliate Universities and Colleges of Education tutors.

The STS Programme serves as the practical component of teacher education in Ghana. Designed to provide progressive field experience, STS integrates theoretical coursework with structured school-based learning, enabling trainees to develop pedagogical competencies, classroom management skills, and professional attitudes (GTEC, 2020). However, research indicates that a lack of consistency in supervision, insufficient mentor guidance, and inadequate placement strategies hinder the programme's effectiveness (Coffie et al., 2021). Additionally, disparities in learning environments across various partner schools impact trainees' exposure to quality teaching experiences, creating inconsistencies in the development of practical teaching competencies (Otoo et al., 2021).

2.1.3 Mentorship in Teacher Training

The implementation of Ghana's National Teachers' Standards (NTS) within teacher education is pivotal in shaping the knowledge, behaviour, and instructional practice of pre-service teachers. Effective mentorship is recognised as the cornerstone for translating the NTS framework into tangible classroom competencies. Research indicates that mentors play a multifaceted role in teacher training, not only guiding the acquisition of content knowledge but also modelling ethical behaviour and professional practice as delineated in the NTS (National Teachers' Standards for Ghana, 2017).

Lonergran and Anderson (1988) defined Practice as a form of experiential learning that can be described as field-based learning, work-based learning, learning by doing

or learning from practice. Recent research confirms that practicum has become a valuable tool for applying theories in a school setting. In teacher education, field experience is essential for effective Initial Teacher Education (ITE) (Cochran-Smith et al., 2016; Darling-Hammond, 2006; Jordan et al., 2018). This is seen in the implementation of practicum in Ghana's Colleges of Education and Universities (Abudulai, 2021; Adu-Yeboah & Kwaah, 2018a; Coffie, 2020; Coffie et al., 2021). The incorporation of practicum into Colleges of Education in Ghana is rooted in the reforms of the Initial Teacher Education (ITE) that took place after 2004 (Tengepare, 2020). These reforms addressed the criticism of teacher education in the 1990s, which focused too heavily on theory and lacked necessary classroom experience (Ministry of Education (MEO), 1993). MEO (1993) highlighted the inexperience of teacher trainees in actual classroom teaching, leading to ineffective teaching. To address this, an additional one-year teaching experience in basic schools was introduced as part of the teacher training programme across the country.

To ensure better implementation of this one-year teaching segment in the Colleges of Education in Ghana, an "in-in-out" model was introduced in the 2004 teacher education reforms to strike a balance between theory and practice. The "in-in-out" model involves spending 2 years on campus (in-in) and one year off-campus (out). To emphasise the importance of field experience, the "In-In-Out" model reduced the residential programme from 3 to 2 years ("In-In") and the professional experience from two blocks of 4-week practicum to 1 year ("Out"). During the first year, teacher trainees observed basic schools during their semester breaks, and in the second year, they engaged in Off-Campus Teaching Practice (OCTP) as part of their Diploma in Basic Education programme (Bishop, 1986; Tengepare, 2020).

For the school observation in the first year, teacher trainees are expected to choose a basic school in their local area and submit a confidential report prepared by the headteacher and class teacher of the observed class to their college authorities. The observation period is usually 2 weeks, and the headteacher receives an introductory letter from the College before it begins (Tengepare, 2020). The OCTP takes place during the second year of the three-year Diploma in Basic Education programme. Teacher trainees are divided into groups of 8 to 10 members and assigned tutors who supervise and guide them in preparing teaching resources, lesson plans, and peer teaching. The trainees spend about 2 hours each afternoon practising teaching techniques in front of their colleagues, who act as students. Assessments of the trainees' progress are conducted weekly, with the supervisors providing feedback. This practice aims to enhance trainees' skills in lesson planning, selecting teaching materials, classroom management, time management, and effective teaching techniques (Tengepare, 2020). The "out" segment of the Diploma programme takes place during the third year, during which trainees undertake the Off-Campus Teaching Practice (OCTP) at designated basic schools within their region. This includes classroom-based activities and after-school community research using Distance Learning Materials (DLMs) to support pedagogical research (Heirdsfield et al., 2008). College tutors are assigned to teacher-trainee clusters at these schools, and research conferences are organised to support their study sessions (Heirdsfield et al., 2008).

Despite the importance of On-Campus Teaching Practice and Off-Campus Teaching Practice in the implementation of the 2004 reforms, Adu-Yeboah and Kwaah (2018) revealed that the practical component of the 2-year residential programme was limited and not valued in trainees' final ranking. This finding contradicted the intended purpose of the reforms, which aimed to provide practical-oriented training. They concluded that

stakeholders did not give enough attention to the practical component of the residential programme, even though it formed the basis for trainees' preparation for off-campus teaching practice and actual (Adu-Yeboah & Kwaah, 2018).

The Supported Teaching in School (STS) Programme was introduced in the 2018 Teacher Education Reforms as one of the four pillars of the National Teacher Education Curriculum Framework, aiming to meet the National Teacher Standards (NTS). STS is designed as the practical school-based component of the teacher education programme, allowing pre-service teachers to observe, plan, and collaborate with peers and mentors in schools to understand teaching and learning approaches for children from diverse socio-cultural and linguistic backgrounds (National Teacher Education Curriculum Framework, 2017). The STS programme is a key aspect of the Bachelor of Education Degree (B.Ed.) programme, enabling teacher trainees to gain practical competencies and experiences to become effective teachers. Unlike the previous Diploma in Basic Education programme, student teachers under the B.Ed. programme spends time in partner schools throughout their four years of study (Abudulai, 2021).

2.1.3.1 Preparing teachers to achieve the National Teachers' Standards (NTS)

Mentors serve as academic role models by helping teacher trainees bridge the gap between theoretical coursework and practical classroom application. The NTS emphasises the importance of rigorous subject knowledge and pedagogical expertise. Through structured mentorship sessions, experienced teachers support trainees in engaging with reflective practices, thereby reinforcing their understanding of curriculum content and effective instructional strategies. For example, studies have shown that when mentors integrate reflective observation and active experimentation into their guidance principles rooted in Kolb's Experiential Learning Theory (Kolb,

1984), trainees demonstrate improved comprehension and application of teaching concepts (Otoo et al., 2021; Coffie et al., 2021).

Beyond knowledge transfer, mentorship is critical in cultivating professional attitudes and ethical behaviour. The NTS outlines clear expectations regarding professional values, which include integrity, accountability, and respect for diverse learners. Effective mentors model these behaviours consistently, fostering an environment where teacher trainees internalise the standards through observation and practice. International literature supports this view; for instance, Darling-Hammond (2006) and Ingersoll & Strong (2011) argue that the alignment of teacher induction programs with professional standards significantly enhances the development of a responsible and reflective teaching identity. In the Ghanaian context, research by Abudulai (2021) reinforces that mentorship, when aligned with the NTS, contributes to the nurturing of a professional ethos that underpins both classroom management and interpersonal interactions.

The NTS, developed by the National Teaching Council (NTC), establishes agreed-upon standards to guide teacher education and practice in Ghana (National Teacher Education Curriculum Framework, 2017). It serves as a professional tool for teacher educators, teachers, teacher trainees, and stakeholders in education to understand the knowledge, skills, qualities, and behaviours expected of teachers. Moving forward, teachers at the pre-tertiary level must understand the expectations of the NTS to achieve the objectives of any curriculum in Ghana. The Colleges of Education expect all teachers completing their initial Teacher Training to undergo assessment based on the National Teachers Standards (National Teacher Education Curriculum Framework, 2017).

The NTS is based on philosophical foundations and aims to define the characteristics of a 'good teacher' in Ghana while embracing the opportunities and challenges of the 21st century. It aligns with Ghana's commitment to Goal 4 of the Sustainable Development Goals (SDG) by 2030, which emphasises inclusive and equitable quality education and lifelong learning opportunities for all. The Standards are designed to be realistic, achievable, and user-friendly to effectively contribute to the achievement of SDG Goal 4. Additionally, the NTS aligns with international teaching standards (National Teachers' Standards for Ghana, 2017).

Figure 2.1: The three domains of the National Teachers Standards (NTS)

How the Three Main Domains of the NTS Interrelate. Source: National Teachers Standards Guidelines 2017

The NTS is organised into three key domains: Professional Values and Attitudes, Professional Knowledge, and Professional Practice. These domains encompass the values, knowledge, and skills that teachers should possess. They intersect with each other and contribute to the development of competent teachers by the end of their four-year initial teacher training, as illustrated in the Venn diagram representing this competence (National Teacher Education Curriculum Framework, 2017). This research examines the extent to which the Standards are being achieved at the Colleges of Education in Ghana. It also highlights the challenges faced during the implementation of the STS by teacher trainees and Mentors at the Partner Schools.

2.1.3.2 Developing Teachers' Professional Values and Attitudes for Basic Schools

Values, as described by Arthur et al. (2005), are complex sets of beliefs that teachers should demonstrate in any school environment. Values play a crucial role in every profession has its expected values and attitudes, including the education sector. Professional shaping of the teacher-learner relationship in schools, as teachers' attitudes can significantly impact students' moral and academic development. Positive attitudes toward learners can enhance their learning outcomes, while negative attitudes can have the opposite effect.

Studies conducted in Africa have explored teachers' professional values and attitudes within the African context. In some African regions, teachers have displayed

judgmental attitudes toward young people's sexuality and pregnant students, focusing on perceived irresponsible behaviour instead of addressing strategies to reduce HIV risks. Moreover, some teachers considered themselves to have higher moral authority than their communities and schools (Smith & Harrison, 2013). In South Africa, teachers' attitudes toward educational technology and their perception of its usefulness, cultural relevance, competence, and accessibility have been found to influence the integration of technology in schools (Hart & Laher, 2015).

In the Ghanaian context, Kuyini and Desai (2007) provided academic interpretations of teachers' attitudes toward inclusion in schools. Their study revealed that attitudes and knowledge of inclusion predicted effective teaching practices, whereas principals' expectations did not. Additionally, Mensah et al. (2022) found that teachers in Ghanaian basic schools exhibited low status, morale, and confidence in teaching subjects such as Social Studies. This highlights the importance for teachers to develop a positive attitude and confidence in teaching specific subjects.

The National Teachers Standards (NTS) outline recommendations and activities for teachers to achieve professional attitudes and values. These standards encompass two broad divisions: professional development and community practice. To demonstrate professional development, teachers should critically reflect on their teaching, pursue lifelong learning and continuous professional development, and demonstrate effective leadership in the classroom and school (National Teachers' Standards for Ghana, 2017). Teacher trainees are expected to engage in self-directed study, utilise available resources, and apply new learning from professional development programs (Teachers Professional Development Framework, 2020).

The National Teaching Council (NTC) has introduced a Professional Development Framework for Teachers to guide teachers in acquiring professional skills and creating portfolios for license renewal (Teachers Professional Development Framework, 2020). This framework includes training and education programs approved by the NTC as relevant and meeting prescribed standards. Teachers' professional development plays a vital role in their preparation, knowledge acquisition, and skill development (Mukan et al., 2019; Teachers' Professional Development Framework, 2020; S. M. Wilson, 2013). Within the professional development stage, teacher trainees are encouraged to demonstrate effective leadership qualities in the classroom and the wider school environment. This involves equal delegation of roles to both male and female students, irrespective of gender roles and stereotypes (National Teachers' Standards for Ghana, 2017).

The second division focuses on community practice, where the teacher trainees are guided by ethical codes of conduct (GES Code of Conduct, 2017). The trainees are expected to engage positively with colleagues, learners, parents, school management committees, and the wider public. They should develop a positive teacher identity, act as role models, and perceive themselves as agents of change in the school, community, and country (Ministry of Education (MEO), 2018).

Teacher trainees adhere to ethical codes, gender and sexual harassment policies, and demonstrate attendance, punctuality, and compliance with GES and Ministry of Education policies (Abudulai, 2021; Otoo et al., 2021; Tengepare, 2020). Despite occasional discouragement from mentors, trainees gain confidence through active participation in meetings, school events, and post-lesson discussions with colleagues (Otoo et al., 2021). They also contribute to school-community-related events and

encourage parental involvement in supporting their children's education (Otoo et al., 2021).

2.1.3.3 Developing Teachers' Professional Knowledge for Basic Schools

Zagzebski (2017) defined Knowledge as a highly valued state in which a person is in cognitive contact with reality. This definition explains that knowledge is a two-fold relation, with a conscious subject on one side and a portion of reality on the other side to which the knower is directly or indirectly related Zagzebski, 2017). Describing Professional Knowledge, French (2007) noted that it is traditionally viewed as rationalised, systematic, codified, and generalised knowledge, making it an abstract concept. Teacher trainees in colleges have acquired ample knowledge of educational policies such as curriculum and sexual harassment policies (Appiah Dankwah et al., 2021; Otoo et al., 2021; Tengepare, 2020).

To adequately prepare teacher trainees for effective teaching in basic schools, the National Teachers' Standards for Ghana (2017) state that they should demonstrate professional knowledge by acquiring an understanding of educational frameworks, the curriculum, and knowledge about their learners. To achieve this, certain parameters have been outlined by the NTS. The National Teachers' Standards for Ghana (2017) indicate that teacher trainees must show familiarity with the system and the key policies by articulating knowledge in discussions and portfolio write-ups. They must also develop a comprehensive knowledge of the official school curriculum, learning outcomes, expected pedagogies, and content. The Standards state that at the pre-primary and primary levels of education, teachers must possess sufficient knowledge of the curriculum to teach multigrade classes, beginning reading and numeracy, as well

as speaking, listening, reading, and writing in at least one Ghanaian Language (National Teachers' Standards for Ghana, 2017).

Since its introduction, the STS programme has provided teacher trainees with knowledge related to inclusivity and equity, and supporting learners' progress in the classroom (Abudulai, 2021). Through the STS programme, teacher trainees can now formulate clear, measurable, and achievable lesson objectives, adapt lessons to accommodate pupils' Relevant Previous Knowledge (RPK), select and prepare suitable Teaching and Learning Resources (TLRs), and plan lessons. However, they struggle with planning lessons within the allocated time for each lesson (Otoo et al., 2021)

2.1.3.4 Developing Teachers' Professional Practice for Basic Schools

The practical dimension of the NTS is realised in how teacher trainees translate their learning into classroom practice. Mentors facilitate this transition by providing consistent feedback and coaching on lesson planning, instructional delivery, and student assessment. This guidance is crucial for developing the competencies that define effective teaching. Evidence suggests that when mentor feedback is systematic and aligned with the competencies outlined in the NTS, trainees exhibit higher levels of instructional quality and adapt more readily to varied classroom contexts (Smith & Ingersoll, 2004; Abudulai, 2021). Furthermore, by incorporating learner-centred pedagogies and encouraging innovative teaching strategies, mentors help trainees refine their classroom practices, thereby reinforcing the dynamic interplay between theory and practice.

STS is a practical aspect of the 4-year Bachelor of Education Degree Programme introduced into Colleges of Education in 2018 to prepare Teacher Trainees adequately

for classroom work. Teacher trainees are expected to practice classroom teaching and learning activities during their visits to the partner schools for the STS programme. Professionals believe that practical knowledge gained through experience is more useful than formal education (Cervero, 1992). Lesson planning, implementation, resource availability, class management, gender equality, and diverse assessment methods are integral parts of the NTS that emphasise the need for teachers to demonstrate professional practice.

The National Teachers Standards stress the significance of lesson planning in the teaching and learning process. Teacher Trainees are expected to plan and deliver varied and challenging lessons, clearly understanding the intended outcomes of their teaching. Long-term objectives for weekly and termly lessons should be prepared, with clear communication of lesson objectives to learners at the start of each lesson. Lesson structures and tasks should vary, equally targeting females and males, and challenge learners just beyond their current knowledge. Different teaching methods, such as whole class, group, pair, individual work, and ICT, should be employed to expand or consolidate learning. Teachers must identify learners who struggle to grasp concepts and provide individual teaching, re-teaching, or homework as needed. Making learning relevant to learners is crucial. After the STS practice, teacher trainees can systematically plan lessons with related steps (Otoo et al., 2021).

Creating a positive learning environment is crucial for effective classroom management. Research indicates that classroom behaviour management plays a vital role in efficient instruction (Van, 2016; Villena & de Mesa, 2015). Classroom management involves organisational strategies and addressing misbehaviour in a way that positively impacts learners' outcomes (Ahmad, 2010; Cabaroglu, 2012; Harun et

al., 2015; Mansor et al., 2012; Villena & de Mesa, 2015). The NTS emphasises that teachers and teacher trainees should foster a warm, friendly, and fair classroom atmosphere. They should offer praise and encouragement, especially to females in mathematics and science subjects, to increase their interest. Teacher Trainees, after the STS practice, can allow learners to freely ask and answer questions, teach and help each other, and maintain a cordial relationship with learners (Appiah Dankwah et al., 2021). Corporal punishment is discouraged, and positive disciplinary measures are encouraged to correct learners when necessary, preventing any bullying or teasing. The NTS advocates for a learning environment where learners can "laugh, smile, and learn"(National Teachers' Standards for Ghana, 2017, p. 23).

When managing a class, the teacher should consider the number of learners in one class at a time to ensure efficient utilisation of resources and avoid having too many students in one class (National Teachers' Standards for Ghana,2017). Balcanao-Buco et al. (2020) conducted a study on the effectiveness of teaching strategies that could help alleviate the negative impact of larger classes on classroom management. The study included university students and showed that larger class sizes can affect lesson delivery and resource utilization. National Teachers' Standards for Ghana (2017), however, indicated that teachers and teacher trainees should create a friendly but disciplined learning environment and use group and pair work to overcome challenges in larger classrooms. They should adjust seating plans to encourage mixed-sex seating and ensure that all learners sit closer to the teacher. Additionally, teachers should manage resources effectively, involve learners as monitors, and use peer teaching to support learning for both sexes.

As part of the STS Programme in Colleges of Education, teacher trainees are expected to meet the objectives of the National Teachers' Standards (NTS) by demonstrating their ability to plan and deliver engaging lessons that lead to clear outcomes (National Teachers' Standards for Ghana, 2017). To achieve this, they should create weekly and monthly lesson plans that outline objectives, learning methods, and progress monitoring. The lesson structure should be diverse, target both genders equally, and challenge learners beyond their current knowledge. Additionally, teacher trainees should use whole class, group, pair, and individual learning methods as well as Information and Communication Technology (ICT) to enhance learning, and this has been achieved as teacher trainees were able to use lesson plans and set objectives during the STS Practice (Appiah Dankwah et al., 2021; Otoo et al., 2021).

Otoo, Kwarteng, Eshun, and Bordoh (2021) indicated that teacher trainees can now handle disciplinary issues in the classroom and give individual attention to pupils after going through the STS practice, however, the Teacher trainees were not able to handle learners with special needs and therefore are not able to understand such learners entirely (Otoo et al., 2021). The NTS has recommended that teacher trainees engage learners in practical lessons using whole classes, pairs, and groups to facilitate learning and gender equality. In addition, teacher trainees should be able to carry out small-scale action research to improve their practices. This approach allows teachers to identify and solve problems in their classrooms(Gerald, 1983; Richard Winter, 1989). The NTS has also emphasised that teacher trainees must choose one area to improve on at the end of each academic term. These areas include the use of open questions, inclusion of visually impaired learners, gender-responsive pedagogy, purposeful group talk, and better use of limited textbooks. Teacher trainees are encouraged to engage in collaborative discussions with their peers and mentors to address any challenges they face.

According to Otoo et al.(2021), teacher trainees demonstrated proficiency in utilising diverse instructional approaches, implementing suitable teaching aids, and employing various assessment methods during lessons. The study highlighted that the trainees effectively utilised whole-class, group, pair, and individual activities to facilitate learning. In addition to using various teaching techniques in class, the National Teachers' Standards (NTS) require that teacher trainees use appropriate teaching strategies for classes with mixed abilities, multilingual learners, and different ages.

During their STS training, teachers-in-training are expected to learn how to create meaningful tasks that encourage collaboration among learners and promote purposeful learning. To achieve this, the NTS recommends that teacher trainees guide learners to work together on carefully designed tasks that require them to share, talk, and debate. Trainees should observe groups and pairs, assign leadership roles equally to both females and males, skillfully intervene to push or expand learning and explain concepts using familiar examples. According to Otoo et al.(2021), after completing STS training, trainees can effectively use whole-class, group, pair, and individual work to enhance learning as well as able to produce and use appropriate resources during lesson delivery.

After completing the STS practice, teacher trainees should be able to incorporate various assessment modes into their teaching to enhance learning. Additionally, teacher trainees are responsible for administering small tests, quizzes, and homework, which are regularly assessed, and higher-stakes examinations when necessary. They must also identify gaps in learning, pay attention to any differences between female and male students, and utilise this information in planning and delivering future lessons, even in the same lesson. Teacher Trainees, after going through the STS practice, were able to integrate a variety of assessment modes into teaching and learning the trainees and can

use whole classes, groups, pairs and individual work effectively to enhance learning (Otoo et al., 2021).

After participating in the STS programme, teacher trainees were proficient in various instructional strategies, resource creation and utilisation, and assessment methods for effective teaching and learning. They were able to use different modes of teaching, such as whole class, groups, pairs, and individual work, to enhance the learning experience (Otoo et al., 2021). The STS programme has helped to clear up teacher trainees' misconceptions or misunderstandings about assessment "for," "of," and "as" learning, enabling them to address learners' progress better (Abudulai, 2021). The study suggests that the STS programme adequately prepares trainees for the teaching role, allowing them to reflect and inquire about lessons independently or with colleagues. Overall, the STS programme is an excellent option for teacher trainees (Abudulai, 2021).

In sum, the successful implementation of the NTS in teacher education relies on a holistic mentorship approach. This approach not only ensures that teacher trainees acquire the necessary academic content but also instils the ethical and professional dispositions critical for effective teaching. Mentorship thus acts as the conduit through which the standards are operationalised, transforming policy into practice and fostering a culture of continuous professional development. The combined insights from both local studies (Otoo et al., 2021; Coffie et al., 2021) and international literature (Darling-Hammond, 2006; Ingersoll & Strong, 2011) affirm that a robust mentorship framework is essential for cultivating competent, reflective, and ethical educators.

2.1.4 Resources for STS Implementation

The effective implementation of the STS Programme hinges critically on the availability and quality of resources provided to both student teachers and their mentors.

This section reviews several dimensions of resource availability: Adequate physical infrastructure is a fundamental requirement for successful STS implementation. Studies indicate that many partner schools in Ghana face challenges such as limited classroom space, poorly maintained facilities, and overcrowded environments (Otoo et al., 2021). These conditions not only hinder effective lesson delivery but also negatively affect student engagement and the overall teaching-learning process. Research from sub-Saharan Africa emphasises that well-ventilated, spacious classrooms and functional laboratories are essential for integrating both theoretical and practical teaching components (UNICEF Innocenti, 2023; SACMEQ III, 2010).

The availability of appropriate TLRs, including syllabi, textbooks, teacher guides, audio-visual aids, and record journals, is central to translating theoretical knowledge into practice. Extensive literature reveals that many partner schools lack these essential materials (Abudulai, 2021). Although investments have been made to develop high-quality teaching resources, distribution is often uneven, leaving many schools with only a fraction of the required textbooks and instructional aids (UNICEF Innocenti, 2023). This shortfall limits mentors' ability to model effective teaching strategies and restricts student teachers from fully engaging with the curriculum.

Financial constraints remain a significant barrier to ensuring the effective delivery of the STS Programme. Limited funding impacts several areas, including the procurement of teaching materials, maintenance of school facilities, and transportation logistics for student teachers (Coffie et al., 2021). Research indicates that many student teachers face transportation challenges such as the lack of school buses or insufficient fuel support, which disrupt their schedules and diminish the quality of their school-

based experiences. Policy documents from the Ministry of Education emphasise the need for adequate funding to support both infrastructure and operational costs.

In today's digital era, technological tools play an increasingly crucial role in supporting teacher education. However, many schools in Ghana still grapple with limited access to modern ICT equipment, unreliable internet connectivity, and inadequate training on digital tools (Asuo-Baffour et al., 2019; Hennessy, 2010). These barriers impede the integration of multimedia resources that can enrich lesson planning and facilitate interactive learning. External studies suggest that innovative solutions, such as Virtual Reality (VR) and Open Educational Resources (OERs), can enhance learning outcomes, yet their adoption remains limited in resource-constrained settings.

Collectively, these resource dimensions are critical for achieving the STS Programme's broader goals, such as developing professional competencies, fostering inclusive teaching practices, and ensuring that student teachers meet the National Teachers' Standards (NTS). The research questions guiding this study underscore the importance of examining resource adequacy and its impact on teaching-learning outcomes. This comprehensive review provides a framework for understanding how resource limitations compromise programme effectiveness and offers insights into potential policy interventions and resource reallocation strategies.

2.1.5 Challenges Confronting the Implementation of the STS Programme

Since the inception of the STS Programme in 2018, the literature has consistently highlighted a range of challenges that impede its effective implementation in Colleges of Education in Ghana. These challenges span logistical, pedagogical, and resource-

based domains, and they collectively impact the capacity of the Programme to bridge college-based training with practical teaching competencies.

A primary concern is the inefficiency associated with logistical constraints. Several studies report that teacher trainees experience significant delays and time wastage due to limited transportation options, insufficient orientation, and a lack of scheduled visits by link tutors to partner schools (Appiah Dankwah et al., 2021). These logistical shortcomings disrupt the continuity of training and hinder the seamless transition from theoretical instruction to practical classroom engagement. The advent of the COVID-19 pandemic further exacerbated these issues, as programmes faced challenges such as inadequate online orientation, poor internet connectivity, and an overall artificiality in the delivery of the STS experience (Appiah Dankwah et al., 2021).

Communication gaps between Colleges of Education and partner schools represent another critical challenge. The literature indicates that these gaps often result in the unfriendly treatment of student teachers by school authorities and mentors. In many instances, lead mentors and mentors have been reported as harsh towards teacher trainees, and the scheduling of STS practices is frequently perceived as unfavourable, thereby intensifying an already challenging practicum environment (Abudulai, 2021).

Additional challenges are revealed in studies by Coffie et al. (2021), which underscore issues such as poor mentor-mentee relationships, a lack of comprehensive planning, insufficient observation time, and a failure to adequately assess learners' work for subsequent lesson continuation or remedial actions. Complementing these findings, Amankwah et al. (2017) identified several challenges during on-campus teaching practice, including a lack of teaching aids, inadequate time allocation, poor planning, insufficient administrative support, and an overall deficiency in orientation regarding

the role of on-campus practice. The literature further notes a scarcity of documented standards and guidelines, which limits opportunities for meaningful interaction with supervisors and critical reflection on teaching practices (Adu-Yeboah & Kwaah, 2018).

In addition to these challenges, Coffie (2020) reported factors impeding the implementation of continuous professional development programs in physics teaching. These factors include tutors' unwillingness to change, perceptual issues, a lack of resources, limited time, and the prolongation of professional development periods. Similarly, research focusing on practicum implementations in Colleges of Education across Africa has revealed that student teachers face challenges such as teaching in overcrowded secondary schools, limited access to educational technologies, and the high number of practicum students assigned to a single major at cooperating schools (Al-Momani, 2016).

From the supervisors' perspective, additional challenges include an over-reliance on external information sources, issues with the use of educational aids, mistreatment by school management, feelings of isolation, limited subject matter understanding, and difficulties linking theoretical knowledge with practical application. These challenges extend to areas such as student collaboration, leadership skill development, extracurricular participation, and effective communication (Al-Momani, 2016).

Furthermore, Nyamota et al. (2018) highlighted those instructional resources in Colleges of Education are often perceived as insufficient, outdated, or obsolete. The lack of modern song repertoires and audio-visual aids not only limits the scope of practical teaching but also undermines the capacity of trainee teachers to meet both learners' needs and broader societal expectations.

Collectively, the literature points to a pressing need for the continuous development of the practicum programme. Recommendations include the organisation of regular workshops during training and enhanced coordination among all stakeholders involved. Additionally, there is an urgent call for Colleges of Education to ensure that all suggested resources outlined in the syllabus are provided and that obsolete materials are systematically replaced.

2.2 Theoretical Review

Teacher education is changing quickly in response to global demands for higher-quality teaching and the integration of practical, competency - oriented pedagogies. In Ghana, the Supported Teaching in Schools (STS) Programme represents a critical innovation within Colleges of Education. This theoretical review is based on two theories, known as the Experiential Learning Theory (Kolb, 1984) and the Competency-Based Approach (Chomsky, 1968). The review also draws literature from the National Teacher Education Curriculum Framework (2017) as well as notable and emerging global trends in teacher training. In addition, it explores the role of mentorship as a mediating force that bridges theoretical constructs with classroom realities, thereby facilitating the acquisition of professional knowledge, behaviour, and instructional practice.

2.2.1 Experiential Learning Theory

Kolb's (1984) Experiential Learning Theory (ELT) indicates that learning is a continuous process in which knowledge is created through the transformation of experience. According to Kolb, effective learning occurs via a four-stage cycle: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. In the context of the STS Programme, teacher trainees are provided

with opportunities to engage in practical experiences, reflect on their practices, and apply new insights in a cycle that reinforces both theory and practice. Empirical studies in Ghana have found that such structured experiential learning not only enhances instructional competence but also improves classroom management and adaptability (Coffie et al., 2021; Otoo et al., 2021). Moreover, international research suggests that reflective practice, as an integral component of ELT, promotes continuous professional development and resilience among novice educators (Darling-Hammond, 2006).

2.2.2 Competency-Based Approach

The Competency-Based Approach (CBA) is changing the game in teacher education by shifting the focus from just clocking hours to mastering specific skills and competencies. This method aligns with the STS Programme's goal of getting teacher trainees ready for the real challenges of classroom teaching. It emphasises measurable outcomes in areas like lesson planning, instructional delivery, and student assessment (National Teacher Education Curriculum Framework, 2017). Research by Hernández de Menéndez and Morales-Menendez (2016) shows that competency-based models are becoming a global trend, especially in higher education, as they help close the gap between theoretical knowledge and practical application. In teacher education, this kind of training encourages learners to move forward only when they've truly mastered the material, ensuring that graduates are ready for the job and can provide top-notch instruction (Abudulai, 2021). There still exist challenges, including the need for standardised assessment criteria and consistent mentoring, which means we need to keep refining how we implement CBA strategies (Coffie et al., 2021).

2.2.3 Global Trends in Teacher Education

Globally, teacher education is increasingly influenced by the demands of a fast-paced, changing, digital, and interconnected world. Trends such as personalised learning pathways, mastery-based progression, and stackable credentials are emerging as transformative forces in education (Future Education Magazine, 2023; Hernández de Menéndez & Morales-Menendez, 2016). In addition, the integration of technology, ranging from online mentoring platforms to virtual reality learning environments, has further catalysed innovation in teacher preparation (LinkedIn, 2023; The Guardian, 2025). These trends reinforce the need for a shift from traditional, content-based models toward more dynamic, competency-driven approaches. They also highlight the importance of continuous professional development and the use of data-driven methods to tailor teacher training to individual learning needs (Edutopia, 2023).

2.2.4 Mentorship as a Catalyst for Professional Development

Mentorship in teacher training serves as the bridge between theoretical models and practical classroom application. Effective mentors not only support the acquisition of academic knowledge and pedagogical skills but also exhibit professional behaviour and ethical practices for trainees to emulate as prescribed by the National Teachers' Standards (NTS) (National Teachers' Standards for Ghana, 2017). Studies have shown that when mentorship is embedded within structured induction programmes, it enhances teacher retention and accelerates the development of professional competencies (Coffie et al., 2021; Ingersoll & Strong, 2011). Moreover, global trends in mentorship now emphasise innovative approaches, including e-mentoring, peer coaching, and data-driven mentoring, which offer flexibility and broaden the scope of traditional dyadic relationships (Dikilitas, Mede, & Atay, 2018; LinkedIn, 2023). These practices ensure that mentorship adapts to the diverse cultural and technological contexts of teacher education today.

2.2.5 Integration and Implications

The blend of Experiential Learning Theory and the Competency‐Based Approach, shaped by global trends and innovative mentorship practices, provides a comprehensive framework for modern teacher education. By facilitating hands-on, reflective, and competency-driven learning experiences, the STS Programme helps teacher trainees internalise both content and practice. Mentorship further reinforces these processes by offering personalised support and fostering a culture of continuous improvement. Together, these theoretical perspectives not only validate the current reforms in teacher education in Ghana but are also in line with international movements aimed at producing reflective, resilient, and skilled teachers ready to meet the challenges of the 21st century.

This theoretical review highlights the importance of foundational theories like the Experiential Learning Theory and the Competency-Based Approach in shaping teacher education programs, such as the STS Programme. When these theories are paired with new global trends and creative mentorship strategies, they foster an environment where teacher trainees can build strong professional skills and successfully connect theory with practice. Looking ahead, future research should delve deeper into how these theories interact with the changing needs of teacher education on a global scale.

2.3 Empirical Review

Appiah Dankwah et al. (2021) aimed to examine the perceptions of teacher trainees regarding the STS programme at Akrokeri College of Education. The study used a hybrid research approach, collecting data through online questionnaires and analysing responses using descriptive statistics and content analysis. The objective of the study was to determine whether trainees' opinions of the STS programme differed based on

gender, to identify the benefits of the programme, and to pinpoint specific challenges encountered during implementation, particularly during the COVID-19 pandemic.

The study found that teacher trainees generally viewed the STS programme as beneficial since it allowed them to apply their college-based training to real-world teaching situations. However, the study also identified several challenges faced by trainees during programme implementation. This included time-wasting due to limited transportation, inadequate orientation, and insufficient teaching and learning resources. The COVID-19 pandemic further worsened these challenges, with trainees struggling to adapt to the online STS programme due to poor internet connectivity, limited time, and the artificial nature of the programme. Overall, the study highlights both the benefits and challenges of the STS programme for teacher trainees and underscores the need for continued efforts to improve programme implementation and support during times of crisis.

A study by Abudulai (2021) examined the perspectives of student teachers on the Supported Teaching in School Programme (STS) practices in Colleges of Education in Ghana. The study focused on three Colleges of Education in the northern region of Ghana, namely Tamale College of Education, Gambaga College of Education, and ST. John Bosco College of Education. The primary objective of the study was to understand student teachers' opinions on the STS Programme and its practices. The study's population included all student teachers in Colleges of Education in Ghana, and the target population was all student teachers of the three selected Colleges of Education in the northern region of Ghana. The study used an opportunistic sampling technique and included a sample size of ninety (90) third-year student teachers, conveniently selected

based on proximity. The study employed a cross-sectional survey with an exploratory design.

The study revealed that there is a communication gap between some Colleges of Education and partner schools, causing some authorities of partner schools and mentors to give unfriendly receptions to student teachers. According to the teacher trainees, some of them and their mentors had not received sufficient orientation from the Colleges of Education about the activities of the STS Programme. Moreover, most mentors find it challenging to guide student teachers on how to fill out Mentor's Evaluation Forms and other services they need from them. Similarly, student teachers find it difficult to fill their reflective practice journals and prepare a checklist for their observations.

Furthermore, teacher trainees were not provided with necessary materials such as Students' handbooks, audio-visuals, and record journals as a guide for their practice. However, lead tutors were available to guide trainees effectively during their STS practice, and the STS Programme adequately assisted student teachers in developing professional skills, attitudes, and values of teaching, including knowledge of inclusivity, equity, and support for learners' learning progress in the classroom. Based on the findings, policymakers (Ministry of Education and Ghana Education Service) should provide adequate resources such as syllabi, teachers' handbooks, and logistics for effective practice of the programme since it adequately develops student teachers' teaching professionalism. Additionally, some Colleges of Education need to improve to strengthen and close the communication gap between them and partner schools by pre-informing them before assigning student teachers to them.

A study titled "Pre-Service Science Teachers' Assessment of Supported Teaching in School" by Coffie et al. (2021) highlighted the significance of the Supported Teaching in School (STS) programme in the new national teacher education programme. The STS programme is a practical school-based component embedded throughout the four-year teacher education programme. The study aimed to evaluate the impact of the STS programme on pre-service teacher preparation and identify any potential challenges associated with it. The study used a qualitative case study design and collected data through interviews and documentary analysis. Individual and focus group interviews, as well as documentary analysis of Student Reflective Journals, were conducted. Six pre-service science teachers were interviewed individually, and four pre-service teachers participated in the focus group interview, which used the Ishikawa or fishbone tool.

Through topological analysis of the data, the study revealed that the STS programme positively impacted pre-service teacher preparation by providing real classroom exposure, giving them first-hand experience of the classroom situation, expertise in lesson planning and delivery, and building teacher professionalism. The pre-service teachers learned about the qualities of good teaching, such as being open to all students and considering their backgrounds during lesson delivery. They also gained exposure to classroom management for effective lesson delivery. However, the study also identified some challenges, including poor mentor-mentee relationships, lack of proper planning, and insufficient time for observation. The study recommended providing appropriate training and incentives to mentors to prepare them adequately for the STS programme.

Otoo et al. (2021) surveyed to assess the proficiency of Social Studies teacher-trainees in supported teaching at schools in Ghana's Central Region. The study used a combination of probability and non-probability sampling techniques to select a sample of 217 third-year trainees from Foso and OLA Colleges of Education. The trainees were observed while teaching in a classroom setting during the period of micro-teaching in their respective colleges, and a questionnaire was also administered. The study found that trainee teachers were adequately preparing lesson notes and using appropriate evaluation methods to assess student performance. The study concluded that teacher-trainees were capable of delivering effective lessons and had acquired professional values such as punctuality, hard work, tolerance and respect for students and have also learnt how to be gender-responsive to allow for equal opportunities for both sexes in class as well as the qualities of good teaching which is being open to all students and considering their background during lesson delivery.

The trainees had the opportunity to sit down and work with their mentor to plan and deliver a lesson. Discussing the challenges faced by the teacher trainees, the study indicated that the teacher trainees fail to address to assess the learners' work for the continuation of the lesson or for remedial actions to be taken. The researchers recommended that the Ministry of Education (MOE), Ghana Education Service (GES) and specifically the Teacher Education Division (TED) of GES, as well as the Ghana Tertiary Education Commission (GTEC), should ensure that the policy guidelines on mentorship of the Supported Teaching in School (STS) particularly, the supervisory role of the principals and the lead mentors and implemented.

Coffie (2020) conducted research on the effects of a continuous professional development programme on physics teaching at colleges of education in Ghana. The study aimed to assess the impact of the programme and used a mixed-method design, specifically a concurrent parallel design. The research included an online survey and interviews with some tutors. The survey data were analysed using means, standard deviations, and ANOVA, while the interview data were analysed typologically. The

results showed that physics tutors perceived professional development as having a significant impact on their teaching practice, enabling them to use gender-responsive pedagogies and inclusivity strategies for interactive student engagement in physics classrooms. The study also found that the implementation of professional development ideas was aided by the commitment of school leadership and support from the professional development team. However, certain factors, such as tutors' unwillingness to change, perceptions, lack of resources, and time constraints, hindered the implementation process. The study recommended that college authorities provide basic resources like projectors and that the T-TEL team explain the reasons for the extended programme duration and provide a possible end date for professional development.

Amankwah, Oti-Agyen and Sam (2017) used a descriptive survey design to explore pre-service teachers' perception of on-campus teaching practice as an initial teacher preparation programme at the University of Education, Winneba. Simple random sampling selected 226 pre-service teachers from the College of Technology Education, Kumasi, who completed a questionnaire for data collection. The analysis involved descriptive and inferential statistics. Results showed that on-campus teaching practice equipped pre-service teachers with essential knowledge, skills, experience, efficacy, professional development, and support. However, challenges included a lack of teaching aids, inadequate time, poor planning, insufficient administrative support, and insufficient orientation. Overall, the programme was rated positively. Recommendations included providing adequate time, material resources, effective planning, and orientation.

Aduhene-Chinbuah (2009) examined teacher trainees' perception of their competencies after going through the new in-in-out programme at the teacher training

college. The study used a literature review and a questionnaire administered to 80 teacher trainees who completed their one-year teaching practice under mentorship. Descriptive statistics analysed the data, revealing that trainees saw themselves as competent after going through the new in-in-out teaching programme. The study recommended a holistic approach to teacher development, encompassing general education, academic specialisation, and professional studies. The trainees should receive more subject matter content during mentorship, and on-campus teaching practice should be effectively implemented across subjects.

Adu-Yeboah and Kwaah (2018) researched the provision of on-campus practical experience to teacher trainees and their perception of it. They focused on trainees' experiences during the practicum in Colleges of Education across Ghana. Using a mixed-method approach, online questionnaires provided data for descriptive statistics and content analysis. The study took place at Akrokeri College of Education and identified benefits such as improved pedagogical skills, use of teaching resources, and a better understanding of lesson planning. However, there were no documented standards for the practicum, limited engagement with supervisors, and a lack of critical reflection. The study recommended establishing teaching standards and guidelines while providing more opportunities for trainees to engage with and critically reflect on their practice.

Aboagye, Yawson, and Appiah (2020) conducted a study on the challenges faced by students in tertiary institutions during the COVID-19 pandemic. The sample comprised 141 students, and factor analysis grouped the challenges into eight categories. Accessibility issues emerged as the most significant challenge, followed by social issues, lecturer issues, academic issues, and generic issues. Students expressed

reluctance to study online. Multiple regression analysis indicated that social and lecturer issues posed the most significant challenges to online learning. The study suggested a blended approach combining conventional and online teaching.

Tengepare (2020) conducted a study on the impact of supported teaching in schools on teacher trainees in the Colleges of Education in Ghana. The study reviewed the literature and found that supported teaching during implementation could transform society. Other researchers examined the practicum's implementation in Colleges of Education and universities across Africa and the world. Gupta and Rakwal (2020) assessed the perception of teacher trainees in India's two-year teacher education programme, highlighting positive perceptions of duration, pedagogical aspects, curriculum, and innovation.

Al-Momani (2016) conducted a study on practicum challenges at the Najran University Faculty of Education. Results revealed important issues recognised by student teachers as causing challenges in practicums: teaching in a secondary school; high student-to-classroom ratios; lack of advanced educational technologies; a large number of practicum students from the same major at cooperating schools; supervision and administrative workload. In addition, supervisors identified challenges such as reliance on external information sources; use of educational aids; mistreatment by school management; feeling of isolation; limited subject matter understanding; difficult curriculum; insufficient training period; school facilities; student-school cooperation; absence of student leadership; participation in extracurricular activities; fear of teaching; communication skills; a link between theory and practice; and practical application in the laboratory. The study recommends continuous development of the

practicum programme, conducting workshops for students during training, and collaborating with different stakeholders.

Al-Kaaf and Al-Boloushi (2022) conducted a study to assess the satisfaction of Arabic language students at Sultan Qaboos University's College of Education with the e-learning practicum. The study found high satisfaction levels among students (m=3.79, SD=.52) regarding the course requirements for student teaching using e-learning. Additionally, no significant differences in satisfaction were observed between male and female students. The study recommended the development and provision of improved internet services in the Sultanate of Oman.

Rillotta et al. (2022) investigated the experiences of undergraduate university students who mentored individuals with intellectual disabilities during their practicum. Findings indicated that mentors had a positive experience, with a focus on professional learning and development. Support structures and the mentor-mentee relationship's reciprocity contributed to a strengthened mentoring experience. The study concluded that university practicum participation in mentoring can offer a valuable learning experience, particularly for future employment in the disability field.

Assali and Troudi (2022) explored the emotional experiences of English as a Foreign Language (EFL) student-teachers during their practicum in the United Arab Emirates. Participants reported a wide range of positive and negative emotions, primarily related to classroom practices, language skills, professional knowledge, and support received during the practicum. The findings emphasised the need for enhanced coordination and collaboration between colleges and training schools. The study was the first of its kind in the Gulf region and is expected to contribute to a better understanding of student teachers' emotions and areas that require reconsideration in teacher education.

Bassey (2009) conducted a study aimed at promoting continuous learning throughout a period, such as a term or semester, rather than relying on end-of-semester or certificate examinations. The study reviewed the current practice and philosophy of Business Education in the Nigerian College of Education system. It recommended giving greater weight to Continuous Assessment and placing more emphasis on practicum through increased contact hours for practical work and attention to industrial attachment.

Nyamota, Kisilu and Barasa (2018) investigated teacher trainees' perceptions regarding the relevance of instructional resources in creative arts teacher education curricula to learners' needs in Kenya. The study utilised a mixed-method design, combining qualitative and quantitative approaches. The sample comprised teacher trainees, trainers, and heads of departments from public primary teacher training colleges in western Kenya. The findings indicated that teacher trainees and trainers considered resources such as song repertoires and audio-visual materials as relevant but insufficient. The colleges were perceived to have inadequate and outdated instructional resources, with a lack of suitable rooms for practical teaching. The study recommended providing the suggested resources and replacing outdated ones as specified in the syllabus.

In conclusion, the literature has revealed that most of the studies investigated under STS focused on Trainee Teachers' perspectives (Abudulai, 2021; Appiah Dankwah et al., 2021; Coffie et al., 2021; Otoo et al., 2021). Studies revealed a limited scope of teacher trainees' views, neglecting other stakeholders in STS implementation. African research on Practicum in Colleges and Universities also centres around trainee perspectives(Al-Kaaf & Al-Boloushi, 2022; Al-Momani, 2016), although Al-Momani

(2016) examined supervisors' viewpoints; no investigation included partner schools and the Ministry of Education. Furthermore, studies on College practicum mainly focus on trainee outlook (Adu-Yeboah & Kwaah, 2018; Bassey, 2009).

STS studies commonly employ a few mixed methods with more quantitative and qualitative methodologies (Abudulai, 2021; Appiah Dankwah et al., 2021). Due to its novelty, most mixed methods are exploratory, providing in-depth knowledge about the programme. Research conducted in the Northern Sectors, Central, and Bono Ahafo Regions results in geographical gaps. This study evaluates STS Programme implementation in the Greater Accra Region, examining context, input, and process stages. Literature highlights significant challenges in STS implementation, particularly from the trainee perspective (Abudulai, 2021; Adu-Yeboah & Kwaah, 2018; Coffie et al., 2021; Emmanuel Appiah Dankwah et al., 2021). Coffie et al. (2021) recommend mentor training and incentives for effective preparation. This study investigates adherence to policy expectations and achievement of STS objectives.

2.4 Theoretical Framework

To properly assess an educational programme, a framework is necessary to guide its implementation. The purpose of this theoretical framework is to provide a robust, integrated foundation for understanding how teacher trainees in Ghana transition from theoretical instruction to effective classroom practice under the Supported Teaching in Schools (STS) Programme. Situated within a context of rapid educational reform and socio-economic challenges, this framework is essential for elucidating the mechanisms through which experiential and competency-based approaches mediated by structured mentorship contribute to the development of critical teaching competencies. Its significance lies in guiding the interpretation of empirical findings and informing policy

recommendations that are responsive to the unique context of Ghanaian teacher education.

This framework serves as a bridge between abstract educational theories and the practical realities of teacher training in Ghana. It explains how teacher trainees build on their college-based training and acquire hands-on classroom skills through cycles of experience and reflection. The framework is significant because it underpins the analysis of how the STS Programme operates within the specific socio-cultural and institutional context of Ghana, where resource constraints and evolving policy landscapes add further complexity to the teaching profession.

2.4.1 Relevant Theories and Their Applications

Two principal theories form the core of this framework: **Experiential Learning Theory (ELT)** and the **Competency-Based Approach (CBA)**.

- **Experiential Learning Theory (ELT):** Kolb's (1984) ELT posits that learning is an active, cyclical process involving four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. In the Ghanaian context, teacher trainees engage in authentic classroom experiences, reflect on these encounters, develop insights into effective pedagogical strategies, and then apply these insights in subsequent teaching sessions. This cycle is particularly relevant in a system where practical exposure is critical for overcoming traditional theoretical constraints and fostering adaptive expertise and resilience among educators.
- **Competency-Based Approach (CBA):** The CBA shifts the focus of teacher education from the duration of training to the mastery of specific, measurable competencies. According to the National Teacher Education Curriculum

Framework (2017), the STS Programme emphasises proficiency in areas such as lesson planning, instructional delivery, and classroom management. The CBA is highly pertinent in Ghana, where there is a pressing need to ensure that teachers are not only well-versed in theoretical knowledge but are also fully capable of delivering high-quality instruction in challenging environments. Hernández de Menéndez and Morales-Menendez (2016) observe that such competency-based models have gained global traction as effective solutions to bridge the skills gap in education.

Building on these theoretical perspectives, the conceptual framework for this study was developed through an extensive review of literature that examines teacher education practices both locally and internationally. The framework comprises several interrelated components:

- **Resource Availability:** Encompasses the provision of up-to-date teaching materials, digital tools, and infrastructure critical for bridging the gap between theory and practice.
- **Mentorship Quality:** Focuses on the role of experienced mentors in providing personalised, structured guidance that supports teacher trainees through cycles of experiential learning.
- **Trainee Perceptions:** Reflects the self-reported experiences and satisfaction levels of teacher trainees, which serve as indicators of programme efficacy.
- **Contextual Influences:** Includes broader systemic factors such as socio-economic conditions, educational policies, and institutional support that mediate the impact of the STS Programme.

This conceptual framework is designed to capture the complex, dynamic interactions among these components, thereby providing a comprehensive model for evaluating and enhancing teacher education in Ghana.

2.4.2 Assumptions, Limitations, and Potential Biases

The framework is built on several key assumptions: that experiential learning and competency-based models are effective across diverse contexts, and that structured mentorship is indispensable for translating theory into practice. However, certain limitations exist. For instance, it assumes a baseline level of resource availability and institutional support that may not be uniform across all Colleges of Education in Ghana. Potential biases may also emerge from contextual factors such as regional disparities or socio-economic constraints. To address these issues, the research employs a multi-method approach, ensuring data triangulation and a critical examination of context-specific variables.

In conclusion, the theoretical framework integrates Experiential Learning Theory and the Competency-Based Approach to provide a nuanced understanding of how teacher trainees develop essential pedagogical competencies. By contextualising these theories within the unique educational landscape of Ghana and highlighting the crucial role of mentorship, the framework offers a structured and adaptable approach to teacher education. This comprehensive model guides the empirical investigation and contributes significantly to the formulation of recommendations for enhancing teacher training practices in Ghana.

2.5 Conceptual Framework

The conceptual framework for this study integrates key theoretical foundations, variables, and their interrelationships based on the reviewed literature. It illustrates how

the Supported Teaching in Schools (STS) Programme in Ghana's Colleges of Education operates within a dynamic system influenced by resource availability, mentorship quality, trainee engagement, and contextual challenges. This framework is grounded in Kolb's Experiential Learning Theory (ELT) and the Competency-Based Approach (CBA), aligning with the National Teachers' Standards (NTS) to achieve the programme's objectives.

2.5.1 Theoretical Foundations

The implementation of the Supported Teaching in Schools (STS) Programme in Ghana is underpinned by two primary educational theories: Experiential Learning Theory (ELT) and the Competency-Based Approach (CBA). These theories provide a structured framework for understanding how teacher trainees acquire, refine, and apply their instructional competencies in real-world classroom settings.

Kolb's (1984) ELT emphasises that learning is a cyclical process that consists of four stages:

- Concrete Experience: Engaging in hands-on teaching practice.
- Reflective Observation: Receiving mentor feedback and conducting self-assessment.
- Abstract Conceptualisation: Integrating theoretical knowledge with practical experience.
- Active Experimentation: Applying refined teaching skills in classroom settings.

This cyclical process underpins the STS Programme's design, enabling teacher trainees to develop their instructional competencies iteratively (Kolb, 1984; Darling-Hammond, 2006). The CBA focuses on measurable outcomes and ensures that teacher trainees master specific skills such as lesson planning and classroom management as

stipulated by the NTS. This approach aligns with Ghana's educational goals to produce teachers who excel in professional values, knowledge, and practice (Hernández de Menéndez & Morales-Menendez, 2016; National Teacher Education Curriculum Framework, 2017).

2.5.2 Key Variables and their Relationships

The conceptual framework identifies four core components and describes how they interact:

- Input Variables:
    - *Resource Availability:* This includes physical infrastructure, teaching and learning resources (TLRs), financial support, and technological tools. (Otoo et al., 2021).
    - *Mentorship Quality:* Involves the training of mentors, frequency of supervision, and quality of collegial interactions. (Coffie et al., 2021).
- Process Variables:
    - *Trainee Engagement:* Includes participation in school observations, co-curricular activities, and engagement in reflective practices such as journaling and portfolio development. (Appiah Dankwah et al., 2021).
- Outcome Variables:
    - *Achievement of STS Objectives:* Denotes the development of professional competencies in alignment with the NTS, particularly in the domains of values, knowledge, and practice. (National Teachers' Standards for Ghana, 2017).
- Contextual Challenges (Moderators):
    - Factors include overburdened mentors, inadequate incentives, logistical constraints (e.g., transportation, time allocation), and misalignments

between the STS schedule and school calendars. These challenges moderate the relationships between the input and process variables and the ultimate outcomes. (Abudulai, 2021; Coffie et al., 2021).

The framework posits that resource availability and mentorship quality directly influence trainee engagement, which in turn mediates the development of teaching competencies. At the same time, contextual challenges can hinder or moderate the effectiveness of these inputs and processes.

2.5.3 Diagram of the Conceptual Framework

Below is a diagram that visualises the relationships between the key variables:

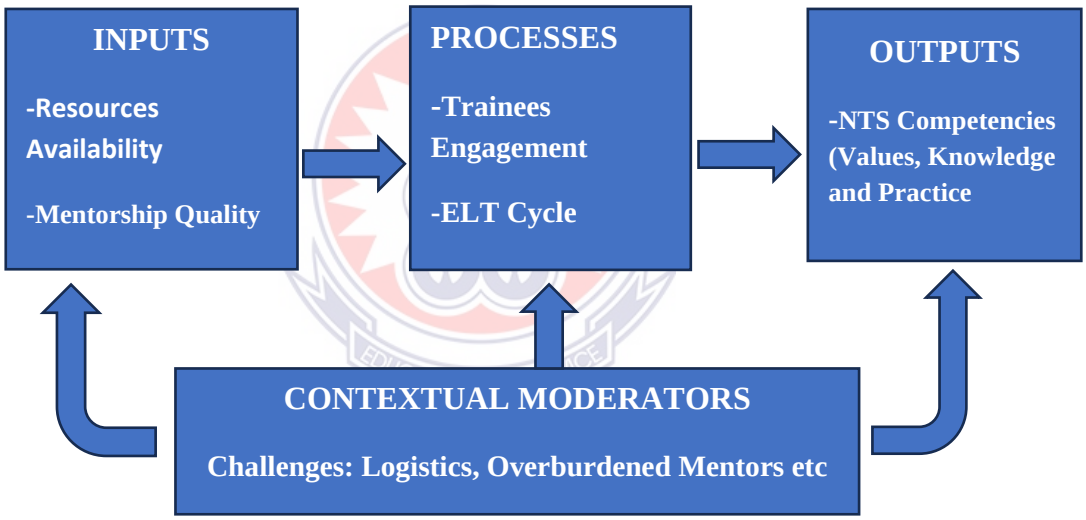

Figure 2.2: Conceptual Framework of the STS Programme Implementation in Ghana's Colleges of Education

Diagram Explanation:

- Inputs → Processes: Resource availability and mentorship quality directly influence trainee engagement. For instance, adequate TLRs enable practical lesson delivery, while trained mentors model effective teaching strategies.

- Processes → Outputs: Active engagement in STS activities (e.g., reflective journals, peer discussions) fosters competency development aligned with the NTS.
- Contextual Moderators: Challenges such as mentor workload or logistical issues may weaken the relationship between inputs and outputs, highlighting the need for systemic support (Ministry of Education, 2018).

Alignment with National Teachers' Standards (NTS)

The STS Programme is designed to fulfil the National Teachers' Standards by fostering:

- Professional Values & Attitudes: Ethical behaviours, inclusivity, and community engagement.
- Professional Knowledge: Mastery of curriculum, pedagogy, and learner diversity.
- Professional Practice: Effective classroom management, assessment, and action research.

These standards are achieved through the iterative cycles of experiential learning and competency-based assessment, mediated by robust mentorship and supported by adequate resources.

This conceptual framework synthesises theoretical and empirical insights from the literature, providing a comprehensive model for analysing the implementation of the STS Programme. It delineates the relationships among resources, mentorship, trainee engagement, and contextual challenges, ultimately linking these factors to the achievement of teacher competencies in line with the NTS. The diagrammatic representation serves as a visual roadmap, guiding subsequent data analysis and

informing policy recommendations aimed at enhancing teacher training outcomes in Ghana.

2.6 Summary of Literature Review

This chapter synthesises global and local literature on teacher education reforms, STS implementation, and mentorship practices. It critiques Ghana's post-colonial teacher training model, contrasting it with competency-based frameworks in Finland and Singapore. Key themes include the STS Programme's role in bridging theory and practice, the National Teachers' Standards (NTS), and systemic barriers like inadequate mentor training, overcrowded classrooms, and logistical inefficiencies. Empirical studies (e.g., Abudulai, 2021; Coffie et al., 2021) reveal gaps in addressing mentor workload, trainee preparedness for inclusive education, and academic writing skills. The chapter concludes by framing the study within Kolb's ELT and CBA, emphasising reflective practice and measurable competencies.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlines the methodology adopted for the study, which investigated the effectiveness and challenges of the Supported Teaching in Schools (STS) programme in Colleges of Education in Ghana. The methodology provides the foundation for addressing the research questions and achieving the study's objectives. The chapter is organised to present the research design, population and sampling techniques, data collection instruments, data analysis procedures, validity and reliability measures, and ethical considerations. Each section justifies the methodological choices made to ensure the credibility and relevance of the study. Given the nature of the research problem, exploring multiple stakeholder perspectives and evaluating both the structure and outcomes of the STS programme, an explanatory sequential mixed methods design was adopted. This approach allowed for the collection of quantitative data first, followed by qualitative data to further explain and contextualise the findings. The mixed methods strategy was chosen to gain a more comprehensive understanding of the programme's implementation, challenges, and impacts. The study is underpinned by a pragmatic philosophical worldview, which supports the integration of qualitative and quantitative methods to address complex educational realities. By triangulating different data sources and analysis techniques, the study aims to provide robust, credible, and actionable findings. This methodological framework is crucial for understanding the

multifaceted dynamics of the STS programme and ensuring that the research findings are both meaningful and applicable to policy and practice.

3.1 Research Paradigm

The term Paradigm originated with American Philosopher Thomas Kuhn (1962) and refers to a philosophical perspective on thinking. It has its roots in Greek, meaning a pattern. A research paradigm consists of four key components: ontology, epistemology, methodology, and axiology (Lincoln & Guba, 1985). Scientists approach research paradigms by addressing three fundamental questions: ontological, epistemological, and methodological (Guba, 1990). In educational research, the term paradigm is used to describe a researcher's 'worldview' (Mackenzie & Knipe, 2006).

This study is based on the philosophical principles of the pragmatism paradigm. A hybrid methodology was utilised to collect data, allowing for comprehensive responses from different data sources. The decision to employ a hybrid approach was based on the research questions and objectives of the study. The study used both quantitative and qualitative methods to gather data and address the research questions. According to Tashakkori and Teddie (2003), mixed methods research takes various forms based on the researcher and their inquiries.

Pragmatism is considered a dialectical stance that explores contradictory ideas. It rejects concepts like "truth" and "reality" and instead focuses on "what works" concerning the research question (Tashakkori & Teddlie, 2003, p. 706). Pragmatism departs from metaphysical concepts through its acceptance of single or multiple realities that are open to empirical investigation (Creswell & Plano Clark, 2011). Pragmatic researchers prioritise research questions over the specific method or paradigm employed (Maxcy, 2003).

Epistemology is employed in research to understand how knowledge is acquired and how truth or reality is perceived. Schwandt (1997) defines it as the study of the nature of knowledge and justification. Epistemological considerations help researchers position themselves in the research context and discover new insights. To comprehend the epistemological aspect of your paradigm, it is crucial to examine how knowledge is acquired (Kivunja & Kuyini, 2017). "Pragmatist epistemology is fundamentally based on experiential knowledge" (Kaushik & Walsh, 2019, p. 4). This implies that each individual has a unique perspective and must accept these views as representative of society. Knowledge, in this context, is social knowledge.

Pragmatist epistemology does not perceive knowledge as an objective reality but as a construct that improves one's existence and engagement with the world (Goldkuhl, 2012; Morgan, 2014; Rorty, 1980). The methodological approach of this study employs a blended approach, utilising both qualitative and quantitative methods to collect data. This aligns with the belief that research should not rely solely on one truth or reality, nor should it solely focus on in-depth knowledge from the same participants. Instead, it considers the experiences and worldviews of the participants. Various forms of data were collected qualitatively and quantitatively to enhance the validity of the data and decisions made.

This decision aligns with Goles and Hirschheim (2000), who propose that pragmatists view the acquisition of knowledge as a continuum rather than a dichotomy between objectivity and subjectivity. Pragmatists employ a flexible approach, combining quantitative and qualitative methodologies. Pragmatism is situated in the centre of the paradigm continuum, allowing researchers to select methodologies and research designs that best address their research questions (Kivunja & Kuyini, 2017;

Morgan, 2007; Pansiri, 2005; Yvonne Feilzer, 2010). Pragmatic researchers have the freedom to engage in abductive reasoning, which involves moving between deductive and inductive reasoning, enabling active participation in data creation and theory development (Goldkuhl, 2012; Morgan, 2007). ;

The pragmatic paradigm was selected for its emphasis on practical problem-solving, which aligns with the study's goal of addressing real-world challenges in Ghana's STS Programme. Given the resource-constrained environment of Ghanaian education marked by uneven resource distribution, logistical barriers, and diverse stakeholder needs, pragmatism's methodological adaptability allows the researcher to prioritise actionable insights over rigid adherence to a single methodological tradition. This approach ensures the study's relevance to policymakers and educators seeking context-specific solutions.

Consistent with a pragmatic approach, our integration strategy prioritises 'what works' by systematically merging quantitative and qualitative data to produce a nuanced understanding of the STS Programme. This narrative weaving not only contextualises statistical findings with real-world experiences but also reinforces our commitment to deriving actionable insights that inform practical improvements in teacher education, a connection that is further underscored in Chapter 4 during the interpretation of integrated findings.

3.2 Research Approach

This study adopted a mixed-methods research approach, specifically employing an explanatory sequential design (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). This approach was selected to comprehensively explore the challenges confronting the implementation of the Supported Teaching in School (STS) programme

by first capturing broad quantitative trends and then elucidating these trends with in-depth qualitative data. The initial quantitative phase involved the administration of structured questionnaires to teacher trainees, enabling the collection of numerical data that measured perceptions related to orientation, mentorship, scheduling, fatigue, resource availability, and transportation logistics. These quantitative results provided a robust empirical basis from which key issues could be identified.

Subsequently, the qualitative phase was implemented using semi-structured interviews, which offered rich, detailed accounts of the trainees' lived experiences. Through direct quotations and narrative responses, the qualitative data served to explain and contextualise the numerical trends observed in the survey data. For instance, while quantitative analysis might reveal a high rate of reported fatigue, qualitative insights elucidated the specific factors, such as unfavourable scheduling and long commute times, that contributed to this exhaustion. The use of an explanatory sequential design enabled methodological triangulation, thereby enhancing the credibility, depth, and transferability of the findings (Creswell & Plano Clark, 2018). This approach is well-aligned with the constructivist paradigm, which posits that meaning is co-constructed through social interactions and subjective experiences, as well as with the pragmatic paradigm, which justifies the integration of multiple data sources to address complex real-world problems.

In theoretical terms, this integrated approach also complements Kolb's Experiential Learning Theory (1984), which emphasises the cyclical process of concrete experience, reflective observation, abstract conceptualisation, and active experimentation, as well as Chomsky's Competency-Based Approach (CBA), which focuses on measurable and demonstrable learning outcomes. The combination of these theoretical perspectives

provided a robust framework for understanding how teacher trainees develop competencies within the STS programme.

In summary, the mixed methods approach employed in this study allowed for a nuanced analysis that moves beyond mere description of data. By merging quantitative trends with qualitative narratives, the research provides actionable insights for policy and practice, highlighting areas for improvement in the implementation of the STS programme. This approach not only strengthens the theoretical underpinnings of the study but also offers a comprehensive basis for further research in teacher education reform in Ghana.

3.3 Research Design

This study adopted a research design that was most suitable for examining the implementation, perception, and effectiveness of the Supported Teaching in Schools (STS) programme. The purpose of this section is to describe and justify the research design employed to address the study's objectives and research questions. Given the complexity of the research problem, which required both numerical measurement and in-depth exploration of experiences, an explanatory sequential mixed methods design was employed. This section also indicated the research paradigm, approach, as well as the design being used in the study, as well as the integration and triangulation procedures adopted in the study. The integration of both methods enhanced the validity and depth of the study's findings, allowing for a more nuanced interpretation of the STS implementation processes and outcomes.

This study employed an explanatory sequential mixed methods research design (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010), which was selected to provide a comprehensive understanding of the implementation of the Supported

Teaching in School (STS) Programme. The design involved a two-phase process: initially, quantitative data were collected using structured questionnaires administered to teacher trainees, followed by a qualitative phase that utilised semi-structured interviews to elucidate and contextualise the survey findings. The explanatory sequential design was chosen to first identify broad trends through surveys (e.g., resource shortages) and then explore nuances via interviews (e.g., mentor workload). This aligns with Kolb's ELT, where quantitative data represent 'abstract conceptualisation' and qualitative insights reflect 'concrete experience.

In the quantitative phase, the research design focused on measuring key variables such as orientation, mentorship quality, resource availability, time management, and logistical challenges through standardised instruments. This phase provided statistical evidence regarding the extent to which teacher trainees perceived various aspects of the STS Programme, generating descriptive statistics (means, standard deviations, and percentages) that highlighted prevalent issues and trends. The rigorous quantitative analysis was critical in establishing a broad empirical foundation upon which further qualitative inquiry could be based.

Following the quantitative phase, the qualitative phase was designed to delve deeper into the lived experiences of the participants. The semi-structured interviews enabled the collection of rich, narrative data that explained the quantitative trends in detail. This phase allowed the researcher to capture nuanced insights regarding how challenges such as unfavourable scheduling, resource inadequacy, and transportation difficulties impacted teacher trainees' experiences during the STS Programme. By integrating direct quotes and thematic interpretations, the qualitative data provided context and depth, thereby enhancing the overall validity of the research findings.

The use of an explanatory sequential design ensured methodological triangulation, facilitating a more robust and comprehensive analysis of the research problem. This approach is congruent with both Kolb's Experiential Learning Theory (1984), which underscores the importance of integrating concrete experience with reflective observation, and Chomsky's Competency-Based Approach (CBA), which emphasises the need for structured, measurable training outcomes. The design allowed for a logical progression from broad, quantifiable measures to specific, in-depth insights, ensuring that the complexities of STS implementation were fully captured and understood. Overall, the research design was instrumental in systematically linking the empirical findings to theoretical constructs and policy implications. It provided a clear framework for investigating the multifaceted challenges of the STS Programme, ultimately informing practical recommendations for enhancing teacher education in Ghana.

3.4 Research Setting

The research setting for this study was strategically chosen to be two colleges of education located in the southern part of Ghana. These institutions were selected for their representativeness of the evolving landscape of teacher education in this geographical area, where recent curriculum reforms, including the implementation of the Supported Teaching in School (STS) Programme, are actively reshaping educational practices (National Teacher Education Curriculum Framework, 2017). The southern part of Ghana is noted for its dynamic mix of urban and semi-urban environments, which provides a rich context for examining the challenges and strengths inherent in the new four-year Bachelor of Education (B.Ed.) curriculum.

The decision to focus on two colleges was informed by their diverse student populations, robust engagement with practicum experiences, and their proactive

adoption of competency-based training models, which align with both Kolb's Experiential Learning Theory (1984) and Chomsky's Competency-Based Approach. These colleges have undergone significant transitions from traditional training models to contemporary methods emphasising experiential learning and reflective practice (Mereku, 2019). As such, they serve as ideal case studies to explore how teacher trainees integrate theoretical knowledge with practical skills in real classroom settings.

Furthermore, these two colleges were chosen to reflect the broader trends observed in the southern sector, ensuring that the findings are not institution-specific but rather indicative of systemic practices and challenges. This approach is supported by previous studies that have underscored the importance of geographical diversity in understanding educational reforms and their impacts on teacher preparation (Accra College of Education, 2022). By focusing on these two institutions, the study aims to provide a nuanced analysis of how local contexts, resource availability, and institutional support mechanisms influence the successful implementation of the STS Programme. This, in turn, offers valuable insights for policymakers and educational stakeholders seeking to optimise teacher education across Ghana.

3.5 Research Population

The research population for this study encompasses all individuals involved in the implementation of the Supported Teaching in School (STS) Programme within the selected colleges of education in the southern region of Ghana. More specifically, the study considers two main groups: teacher trainees and their mentors. These groups were chosen due to their direct engagement with the STS programme, making them ideal candidates for investigating the programme's effectiveness and the challenges encountered in its implementation.

The target population includes all final-year teacher trainees enrolled in the Bachelor of Education (B.Ed.) programmes at the two selected colleges, as well as the mentors who are actively involved in supervising and supporting these trainees during their practicum experiences. Final-year trainees were specifically chosen because they have experienced the full breadth of the STS process, from initial orientation to the practicum phase, thus offering comprehensive insights into both the strengths and shortcomings of the programme. Similarly, mentors are an integral component of the STS framework, as they provide the necessary guidance and support that directly influence the development of teaching competencies (National Teacher Education Curriculum Framework, 2017).

The accessible population comprises those members of the target population who were available and consented to participate in the study. Access was determined by several factors, including current enrolment status, availability during the data collection period, and willingness to share detailed accounts of their experiences. By narrowing the accessible population to these individuals, the study ensures that the data collected is both current and relevant to the research objectives. This deliberate selection process is justified by previous literature, which emphasises the importance of utilising a well-defined and contextually representative population to yield reliable and actionable findings (Abudulai, 2021; Coffie et al., 2021).

Overall, the careful delineation of the research, target, and accessible populations contributes to the robustness of the study by ensuring that the data collected is both comprehensive and representative. This approach not only enhances the validity of the research outcomes but also provides a solid foundation for subsequent policy recommendations and further investigations into teacher education practices in Ghana.

3.6 Sample and Sampling Techniques

This study employed a multi-stage sampling strategy that integrated both quantitative and qualitative components to ensure the selection of a representative and information-rich sample. The sampling was carefully structured to capture the diverse experiences and perspectives of the key stakeholders involved in the Supported Teaching in Schools (STS) Programme.

In the quantitative phase, a stratified random sampling technique was used to select participants from the population of final-year (Level 400) teacher trainees and mentors across two Colleges of Education in the southern region of Ghana (designated as College A and College B for confidentiality). The population was stratified based on both the institution and respondent type (trainee or mentor) to ensure proportional representation from each subgroup. The total population of teacher trainees was 572, comprising 250 from College A and 322 from College B. A proportional allocation method was used to derive a target sample of 200 trainees: approximately 87 from College A and 113 from College B. Similarly, for mentors, a total of 286 individuals (120 from College A and 166 from College B) were available, from which 100 were selected using the same proportional approach 42 from College A and 58 from College B.

Following the stratification, simple random sampling was employed within each stratum using the lottery method. A full list of eligible participants was generated, with each individual assigned a unique code printed on identical slips. These slips were thoroughly mixed and drawn randomly until the required sample size was attained. This process ensured each individual had an equal probability of selection, thereby reducing

potential selection bias and enhancing the statistical validity of the sample (Creswell & Plano Clark, 2018; Teddlie & Yu, 2007).

For the qualitative phase, a purposive criterion-based sampling technique with elements of maximum variation was adopted. Participants were selected based on the extremity of their responses from the quantitative data, those who exhibited either strongly positive or strongly negative perceptions of the STS programme. This criterion ensured the inclusion of diverse perspectives that could provide nuanced and insightful narratives. Interviews continued until data saturation was achieved, meaning no new themes emerged from subsequent interviews (Creswell, 1998; Krueger, 2009).

The purposive sampling was employed to select participants whose survey responses represented extreme cases (outliers) on key variables: Teacher Trainees -Top 10% (high scorers): Reported strong mentorship support, resource adequacy, and confidence in STS objectives. Bottom 10% (low scorers): Reported poor mentorship, resource shortages, and dissatisfaction with STS outcomes. Mentors: Maximum Variation - Participants were selected to reflect diversity in gender (male/female), institutional affiliation (College A/B), and teaching experience (<5 years vs. >10 years). This strategy ensured the representation of divergent perspectives while capturing contextual factors influencing STS implementation.

The dual sampling strategy, combining statistical representativeness from the quantitative phase and contextual richness from the qualitative phase, was methodologically aligned with the study's explanatory sequential mixed methods design. This approach also reflects Kolb's Experiential Learning Theory (1984) and Chomsky's Competency-Based Approach (1968), which emphasise reflective learning and measurable outcomes in education. Together, these strategies ensured the

robustness and depth of the study's empirical base, thus strengthening its conclusions and recommendations for teacher education policy and practice in Ghana.

3.7 Sampling Procedure

The sampling procedure for this study was carefully aligned with its explanatory sequential mixed-methods design, ensuring that the quantitative phase laid a solid foundation for subsequent qualitative inquiry. Initially, the researcher employed a two-stage, stratified random sampling technique to secure a representative quantitative sample from two Colleges of Education in southern Ghana, referred to here as College A and College B. Within each college, the population was divided into Level 400 teacher trainees and mentors who had actively participated in the Supported Teaching in Schools (STS) Programme. This stratification guaranteed that each subgroup's characteristics were proportionately reflected in the sample, thereby enhancing the generalizability of quantitative findings to the broader populations of 572 trainees and 286 mentors.

Following stratification, the researcher implemented simple random sampling via the lottery method within each stratum. Eligible participants' names were inscribed on identical slips of paper, which were thoroughly mixed and drawn without replacement until the requisite number of trainees and mentors was reached. This process yielded a total sample of 200 trainees—comprising 87 from College A and 113 from College B — and 100 mentors — 42 from College A and 58 from College B. By adhering to this systematic approach, the researcher minimised selection bias and ensured that the resulting data would accurately reflect the distribution of experiences and perceptions across institutions and roles.

Upon completion of quantitative data collection and analysis, the study transitioned to its qualitative phase. Here, purposive criterion-based sampling was employed to select interview participants whose survey responses represented the extremes of the score distribution, thereby capturing both highly favourable and highly critical perspectives on the STS Programme. To deepen the inquiry, the researcher further applied a maximum-variation strategy, deliberately including participants of different genders, from both colleges and – among mentors – with varying lengths of teaching experience. This deliberate heterogeneity allowed for a more nuanced exploration of the contextual factors shaping trainees' and mentors' experiences.

Recruitment for the qualitative strand proceeded iteratively until thematic saturation was achieved, that is until additional interviews ceased to yield new insights. By combining criterion-based selection with maximum variation and by halting data collection at saturation, the researcher ensured that the qualitative findings were both richly detailed and conceptually robust. In this way, the study's mixed-methods sampling design upheld the pragmatic philosophical stance that underpins it, leveraging probabilistic methods to secure breadth and non-probabilistic methods to attain depth. The integrated approach thus maximised representativeness, credibility, and contextual validity, ensuring that the study's conclusions are both statistically reliable and deeply grounded in participants' lived experiences.

3.8 Data Collection Instruments

The study used two quantitative and qualitative data collection instruments for data collection to answer the research questions. These are a questionnaire and a semi-structured interview guide. The questionnaire and the interview guide were developed by the researcher. The primary instrument for quantitative data collection in this study

was a structured questionnaire, a widely accepted tool in normative surveys for its capacity to reliably measure attitudes and elicit consistent responses from participants. To ensure precise, quantifiable data, the questionnaire was formatted using a five-point Likert scale with response options ranging from 1 (“Strongly Agree”) to 5 (“Strongly Disagree”), following the classification proposed by Getasw (2020).

The design of the questionnaire was directly aligned with the study’s four research questions: (1) to examine the availability of resources for implementing the STS Programme in Colleges of Education in the southern sector of Ghana; (2) to analyse mentorship support, supervision frequency, and trainee engagement levels in the STS Programme; (3) to assess teacher trainees' perceptions regarding the extent to which the objectives of the STS Programme have been achieved; and (4) to identify the challenges faced by teacher trainees and mentors in the implementation of the STS Programme. To capture these dimensions effectively, the teacher trainees’ questionnaire was divided into four parts. The first part focused on the resources available for implementing the STS Programme, thereby addressing the first research question. The second part assessed how trainees implemented STS activities and engaged in related practices, reflecting the second research question. The third section explored trainees’ perceptions regarding their exhibition of professional values and attitudes, as well as the extent to which the objectives of the STS Programme were met, corresponding with the third research question. The final section addressed the challenges encountered by teacher trainees in implementing the STS Programme, thus linking directly to the fourth research question.

Likewise, the mentors’ questionnaire comprised four parts that paralleled the structure of the trainees’ instrument: assessing the resources available to support the

STS Programme; evaluating the implementation activities and practices observed in trainees; and identifying the challenges experienced during STS supervision. This dual-instrument strategy was designed to provide comparable and complementary quantitative data from both perspectives.

Following the quantitative phase, the study transitioned into a qualitative phase, which was guided by the emerging findings from the survey. Using semi-structured interviews, a data collection method defined by Kothari (2007) as a face-to-face conversation designed to gather detailed insights, the researcher developed an interview guide with questions tailored to further explore the themes raised in the quantitative data. This qualitative instrument enabled deeper investigation into issues such as resource adequacy, mentorship support, trainee engagement, achievement of programme objectives, and operational challenges. Respondents for the interviews were selected purposively from those who exhibited extreme responses (either strong positive or strong negative) in the survey, ensuring a purposeful and in-depth exploration of the phenomenon. This criterion-based purposive sampling continued until data saturation was reached, following established qualitative research guidelines (Creswell, 1998; Krueger, 2009).

The integration of these data collection instruments—quantitative questionnaires and qualitative interviews is consistent with the explanatory sequential mixed methods design adopted in this study. This design facilitates the bridging of numerical data with rich, contextual insights, thereby enhancing the overall validity and reliability of the findings. Furthermore, the approach is theoretically underpinned by Kolb's Experiential Learning Theory (1984), which highlights the importance of concrete experiences and reflective observation in professional learning, and by Chomsky's

Competency-Based Approach (1968), which emphasises structured training and measurable competencies. By aligning data collection with these theoretical frameworks, the study ensures that both the broad statistical trends and nuanced individual experiences are accounted for, ultimately providing a comprehensive basis for policy recommendations, practical improvements, and future research in teacher education within the Ghanaian context.

3.9 Pilot Testing of Research Instruments

In line with the explanatory sequential mixed methods design adopted for this study, pilot testing was conducted to ensure the clarity, reliability, and appropriateness of both the quantitative and qualitative data collection instruments. The pilot study served as a critical preparatory stage to validate the instruments before their use in the main study, ensuring that both the questionnaire and the semi-structured interview guide were aligned with the research objectives and capable of yielding credible and meaningful data.

3.9.1 Pilot Testing of the Questionnaire

The quantitative instrument, a structured questionnaire, was designed to collect data from Level 400 teacher trainees and mentors on key aspects of the Supported Teaching in Schools (STS) Programme. These included the availability of resources, implementation activities, the achievement of programme objectives, and challenges encountered. The questionnaire was pilot-tested in a co-educational (mixed-gender) College of Education located in the southern part of Ghana that was not part of the target population. This college was selected for its similar contextual and institutional characteristics, thus ensuring the transferability of the pilot findings while preserving the integrity of the main study.

The pilot test involved a sample of 20 Level 400 teacher trainees and 10 mentors. Participants were selected through simple random sampling to mimic the actual sampling procedures to be used in the main study. The aim was to test the clarity of the questionnaire items, the functionality of the five-point Likert scale, the response time, and the internal consistency of the instrument. Feedback from the pilot revealed minor ambiguities in the wording of some items, which were subsequently revised for better comprehension. Additionally, reliability analysis using Cronbach's alpha was conducted to determine internal consistency across the questionnaire sections. Reliability analysis using Cronbach's alpha demonstrated strong internal consistency for all questionnaire sections: Teacher Trainees' Questionnaire (Resource Availability: $\alpha = 0.85$, Mentorship Support: $\alpha = 0.82$, STS Objectives Achievement: $\alpha = 0.79$, Challenges: $\alpha = 0.81$); Mentors' Questionnaire: (Resource Availability: $\alpha = 0.78$, Implementation Practices: $\alpha = 0.76$, Challenges: $\alpha = 0.74$). These values exceed the acceptable threshold of $\alpha \geq 0.70$ (Taber, 2018), confirming the instrument's reliability.

3.9.2 Pilot Testing of the Semi-Structured Interview Guide

Following the quantitative phase, the qualitative instrument, a semi-structured interview guide, was also subjected to pilot testing. This step was particularly important given the study's explanatory sequential design, where the qualitative phase is intended to build upon and provide deeper insight into the quantitative findings. Five pilot interviews were conducted with participants drawn from the same college used for the questionnaire pilot test. The sample included three teacher trainees and two mentors who had participated in the STS Programme and were selected purposively to reflect a range of experiences and perspectives. The interviews were conducted via telephone, simulating the data collection procedures to be used in the main study.

The pilot interviews aimed to test the clarity and flow of the interview questions, the appropriateness of the probing strategies, and the overall relevance of the questions to the four research objectives guiding the study.

The results of the pilot testing indicated that while the interview questions were generally well-structured, minor adjustments were needed to ensure clearer alignment with themes emerging from the quantitative data. For instance, some questions were rephrased to allow more open-ended responses and to encourage participants to elaborate on issues related to mentorship support and trainee engagement, key areas identified as critical in the quantitative analysis. Five pilot interviews (three trainees and two mentors) were conducted telephonically. Adjustments were made to improve question flow and alignment with quantitative themes. For example, probes like "How did resource shortages affect your ability to model inclusive teaching?" were added to contextualise survey findings.

3.9.3 Alignment with the Explanatory Sequential Design

The pilot testing of both the questionnaire and the semi-structured interview guide was strategically aligned with the explanatory sequential design of the study. This design requires that quantitative data be collected and analysed first, followed by qualitative data collection that explains or elaborates on the initial findings. Therefore, ensuring the readiness and appropriateness of both instruments during the pilot phase was essential for maintaining methodological coherence. By piloting the instruments in a college not included in the main study, yet sharing contextual similarities, the researcher was able to refine the tools without compromising the study's internal validity. The feedback and data obtained during the pilot process informed revisions

that improved the instruments' clarity, construct validity, and relevance to the research objectives.

In summary, the pilot testing process played a crucial role in preparing both the quantitative and qualitative tools for effective use in the main study. It ensured that the instruments were not only well-designed and reliable but also fully aligned with the philosophical and methodological underpinnings of the explanatory sequential mixed methods approach adopted for this research.

3.10 Reliability, Validity and Trustworthiness of Instruments

The reliability and validity of the survey scale items employed in the questionnaire were established through a comprehensive approach involving both pilot and main survey administrations. This was achieved by utilising techniques such as frequency distributions and internal consistency reliability indices. Joppe (2000) defines research instrument reliability as the consistency of outcomes when applied under similar methodological conditions. In essence, a research instrument exhibits reliability if study results can be replicated using a comparable methodology. Reliability, in this context, also encompasses the concept of repeatability – the ability to reproduce consistent results by using the same instrument in similar surveys (Moser & Kaalton, 1989; Taherdoost, 2016). For an instrument to be deemed reliable, it must first be tested. Huck (2007) characterises reliability testing as the consistency observed across the constituent elements of a measuring instrument. The widely adopted Cronbach's Alpha coefficient serves as the predominant measure of internal consistency, especially suited for instruments utilising Likert scales (Whitley, 2002; Robinson, 2009).

To assess the internal consistency reliability of the questionnaire, the coefficient alpha was calculated for all research questions for both teacher trainees and mentors.

For teacher trainees, in Research Questions one to four, the coefficient alpha was computed at 0.74, 0.76, 0.75 and 0.78. This gave a total correlation of 0.75 for the Likert Scale questions posed to teacher trainees, indicating that 75% of the variance in test outcomes is attributable to reliability. Similarly, the coefficient alpha was computed at 0.74,0.74, 0.75 and 0.78 for research questions one to four, respectively, denoting a total of 0.74 for the Likert Scale questions aimed at mentors, indicating that 74% of the variance in test outcomes is attributable to reliability. An instrument demonstrates strong internal consistency when its constituent items cohesively measure the same construct (Huck, 2007; Robinson, 2009). While exact thresholds for internal consistencies vary, a majority of researchers concur on a minimum coefficient of 0.70 (Whitley, 2002; Robinson, 2009). The instrument, which was developed internally, underwent pilot testing with teacher trainees at another college of education in the southern part of Ghana with similar characteristics as the colleges used for the research, before the main investigation, ensuring preliminary verification of its consistent performance.

Wilson (2010) indicated that although reliability is important, it is not sufficient unless combined with validity. In context, for a test to be reliable, it also needs to be valid. Heale and Twycross (2015) define validity as the degree to which a concept is accurately assessed in a quantitative study, elucidating the extent to which the collected data aligns with the intended investigative domain (Ghauri & Gronhaug, 2005). Validity pertains to accurately measuring the intended target, reflecting the instrument's capacity to gauge the anticipated variables (Field, 2005). The validity of a research instrument resides in its capability to accurately measure its intended focus. A valid instrument effectively captures the variables it seeks to measure. Notably, the interplay between reliability and validity can be elucidated: reliability pertains to the consistency of an instrument's output, while validity pertains to the instrument's ability to yield anticipated outcomes. An instrument is both reliable and valid when it consistently generates outcomes aligning with the study's expectations. The research validated the

questionnaire through preliminary testing with students and mentors, securing content validity by obtaining approval from the researcher's supervisor and a panel of esteemed professors from recognised Ghanaian universities.

To ensure the trustworthiness of the collected qualitative data, Guba (1981) identifies four key dimensions: Credibility, Transferability, Dependability, and Confirmability. Credibility, defined by Lincoln and Guba (1985), is the ability of the research instrument to record what it was expected to record and is considered the most important factor in ensuring the trustworthiness of a research instrument and data. In this study, credibility was bolstered through the utilisation of semi-structured interviews as the primary data collection method. This approach has proven effective in related studies (Coffie, 2020; Coffie et al., 2021), thereby lending credibility to the current investigation. Before commencing data collection, the researcher established rapport with the participating colleges' authorities, acquainting them with the research objectives and processes. Regular debriefing sessions involving the researcher, supervisor, and academic staff further enhanced questioning strategies and curbed potential biases.

The researcher fostered credibility by inviting colleagues, peers, and academics to review the data through presentations during progress reports. Feedback from these sessions contributed to refining data collection and analysis techniques, ultimately enhancing the integrity of the research. Reflective commentary on the collected and analysed data, combined with external scrutiny by peers and experts, further fortified the credibility of the research outcomes. Data accuracy was maintained through vigilant checks during and after post-data collection dialogues. The study also examined previous research findings during the analysis of the data collected to assess the degree to which the research results were congruent with those of past studies. The findings of

the data collected and analysed can be transferred to a different setting with the same methodology.

Dependability, as advocated by Guba (1981), involves documenting data collection processes in detail, enabling future researchers to replicate the work, potentially yielding divergent results. The researcher's meticulous documentation of the data collection procedure and analysis not only ensures dependability but also extends an opportunity for future scholars to benefit from the research undertaking. Confirmability, the final trustworthiness dimension, was ensured by explicitly delineating decisions by ensuring the Confirmability of the qualitative findings, the researcher outlined in detail the decisions made and methods adopted within the research report, which also includes the reasons for favouring the mixed method approach. The researcher also discussed the theories underpinning the study and related them to the research findings.

3.11 Data Analysis Technique

This study employed an explanatory sequential mixed methods design, in which quantitative data collection and analysis were conducted first, followed by qualitative data collection and analysis. This approach allowed the researcher to initially identify general patterns through quantitative means and subsequently elaborate on those findings using qualitative insights, thereby offering a more nuanced understanding of the implementation of the Supported Teaching in Schools (STS) Programme.

3.11.1 Quantitative Data Analysis

The quantitative data were obtained through structured questionnaires administered to Level 400 teacher trainees and their mentors. The analysis of the data was conducted using the Statistical Package for the Social Sciences (SPSS) version 20. Descriptive

statistical techniques were used depending on the nature of each research question. A five-point Likert scale was used to measure respondents' levels of agreement with various statements related to the research objectives. Survey responses were analysed using a 5-point Likert scale. Mean scores were interpreted using the framework proposed by Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale. A standard deviation (SD) of below 1.0 indicated homogeneity in responses, while an SD of 1.0 or higher reflected heterogeneity, suggesting diverse opinions among respondents.

Each research question was matched with the appropriate quantitative analysis method as outlined below:

Table 3.1: Quantitative Data Analysis

Research Question	**Instrument Used**	**Data Analysis Technique**
Resource Availability for STS	Questionnaire (Trainees and Mentors)	Descriptive statistics (mean, SD, frequencies, percentages)
Mentorship, supervision, engagement	Questionnaire (Trainees and Mentors)	Descriptive statistics (mean, SD, frequencies, percentages)

Achievement of STS objectives	Questionnaire (Trainees only)	Descriptive statistics (mean, SD, frequencies, percentages)
Challenges encountered	Questionnaire (Trainees and Mentors)	Descriptive statistics (mean, SD, frequencies, percentages)

3.11.2 Qualitative Data Analysis

Following the quantitative phase, qualitative data were collected through semi-structured interviews with five teacher trainees and five mentors. The qualitative component was intended to complement and explain the quantitative findings by offering deeper insight into respondents' experiences with the STS Programme. The interviews were audio-recorded, transcribed verbatim, and analysed using thematic analysis. The process followed the guidelines of Braun and Clarke (2006), involving the following steps: Familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report. Themes were developed using both a priori codes, based on the research questions and quantitative findings, and emergent codes, derived inductively from the data. The coding process was conducted manually to allow for deeper immersion in the dataset and ensure contextual sensitivity.

Each research question addressed by the qualitative phase had corresponding interview items aimed at enriching and clarifying the survey findings, as outlined below:

Table 3.2: Qualitative Data Analysis

Research Question	**Instrument Used**	**Qualitative Analysis Technique**

Resource availability		Semi-structured interviews (Trainees, Mentors)	Thematic analysis (resource constraints, support systems)
	Mentorship, supervision, engagement	Semi-structured interviews (Trainees, Mentors)	Thematic analysis (frequency, supervision quality, engagement)
	Achievement of objectives	Semi-structured interviews (Trainees)	Thematic analysis (evidence of competencies, values)
	Challenges encountered	Semi-structured interviews (Trainees, Mentors	Thematic analysis (systemic barriers, contextual issues)

This phase enabled the researcher to understand the "why" and "how" behind the patterns observed in the survey results and to highlight experiential dimensions of STS implementation that could not be captured through quantitative data alone.

3.11.3 Integration of Quantitative and Qualitative Findings

In line with the explanatory sequential design, the integration of data occurred at the interpretation phase. Specifically, themes and illustrative quotes from the interviews were used to explain and elaborate on key patterns identified in the survey data. This integrated approach strengthened the validity of the study's findings and offered a well-rounded portrayal of the STS Programme's implementation in the selected Colleges of Education.

3.11.4 Justification for Data Analysis Techniques and Likert Scale Adjustment

In this study, descriptive statistics were employed to analyse the quantitative data collected through structured questionnaires administered to Level 400 teacher trainees and their mentors. Descriptive techniques such as means, standard deviations,

frequencies, and percentages were used because they are appropriate for summarising large datasets and revealing central tendencies and variations in respondents' views. This approach allowed the researcher to identify patterns and trends in stakeholder perceptions of the STS Programme implementation across the two Colleges of Education without making predictions or drawing causal inferences.

For the qualitative phase, thematic analysis was adopted, following the model proposed by Braun and Clarke (2006). This method was suitable given the study's objective to explore lived experiences and provide contextual understanding beyond what the quantitative results could reveal. The thematic analysis enabled the researcher to organise and interpret qualitative data systematically, allowing for both a priori themes (based on research objectives) and emergent themes (arising from interview transcripts). This method provided the depth necessary to explain patterns observed in the quantitative findings, thus complementing the study's explanatory sequential design.

Additionally, the original five-point Likert scale (ranging from "Strongly Disagree" to "Strongly Agree") was collapsed into a three-point scale during interpretation to simplify the analysis and enhance clarity. This decision was informed by the distribution of responses, where middle categories (e.g., "Neutral") were sparse or often ambiguous. By collapsing the categories into broader groups, typically Agree, Neutral, and Disagree. The researcher presented the data in a more accessible and interpretable manner, especially for policy-related recommendations. This adjustment also helped reduce noise in the data and allowed for clearer contrasts in stakeholder perspectives without distorting the meaning of the original responses. This multi-tiered approach employing descriptive statistics, thematic analysis, and Likert scale consolidation

ensured that the research outcomes were both statistically grounded and qualitatively enriched, reinforcing the study's credibility and practical relevance.

3.12 Data Analysis Procedure

The data analysis procedure for this study was guided by its explanatory sequential mixed-methods design, whereby quantitative analysis preceded and informed the qualitative inquiry. This sequencing enabled the researcher first to identify overarching patterns through statistical analysis and then to deepen understanding of those patterns via thematic exploration of interview data. Quantitative analysis began with the structured questionnaire responses from Level 400 teacher trainees and their mentors, which were coded and entered into SPSS version 20. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were computed for each item on the five-point Likert scale. To interpret mean scores, Survey responses were analysed using a 5-point Likert scale.

Mean scores were interpreted using the framework proposed by Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale. Standard deviations below 1.0 were taken to reflect homogeneity of responses, whereas standard deviations of 1.0 or greater signified heterogeneity. Descriptive analyses were conducted separately for each research question: resource availability, mentorship and engagement, achievement of STS objectives, and challenges encountered. This systematic application of descriptive measures allowed the researcher to establish the central tendencies and dispersion of

perceptions across both trainees and mentors, thereby laying a robust empirical foundation for subsequent qualitative exploration.

Following quantitative analysis, the researcher selected a purposive subsample of five trainees and five mentors for semi-structured interviews. Interview recordings were transcribed verbatim and analysed manually using Braun and Clarke's (2006) six-phase thematic analysis framework. Initially, the researcher immersed herself in the data by reading transcripts repeatedly to gain familiarity. Next, initial codes were generated both deductively, based on quantitative findings and research questions, and inductively, to capture emergent insights. Codes were then collated into potential themes, which were reviewed and refined to ensure coherence and distinctiveness. Each theme was clearly defined and named before the researcher produced a narrative report that integrated illustrative quotations. This manual approach to coding facilitated deep engagement with the data and heightened sensitivity to contextual nuances in participants' accounts of STS implementation.

Integration of quantitative and qualitative findings occurred during the interpretation phase, consistent with the explanatory sequential design. Here, the researcher juxtaposed survey results with thematic insights, using interview quotations to explain, contextualise, or elaborate upon statistical patterns. For example, where descriptive statistics revealed heterogeneity in mentors' perceptions of supervision quality, thematic analysis uncovered systemic barriers such as scheduling conflicts and resource constraints that accounted for divergent experiences. This iterative process of comparison and elaboration served to triangulate findings, enhancing the study's overall validity and providing a richly textured understanding of how the STS Programme operated in practice. By weaving together numerical trends and lived

experiences, the data analysis procedure ensured that conclusions were both empirically grounded and experientially informed.

3.12.1 Integration and Integration Procedure

The research combined qualitative and quantitative methodologies to enhance the value of mixed methods. Integration is "the combination of quantitative and qualitative data and methods in a research design or analysis that provides a more comprehensive understanding of the research problem than either quantitative or qualitative methods alone" (Tashakkori & Teddie, 2003, p. 15). Creswell and Plano Clark (2011) also defined Integration as the process of combining quantitative and qualitative data in a single study, whilst Fetters and Molina-Azorin (2017) also defined Integration as the linking of qualitative and quantitative approaches and dimensions together to create a new whole or a more holistic understanding than achieved by either alone. In effect, Integration can also be defined as the process of combining quantitative and qualitative data to create a new, unified understanding of the research problem.

The study utilised Integration at various stages, including design, methods, interpretation, and reporting, to maximise the benefits (Creswell & Plano Clark, 2011; O'Cathian et al., 2010). The study utilised an explanatory sequential design, where the quantitative phase was followed by the qualitative phase (Creswell, Pianao Clark, Gutmann & Hanson, 2003; Creswell, 2003; Ivankova et al., 2006). Initially, quantitative data were collected and analysed, informing the subsequent collection and analysis of qualitative data. The qualitative phase complemented and explained the statistical results obtained in the first phase (Fetters et al., 2013).

Another integration approach utilised was the Integration Through Building Approach. Here, the results from one data collection procedure guided the approach of

the other procedure, building on each other (Fetters et al., 2013; Hammoud et al., 2012). Specifically, the quantitative findings obtained through a Likert Scale Questionnaire guided the design of interview questions for a deeper understanding. At the interpretation and reporting level, the study employed the Contagious Narrative Approach. This approach involved presenting qualitative and quantitative findings in a single report but in separate sections (Fetters et al., 2013). The contagious approach allowed for separate analysis and interpretation of the study.

The quantitative data were collected and analysed first, and the qualitative phase was conducted subsequently to contextualise and explain the quantitative findings. The study-initiated integration by formulating the study's purpose and its associated research objectives and questions. The purpose was to assess the implementation of the STS programme in Ghana's Colleges of Education, considering the perspectives of teacher trainees and mentors. Additionally, the study aimed to identify available resources, document implementation activities, assess the achievement of STS objectives, and highlight related challenges. The research questions encompassed both quantitative and qualitative aspects. Integration was accomplished through narrative weaving, a method in which qualitative insights are interwoven with quantitative findings to enrich the context. For example, after identifying statistical trends in the survey, such as a high proportion of mentors indicating resource shortages, selected interview excerpts were used to illustrate mentors' personal experiences with budget constraints and material deficits. This approach ensured that the results were not only statistically robust but also provided the necessary contextual detail, in line with the pragmatic paradigm's focus on actionable, real-world solutions.

Employing an integration-by-design approach, the study utilised an explanatory sequential design. This design consisted of distinct phases: first, a quantitative phase, followed by a qualitative phase (Creswell et al., 2003). Quantitative data were collected via a web-based questionnaire administered to teacher trainees and mentors, addressing all four research questions. The collected data were then analysed, and subsequent qualitative data collection involved phone interviews to further clarify the questionnaire responses. The selection of interview participants was based on the quantitative data results from the initial phase. Additionally, the interview questions were crafted based on the data analysis from phase one. During the analysis stage, the quantitative data was analysed, informing the subsequent qualitative data collection. The qualitative data was also analysed separately. At the discussion stage, the two sets of analyses were compared and merged to provide an overall interpretation of the study, leading to further discussions and recommendations. In the discussion section, the study combined the outcomes of both phases to comprehensively address the research questions and present a more insightful understanding of the research problem.

Initially, the study interpreted the results to address the primary quantitative research question. Subsequently, the interview findings were discussed to answer the guiding research questions in the qualitative phase. This process enabled the qualitative phase's results to elucidate and elaborate on the statistical results from the quantitative phase. The study further delved into the findings by categorising them into corresponding sub-questions, based on explored factors in assessing the STS programme. To enhance the discussion, the study referenced relevant literature, encompassing quantitative and qualitative studies on the subject. By combining the quantitative and qualitative findings, the study offered a comprehensive explanation of the questionnaire results and concluded with recommendations based on the findings.

3.12.2 Triangulation

In research, triangulation refers to the use of more than one method to research a phenomenon (Cohen et al., 2018). Triangulation seeks to increase confidence in the results of a study by using two or more different methods to confirm a proposition (Bryman, 2012). According to Cohen et al. (2013), triangulation will make it possible to overcome the limitations of each method by comparing results from different viewpoints on a single research question. To address the difficulties of reliability and validity in the data sources and methods, the quantitative and qualitative data collected were triangulated (merged) to provide detailed findings of participants' views analysed, expressed or observed (Babbie, 2015).

Triangulation in this study reflects the pragmatic commitment to holistic understanding. By cross-verifying quantitative trends (e.g., resource shortages) with qualitative explanations (e.g., budget constraints described by mentors), the study ensures findings are both generalizable and contextually nuanced. The quantitative data were collected and analysed first, and the qualitative phase was conducted subsequently to contextualise and explain the quantitative findings. This approach directly addresses the complexity of Ghana's STS implementation, where systemic challenges require multi-faceted solutions. The results helped address the research questions by guaranteeing credibility, confirmability, transferability, and dependability. In this study, care has been taken about ethical considerations such as confidentiality and anonymity. The data were grouped together and ultimately arranged into themes.

3.13 Ethical Consideration

Ethical considerations played a central role in the design and execution of this study, in alignment with established research ethics guidelines for both quantitative and

qualitative paradigms, as outlined by Creswell (2014), Bryman (2012), and Creswell and Plano Clark (2018). Research involving human participants requires adherence to fundamental ethical principles such as informed consent, confidentiality, anonymity, voluntary participation, and the protection of participants from any potential harm. Ethical clearance for this study was obtained from the University of Education, Winneba, through formal communication with institutional authorities, including the Heads of Departments and the Dean of Graduate Studies, ensuring that the research complied with institutional ethical standards.

3.13.1 Informed Consent as a Four-Stage Process

Informed consent in this study was not viewed as a one-time formal agreement but rather as a dynamic, four-stage process designed to foster transparency, voluntary participation, and trust. The first stage involved providing participants with an initial explanation of the study, its objectives, and the procedures involved. This brief was clear about the scope of participation, including completing questionnaires or participating in interviews, and the overall aims of the research concerning the Supported Teaching in Schools (STS) Programme. This explanation ensured that participation was fully voluntary and based on informed decision-making. By presenting this information upfront, the researcher set the foundation for trust and openness, which contributed to a richer and more authentic data collection process.

The second stage emphasised the participants' right to withdraw from the study at any point without facing any negative consequences. This assurance was communicated both verbally and in writing before the commencement of data collection. This stage was crucial in ensuring that participants felt secure in their

autonomy and understood that they could cease participation at any time, which likely enhanced their comfort and willingness to share honest opinions.

The third stage focused on maintaining confidentiality and anonymity. Institutions were assigned pseudonyms (e.g., College A, College B), and personal identifiers were carefully omitted to protect participants' privacy. Additionally, all data were securely stored in password-protected digital files or locked cabinets for physical documents, with access granted only to the principal researcher. This precaution ensured the psychological safety of participants, allowing them to discuss potentially sensitive issues related to their institutions without the fear of exposure. The fourth and final stage aimed to avoid any undue influence from the researcher on participants' responses. Interview protocols were designed to ensure neutral questioning and probing, explicitly discouraging participants from responding in ways that might appear to favour the researcher. This approach was critical in mitigating social desirability bias, thus contributing to the authenticity and reliability of the qualitative responses.

3.13.2 Respect for Participants' Dignity and Data Integrity

Throughout the research, participants were treated with the utmost respect and empathy. The study was conducted without coercion, psychological discomfort, or deception, and participants were never subjected to any form of harm. The researcher took great care to ensure that all responses were handled with professionalism and in full compliance with ethical standards. Insights gained from a pilot study, conducted at a college outside the main sample, were used to refine the research instruments, ensuring that they remained ethically sound and did not compromise participant welfare. All collected data were reported with full transparency and accuracy. Participants were considered not merely as data sources but as active collaborators who

contributed valuable insights that were essential to the validity of the study. This perspective reinforced the ethical commitment to treating participants with dignity and respect throughout the research process.

3.13.3 Confidentiality and anonymity concerning informed consent

Confidentiality and anonymity were integral components of the informed consent process. Personal and institutional data were treated with the highest level of discretion, with no identifying information disclosed in the public domain. Both questionnaire and interview responses were securely stored, and any audio recordings were anonymised during transcription to protect participant identities. In the final report, participants were represented using pseudonyms such as "Mentor 1" and "Trainee 2," ensuring that their anonymity was preserved. These confidentiality and anonymity assurances were communicated during the consent process, with participants being reminded of their right to skip questions or withdraw from the study at any time without facing any negative repercussions. These ethical safeguards not only enhanced the reliability and depth of participant responses but also contributed to the overall credibility and trustworthiness of the research process, reinforcing the study's ethical integrity.

3.14 Limitations

While the study utilised questionnaires and interviews to gather comprehensive data on the implementation of the STS Programme, it faced inherent limitations common to educational research. Notably, the absence of direct classroom observations restricted the ability to visually assess teacher trainees' practical application of STS principles in real-time settings. Logistical constraints such as limited access to rural partner schools, scheduling conflicts with academic calendars, and resource limitations necessitated a pragmatic compromise. To address this gap, the qualitative phase prioritised in-depth

interviews with mentors and trainees, which enabled participants to retrospectively articulate their classroom experiences, teaching strategies, and challenges encountered during STS practice. This approach, consistent with the pragmatic paradigm's emphasis on adaptability and feasibility, ensured the study retained depth and relevance despite contextual barriers.

While interviews provided rich insights into stakeholders' perspectives, future research could enhance validity by integrating structured observation guides or video-recorded teaching sessions. Such methods would offer a complementary visual dimension to self-reported data, enabling researchers to triangulate findings more robustly and capture nuances in pedagogical practices within Ghana's Colleges of Education. Qualitative interviews focused on clarifying challenges identified in the quantitative phase (e.g., resource shortages, mentor overload) and did not address all survey items.

3.15 Summary of Methodology

The methodology section gave an in-depth appreciation of how the research was conducted, taking into consideration the research paradigm, which used the pragmatics paradigm with the mixed methodology design using the sequential explanatory approach to data collection. The research was integrated from the design, methodology, data collection, analysis, and findings stages. The data collection instruments for the study were questionnaires for the quantitative phase and interviews for the qualitative phase, by which the integration was done sequentially. The sample size of the study was two hundred level 400 teacher trainees from two colleges, who were randomly selected and a hundred mentors from the partner schools of the two colleges, who were randomly selected.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Overview

This chapter presents the results obtained and discusses the findings of the study. The analysis was done using frequencies, percentages, mean and standard deviations. The results are presented and analysed in two sections, namely, section A and section B. Section A deals with the analysis of bio-data, while section B concerns the analysis of main data.

4.1 Section A: Bio Data of Respondents

This section presents the results of the biodata of the respondents. The tables contain the results of demographic information such as sex, age range, highest academic qualification, first career choice, participation in school observation and the number of weeks of school observation. The results of the biodata of respondents are presented in Tables 4.1 to 4.5 and Figure 4.1. The biodata will guide the researcher to conduct a demographic analysis and ensure representativeness, for contextual understanding and research validity.

Table 4.1 presents the results of the sex distribution of the respondents. From Table 4.1, it was revealed that 78 (78%) of the respondents were male mentors, while 22 (22%) of them were female mentors. While 111 (55.5%) of teacher trainees were males, 89 (44.5%) were females. In all, 189 (63%) of the respondents who took part in the

study were males, while 111 (27%) were females. The results imply that most of the respondents who participated in the study were males.

Table 4.1: Sex of Respondents

Sex	**Frequency**	**Percentage**
Mentors		
Male	78	78
Female	22	22
Total	**100**	**100**
Trainees		
Male	111	55.5
Female	89	44.5
Total	**200**	**100**

Source: Field Survey, 2022

Table 4.2: Age Range of Respondents

Age Range	**Frequency**	**Percentage (%)**
Mentors		
22-25	35	35
26-29	21	21
30 and above	44	44
Total	**100**	**100**
Trainees		
18-21	25	12.5
22-25	116	58.0
26-29	52	26.0
30 and above	7	3.5
Total	**200**	**100**

Source: Field Survey, 2022

Table 4.2 presents the age distribution of the respondents. The results show that 35 (35%) of the STS mentors were within the age range of 22-25 years, 21 (21%) of them were within the age range of 26-29 years, and 44(44%) of them were 30 and above years. Also, 25 (12.5%) of teacher trainees were within the age range of 18-21 years, 116 (58%) of them were within the age range of 22-15 years, and 52 (26%) were within the age range of 26-29 years. The number of trainee teachers who were 30 years and above stood at 7 (3.5%). The results imply that the majority of STS mentors were 30 years and above years while the majority of teacher trainees were within the age range of 22-25 years.

Table 4.3: Highest Academic Qualification of Respondents

Academic Qualification	**Frequency**	**Percentage (%)**
Mentors		
Diploma	28	28.0
Bachelor Degree	72	72.0
Total	**100**	**100.0**
Trainees		
WASSCE	194	97.0
SSCE	6	3.0
Total	**200**	**100.0**

Source: Field Survey, 2022

Table 4.3 presents results on the academic qualifications of respondents. The results show that 28 (28%) of the mentors were Diploma holders, while 72 (72%) of them were bachelor's degree holders. While 194 (97%) of teacher trainees were WASSCE certificate holders, just 6 (3%) were SSCE certificate holders. The results provide evidence to suggest that the majority of mentors were degree holders, and the highest academic qualification of teacher trainees was WASSCE. This means that the mentors

have the needed academic qualifications to guide and support teacher trainees on their STS Programme as a means of preparing them towards their teaching career and professional development.

Table 4.4 presents the results of the first career choice of the respondents. It can be seen that 86 (86%) of them agreed that teaching is their first career choice, while 14 (14%) of them said otherwise. On the first career choice of teacher trainees, 175 (87.5%) responded 'Yes' while 25 (12.5%) of them responded 'No'.

Table 4.4: Is Teaching Your First Career Choice?

Response	**Frequency**	**Percentage (%)**
Mentors		
Yes	86	86.0
No	14	14.0
Total	**100**	**100.0**
Trainees		
Yes	175	67.5
No	25	32.5
Total	**200**	**100.0**

Source: Field Survey, 2022

Table 4.5: Participation in School Observation since the Start of Training

Response	**Frequency**	**Percentage (%)**
Yes	200	100.0
No	0	0.0
Total	**200**	**100.0**

Source: Field Survey, 2022

Table 4.5 presents the results of the responses to the item “Have you participated in School observation since you started your training?” The result shows that all of the respondents (100%) agreed to have participated in School observation since they started their training. This means that teacher trainees had some level of experience in School observation.

The respondents were then asked the number of weeks they did the school observation. Figure 4.1 presents the results of the number of weeks of observation visits by teacher trainees. The results show that 61 (30.5%) of them had School observation for 1-4 weeks, 89(44.5%) of them had for 5-8 weeks School observation, 25(12.5%) had 9-12 weeks of observation and 25(12.5%) also had 13-16 weeks of school observation. The results suggest that the majority of the teacher trainees had 5-8 weeks of School observation visits.

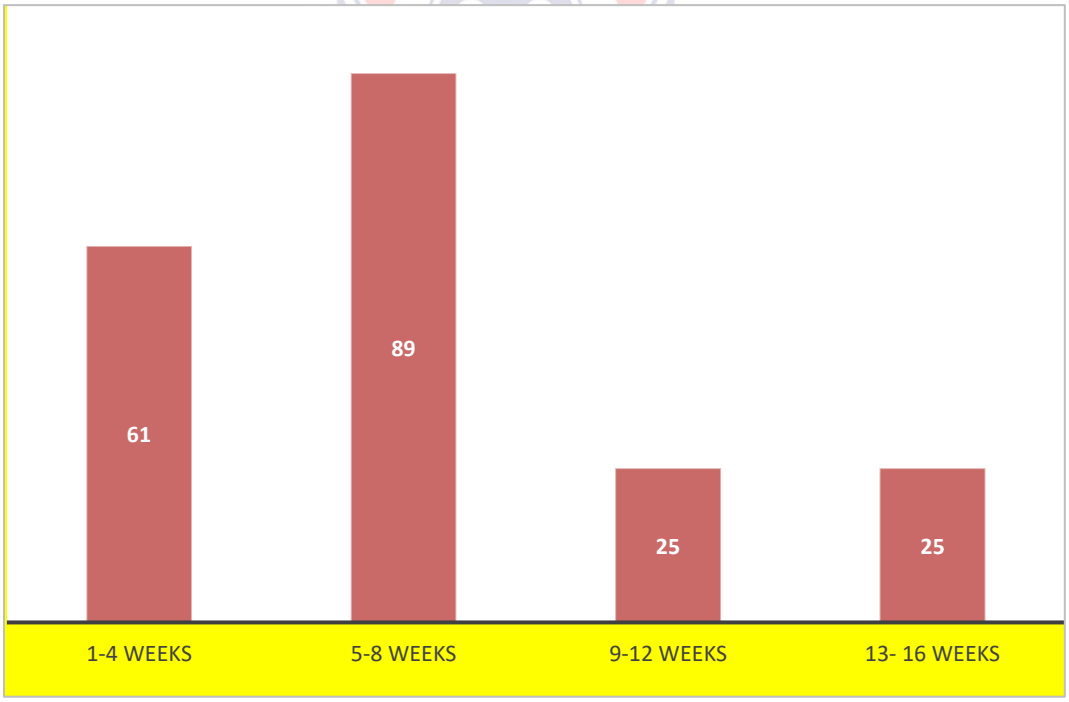

Figure 4.1: Bar Graph showing the Number of Weeks of School Observation

Source: Field Survey, 2022

4.2 Section B: Analysis of Main Data

This section presents the results of the analysis of the main data. The results of the main data have been presented according to the research questions formulated for the study. Again, the responses for each research question were presented in this section. The quantitative analysis was done in the first phase, followed by a qualitative analysis in the second phase of this section.

4.2.1 Phase 1: Quantitative Analysis

This section presents the results of the analysis of the main data. The results of the main data have been presented according to the research questions of the study. Again, the responses for each research question were presented in this section. The results are presented in Tables 4.6, 4.7, 4.8,4.9, 4.10, 4.11 and 4.12.

4.3 Research Question 1

What resources are available for the achievement of the objectives of the STS programme in the Southern part of Ghana?

Research question 1 sought to find out what resources are available for the achievement of the objectives of the STS programme. In answering this question, some statements were provided in which respondents (both mentors and teacher trainees) had to indicate their degree of agreement or disagreement. This section presents the results to answer the research questions of the study. The analysis was done with a standard set mean ad by Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale

interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale.

A standard deviation of below 1.0 indicates similarity or homogeneity in responses, while a standard deviation of 1.0 or above indicates a difference (heterogeneity) in responses. The results of the resources available for the implementation of the STS Programme are presented in Tables 4.6 and 4.7.

The results of resources available to mentors for the implementation of the STS Programme are presented in Table 4.6. The results show that all (100%) of the mentors agreed that they have been oriented on the STS programme. This gave the highest mean of 4.7 with a standard deviation of 0.5, which indicates the similarity of homogeneity in the responses. While 86 (86%) agreed that tutors visited the school regularly for supervision and interactions with trainees' progress, 14(14%) of the mentors were neutral or indifferent, and none of them disagreed with the statement. The overall mean and standard deviation of the statement were 4.3 and 0.7, respectively. The researcher interviewed 14% of the mentors to ascertain their decision to stay neutral on the statement. An overwhelming majority, 93 (93%) of the mentors, agreed that trainees showcased knowledge of STS before the practice. However, 7 (7%) of them disagreed, and none of them were indifferent about the statement, giving a mean and standard deviation of 4.2 and 0.8, respectively.

Table 4.6: Resources Available to Mentors for the Implementation of the STS Programme

ITEM	SA+A (%)	N (%)	SD+D (%)	M(SD)

I have been oriented to the STS Programme	100 (100)	0 (0)	0 (0%)	4.7(0.5)
Tutors visited the school regularly for supervision and interactions with trainees.	86 (86)	14 (14)	0 (0)	4.3(0.7)
Trainees showcased knowledge of STS before the practice	93 (93)	0 (0)	7 (7)	4.2(0.8)
I have been provided with the Handbook for the STS Programme	72 (72)	21 (21)	7 (7)	4.0(0.1)
I have attended CPD Programmes on STS	58 (58)	35 (35)	7 (7)	3.7(0.3)
TLRs have been provided for the STS Programme	13 (13)	16 (16)	71 (71)	2.1(0.4)
I have been given some financial support for the STS Programme	0 (0)	14 (14)	86 (86)	1.8(0.1)

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

On the statement *"I have been provided with Handbook for the STS Programme"*, 72(72%) of the mentors agreed to it; 21(21%) of them were neutral, and 7(7%) of them disagreed. This resulted in a mean of 4.0 and a standard deviation of 0.1. This implies that an overwhelming majority of mentors believe that they have been provided with a handbook for the STS Programme. Meanwhile, the study shall interview to probe why about 21% of the mentors were undecided on the question.

While the majority, 58 (58%) of the mentors agreed with the statement *"I have attended CPD Programmes on STS"*, 35(35%) of them were neutral as far as the statement was concerned. However, 7(7%) of them disagreed. This gives a mean of 3.7 and a standard deviation of 0.3, an indication of a general agreement with the statement. It becomes very important for the researcher to collect further data to ascertain the reason why 35% of the mentors were indifferent.

Regarding the provision of Teaching and Learning Resources (TLRs) for the STS programme, statement, 13 (13%) of mentors agreed that *"TLRs have been provided for the STS Programme",* 16 (16%) of them were neutral and 71 (71%) disagreed resulting in a mean of 2.1 and standard deviation of 0.4. This shows that more than half of the mentors who participated in the study disagreed that TLRs have been provided for the STS programme. The study further conducted interviews to understand why 71% of the mentors disagreed with the statement.

Lastly, for the statement *"I have been given some financial support for the STS Programme"* none of the mentors agreed, 14 (14%) were indifferent and an overwhelming 86(86%) of them disagreed with the statement. These gave a mean of 1.8 and a standard deviation of 0.1. The researcher further conducted interviews to ascertain the fact that about 86% of the mentors indicated they were not given any financial support during the STS practice. Generally, the results show high mean scores between 1.8 – 4.7 and homogeneous responses of standard deviation between 0.1 - 0.9.

Table 4.7: Resources Available to Trainees for the Implementation of the STS Programme

ITEMS	SA+A(%)	N(%)	SD+D(%)	M (SDV)
Partner schools were readily available for the STS Programme	179(89.5)	10(5)	11(5.5)	4.6 (0.7)
Learners are readily available for the STS Programme	150(75)	39(19.5)	11(5.5)	4.5 (0.4)
I have been given handbooks on the STS Programme	182(91)	0(0)	18 (9)	4.4 (0.7)
The time allocated for the STS Programme is not sufficient	120 (60)	36(18)	44(22)	3.9 (0.8)
I was conveyed by Bus(es) to and from my partner school	40(20)	16(8)	144(72)	2.6 (0.7)

TLRs are being provided in the practice schools for the STS Programme	50(25)	0(0)	150(75)	2.6 (0.7)
Parents and the Community are readily available for the STS programme	164(82)	8(4)	28(14)	4.2 (0.5)
Learners are less than the optimum class size	0(0)	10(5)	190(95)	1.78(0.3)

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation

Table 4.7 shows the perspectives of teacher trainees on resources available for the implementation of the STS programme. From the table, it is observed that 179(89.5%) of them agreed, 10(5%) were neutral, and 11(5.5%) of them disagreed that partner schools were readily available for the STS Programme. This statement had the highest mean of 4.6, which suggests that the teacher trainees strongly agreed with the statement. The standard deviation was 0.7, indicating the homogeneity in the responses. The result implies that partner schools were readily available for the STS Programme. An interview was further conducted among the 89.5% of trainees who agreed to the statement to enlighten the researcher on how the partner schools were readily available for the STS practice.

The statement, *"Learners are readily available for the STS Programme",* had 150 representing 75% of the teacher trainees who agreed with it, 39(19.5%) of them were neutral, and 11(5.5%) disagreed. The mean and standard deviation were 4.5 and 0.4, respectively. Again, the mean score suggests the existence of a strong agreement with the statement, and the homogeneity in the responses was evident in the standard deviation of 0.4. This means that learners were readily available for the STS Programme. About 75% of mentees who agreed to the statement gave further explanations to ascertain how the learners were readily available for the STS Practice.

Also, the results show that 182(91%) of the teacher trainees agreed, and none (0%) were neutral. However, 18(9%) disagreed with the statement, *"I have been given handbooks on the STS Programme".* The mean and standard deviation were (M = 4.4, SD = 0.7). This implies that teacher trainees strongly agreed to have been given handbooks on the STS Programme.

With the statement *"The time allocated for the STS Programme is not sufficient",* 120(60%) of the teacher trainees agreed, 36(18%) were neutral, and 44(22%) disagreed. This resulted in a mean and standard deviation of 3.9 and 0.8, respectively. This clearly shows that the teacher trainees generally agreed with the statement. It can therefore be concluded that the time allocated for the STS Programme was not sufficient. Meanwhile, the researcher conducted further interviews with 60% of Teacher Trainees who believed the Time was insufficient to give in-depth information about the time allocation for the STS Practice.

Concerning the statement *"I was conveyed in Bus(es) to and from my partner school",* 40(20%) of them agreed, 16(8%) of them neither agreed nor disagreed, while an overwhelming majority, 144(72%) disagreed. This resulted in a mean of 2.6 and a standard deviation of 0.7. The result suggests a general disagreement with this statement. It can therefore be concluded that the majority of the teacher trainees were not conveyed in Buses to and from my partner school. The researcher then conducted interviews to gain enough knowledge about the decisions made by 72% of trainees regarding the statement.

About the statement, *"TLRs are being provided in the practice schools for the STS Programme",* one-quarter (50) of the teacher trainees, representing 25%, agreed and none of them were neutral, while 150(75%) disagreed. The mean score of 2.6 shows

that there has been a general disagreement with the statement. The standard deviation of 0.7 shows the similarity or homogeneity in the responses to this statement. It can be said that TLRs are not being provided for the STS Programme in many of the practice schools. An interview was further conducted to ascertain the disagreement of 75% of the trainees with the statement.

The results show that 28(14%) disagreed, 8(4%) were neutral, and a whopping 164(82%) of them agreed with the statement "*Parents and the Community are readily available for the STS Programme"*. The mean and standard deviations of each of the statements were 4.2 and a standard deviation of 0.5. This indicates the general agreement by the majority of the teacher trainees who believe that parents and the community are readily available for the STS Programme. The researcher conducted interviews to ascertain the reality of this result, with 82% agreeing with the statement.

While none of the teacher trainees agreed with the statement, *"Learners are less than the* optimum *class size",* an overwhelming 190(95%) of them disagreed, while 10(5%) of them were neutral. This resulted in the lowest mean of 1.78 and a standard deviation of 0.3. This implies that teacher trainees strongly disagreed that learners are less than the optimum class size. One can therefore conclude that learners are larger than the optimum class size. The researcher conducted interviews to ascertain this argument by purposely and conveniently selecting participants among 5% of trainees who disagreed with the statement.

In general, the results in Table 4.7 provide evidence to suggest that the perspective of teacher trainees on the resources available for implementing the STS Programme includes the availability of partner schools and learners, handbooks on the STS Programme, and sufficient time. The highest mean of 4.6 indicates that most of the

respondents agreed with the variable, which states that Partner schools were readily available for the STS Programme, and the lowest mean of 1.78 means that most of the respondents disagreed with the variable that Learners are less than the optimum class size. The lowest Standard Deviation of 0.3 means that there was a stability of ideas on the variable that Learners are less than the optimum class size.

4.4 Research Question 2

Analyse Mentorship Support, Supervision Frequency, and Trainee Engagement levels in the STS Programme.

Research question 2 sought to find out how the STS programme is being implemented at the colleges of education. In answering this question, some statements were provided in which respondents (both mentors and teacher trainees) had to indicate their degree of agreement or disagreement. This section presents the results to answer the research questions of the study. The questionnaire was designed on a five-point Likert Scale ranging from strongly disagree to strongly agree. The analysis was done with a standard set mean ad from Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale. A standard deviation of below 1.0 indicates similarity or homogeneity in responses, while a standard deviation of 1.0 or above indicates a difference (heterogeneity) in responses. The results of the resources available for the implementation of the STS Programme are presented in Tables 4.8 and 4.9.

Table 4.8: Mentors' Perspective on Analysis of Mentorship Support, Supervision Frequency, and Trainee Engagement Levels in the STS Programme

ITEM	SA +A(%)	N(%)	SD+D(%)	M (SDV)

I was equipped with the knowledge and Skills of the STS Programme	100(100)	0(0)	0(0)	4.4 (0.5)
I exhibit a high level of professionalism for trainees to emulate	93(93)	0(0)	7(7)	4.3 (0.6)
I used a variety of approaches to teaching trainees to observe	79(79)	14(14)	7(7)	4.2 (0.9)
I held pre- and post-lesson discussions with the trainees	72(72)	0(0)	28(28)	4.0 (0.8)
I used multimedia to capture teaching transactions for training purposes	72(72)	21(21)	7(7)	4.0(0.9)
I was fair in the assessment of the trainees	72(72)	21(21)	7(7)	3.9 (0.9)
I have been engaged in regular collegial interactions on the progress of the trainees	72(72)	21(21)	7(7)	3.9 (0.9)
I was engaged in regular CPD Programmes on STS	71(71)	22(22)	7(7)	3.7 (0.3)
I was given incentives to support my efforts during the STS Programme	0(0)	14(14)	86(86)	1.8 (0.1)
Enough TLRs were provided for the STS Programme	16(16)	10(10)	74(74)	2.1 (0.3)
My SISO visited to supervise the STS Practice	80(80)	0(0)	20(20)	4.1 (0.3)

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation

Table 4.8 presents the results of the mentors' perspective on how the STS programme is being implemented. From the results, all (100%) of the mentors agreed that they were equipped with the knowledge and skills of the STS programme. The mean and standard deviation were 4.4 and 0.5, respectively.

The data analysis from Table 4.8 concerning the statement "*I exhibit a high level of professionalism for trainees to emulate"*, 93(93%) of the mentors agreed, none of them were neutral, but 7(7%) disagreed, culminating in a mean of 4.3 and a standard deviation of 0.6. This confirms the fact that the majority of the mentors exhibit a high level of professionalism for trainees to emulate. The qualitative data elaborated on how 93% of mentors exhibited a high level of professionalism during the STS practice.

For the statement *"I used a variety of approaches to teaching for trainees to observe"*, 79(79%) of them agreed, 14(14%) of them neither agreed nor disagreed, and 7(7%) disagreed. This resulted in a mean of 4.2 and a standard deviation of 0.9. It can therefore be concluded that the majority of the mentors used a variety of approaches to teaching for trainees to observe as a means of implementing the STS programme. The researcher conducted interviews to ascertain how 79% of the mentors used a variety of approaches to teaching for trainees to observe.

With the statement *"I held pre- and post-lesson-discussions with the trainees"*, none of the mentors was neutral; however, 72(72%) of them agreed to the statement while 28(28%) disagreed with the statement, with a resultant mean and standard deviation of 4.0 and 0.8, respectively. This clearly shows that some of the mentors do not hold pre- and post-discussions with the trainees after the trainees are done with teaching, but most of them do. The study conducted interviews to ascertain how 72% of mentors held pre- and post-discussions with the trainees.

About the statement*, "I use multimedia to capture teaching transactions for training purposes"*, 72(72%) of the mentors agreed, while 21(21%) of them neither agreed nor disagreed. In contrast, of those mentors who agreed, 7(7%) of the mentors disagreed with the statement. The mean score of 4.0 shows that there has been a general agreement

for the use of multimedia to capture teaching transactions for training purposes. The standard deviation of 0.9 shows the similarity or homogeneity in the responses to this statement. The qualitative data explained how the mentors used multimedia to capture teaching transactions for training purposes.

The results show that 72(72%) of the mentors agreed, 21(21%) were neutral and just 7(7%) disagreed with the statements *"I was fair in the assessment of the trainees"* and *"I have been engaged in regular collegial interactions on the progress of the trainees"*. The mean and standard deviation of each of the statements were 3.9 and a standard deviation of 0.9. This indicates the general agreement by the majority of the respondents that they were fair in their assessment of trainees and were engaged in collegial interactions on the progress of the trainees. The researcher conducted interviews to understand why 7% of the mentors were in disagreement with the statements and why 21% were neutral about having regular collegial interactions on trainees' progress.

Also, 71(71%) of the mentors agreed that they were engaged in regular CPD Programmes on STS, 22(22%) of them were neutral, while 7(7%) of them disagreed with the statement, with a total mean of 3.7 and a standard deviation of 0.3. In general, the results suggest that the mentors agreed with the statement. Thus, there was a general agreement about mentors' engagement in regular CPD Programmes on STS.

Considering the statement "*I was given incentives to support my efforts during the STS Programme"*, 0(0%) of the mentors agreed, while 14(14%) were neutral and 86(86%) disagreed with the statement, giving a Mean of 1.8 and a Standard Deviation of 0.1 respectively. This is an indication of a general disagreement by the Mentors regarding the receipt of incentives during the STS Practice.

In the analysis of the statement, *"Enough TLRs were provided for the STS Programme"*, 16(16%) of the mentors agreed, 10(10%) were neutral, and 74(74%) disagreed. The mean and standard deviation were 2.1 and 0.3, respectively. From the aforementioned analysis, it can be concluded that the mentors generally disagreed with the statement.

Concluding their remarks, 80(80%) of the mentors agreed, none of the mentors were neutral, while 20(20%) of them disagreed with the statement, *"My SISO visited to supervise the STS Practice"*. This resulted in a mean and standard deviation of 4.1 and 0.3, respectively. It, therefore, gives a conclusion that the mentors were supervised during the STS practice by their School Improvement Support Officers (SISOs). Generally, the results imply that mentors' perspectives on how the STS programme is being implemented include the fact that mentors were equipped with the knowledge and Skills of the STS Programme, they exhibit a high level of professionalism for trainees to emulate, they used a variety of approaches to teaching for trainees to observe and held pre- and post-discussions with the trainees. They also use multimedia to capture teaching transactions for training purposes and ensure fairness in the assessment of the trainees. They have been engaged in regular collegial interactions on the progress of the trainees and engage in regular CPD Programmes on STS. The mentors were supervised by their SISOs during the STS practice, with inadequate Teaching and Learning Resources being available for the STS practice, whereas they were not given any incentive to motivate them to work.

Table 4.9 shows the results of the teacher trainees' perspective on how the STS Programme is being implemented. The results show that all the teacher trainees (100%) agreed with the statements, *"I was assessed by my college supervisor during the STS*

Programme" and *"I was able to write journals of my weekly experiences".* This culminated in a mean of 4.8 and 4.7, respectively. The standard deviations of 0.3 and 0.4 indicate the homogeneity in the responses to these statements. The qualitative data further ascertained how the teacher trainees were assessed by their college supervisors during the STS practice.

Table 4.9: Teacher Trainees' Perspective on Analysis of Mentorship Support, Supervision Frequency, and Trainee Engagement Levels in the STS Programme.

ITEMS	SA+A(%)	N(%)	SD+D(%)	M(SD)
I was assessed by my college supervisor during the STS Programme	200(100)	0(0)	0(0)	4.8 (0.3)
I was able to write journals of my weekly experiences	200(100)	0(0)	0(0)	4.7 (0.4)
I was supervised by my tutors during the STS programme	192(96)	0(0)	8(4)	4.7 (0.4)
I have been oriented to the STS Programme	189(94.5)	0(0)	11(5.5)	4.6 (0.6)
I was involved in co-curricular activities	170(85)	0(0)	30(15)	4.3 (0.5)
I was supported by my mentor to develop and effectively utilise the TLRs	160(80)	20(10)	20(10)	4.5 (0.4)
I was involved in the pre- and post-observation discussion of lessons with my mentor	116(58)	60(30)	24(12)	3.9 (0.8)
My mentor used a variety of approaches to teaching me to observe	102(51)	76(38)	22(11)	3.4 (0.7)

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SD**= Standard Deviation.

When it comes to the statement, *"I was supervised by my tutors during the STS programme",* 192(96%) of the teacher trainees agreed, none (0%) were neutral, while 8(4%) of them disagreed. This culminated in a mean of 4.7, suggesting that the teacher

trainees strongly agreed with this statement. The standard deviation of 0.4 indicates that the responses to the statement were similar. The qualitative data further ascertained how 96% of the mentors were supervised by their tutors. The results show that 189(94.5%) of the respondents agreed that they had been oriented on the STS Programme, and none (0%) of them were neutral to the statement. In contrast, 11(5.5%) of them disagreed. This resulted in a mean and standard deviation of 4.6 and 0.6.

While the analysis of the statement *"I was involved in co-curricular activities"* suggests that 170(85%) of the teacher trainees agreed, 30(15%) of them disagreed. None (0%) of the teacher trainees were neutral about the statement. The mean of 4.3 supports the general agreement with the statement, and the homogeneity of the responses is evident in the standard deviation of 0.5. This implies that teacher trainees were involved in co-curricular activities.

Regarding the statement *"I was supported by my mentor to develop and effectively utilise the TLRs",* 160(80%) of the teacher trainees agreed, 20(10%) of them were neutral, and 20(10%) also disagreed. The means of the statements were 4.5 and 0.4, respectively. This indicates the general agreement by the teacher trainees to this statement. The results provide evidence to suggest that the majority of the teacher trainees agreed, and the standard deviation of 0.4 is an indication of similarity in the responses to the statement. It can therefore be concluded that the teacher trainees were supported by their mentors to develop and effectively utilise the TLRs.

Responding to the statement, *"I was involved in the pre- and post-observation discussion of lessons with my mentor"*, 116(58%) agreed, 60(30%) were neutral, and 24(12%) disagreed. This resulted in a mean of 3.9, which indicates that the teacher trainees agreed to have been involved in the pre- and post-observation discussion of

lessons with their mentor. The standard deviation of 0.8 shows that the responses were homogeneous. The qualitative data further explained how the mentors arrived at all the responses given.

To end their responses on their perspective on how the STS programme is being implemented, 102(51%) of them agreed, 76(38%) were neutral, and 22(11%) disagreed with the statement, *"My mentor used a variety of approaches to teaching for me to observe"*. This resulted in a mean of 3.4, indicating a general agreement with the statement. The standard deviation of 0.7 means that the responses were homogeneous. It can therefore be concluded that mentors used a variety of approaches to teaching for teacher trainees to observe. The qualitative data further explained why 38% of the mentors were neutral.

In general, the implementation of the STS programme was evident in the activities, such as teacher trainees were assessed by their college supervisor during the STS Programme, wrote journals of their weekly experiences and were oriented on the STS Programme. In addition, they were involved in co-curricular activities, supported by their mentors to develop and effectively utilise the TLRs were also involved in the pre- and post-observation discussion of lessons with their mentors and the mentors used a variety of approaches to teaching for the trainees to observe.

4.5 Research Question 3

Assess teacher trainees' perceptions of the extent to which the STS Programme objectives have been achieved.

Research question 1 sought to find out the extent to which the objectives of the STS programme are being achieved by teacher trainees. In answering this question, some statements were provided in which respondents (both mentors and teacher trainees) had

to indicate their degree of agreement or disagreement. This section presents the results to answer the research questions of the study.

Table 4.10: Achievement of Objectives of the STS Programme

ITEM	SA+A(%)	N(%)	SD+D(%)	M (SD)
I critique my teaching to improve teaching and learning	190(95)	0(0)	1(5)	4.8 (0.4)
I can tailor lessons to suit pupils' RPK.	200(100)	0(0)	0(0)	4.7 (0.8)
I have a cordial relationship with my learners	200(100)	0(0)	0(0)	4.7 (0.4)
I can produce and use appropriate Resources during Lesson Delivery	189(94.5)	0(0)	11(5.5)	4.6 (0.6)
I am aware of my learners' background	170(85)	0(0)	30(15)	4.6 (0.5)
I can integrate a variety of assessment modes into teaching to enhance learning	160(80)	20(10)	20(10)	4.4 (0.4)
I can write up a comprehensive portfolio of my teaching	116(58)	60(30)	24(12)	4.3 (0.8)
I can prepare weekly and termly objectives of what and how learners should learn	200(100)	0(0)	0(0)	4.3 (0.3)
I can conduct an assessment of learners' learning	200(100)	0(0)	0(0)	4.1 (0.6)
I gave extra support to slow learners	192(96)	0(0)	8(4)	4.0 (0.8)
I can set meaningful tasks that encourage learner collaboration	189(94.5)	0(0)	11(5.5)	4.0 (0.3)
I can promote inclusion and tolerance of all learners, including learners with disability	170(85)	0(0)	30(15)	4.0 (0.5)
I can prepare a comprehensive Scheme of Work and detailed Lesson plan in line with the SBC and CCP Curricula	150(75)	30(15)	20(10)	4.0 (0.7)
I have gained an understanding of Educational Policies, including Sexual harassment policies	116(58)	60(30)	24(12)	3.9 (0.4)
I can conduct action research to facilitate effective teaching and Learning	116(58)	40(20)	44(22)	3.1 (0.7)

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

The questionnaire was designed on a five-point Likert Scale ranging from strongly disagree to strongly agree. The analysis was done with a standard set mean ad from Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale. A standard deviation of below 1.0 indicates similarity or homogeneity in responses, while a standard deviation of 1.0 or above indicates a difference (heterogeneity) in responses. The results of the resources available for the implementation of the STS Programme are presented in Table 4.10.

Table 4.10 presents the results of the achievement of the objectives of the STS programme. The results show that 190(95%) of the teacher trainees agreed, none (0%) were neutral, and 10(5%) of them disagreed with the statement, *"I critique my teaching to improve teaching and learning",* resulting in a mean and standard deviation of 4.8 and 0.4. respectively. It can be deduced from the results that teacher trainees critique their teaching to improve teaching and learning. Also, all the teacher trainees (100%) agreed with the statements, *"I can tailor lessons to suit pupils' RPK*" and *"I have a cordial relationship with my learners",* with means of 4.7 each and a standard deviation of 0.8 and 0.4, respectively. The researcher conducted interviews with over 90% of the trainees who believed to had been able to tailor lessons to suit learners' relevant previous knowledge and also had a cordial relationship with learners, to give details as to how that was done effectively. Considering the statement, "*I can produce and use*

appropriate Resources during Lesson Delivery", 189(94.5%) of the teacher trainees agreed, none (0%) were neutral, and 11(5.5%) of them disagreed, culminating in a mean of 4.6 and a standard deviation of 0.6. The researcher also conducted interviews to ascertain the practicality of the responses. With regards to the statement, *"I am aware of my learners' background",* 170(85%) of the teacher trainees agreed, none (0%) were neutral, and 30(15%) of them disagreed. The mean was 4.6, and the standard deviation of 0.5**.** Interviews were conducted to ascertain how 85% of the trainees were able to know the background of their learners.

Responding to the statement, *"I can integrate a variety of assessment modes into teaching to enhance learning",* 160(80%) of the teacher trainees agreed, 20(10%) were neutral, and 20(10%) also disagreed. The result is a mean of 4.4 and a standard deviation of 0.4. The researcher conducted interviews to ascertain how 80% of trainees were able to integrate a variety of assessment modes into teaching to enhance learners' learning. From Table 4.10, it can be observed that 116(58%) of the teacher trainees agreed that they would write up a comprehensive portfolio of their teaching. While 60(30%) of them were unsure, 24(12%) of them disagreed with the statement. This gave a mean score of 4.3 and a homogeneity indicator of 0.8. Even though the responses suggest the majority of trainees were able to prepare portfolios of their learning, the researcher further interviewed the 30% who were neutral to give reasons why they were unsure of their abilities to prepare portfolios of their teaching. All 200(100%) of the teacher trainees agreed that they can prepare weekly and termly objectives of what and how learners should learn, and can also conduct an assessment of learners' learning. The means of the statements were 4.3 and 4.1, and the standard deviations of 0.3 and 0.6, respectively. The researcher further interrogated the trainees to ascertain the practicality of their responses in that regard using interviews. It was also observed that 192(96%)

of the teacher trainees agreed, none (0%) were neutral towards the statement, but 8(4%) disagreed that they gave extra support to slow learners. This gave a mean of 4.0 and a standard deviation of 0.8. The study further interrogated 96% of trainees to elaborate on how they gave extra support to their learners.

About the statement, *"I can set meaningful tasks that encourage learner collaboration",* more than three-fourths of the teacher trainees, 189(94.5%), agreed; none (0%) of the teacher trainees were neutral towards the statement, and just 11(5.5%) of them disagreed. This resulted in a mean of 4.0 and a standard deviation of 0.3. The researcher conducted interviews among 94.5% of respondents who said they could set meaningful tasks that encourage learners' collaboration to ascertain the practicality of their responses.

With regards to the statement, *"I promote inclusion and tolerance of all learners, including learners with a disability",* 170(85%) of the teacher trainees agreed, none (0%) of them were neutral, but 30(15%) of them disagreed. This resulted in a mean and standard deviation of 4.0 and 0.5, respectively. Interviews were conducted to find out how 85% of respondents were able to put their responses.

The results show that 150(75%) respondents agreed that they were able to prepare a comprehensive Scheme of Work and detailed Lesson plan in line with the SBC and CCP curricula, and 30(15%) of them were neutral about the statement. In contrast, 20(10%) of them disagreed. This resulted in a mean and standard deviation of 4.0 and 0.7. The study further interrogated 75% of respondents to explain how they were able to achieve such laurels.

While the analysis of the statement *"I have gained an understanding of Educational Policies, including sexual harassment policies"* suggests that 116(58%) of the teacher

trainees agreed, 60(30%) of them were neutral, and 24(12%) of them disagreed. The mean of 3.9 supports the general agreement with the statement, and the homogeneity of the responses is evident in the standard deviation of 0.4. The researcher further conducted interviews with 30% of respondents to understand why they were not sure of their ability to gain an understanding of educational policies, including sexual harassment policies, before the completion of college.

The findings from Table 4.10 reveal significant challenges in trainees' ability to conduct action research, with 58% agreeing they can facilitate it, 22% disagreeing, and 20% remaining neutral, resulting in a neutral mean score of 3.1 (SD = 0.7). This variability underscores systemic barriers that disrupt the active experimentation phase of Kolb's Experiential Learning Theory (ELT), a critical stage where trainees apply theoretical insights to test pedagogical innovations. Kolb's cycle – comprising concrete experience (teaching practice), reflective observation (analysing lessons), abstract conceptualisation (identifying gaps), and active experimentation (implementing solutions) remains incomplete when mentorship and resources falter.

Inadequate mentorship leaves trainees unprepared for iterative problem-solving, as untrained mentors often fail to model actionable research methods. For instance, trainees reported frustration with vague guidance, such as being told to "do research" without practical demonstrations. Simultaneously, resource gaps limited access to journals, templates, or collaborative time, stifling experimentation, and forcing reliance on theory over empirical testing. These barriers fragment the learning cycle, trapping trainees in abstract conceptualisation without transitioning to active experimentation.

The neutral mean (3.1) and moderate standard deviation (0.7) reflect widespread uncertainty, signalling that the STS Programme struggles to scaffold competency in

evidence-based teaching. Without structured support for active experimentation, trainees cannot fully innovate or address classroom challenges, undermining their readiness to implement inclusive, adaptive pedagogies.

In general, the results provided enough grounds to conclude that the STS programme had made a positive impact on the professional development of the teacher trainees, thereby efforts are being made by the trainees in achieving its objectives of developing their Professional Values and Attitudes, Professional Knowledge and Professional Practice in a mist of inadequacy of resources.

4.6 Research Question 4

What challenges confront the implementation of the STS Programme?

Research question 1 sought to find out the challenges mentors and trainees face during the implementation of the STS Programme. In answering this question, some statements were provided in which respondents (both mentors and teacher trainees) had to indicate their degree of agreement or disagreement. This section presents the results to answer the research questions of the study. The questionnaire was designed on a five-point Likert Scale ranging from strongly disagree to strongly agree. The analysis was done with a standard set mean ad from Joshi et al. (2015), with slight adaptations to align with the study's context: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, and 4.21–5.00 = Strongly Agree. The thresholds for Likert-scale interpretation were adapted from Joshi et al. (2015), with minor adjustments to the upper/lower bounds (e.g., 1.00–1.80 instead of 1.00–1.79) to better fit the study's 5-point scale. A standard deviation of below 1.0 indicates similarity or homogeneity in responses, while a standard deviation of 1.0 or above indicates a difference (heterogeneity) in responses. The results of the resources

available for the implementation of the STS Programme are presented in Table 4.11 and Table 4.12.

Table 4.11: Challenges Faced by Mentors during the Implementation of the STS Programme

ITEM	SA+A(%)	N (%)	SD+D (%)	M (SDV)
Teacher Trainees were time-conscious	86(86)	7(7)	7(7)	4.1 (0.8)
The teacher Trainees were very accommodating and ready to learn	79(79)	14(14)	7(7)	4.1 (0.9)
My SISO supported the STS Programme	72(72)	14(14)	14(14)	3.5 (0.7)
Resources were not available for the STS Programme	78(78)	10(10)	12(12)	3.7 (0.6)
Supervisors from the affiliate Universities do not come regularly for supervision and Interaction on Trainees' Progress	82(82)	18(18)	0(0)	4.2 (0.2)
I was overburdened with the number of teacher trainees under my care	83(83)	0(0)	17(17)	4.0 (0.3)
Trainees show no interest in the STS Programme	10(10)	7(7)	83(83)	1.8 (0.3)
Teacher trainees do not take part in School activities like supervising learners, meetings, etc.	20(20)	9(9)	71(71)	2.1 (0.9)
Teacher Trainees do not know about the STS Programme expectations	12(12)	5(5)	83(83)	1.8 (0.4)
The STS Calendar was not in line with the GES Academic Calendar	9(9)	5(5)	86(86)	1.4 (0.4)
Trainees do not come regularly for practice	9(9)	5(5)	86(86)	1.4 (0.7)

Source: Field Survey, 2022
KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

From the first statement in Table 4.11, "Teacher Trainees were time conscious", 86(86%) of the mentors agreed, 7(7%) of them remained neutral, and 7(7%) of them

also disagreed. These resulted in the highest mean of 4.1 and a standard deviation of 0.8. This implies that the majority of the teacher trainees were time-conscious.

The statement "*The teacher Trainees were very accommodating and ready to learn"* reveals that 79(79%) of the mentors agreed; another 14(14%) remained neutral, and some 7(7%) disagreed, which in consequence gives a mean and a standard deviation of 4.1 and 0.9 respectively. This implies that the majority of the mentors agreed that teacher trainees were very accommodating and ready to learn.

Again, a look at the statement *"My SISO supports the STS Programme"* from Table 4.11 suggests that 72(72%), another 14(14%), and 14(14%) of the mentors agreed, remained neutral and disagreed respectively with the statement. As a result, a mean of 3.5 and a standard deviation of 0.9 were calculated. With this, it can be asserted that the agreement by the mentors is that SISOs support the STS Programme. The researcher conducted interviews with 72% to ascertain the reality of their responses in favour of SISOs supporting the STS programme.

When it comes to the statement "*Resources were not available for the STS Programme."78(*78%) of the mentors agreed, while 10(10%) of them were neutral and 12(12%) of them disagreed. This culminated in a mean of 3.7, suggesting that the mentors generally agreed with the statement. The standard deviation of 0.6 indicates that the responses to the research statement were similar among the mentors. The researcher conducted interviews to ascertain the availability of resources, as opposed to 78% of mentors.

Furthermore, 82(82%) of the mentors agreed that supervisors from the affiliate universities do not come regularly for supervision and Interaction on Trainees' Progress. In contrast, 18(18%) of them disagreed while 0(0%) were neutral. In general,

the mean score of 4.2 is an indication that the mentors strongly agreed with this statement. The standard deviation of 0.9 shows that the responses were similar or homogeneous. The researcher conducted interviews to come to terms with the 82% of mentors who agreed with the statement.

Also, for the statement "*I was overburdened with the number of teacher trainees under my care"*. 83% of the mentors agreed, 17% disagreed, and none were undecided. This resulted in a mean of 4.0 and a Standard Deviation of 0.3. The mean mark is an indication that the mentors were generally in agreement with the statement, and The Standard Deviation is also an indication that the responses were similar among the mentors. The researcher conducted interviews to ascertain the general agreement of the mentors with the statement.

From Table 4.11, 10(10%) mentors agreed, 7(7%) neither agreed nor disagreed; while 83(83%) also disagreed with the statement, "*Trainees show no interest in the STS Programme*" with the mean and standard deviation of the statement culminating to 1.8 and 0.3 respectively. It can therefore be implied that the majority of the mentors disagreed that trainees show no interest in the STS programme.

Responding to the statement, *"Teacher trainees do not take part in School activities like supervising learners, meetings, etc.*", 20(20%) of the mentors agreed, 9(9%) neither agreed nor disagreed, and the majority of them, 71(71%) disagreed. This leads to the conclusion that Teacher trainees do take part in School activities like supervising learners, meetings, etc. Culminating in a mean of 2.1 a standard deviation of 0.9, and an indication of homogeneity in their responses.

While the analysis of the statement "*Teacher trainees do not know about the STS Programme expectations"* suggests that 12(12%) of the mentors agreed, 5(5%) neither

agreed nor disagreed, and 83(83%) also disagreed. The mean of 1.8 supports the general disagreement with the statement, and the homogeneity of the responses is evident in the standard deviation of 0.4. This implies that teacher trainees know about the expectations of the STS programme.

Regarding the statement "*The STS Calendar was not in line with the GES Academic Calendar and Trainees do not come regularly for practice*", 9(9%) of the mentors agreed, 5(5%) of them were neutral, and 86(86%) of them disagreed. The means of the statements were 1.4 and 1.4, respectively. This indicates the general disagreement by the mentors with this statement. The standard deviations of 0.4 and 0.7 are an indication of homogeneity in the responses to the statement. It can therefore be concluded that the STS programme was in line with the GES Academic calendar, and Trainees came regularly for practice. The mentors give further details to ascertain their disagreement with the statement in an interview.

In general, the results on the challenges faced by mentors during the Implementation of the STS Programme, as presented in Table 4.11, imply that most of the mentors were overburdened with the number of teacher trainees under their care, and resources were not available for the STS Programme. Also, the majority of the mentors were faced with the lack of supervision and interaction on the Trainees' progress by the affiliate universities.

Table 4.12: Challenges Faced by Teacher Trainees during the Implementation of the STS Programme

ITEMS	SA+A(%)	N(%)	SD+D(%)	M (SDV)
I was oriented on the objective and expectations of the STS Programme before starting	180(90)	0(0)	20(10)	4.5 (0.4)
My Mentor was harsh and unfriendly to me	182(91)	0(0)	18(9)	4.4 (0.7)

The time and dates allocated for the STS Programme were unfavourable to me	170(85)	0(0)	30(15)	4.2 (0.8)
I become exhausted when I return from STS Practice to campus, and hence find it difficult to study my book	150(75)	0(0)	50(25)	3.9 (0.7)
I was given the expected materials to aid my practice	31(15.5)	0(0)	169(84.5)	2.6 (0.7)
I have not benefited from the STS programme	40(20)	0(0)	160(80)	2.6 (0.8)
I had an easy means of transportation from College to Practice School	18(9)	11(5.5)	171(85.5)	1.7 (0.3)

Source: Field Survey, 2022
KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

Table 4.12 presents the results of the perspectives of teacher trainees on challenges they face during the Implementation of the STS Programme. Responding to the statement*, "I was oriented on the objective and expectations of the STS Programme before starting",* an overwhelming 180(90%) of the teacher trainees agreed, none (0%) of them were neutral about the statement and 20(10%) disagreed to it, culminating to a mean and standard deviation of 4.5 and 0.4 respectively. The result implies that the majority of the teacher trainees were oriented to the objective and expectations of the STS Programme before starting.

About the statement, *"My Mentor was harsh and unfriendly to me",* more than three-fourths of the teacher trainees, 182(91%), agreed; none (0%) of the teacher trainees were neutral towards the statement, while just 18(9%) of them disagreed. This resulted in a mean of 4.4 and a standard deviation of 0.7. This implies that the majority of mentors of teacher trainees were harsh and unfriendly to them, though a few were calm and friendly. The researcher conducted interviews with 91% of trainees to ascertain the reality of their responses.

Responding to the statement, *"The time and dates allocated for the STS Programme were unfavourable to me",* none (0%) of the teacher trainees were neutral about it. However, 170(85%) of them agreed while 30(15%) of them disagreed. The mean and standard deviation were 4.2 and 0.8, respectively. The results imply that the time and dates allocated for the STS Programme were unfavourable to the teacher trainees. The researcher conducted interviews with 85% of teacher trainees to ascertain the validity of their responses to the statement.

Furthermore, 150(75%) agreed, none (0%) were neutral, while 50(25%) disagreed with the statement, *"I become exhausted when I return from STS Practice to campus and hence find it difficult to study my book".* This culminated in a mean of 3.9 and a standard deviation of 0.7. In general, the mean score suggests that there was a general agreement with the statement. It can therefore be concluded that teacher trainees become exhausted when they return from STS Practice to campus and hence find it difficult to study their books. The researcher conducted interviews with 75% of trainees who agreed they became exhausted to ascertain their responses.

With regards to the statement, *"I was given the expected materials to aid my practice",* 31(15.5%) of the teacher trainees agreed, and none (0%) of them were neutral, while 169(84.5%) of them disagreed. This resulted in a mean and standard deviation of 2.6 and 0.8. This means that teacher trainees were not given the expected materials to aid their practice. The researcher conducted interviews with 84.5% of the trainees to understand their perspectives on the statement.

The results show that 40(20%) of the teacher trainees agreed with the statement, *"I have not benefited from the STS programme".* While none (0%) of them were neutral about the statement, 160(80%) disagreed. This resulted in a mean of 2.6 and a standard

deviation of 0.8. Even though the results provide evidence to support the claim that the STS programme was not beneficial to some of the teacher trainees, the majority had benefited from it. The researcher conducted interviews with 80% of trainees to ascertain the impact of their responses to the statement.

Concluding their responses, 18(9%) of the teacher trainees agreed that they had an easy means of transportation from college to Practice School. In contrast, an overwhelming 171(85.5%) of the teacher trainees disagreed, while 11(5.5%) were neutral, resulting in a mean and standard deviation of 1.7 and 0.3, respectively. The mean score of 1.7 indicates that the teacher trainees strongly disagreed with this statement. It can therefore be concluded that the teacher trainees did not have an easy means of transportation from college to Practice School. The researcher conducted interviews with 85.5% of trainees to understand their disagreement with the statement.

It is evident from the results that the perspectives of teacher trainees on challenges they face during the implementation of the STS programme were that mentors were harsh and unfriendly to them, the time and dates allocated for the STS Programme were unfavourable, they become exhausted when they return from STS Practice to campus and hence find it difficult to study my book, they were not given the expected materials to aid their practice and had uneasy means of transportation from College to their Practice Schools.

4.6.2 Part Two: Qualitative Data Analysis

This part consists of the results of the interviews conducted with selected teacher trainees and mentors. This section provides the experiences of some participants used for the survey. The analysis of the interview data sought not only to explore and explain the qualitative findings but also to add depth and richness to the study. The interview

results aimed at presenting the voice of the participants on the implementation of the Supporting Teaching in Schools (STS) Programme in Colleges of Education in Ghana for effective assessment of its current state. It is worth noting that only vital responses are provided for the analysis. The data was analysed based on themes (thematic analysis), based on the four research questions. There was absolute unanimity in the responses to several of the questions or items, and this degree of unanimity gave much power to the results. The views of mentors and teacher trainees were classified into major themes and sub-themes based on the four research questions.

Qualitative Data Analysis (Structured by Research Questions and Themes)

Research Question One:

What resources are available for the effective implementation of the STS programme in Colleges of Education in Ghana?

This section presents a qualitative exploration of the availability of resources essential for the successful implementation of the Supported Teaching in Schools (STS) programme. The insights were drawn from semi-structured interviews conducted with five teacher trainees and five mentors. The thematic analysis is guided by the explanatory sequential mixed-methods design and is interpreted through the lenses of Kolb's Experiential Learning Theory (1984) and Chomsky's Competency-Based Approach (1968). Four key themes emerged: Orientation and Initial Preparation, Teaching and Learning Resources (TLRs), Transport and Financial Support, and Institutional Support Structures.

Theme 1: Orientation and Initial Preparation

Both trainees and mentors acknowledged that orientation sessions were held before the STS practice. These sessions provided clarity on the objectives and practical requirements of the programme. Trainees specifically indicated that the orientation

equipped them with essential information regarding their expected conduct, documentation, and how to relate to mentors. For instance, one trainee shared,

> *"We were introduced to the STS handbook and what to expect. It helped me know what to do from the start."*

Similarly, another added,

> *"The orientation gave me the confidence to approach my mentor and discuss my teaching plan."*

These insights were echoed by mentors, one of whom stated,

> *"Yes, we held a session with the college tutors and discussed expectations. It helped us know what the college wanted from us as mentors."*

Another mentor added:

> *"Orientation helped us streamline our supervision schedules and ensured we were not left out of the implementation process."*

However, disparities in orientation depth and consistency across institutions suggest a need for a standardised orientation framework that integrates both college and school-level actors.

Theme 2: Teaching and Learning Resources (TLRs)

Trainees emphasised that the availability and use of TLRs significantly influenced their instructional delivery. Many developed their materials, though often with guidance from mentors.

> A trainee remarked, *"I had to create my charts and materials because the school had none, but my mentor helped me improve them."*
>
> Another stated, *"Sometimes I used recycled materials from the environment. It was not easy, but we had no choice."*

> Mentors also commented on the situation. One explained, *"The lack of basic materials is a big issue. Some schools don't even have enough chalk or markers."*
>
> Another mentor added, *"I encouraged my mentee to use improvised tools, and I demonstrated how I use realia in my lessons."*

The disparities between placement schools created unequal learning opportunities. To maximise the benefits of TLR engagement, policy should mandate minimum TLR provisions at STS sites, accompanied by institutional monitoring and support.

Theme 3: Transport and Financial Support for Implementation

Transportation and funding challenges were prominent among mentor and trainee responses. Though trainees rarely addressed this explicitly, mentors revealed that their ability to supervise and coordinate STS activities was undermined by logistical burdens and financial constraints. One mentor shared, *"I had to use my own money to get transport for my three trainees when returning from their STS Practice. No fuel allowance or transport support was given."* Another mentor added, *"We sometimes take up extra roles beyond mentoring because there's no financial motivation, yet we are held accountable."* On transportation, one trainee indicated, **"Buses were scarce for distant schools, affecting consistency|" Another trainee hinted, *"The buses in the colleges are inadequate to convey all of us to our partner schools, most especially during levels 100 to 300"***

These testimonies highlight an implementation gap. While the STS policy recognises mentors as central stakeholders, support mechanisms for their roles remain inadequate, and whilst trainees are key stakeholders in the STS, their unavailability due to transportation inequalities could hinder the progress of the STS practice. If mentors lack logistical support, their frequency and quality of interaction with trainees diminish, undermining the programme's integrity.

Theme 4: Institutional Support and Leadership Involvement (Mentors Only)

Mentors discussed the extent to which the college tutors visit the schools to support the STS practice, and the organisation of Continuous Professional Development (CPD) workshops on the STS practice. The responses were to explain the decisions using the questionnaires, and the mentor indicated that the tutors mostly come during level 400 of the STS practice and not level 100 to 300 as expected. They also indicated that there has been no specific CPD workshop on STS, but they use their weekly Professional Learning Community (PLC) meetings to discuss the profession, including STS practice. This was contained in an interview where mentors said, *"Tutors do visit mostly during the level 400 of the STS practice, whilst there has been no specific CPD workshop on STS apart from our PLC meetings"*. This theme reveals inconsistencies in leadership engagement and supervision support, which are critical for an effective teacher training programme. Where tutors are actively involved, trainees benefit from structured feedback and support. Conversely, limited involvement may create isolation and reduce accountability.

Theme 5: Time Allocation and Academic Calendar Constraints

Several trainees expressed frustration over the limited time allocated for STS practice. Many pointed out that STS activities often clashed with academic demands, particularly for Level 400 students, who were required to prepare for exams while simultaneously fulfilling practicum obligations. One trainee remarked, *"The time allocated is not enough because, especially for the level 400 out segment section of the STS, we don't spend enough time practising, so we don't have enough time to achieve all the expectations of the National Teachers' Standards."* Another added, *"The STS practice should be done for the whole of level 400, not just the final semester. It's too compressed."* Mentors provided corroborative insights. One mentor explained, *"The*

trainees were expected to come weekly, but it was always a struggle to manage time between their classroom duties and academic responsibilities. Sometimes they looked exhausted." These accounts explain the statistical majority who viewed time allocation as insufficient. A calendar revision that allows a dedicated term for immersive STS in Level 400 may help trainees meet National Teachers' Standards and fully benefit from guided mentorship. This would align with both experiential and competency-based educational models.

Theme 6: Class Size and Learning Environment Challenges

Another constraint impacting resource effectiveness was the large class sizes that trainees encountered during STS. One trainee shared, *"The learners are more than necessary. I could imagine how a class of 76 learners was being managed by only one teacher."* This not only increased instructional pressure but also limited the level of individualised support that trainees could provide. Mentors echoed this concern. One mentor noted, *"My class had over 60 students. Adding trainees made it more chaotic unless we split them into groups, but even that was not ideal."* Large class sizes dilute the quality of teaching and obstruct reflective practice. Institutions and coordinating bodies should limit STS placements to schools where class sizes are conducive to learning. Alternatively, they should implement co-teaching strategies and mentor-mentee grouping protocols to optimise the learning environment.

The findings related to Research Question One indicate that, although orientation sessions and mentor support concerning the use of teaching and learning resources (TLRs) were largely accessible and beneficial, significant challenges persist in terms of logistical, financial, and institutional resources. The persistent resource constraints, which appear to be systemic, imply that achieving uniform implementation of the Supported Teaching in Schools (STS) Programme will require not only policy reforms

but also deliberate resource investment and collaborative efforts among stakeholders. Moreover, the analysis underscores that the duration allocated for STS activities, as well as class sizes in partner schools, have a considerable impact on the practicum's quality and effectiveness. While the quantitative data highlighted concerns regarding inadequate timing, qualitative insights provided deeper explanations, such as insufficient immersion experiences, competing academic demands, and overcrowded classrooms.

Research Question Two: What are the measurable levels of mentorship support, supervision frequency, and trainee engagement in the STS Programme?

Quantitative findings demonstrated prevalent supervision and mentorship in the STS programme, with 96% of trainees and 92% of mentors affirming their occurrence. However, inconsistencies in engagement frequency and quality were noted. To deepen these insights, thematic analysis of interviews with five trainees and five mentors revealed both aligned and divergent perspectives, contextualising the statistical trends and clarifying variability in implementation efficacy.

Theme 1: Assessment and Feedback from College Supervisors (Trainees and Mentors)

Trainees emphasised that formative feedback during and after observation guided their professional growth. One trainee explained, *"My supervisor always commented on how I handled transitions. It helped me focus on classroom flow."* Another affirmed, *"Each time I was assessed, I felt like I was being pushed to do better and not just being scored."*

Mentors also confirmed the presence of feedback loops. A mentor remarked, *"I always received a brief from the supervisor after observations. It helped me adjust my*

mentoring." Another added, *"Some supervisors were committed, but others just marked the form and left."* These reflections explain the high frequency of reported supervision in the quantitative results. However, they also reveal inconsistencies in the quality of feedback, which is critical for growth. While most trainees were assessed, institutionalising standardised feedback rubrics could ensure that all supervisors deliver substantive, not just procedural evaluations.

Theme 2: Tutor Supervision – Frequency and Depth (Trainees and Mentors)

Trainees explained that although supervision occurred, it was not always frequent or predictable. One trainee noted, *"My tutor came twice. The first time, I was nervous, but he helped me improve. I wish he came more."* Another said, *"It took three weeks before I saw my tutor. He came in the last week, too."* Mentors reflected similar concerns. One commented, *"Most of the tutors come during the level 400 STS."* Another shared, *"I was surprised one supervisor didn't even come once. I had to give feedback on their behalf."* While supervision was widely reported, its inconsistency undermines its developmental potential. These insights support a policy revision that mandates minimum and evenly distributed tutor visits, enforced through STS schedules and supervision logs.

Theme 3: Pre- and Post-Lesson Conferences (Trainees and Mentors)

Qualitative interviews revealed that lesson conferencing was a strong sub-theme in effective mentorship. Trainees valued the opportunity to prepare and reflect with their mentors. One stated, *"Before my lessons, my mentor would check my objectives and give ideas. Afterwards, we'd talk about what went wrong."* Another shared, *"We reviewed my mistakes together. It made learning very real."* Mentors equally emphasised the practice. One mentor said, *"I see these moments as where learning*

happens. It's more powerful than just observation." Another added, *"I debrief with all my mentees. We set targets for the next lesson."*

These reflective dialogues constitute a vital stage in Kolb's reflective observation and abstract conceptualisation. They allow the trainee to convert experience into professional insight. STS programme policy should formally incorporate pre- and post-observation conferencing as part of mentor responsibility, with reporting templates that encourage reflection over tick-box assessment.

Theme 4: Mentor Modelling and Pedagogical Support (Trainees and Mentors)

Both groups confirmed that mentors played a central role in modelling effective teaching practices. One trainee said, *"My mentor demonstrated classroom control techniques. I later used the same during group work."* Another explained, *"He helped me convert boring topics into activities."* Mentors described how they consciously scaffolded skills. One noted, *"I don't just tell them what to do. I show it."* Another shared, "I teach one lesson, then sit at the back while they teach. It builds their confidence." The mentorship structure mirrors Kolb's active experimentation, where the mentor's example serves as the prototype for practice. Under CBA, such modelling ensures that performance-based competencies are internalised effectively. Institutions should train mentors in demonstration and co-teaching techniques, ensuring these practices are sustained and aligned with STS learning goals.

Standalone Theme A: Reflective Journals (Trainees Only)

Trainees used journals to process their learning. One explained, *"Each week, I wrote about my lesson and my mistakes. It helped me not repeat them."*

Journaling activates Kolb's abstract conceptualisation, enabling personal synthesis of observed and enacted experiences. Journals should be recognised as formative tools

and reviewed as part of the supervision process for deeper insight into trainee development.

Standalone Theme B: Mentor Coordination with SISOs (Mentors Only)

Mentors described variable engagement from SISOs. One mentor explained, *"Our SISO followed up with the college and visited once. It kept us alert."* Another lamented, *"The SISO visits the headteacher and I believe they discuss STS, though there was no visit to my class regularly"*. The involvement of district officers contributes to a supportive mentoring ecosystem. Stakeholders like SISOs must be institutionally embedded into STS oversight, with reporting responsibilities and defined visit frequencies.

Standalone Theme C: Trainees' Engagement in Co-Curricular Activities under the STS Programme

The interviews revealed that many trainees perceived co-curricular activities as instrumental in shaping their professional identity. Trainees who actively participated in such activities consistently reported gains in confidence, communication skills, and organisational abilities. For instance, one trainee reflected, *"The drama club boosted my confidence in public speaking, which directly improves my classroom presence"* (Trainee 1). This highlights how involvement in non-instructional school activities offered opportunities for concrete experience and reflective observation, consistent with the ELT cycle. Another trainee affirmed the developmental value of community engagement, stating, *"Community service projects taught me event organisation and collaboration skills I now use to manage group activities in my lessons"* (Trainee 5). These reflections underscore how real-world contexts facilitated experiential learning that could be transferred to classroom practice.

The experiences of trainees and the confirmations by mentors suggest that co-curricular involvement should not be viewed as peripheral, but rather as a fundamental component of professional training that facilitates the holistic development of the teacher trainee. In conclusion, the findings demonstrate that trainees who embraced co-curricular responsibilities were able to draw pedagogical and personal lessons that enhanced their overall teaching practice. These engagements served not only as platforms for experiential learning but also as mechanisms for demonstrating and internalising key professional competencies. Integrating such activities more explicitly into the structure of the STS Programme could thus yield substantial benefits for trainee development, ensuring that teacher preparation is both academically rigorous and experientially rich.

The quantitative findings reflected wide engagement in mentoring and supervision, while the qualitative phase revealed the nuances behind those numbers. Most trainees and mentors confirmed the presence of core STS activities like assessment, tutor supervision, and pedagogical modelling. However, interviews uncovered inconsistencies in frequency and depth. Without systemic reinforcement, even statistically positive trends risk losing their transformative power.

RQ3: How Do Teacher Trainees Perceive the Achievement of the Objectives of the STS Programme?

This section examines teacher trainees' perceptions of the STS Programme's effectiveness in achieving its objectives, using qualitative insights from interviews to contextualise and elaborate on quantitative findings. Key themes include: reflective practice, learner-centred instruction, instructional planning, assessment literacy, collaboration and inclusion, professional ethics, and research engagement. By centring

trainee voices, this analysis identifies gaps between policy intentions and on-ground realities, offering actionable insights for refining the STS Programme.

Theme 1: Reflective Practice and Self-Improvement

Qualitative insights contextualised, revealing trainees' introspective engagement during the STS Programme. For instance, Trainee 1 noted, *"I regularly critique my teaching to identify areas for improvement, which helps me adjust my approach,"* while another emphasised, *"Every time I reflected on my teaching, I discovered something new I could do better."* The data suggest trainees are internalising reflective habits, translating self-assessment into tangible professional growth. This validates the high quantitative agreement and underscores the STS Programme's success in fostering reflective praxis. To amplify this, institutionalising structured tools like reflective journals or standardised self-assessment frameworks could systematise reflection, ensuring it becomes an integral, uniform component of STS evaluation rather than an ad hoc exercise. Such measures would deepen trainees' ability to link experiential learning with competency development, bridging theory and practice more effectively.

Theme 2: Learner-Centred Instruction and Responsiveness

Qualitative insights substantiated the statistical trends, revealing how trainees prioritise learner-centred approaches. Trainee 4 emphasised contextual adaptability, stating, *"I tailor my lessons by first asking questions about my learners' immediate environment, then building on their responses."* Similarly, Trainee 2 highlighted relational engagement: *"I maintain a cordial relationship with my learners by encouraging them to ask questions both during and after lessons."* Such strategies not only enhance instructional effectiveness but also cultivate emotionally supportive and

inclusive classrooms. The integration of responsive lesson planning and interpersonal rapport enriches learner experiences, explaining the strong quantitative endorsement of these methods. To deepen contextual responsiveness, expanding community immersion activities such as involving local stakeholders in lesson design could further anchor teaching practices in learners' lived realities, ensuring sustained alignment with STS objectives and the National Teachers' Standards (NTS).

Theme 3: Instructional Planning and Resource Use

Trainees demonstrated significant progress in instructional planning and resource adaptation, reflecting both experiential learning and competency development. Trainee 3 noted*, "I can select and adapt teaching materials effectively, which greatly aids my lesson planning,"* highlighting their ability to tailor resources to diverse learner needs. Similarly, Trainee 5 emphasised structured goal-setting*: "I consistently prepare clear, measurable lesson objectives that guide my teaching."* The high engagement in lesson planning and resource adaptation suggests trainees are cultivating autonomy and foresight in instructional delivery. However, variability in material quality and contextual relevance persists. To strengthen these competencies, integrating structured lesson plan audits and collaborative peer review sessions could enhance planning precision and material suitability.

Theme 4: Assessment Literacy and Differentiated Support

Trainees demonstrated active engagement in employing diverse assessment strategies to monitor learner progress. One trainee explained, *"I use assessments before, during, and after lessons like quizzes and class tests to guide learning effectively"* (Trainee 3). This approach highlights their ability to integrate formative and summative tools to tailor instruction. Additionally, trainees emphasised targeted support for learners requiring extra assistance. As noted by another participant, *"I give extra time*

and support to slow learners so they can catch up with the rest of the class" (Trainee 2), reflecting their commitment to equitable outcomes. The ability to differentiate instruction underscores trainees' growing pedagogical adaptability. Their strategies suggest a practical grasp of addressing varied learning needs, though some gaps remain in designing nuanced interventions. To further strengthen these competencies, expanding structured training in formative assessment design and individualised support planning within the STS curriculum could enhance trainees' preparedness to address diverse classroom challenges effectively.

Theme 5: Collaboration, Inclusion, and Tolerance

Trainees demonstrated active efforts to foster collaborative and inclusive classroom environments. One trainee described designing group tasks to encourage peer learning*: "I set tasks that encourage group work and peer teaching, which enhances collaboration among learners"* (Trainee 1). Another emphasised adapting lessons to ensure accessibility: *"I make sure to arrange seating and adapt my teaching to ensure that all learners, including those with disabilities, are included"* (Trainee 2). These practices reflect a commitment to equitable participation, with trainees tailoring strategies to accommodate diverse needs. Such approaches not only promote teamwork but also cultivate classrooms where learners feel valued and supported. To strengthen these efforts, expanding training on inclusive pedagogy, such as workshops on adaptive instruction and peer-led activities, could deepen trainees' capacity to create socially equitable learning spaces.

Theme 6: Professional Ethics and Policy Awareness

Qualitative findings revealed mixed levels of familiarity with educational policies among trainees. While some acknowledged exposure to key frameworks, comprehension appeared fragmented. One trainee noted, *"The STS programme helped*

me understand policies through regular discussions and reading assignments, though not all aspects are clear" (Trainee 5). Another admitted, *"I know about some policies like safeguarding, but I wish we had more structured sessions"* (Trainee 8). These responses suggest inconsistent depth in policy knowledge, with trainees grasping foundational concepts but lacking comprehensive mastery. The variability in understanding points to gaps in how policies are communicated and applied during training. Trainees recognised the importance of ethical guidelines but struggled to articulate their practical implications, indicating superficial engagement with the content. To address this, targeted interventions such as scenario-based workshops or case study analyses could deepen contextual understanding. Strengthening policy training would not only clarify ambiguities but also foster critical thinking around ethical dilemmas, better-preparing trainees to navigate real-world challenges in Ghana's classrooms.

Theme 7: Research Engagement and Portfolio Development

Trainees face significant challenges in compiling comprehensive teaching portfolios and conducting action research. One trainee noted, *"I have attempted action research as part of my programme, but I find it challenging to apply consistently,"* reflecting difficulties in translating theoretical knowledge into systematic practice. Similarly, another trainee shared, *"I find it challenging to compile a comprehensive portfolio, though I understand its importance for reflection,"* highlighting the gap between recognising the value of documentation and executing it effectively. These struggles underscore a broader disconnect in trainees' ability to engage deeply with reflective and evidence-based tasks. While foundational teaching skills appear well-developed, advanced competencies like research and structured documentation remain underdeveloped, suggesting a need for targeted institutional support. To address these

gaps, integrating structured mentorship focused on research methodologies and portfolio organisation could enhance competency. Additionally, introducing digital tools for portfolio creation may streamline the process, reducing administrative burdens and fostering greater engagement with reflective practices.

RQ4 Qualitative Analysis: What Challenges Confront the Implementation of the STS Programme?

This qualitative analysis, conducted as part of an explanatory sequential mixed methods design, explores challenges in implementing the Supported Teaching in Schools (STS) Programme, building on quantitative trends identified in prior survey data. The mixed methods approach ensures that qualitative insights explain and triangulate quantitative disparities, offering actionable pathways to strengthen programme delivery and stakeholder support.

Theme 1: Availability of Resources

Qualitative data revealed that while essential resources such as partner schools and handbooks were accessible, critical gaps persisted. A mentor noted, *"We often improvise with outdated materials, which limits the quality of practical demonstrations,"* highlighting the scarcity of Teaching and Learning Resources (TLRs). Trainees corroborated this, with one stating, *"Partner schools gave us a platform to apply theory, but the absence of TLRs made it harder to execute creative lessons."* This reliance on improvisation underscores systemic inequities in resource allocation. Structural resources (e.g., schools, and learners) were available, but operational tools like TLRs and financial support were inconsistent. Resource shortages directly hinder practical skill development, limiting trainees' ability to model effective teaching strategies. Without addressing these gaps, the STS Programme risks

perpetuating disparities in teacher preparedness, particularly in under-resourced schools.

Theme 2: Programme Implementation

Mentors emphasised their commitment to modelling professionalism, with one explaining, *"I use group discussions and multimedia to model adaptable teaching methods."* Trainees acknowledged the value of mentorship, as a participant shared, *"My mentor's feedback helped me refine my lesson plans."*However, logistical challenges emerged. A trainee noted, *"Balancing coursework and STS visits was stressful,"* reflecting time allocation issues. Mentors also highlighted workload pressures, with one stating, *"Supervising five trainees leaves little time for individualised support."* Mentorship structures were effective but strained by systemic inefficiencies. Overburdened mentors and fragmented supervision compromise the quality of experiential learning. Persistent workload issues may lead to mentor attrition, destabilising the programme's mentorship framework over time.

Theme 3: Achievement of Programme Objectives

Trainees demonstrated proficiency in foundational skills like lesson planning and classroom management. A trainee remarked, *"I now tailor lessons to students' prior knowledge, which improves engagement,"* reflecting competency in differentiated instruction. However, gaps in advanced competencies persisted. One trainee admitted, *"I struggle to design research projects without formal training,"* underscoring weaknesses in action research. Mentors observed, *"They can execute lessons but lack depth in educational policy."* The programme successfully cultivates practical skills but neglects higher-order competencies. Theoretical-practical misalignment may limit trainees' adaptability in evolving educational contexts. Without addressing these gaps, graduates may struggle to innovate or advocate for policy-driven classroom improvements.

Theme 4: Challenges in Implementation

Qualitative findings underscored significant systemic barriers hindering the effective execution of the STS Programme, as articulated by mentors and trainees. Mentors emphasised resource inadequacies, with one participant stating, *"TLRs are rarely provided, so we resort to outdated materials, which limits trainees' exposure to modern pedagogical tools"*. Similarly, trainees highlighted logistical constraints, noting, *"Transportation is a major hurdle; commuting long distances eats into preparation time"*. Workload pressures emerged as a critical concern. A mentor lamented, *"Supervising multiple trainees leaves little room for individualised feedback",* mirroring survey results where 83% of mentors felt overburdened. Trainees corroborated this strain, with one remarking, *"Mentors are spread too thin; their guidance feels rushed"*. These challenges were compounded by inconsistent supervision, as mentors noted, *"Affiliate university supervisors rarely visit, leaving gaps in trainee progress monitoring"*. The interplay of resource shortages, logistical inefficiencies, and excessive mentor workloads reflects systemic under-resourcing and poor coordination. These issues undermine the programme's capacity to deliver structured, equitable training. Chronic underfunding and fragmented stakeholder collaboration perpetuate operational bottlenecks, disproportionately affecting rural or under-resourced partner schools. Without systemic reforms, these challenges risk eroding mentor morale, trainee preparedness, and the programme's alignment with National Teachers' Standards (NTS).

The qualitative data illuminate a disconnect between the STS Programme's objectives and its operational realities. To address these systemic challenges, prioritise the equitable distribution of TLRs and secure dedicated funding for transportation and mentor incentives. Implement a 1:2 mentor-trainee ratio and integrate peer mentoring

to reduce individual burdens. Strengthen partnerships between Colleges of Education, affiliate universities, and partner schools to ensure consistent supervision and resource-sharing.

4.7 Discussion of Results

This chapter provides a comprehensive analysis of the findings of the study, integrating quantitative and qualitative data to offer an in-depth understanding of the Supported Teaching in Schools (STS) Programme's implementation in Ghana's Colleges of Education. Aligned with the explanatory sequential mixed-methods design outlined in Chapter 3, the analysis begins with a presentation of quantitative survey results to identify statistical trends, followed by qualitative insights that contextualise these patterns through the lived experiences of teacher trainees and mentors. This dual approach ensures that statistical observations are not merely reported but enriched with contextual depth, balancing empirical validity with the human dimensions of educational practice.

Integration is a core principle of this study, aligning with the pragmatic research paradigm, which prioritises practical insights derived from multiple data sources. By systematically pairing quantitative results with qualitative narratives, this chapter moves beyond identifying patterns to exploring the underlying reasons behind them. For instance, where survey findings indicate that a majority of mentors face challenges due to limited resources, qualitative accounts provide first-hand perspectives on how these limitations impact the mentoring process. Without such integration, the discussion would lack the depth required to fully capture the complexities of teacher training in Colleges of Education.

Thematic tables consolidate paired quantitative-qualitative themes, such as mentorship challenges or resource gaps, providing readers with a structured overview of aligned findings. Standalone quantitative results, including participation rates, are analysed textually and situated within broader scholarly discourse. Theoretical frameworks further anchor the discussion: Kolb's Experiential Learning Theory explains how inadequate teaching materials hinder trainees' ability to apply theoretical knowledge, while the Competency-Based Approach critiques systemic mentorship gaps that undermine skill mastery.

Structured thematically around the research questions, the chapter interweaves empirical evidence, stakeholder perspectives, and theoretical insights. This approach not only evaluates the STS Programme's alignment with Ghana's National Teachers' Standards but also positions local challenges within international debates on teacher preparation. By structuring the discussion around research questions and employing an integrated approach, this chapter bridges empirical findings with theoretical and policy perspectives. In doing so, it not only evaluates the effectiveness of the STS Programme but also situates its challenges within broader conversations on teacher training and educational reform. This approach ensures that the study's conclusions are both well-supported and practically relevant for policymakers, educators, and researchers.

4.7.1 Resources Available for the Implementation of the STS Programme

This section explores how resource constraints influence the implementation of the Supported Teaching in Schools (STS) Programme from the perspectives of both mentors and teacher trainees. In line with the explanatory sequential design, quantitative survey results are first presented to illustrate general trends; these are then integrated with qualitative interview insights that provide deeper contextual

explanations. This integrated approach, guided by the pragmatic paradigm, ensures that the numerical data are enriched by the lived experiences of participants. The discussion is anchored in two key theoretical frameworks: Kolb's Experiential Learning Theory (ELT) and Noam Chomsky's Competency-Based Approach (CBA, 1968). These theories help explain how the availability or lack of resources impacts teacher development and the practical application of teaching competencies. There was enough literature presented in the discussion to give justifications for the research outcome.

4.7.1.1 Integrated discussion: Mentors' perspectives

Table 4.13: Integrated Mentor Findings on Resource Constraints

Key Variable/Theme	Quantitative Findings	Qualitative Insights	Theoretical /Literature Justifications
Orientation on STS Programme	100% agreed they received orientation (Mean = 4.7, SD = 0.5).	"The orientation clarified my role. I understood how to guide trainees effectively." (Mentor 3)	Consistent with the Competency-Based Approach (Chomsky, 1968), which emphasises that clear guidelines and orientation are essential for achieving specific competencies, and with the National Teacher Education Curriculum Framework (2017). This confirms the report of Mereku and Armah (2021
Regular Tutor Visits	86% of mentors agreed that tutor visits occur regularly (mean = 4.3, SD = 0.7); 14% remained neutral.	"Tutors were more active during Level 400 STS compared to earlier levels." (Mentor 5)	Kolb's ELT suggests that consistent feedback (a form of reflective observation) is critical for experiential learning, while neutrality stems from inconsistent supervision at lower levels, as noted by Abudulai (2021).
Trainee Preparedness	93% of mentors agreed that trainees demonstrated prior knowledge of the STS, with a mean of 4.2 (SD = 0.8); 7% disagreed	"Trainees came prepared with lesson plans from college." (Mentor 5)	This finding supports the Competency-Based Approach, where mastery of prior knowledge is essential before advancing to complex tasks, and is in line with (National Teacher Education Curriculum Framework, 2017) and aligns with Adu-Yeboah & Kwaah's (2018) call for structured guidelines.
Provision of Handbooks	72% received handbooks (Mean = 4.0, SD = 0.1); 21% neutral; 7% disagreed.	"The handbook was my go-to guide for lesson planning." (Mentor 2)	Handbooks reinforce ELT's abstract conceptualisation (Kolb, 1984) by standardising expectations, contradicting Abudulai's (2021) Northern Ghana findings.
CPD Participation	58% attended CPD (Mean = 3.7, SD = 0.3); 35% neutral; 7% disagreed.	"We used PLC meetings for STS discussions, not formal CPD." (Mentor 4)	The need for CPD is in line with the findings of Coffie (2020) and Wilson (2013) and aligns with ELT's emphasis on iterative learning, although the mixed responses suggest room for improvement in how CPD is implemented.
TLR Availability	13% agreed TLRs were provided (Mean = 2.1, SD = 0.4); 71% disagreed.	"We improvise with chalkboards and recycled materials. No textbooks." (Mentor 1)	Resource gaps hinder CBA's skill mastery and ELT's active experimentation (Kolb, 1984). Confirms Abudulai's (2021) reports on TLR shortages.
Financial Incentives	0% received incentives, 14% were neutral (Mean = 1.8, SD = 0.1); 86% disagreed.	"Only water was provided during orientation. No stipends." (Mentor 2)	Lack of incentives violates CBA's motivational frameworks (Chomsky, 1968) and demoralises mentors, as seen in Coffie et al. (2021).

Source: Field Survey, 2022

Explanation of Table 4.13

The findings from the mentors' responses reveal both strengths and challenges in the implementation of the STS Programme. Quantitatively, all mentors (100%) reported being equipped with STS knowledge (M = 4.1, SD = 0.8), a finding that is reinforced by qualitative comments such as Mentor 1's observation that training workshops and clear guidelines were provided. This level of preparedness aligns with the National Teacher Education Curriculum Framework (2017) and reflects the principles of the Competency-Based Approach (CBA), which stresses the importance of structured training for achieving professional competencies. At the same time, these results contrast with Abudulai (2021), who noted gaps in mentor training in Northern Ghana, suggesting potential regional disparities that warrant further attention. Kolb's Experiential Learning Theory (ELT) also underscores the need for ongoing experiential learning, implying that even well-prepared mentors require continuous professional development to adapt to evolving educational demands.

Furthermore, 93% of mentors affirmed that they exhibited a high level of professionalism (M = 4.3, SD = 0.6), with qualitative evidence such as Mentor 4's remark about modelling ethical behaviour and effective communication indicating that mentors are fulfilling their roles as professional exemplars. This finding, which is central to the CBA's emphasis on role modelling, is supported by literature from Rillotta et al. (2022) and Coffie et al. (2021), both of which highlight the importance of professional role modelling for trainee development.

In addition, 79% of mentors reported employing diverse teaching methods (with 14% neutral and 7% disagreeing), a practice reinforced by qualitative accounts describing the use of group work, demonstrations, and peer teaching. This diversity in

instructional strategies enhances the concrete experience phase of learning as outlined in ELT and is critical to the CBA, which values adaptive and varied teaching approaches. Nevertheless, the 7% disagreement suggests that some mentors may be constrained by limited resources or inadequate training in innovative pedagogies, as highlighted by Tngepare (2020).

Pre- and post-lesson discussions were reported by 72% of mentors (M = 4.0, SD = 0.8), with qualitative responses indicating that these discussions were used to identify trainee strengths, weaknesses, and inconsistencies. Such reflective dialogue is a core component of ELT, promoting learning through reflection and iterative feedback, and it reinforces the CBA's call for structured and objective evaluation practices. However, the fact that 28% of mentors did not engage in these discussions points to a need for more uniform supervisory practices.

Regarding multimedia use, 72% of mentors reported using multimedia tools (M = 4.0, SD = 0.9), although qualitative insights reveal a heavy reliance on smartphones due to insufficient access to advanced equipment. This reliance supports the CBA's emphasis on technology-enhanced learning, but it also highlights a gap in resource allocation that contradicts the National Teacher Education Curriculum Framework (2017). Tengepare (2020) similarly noted that resource limitations can impede effective multimedia integration.

In terms of assessment, 72% of mentors agreed that trainee assessments were fair (M = 3.9, SD = 0.9); however, qualitative feedback revealed occasional inconsistencies due to personal biases. Although the CBA advocates for objective, standardised assessments, these discrepancies suggest the need for more robust evaluation criteria to ensure fairness, a concern that echoes Abudulai's (2021) findings.

Collegial interactions were also positively endorsed, with 72% of mentors agreeing (M = 4.1, SD = 0.5) that they engaged in regular collaborative discussions with link tutors regarding trainee progress. Such interactions are critical for fostering reflective observation and shared learning, aligning with both ELT and the CBA as well as the National Teacher Education Curriculum Framework (2017).

CPD engagement, however, presented a more mixed picture; 71% of mentors reported participation in CPD programmes (M = 3.7, SD = 0.3), but qualitative insights indicated that while some mentors benefited from Weekly Professional Learning Community (PLC) meetings, many felt that formal, dedicated CPD sessions specific to STS were lacking. This underscores the need for more structured and comprehensive professional development, as emphasised by Wilson (2013) and Coffie (2020).

Significantly, 86% of mentors expressed dissatisfaction with the incentives provided (M = 1.8, SD = 0.1), with qualitative responses highlighting demotivation and the need to seek financial support from trainees. This lack of incentives contradicts the support requirements of the CBA and undermines policy expectations outlined in the National Teacher Education Curriculum Framework (2017), as further confirmed by Coffie et al. (2021).

Quantitative data revealed significant resource constraints, with 71% of mentors reporting inadequate Teaching and Learning Resources (TLRs) for the STS Programme (*M* = 2.6, *SD* = 0.7; Table 4.6). Qualitative insights contextualised this gap: mentors described logistical hurdles such as delayed procurement and budget mismanagement, forcing improvisation with outdated resources. For example, Mentor 5 noted, *"We received textbooks six months into the term—how can trainees practice lesson delivery without materials?"* Trainees echoed this frustration; Trainee 12 shared, *"I had to draw diagrams on chalkboards because charts weren't available."*

These challenges mirror infrastructure deficits in Nigeria (Lauwerier & Akkari, 2015) and align with findings by Nyamota et al. (2018), who identified similar TLR shortages in resource-limited settings. The lack of materials disrupts the *concrete experience* phase of Kolb's Experiential Learning Theory (ELT), where hands-on engagement is critical, and undermines competency achievement as defined by the Competency-Based Approach (CBA) (Abudulai, 2021). Collectively, these systemic issues highlight the urgent need for targeted interventions to align resource allocation with the STS Programme's pedagogical goals. Additionally, while 80% of mentors reported regular supervision by School Improvement Support Officers (SISOs) ($M = 4.1$, $SD = 0.3$), some qualitative feedback suggested that such supervision did not always extend to direct classroom observation, thereby limiting its potential impact.

In summary, the mentors' perspective reveals a complex interplay of strengths and challenges. While high levels of training, professionalism, and diverse teaching methods support effective mentorship in the STS Programme, significant issues such as inadequate CPD, insufficient TLRs, lack of incentives, and inconsistent SISO supervision undermine the overall quality of the mentoring process. Grounded in Kolb's Experiential Learning Theory and Noam Chomsky's Competency-Based Approach, these findings highlight the need for systemic policy interventions—including enhanced resource allocation, standardised assessment protocols, and more robust professional development programs to ensure that mentorship practices effectively contribute to the development of competent, reflective, and adaptable teachers in Colleges of Education in southern Ghana.

4.7.1.2 Integrated Discussion: Trainees' Perspective on Resource Constraints

The analysis of trainees' responses reveals several key themes regarding resource availability and support within the STS Programme. Quantitative survey data indicate strong agreement on the availability of partner schools, community and parental support, learner attendance, and provision of handbooks. However, significant challenges emerge in transportation, access to teaching and learning resources (TLRs), and issues related to class size. The integration of quantitative and qualitative data, anchored in Kolb's Experiential Learning Theory (ELT) and the Competency-Based Approach (CBA), provides a comprehensive understanding of how these factors impact trainees' development and the overall effectiveness of the STS Programme.

Table 4.14: Integrated Findings: Trainees' Perspective on Resource Constraints

Variables/Key Themes	Quantitative Analysis	Qualitative Insights	Theoretical Underpinnings & Literature Justification
Availability of Partner Schools	**89.5% agreed partner schools are readily available (Mean = 4.6, SD = 0.7).**	"Partner schools were welcoming and provided clear guidance on programme expectations" (Trainee 2)	**Aligns with the National Teacher Education Curriculum Framework (2017) that emphasises collaboration. ELT supports that positive field experiences enhance learning by providing a rich, concrete experience.**
Community and Parental Support	**82% agreed that parents and communities are supportive (Mean = 4.2, SD = 0.5).**	**"Chiefs and parents provided logistical support (e.g., food) and educational encouragement"** (Trainee 4)	**The supportive external environment is consistent with CBA, emphasising comprehensive support for competence development, and reinforces findings from UNICEF Innocenti (2021) on the importance of community engagement.**
Learner Availability	**75% agreed that learners are readily available (Mean=4.5, and 5.5);19.5% were**	**"While most learners attended classes regularly, those in rural areas sometimes faced challenges due to external commitments like**	**ELT highlights the need for consistent and stable learning environments for effective reflective observation and active experimentation. This finding is consistent with studies emphasising**

	Neutral, and 5.5% disagreed.	**farming, which occasionally disrupted class attendance" (Trainee 1)**	**challenges in rural contexts. (e.g., Coffie, 2020).**
Provision of Handbooks	**91% agreed (Mean=4.4, SD=0.7)**	**"We were provided with handbooks through our colleagues in some colleges in the northern sector reported fewer handbooks|" (Trainee 5)**	**The availability of handbooks supports CBA by standardising teaching practices and expectations and reinforcing policy guidelines from the National Teacher Education Curriculum Framework (2017). However contradicts Abudulai (2021), attributed to phased implementation (final-year trainees vs. initial cohorts).**

Integrated Findings: Trainees' Perspective on Resource Constraints

Variables/Key Themes	Quantitative Analysis	Qualitative Insights	Theoretical Underpinnings & Literature Justification
Time Allocation for STS Practice	**60% agreed (Mean=3.9, SD=0.8)**	**"The final year's teaching practice was particularly short, limiting our ability to develop competencies fully" (Trainee 1)**	**The findings support Abudulai (2021): Time constraints hinder effective STS execution. Adequate time for hands-on experiences is critical according to ELT, as it ensures that trainees move through the experiential cycle effectively; insufficient time disrupts this process and impedes competence development.**
Transportation	**72% disagreed (Mean=2.6, SD=0.7)**	**"Buses were scarce for distant schools, affecting consistency|" (Trainee 2)**	**Aligns with Tengepare (2020) and Abudulai (2021): Transportation gaps undermine practicum logistics. The lack of transportation hinders the 'concrete experience' phase of ELT, and under the CBA, inadequate logistical support limits the acquisition of practical teaching skills.**
Provision of TLRs	**25% agreed that adequate TLRs were provided**	**My School lack sufficient teaching and learning materials, forcing us to adapt and**	**Insufficient TLRs significantly impede the practical application phase described in ELT and undermine the**

	(Mean = 2.6, SD = 0.7); 75% disagreed.	**improvise with our TLRs" (Trainee 3)**	**standards of competence set by the CBA, a finding supported by Abudulai (2021) and Coffie et al. (2021).**
Class Size	**95% of trainees disagreed that learners were fewer than the optimum class size (Mean = 1.78, SD = 0.3).**	**"Classes exceeded 80 learners, complicating assessment and engagement." (Trainee 2)**	**Large class sizes hinder the reflective and experimental stages of Experiential Learning Theory (ELT), while Competency-Based Assessment (CBA) stresses the need for optimal conditions for instructional competence, a challenge noted by Coffie (2020) and Al-Momani (2016).**

Source: Field Survey, 2022

Explanation of Table 4.14

Integrated Findings – Trainees' Perspective on Resource Constraints

The quantitative data reveal that 89.5% of trainees agree that partner schools are readily available (M = 4.6, SD = 0.7), a finding further reinforced by qualitative insights in which trainees noted that partner schools welcome them and articulate expectations. This robust support is critical, as it creates a collaborative environment essential for the effective implementation of the STS Programme. Such results align with the National Teacher Education Curriculum Framework (2017) and are theoretically underpinned by Kolb's Experiential Learning Theory (ELT), which argues that positive field experiences enhance the concrete experience phase, thereby fostering deeper learning.

In addition, 82% of trainees confirmed that parents and communities provide strong support (M = 4.2, SD = 0.5). Qualitative feedback indicates that community leaders actively offer logistical assistance, such as food provisions, while parents encourage their wards' education. This external support not only contributes to a conducive learning environment but also echoes the Competency-Based Approach (CBA), which

stresses that robust support systems are fundamental for developing professional competencies. Although the literature on community readiness is sparse, the National Framework emphasises stakeholder collaboration, thereby reinforcing the importance of such support in achieving STS objectives.

Regarding learner availability, 75% of trainees agreed that learners are generally present for the STS Programme (M = 4.5, SD = 0.4). However, qualitative insights reveal that while learner attendance is consistent overall, trainees in rural areas face disruptions due to external commitments, such as farming or fishing. These discrepancies have significant implications for the overall learning experience, as uninterrupted exposure is crucial for effective experiential learning according to ELT, and stable conditions are essential for achieving instructional competencies as highlighted by the CBA.

The provision of handbooks was also highly rated, with 91% of trainees confirming their availability (M = 4.4, SD = 0.7). Qualitative responses indicate that handbooks serve as vital reference materials, standardising practices and enhancing clarity for trainees. This finding aligns with both the National Teacher Education Curriculum Framework (2017) and the CBA, which emphasise that structured resources are essential for ensuring uniformity in training. Notably, this outcome contradicts earlier reports by Abudulai (2021), suggesting that resource distribution has improved over time.

Time allocation for the STS Programme received mixed reviews, as reflected by a mean score of 3.9 (SD = 0.8) with 60% agreement. Qualitative feedback suggests that the final-year practice phase is perceived as insufficient for fully developing teaching competencies. This limitation disrupts the iterative cycle of concrete experience,

reflection, and experimentation central to ELT, and hinders the comprehensive hands-on practice required by the CBA. These findings support critiques by Abudulai (2021) and indicate that revisiting scheduling strategies, such as extending practice periods or introducing incremental placements, may be necessary to optimise trainee development.

Transportation, a crucial logistical factor, was found to be inadequate; only 20% of trainees reported that transportation was provided (M = 2.6, SD = 0.7), with qualitative insights highlighting that those further from partner schools are disproportionately affected. This deficiency disrupts the practical, immersive experiences vital for effective field practice as outlined in ELT and undermines the repeated practice needed to meet competency benchmarks in the CBA. Prior studies by Tengepare (2020) and Abudulai (2021) echo these challenges, emphasising the need for enhanced logistical support to ensure equitable access to training sites.

Moreover, the availability of teaching and learning resources (TLRs) was notably poor, with only 25% agreement (M = 2.6, SD = 0.7) among trainees that sufficient materials were provided. Qualitative responses indicate widespread inadequacies, with trainees often forced to improvise due to outdated or insufficient resources. This shortfall severely limits the concrete experience required for practical learning in ELT and undermines the competency development process central to the CBA. Consistent with findings from Abudulai (2021), Coffie et al. (2021), and Nyamota et al. (2018), these results underscore systemic gaps in resource allocation that need to be addressed through improved funding and strategic partnerships.

Finally, class size was identified as a significant issue; an overwhelming 95% of trainees disagreed that class sizes were optimal (M = 1.78, SD = 0.3). Qualitative

insights reveal that overcrowded classrooms, often exceeding 80 learners, limit personalised instruction and effective classroom management. This challenge diminishes the quality of the concrete experience, as per ELT, and undermines the ability of trainees to develop the practical teaching skills emphasised by the CBA. Empirical studies by Coffie (2020) and Al-Momani (2016) further validate that large class sizes are a persistent barrier to effective teaching and learning.

In conclusion, the integrated discussion from the trainees' perspective highlights that while certain resource supports, such as the availability of partner schools, community involvement, and handbooks, are well-established, significant challenges remain in transportation, TLR availability, and managing large class sizes. Anchored in Kolb's Experiential Learning Theory and Noam Chomsky's Competency-Based Approach, these findings emphasise the need for targeted policy interventions, including enhanced logistical support, increased investment in teaching materials, and strategies to optimise class sizes. Addressing these issues is vital for the successful implementation of the STS Programme in Colleges of Education in southern Ghana and holds broader implications for teacher education reform.

4.7.2.1 Integrated discussion: Mentors' perspective on measurable levels of mentorship support, supervision frequency, and trainee engagement in the STS Programme

This section presents an integrated analysis of the mentors' perspective on the implementation of the STS Programme, drawing on both quantitative survey data and qualitative interview insights. Anchored in Kolb's Experiential Learning Theory (ELT) and Noam Chomsky's Competency-Based Approach (CBA, 1968), the discussion examines how various aspects of mentorship support, ranging from orientation and

supervisory interactions to resource availability and professional development, influence the effectiveness of the programme. Through a series of tables that systematically pair numerical findings with qualitative narratives and theoretical justifications, this analysis highlights both strengths and challenges in the current implementation. The integrated approach not only clarifies how mentors experience and perceive the programme but also situates these experiences within broader theoretical and empirical frameworks, thereby providing a comprehensive understanding of the factors that impact mentor performance and, ultimately, the quality of teacher training in southern Ghana.

Table 4.15: Integrated Findings: Mentors' Perspective on Measurable Levels of Mentorship Support, Supervision Frequency, and Trainee Engagement in the STS Programme

Variables / Themes	**Quantitative Analysis**	**Qualitative Insights**	**Theoretical Underpinnings / Literature Justifications**
Mentor preparation and knowledge	100% of mentors agreed they were equipped with STS knowledge (M=4.1, SD=0.8).	"We were taken through training workshops as well as given the guidelines" (Mentor 1)	Consistent with the National Teacher Education Curriculum Framework (2017), but contradicts Abudulai (2021), who found gaps in training. ELT supports ongoing experiential learning

			for professional development.
Professionalism of mentors	93% agreed mentors exhibited professionalism (M=4.3, SD=0.6).	"I modelled ethical behaviour and communicated well with my mentees." (Mentor 4)	Aligns with CBA, which emphasises modelling competencies for trainees. Supports Rillotta et al. (2022) and Coffie et al. (2021) on professional role modelling.
Use of diverse teaching methods	79% agreed, 14% were neutral, and 7% disagreed.	"I employed group work, demonstrations, and peer teaching among my learners for trainees to emulate" (Mentor 1)	Supported by CBA's emphasis on varied instructional methods and Tengepare (2020) on multimedia use in mentoring. Reflects ELT's concrete experience phase (Kolb, 1984).
Pre- and post-lesson discussions	72% agreed, and 28% disagreed. (M=4.0, SD=0.8).	"I focused on trainee strengths/weaknesses as well as variations and have a pre- and post-discussion to address them" (Mentor 3).	ELT supports reflective learning through dialogue. Corroborates Coffie et al. (2021) and Otoo et al. (2021).

Integrated Findings: Mentors' Perspective on Measurable Levels of Mentorship Support, Supervision Frequency, and Trainee Engagement in the STS Agenda

Variables / Themes	Quantitative Analysis	Qualitative Insights	Theoretical Underpinnings / Literature Justifications
Multimedia use for training	72% agreed, 21% were neutral, and 14% disagreed. (M=4.0, SD=0.9)	"I mostly use mobile phones to capture lessons due to a lack of advanced tools." (Mentor 5)	Supports CBA's emphasis on technology-enhanced learning and aligns with Tengepare (2020).
A fair assessment of trainees	72% agreed, 21% neutral, 7% disagreed. (M=3.9, SD=0.9)	"There have been inconsistencies due to personal biases among some assessors from the colleges as reported by some trainees." (Mentor 5)	Assessment fairness aligns with CBA's objective evaluation of competency. Abudulai (2021) confirmed fairness but noted occasional biases.
Collegial Interactions	72% agreed (M = 4.1, SD = 0.5)	"There have been collaborations between the Link tutors and mentors on the trainees' progress" (Mentor 3)	Supports ELT's social learning dimension and CBA's collaborative skill-building framework, National Teacher Education Curriculum Framework (2017). Alap corroborates (Appiah Dankwah et al., 2021).
CPD Engagement	71% participated in CPD (M=3.7, SD=0.3).	"We engaged in regular PLC Sections where we discussed teacher-based issues, including STS, but not a separate CPD on STS" (Mentor 5)	Reflects CBA's need for continuous professional development to align with policy reforms, and corroborates the findings of Wilson (2013) and Coffie (2020).

Mentor incentives	86% disagreed, 14% neutral. (M=1.8, SD=0.1).	"I was demotivated due to a lack of financial and material support." (Mentor 1)	Contradicts National Teacher Education Curriculum Framework (2017). Coffie et al. (2021) reported similar concerns. Conflicts with CBA's structural support requirements
Availability of TLRs	16% agreed, 10% were neutral, and 74% disagreed. (M=2.1, SD=0.3)	"The resources we use are outdated and insufficient, hence we improvise" (Mentor 2)	Undermines ELT's hands-on learning and CBA's resource dependency. Supports Nyamota et al. (2018) and Abudulai (2021) on resource inadequacy. Highlights structural gaps in STS implementation.
SISO Supervision	80% agreed that SISOs supervised STS (M=4.1, SD=0.3).	"Our SISO visits the school for administrative purposes, which include STS, but does not always visit my class to witness it being practised" (Mentor 4)	Aligns superficially with CBA's oversight mechanisms but lacks depth in mentoring quality (Otoo et al., 2021).

Source: Field Survey, 2022

Explanation of Table 4.15

The quantitative data indicate that all mentors reported being equipped with STS knowledge, as 100% of respondents affirmed this with a mean score of 4.1 (SD = 0.8). Qualitative feedback reinforces this finding; for instance, Mentor 1 explained that training workshops and clear guidelines were provided, ensuring that mentors were

well-prepared for their roles. This finding is consistent with the National Teacher Education Curriculum Framework (2017) and aligns with the Competency-Based Approach (CBA), which stresses that structured and systematic training is critical for meeting established competency standards. At the same time, Kolb's Experiential Learning Theory (ELT) emphasises the need for ongoing experiential learning, suggesting that even mentors who are initially well-prepared require continuous professional development to remain effective. However, these findings contrast with those of Abudulai (2021), who identified gaps in mentor training in Northern Ghana, implying that regional disparities may still exist.

Professionalism among mentors is also notably high, with 93% of respondents indicating that they exhibit strong professional behaviour (M = 4.3, SD = 0.6). Qualitative insights, such as Mentor 4's remark about modelling behaviour and effective communication, underscore the role of mentors as professional exemplars for trainees. This high level of professionalism is crucial according to the Competency-Based Approach, which prioritises role modelling as a key component in developing trainee competencies. Moreover, literature from Rillotta et al. (2022) and Coffie et al. (2021) supports the view that effective role modelling significantly enhances the preparedness of trainee teachers.

Regarding the use of diverse teaching methods, 79% of mentors reported employing a variety of instructional strategies, with 14% remaining neutral and 7% disagreeing. Mentor 1's account of using group work, demonstrations, and peer teaching illustrates that mentors are actively engaging in varied pedagogical practices. Such diversity is essential for providing rich concrete experiences, as emphasised by Kolb's ELT, and is

in line with the Competency-Based Approach, which underscores the importance of adaptable and varied teaching methods. Nonetheless, the minority who disagreed suggest that some mentors may face challenges, perhaps due to resource constraints or insufficient training in innovative pedagogical techniques.

The data reveal that 72% of mentors engage in pre- and post-lesson discussions (M = 4.0, SD = 0.8), although 28% do not participate in these reflective dialogues. Qualitative responses indicate that these discussions are used to identify trainee strengths, weaknesses, and inconsistencies, thereby facilitating reflective learning—a critical component of Kolb's experiential cycle. This practice is also supported by the Competency-Based Approach, which advocates for structured feedback to ensure that trainees meet objective competency standards. The gap in consistent engagement in these discussions indicates an area where mentorship practices could be further standardised.

In terms of multimedia use, 72% of mentors reported utilising multimedia tools in their training sessions (M = 4.0, SD = 0.9); however, qualitative feedback, such as Mentor 5's comment on relying on mobile phones, reveals that many mentors are limited by inadequate institutional resources. While the Competency-Based Approach supports the integration of technology to enhance learning experiences, the reliance on basic devices suggests a significant resource gap that hinders the full potential of multimedia integration, as further supported by Tengepare (2020).

Quantitative findings indicate that 72% of mentors perceived trainee assessments as fair (M = 3.9, SD = 0.9; Table 4.8), yet 28% raised concerns, revealing inconsistencies in evaluation criteria. Interviews highlighted divergent perspectives: Mentor 3 emphasised adherence to rubrics, stating, "Feedback focused on lesson structure and

learner engagement," while Mentor 9 criticised ambiguity, asking, "Is 'classroom management' about discipline or participation? We grade based on personal bias." This contradiction reflects uneven mentor training and ambiguous guidelines, issues paralleling Kenya's mentorship challenges (Mulkeen, 2010). Trainees corroborated variability; Trainee 7 noted, "One mentor praised my creativity, another docked marks for 'deviation from the plan.'" While the majority viewed assessments positively, qualitative insights exposed occasional biases undermining objectivity, underscoring the need for standardised Competency-Based Approach (CBA) criteria to ensure assessments align with measurable competencies. These findings align with Abudulai's (2021) observations but stress the urgency of ongoing monitoring and mentor training to mitigate subjectivity and enhance assessment reliability.

The data also suggest strong collegial interactions among mentors, with 72% reporting regular collaboration regarding trainee progress (M = 4.1, SD = 0.5). Qualitative evidence shows that such interactions facilitate the sharing of best practices and collaborative problem-solving, which are vital for professional development as envisaged by both ELT and the Competency-Based Approach. These interactions foster a supportive professional network that is critical for maintaining high standards of mentorship and is strongly endorsed by the National Teacher Education Curriculum Framework (2017).

In terms of continuous professional development (CPD), 71% of mentors reported regular participation in CPD programmes (M = 3.7, SD = 0.3). However, qualitative responses indicate that while some mentors benefit from Weekly Professional Learning Community (PLC) meetings, others feel that formal CPD sessions specifically focused on the STS are insufficient. Both ELT and the Competency-Based Approach emphasise the importance of ongoing professional development to ensure that mentors

continuously refine their skills in response to evolving educational demands. This finding is also supported by studies from Coffie (2020) and Wilson (2013), which highlight the critical role of structured CPD in enhancing mentor competence.

Mentor incentives present a significant challenge, as 86% of mentors disagreed with the notion that they receive adequate financial and material support (M = 1.8, SD = 0.1). Qualitative insights, such as Mentor 1's expression of demotivation due to the lack of incentives, illustrate that the absence of proper compensation undermines mentor motivation and the overall sustainability of the STS Programme. This shortfall contradicts policy directives in the National Teacher Education Curriculum Framework (2017) and conflicts with the structural support requirements of the Competency-Based Approach. Similar concerns have been raised by Coffie et al. (2021).

Furthermore, the availability of teaching and learning resources (TLRs) is a critical issue, with 75% of mentors disagreeing that sufficient TLRs are provided (M = 2.6, SD = 0.7). Qualitative feedback, such as Mentor 2's comment regarding outdated resources, confirms that the lack of TLRs significantly hampers the practical application of teaching skills. This inadequacy disrupts the concrete experience phase of ELT and undermines the capacity for achieving competency benchmarks under the Competency-Based Approach. These findings are consistent with previous research by Nyamota et al. (2018) and Abudulai (2021), highlighting systemic resource inadequacies that impede effective training.

Lastly, regarding SISO supervision, 80% of mentors reported that School Improvement Support Officers (SISOs) regularly supervised their STS practice (M = 4.1, SD = 0.3), though 20% did not receive such supervision. Qualitative responses indicate that while SISO visits are valued for providing oversight and ensuring

adherence to programme standards, there remains variability in their depth and consistency. Regular and structured SISO supervision is essential for maintaining quality mentorship, as emphasised by both ELT and the Competency-Based Approach, and is mandated by the National Teacher Education Curriculum Framework (2017).

In conclusion, the integrated findings from the mentors' perspective reveal a complex picture: while mentors are generally well-prepared, professional, and engaged in diverse instructional practices, significant challenges persist regarding incentives, resource availability, and consistent CPD and supervision. Anchored in Kolb's Experiential Learning Theory and Noam Chomsky's Competency-Based Approach, these findings underscore the necessity for systemic policy interventions, such as enhanced funding, structured professional development, and improved resource allocation to optimise mentorship support and, ultimately, the effectiveness of the STS Programme in Colleges of Education in southern Ghana.

4.7.2.2 Integrated discussion: Trainees' perspective on measurable levels of mentorship support, supervision frequency, and trainee engagement in the STS Programme

Table 4.16 presents an integrated analysis of the teacher trainees' perspectives on mentorship support, supervision frequency, and trainee engagement in the STS Programme. This integration follows an explanatory sequential mixed-methods design, in which quantitative survey findings are paired with qualitative insights to enable a comprehensive understanding of the trainees' experiences. The analysis is anchored in Kolb's Experiential Learning Theory (ELT) and Noam Chomsky's Competency-Based Approach (CBA, 1968), with these frameworks emphasising the importance of concrete experiences, reflective learning, and structured, competency-focused training.

Moreover, a range of literature has been reviewed to justify, corroborate, or in some cases contradict the findings, thereby offering a nuanced contextual interpretation. Together, these theoretical and empirical perspectives provide a robust basis for interpreting the integrated data, highlighting both strengths and challenges in current mentorship practices and identifying areas where targeted policy interventions may enhance the implementation of the STS Programme in Colleges of Education in southern Ghana.

Table 4.16: Integrated Findings: Trainees' Perspective on Measurable Levels of Mentorship Support, Supervision Frequency, and Trainee Engagement in the STS Programme

Variable/ Theme	Quantitative Analysis	Qualitative Insights	Theoretical Underpinning / Literature Justifications
Assessment by College Supervisors	100% agreed (Mean: 4.8, SD: 0.3)	"I was assessed by my college supervisor throughout the STS Programme, which helped me track my progress." (Trainee 3)	CBA emphasises objective assessment of competencies, while ELT stresses the role of feedback (reflective observation) in refining teaching practice. Aligns with the Curriculum Framework and Yeboah & Kwaah (2018)
Writing Weekly Journals	100% agreed (Mean = 4.7, SD = 0.4)	"Writing my weekly journal allowed me to reflect on my teaching experiences and integrate theory with practice." (Trainee 1)	Supported by Coffie et al. (2021); ELT: Reflective journaling reinforces learning through reflective observation and abstract conceptualisation.
Supervision by Tutors	96% agreed (Mean = 4.7, SD = 0.4)	"My tutor visited regularly and reviewed my journal to provide constructive feedback on my lesson delivery." (Trainee 5)	Reinforces ELT's emphasis on continuous guidance (concrete experience and feedback) and aligns with CBA's requirement for ongoing support to ensure competency development, as reported by Coffie (2020).

Orientation on the STS Programme	94.5% agreed they received proper orientation (Mean = 4.6, SD = 0.6).	"The orientation session clarified my role and expectations, setting a strong foundation for the practicum." (Trainee 2)	The orientation process is fundamental in the CBA for establishing competency benchmarks, and, according to ELT, it serves as the initial concrete experience that informs subsequent reflective learning, though this contradicts Amankwah et al. (2017) in some regions.

Integrated Findings: Trainees' Perspective on Measurable Levels of Mentorship Support, Supervision Frequency, and Trainee Engagement in the STS Programme

Variable / Theme	Quantitative Analysis	Qualitative Insights	Theoretical Underpinning / Literature Justifications
Involvement in Co-curricular Activities	85% agreed they were involved in co-curricular activities (Mean = 4.3, SD = 0.5).	"Participating in co-curricular activities enriched my overall experience and prepared me better for the classroom." (Trainee 4)	Co-curricular engagement enhances holistic learning, supporting ELT's active experimentation phase and the CBA's emphasis on acquiring a broad range of competencies beyond academic instruction, as corroborated by Amankwah et al. (2017).
Support in TLR Development by Mentors	80% agreed that mentors supported TLR development (Mean = 4.5, SD = 0.4).	"My mentor guided me in selecting and adapting teaching materials, which was crucial for planning effective lessons." (Trainee 4)	This practical support reflects ELT's requirement for hands-on engagement with resources and is essential to the CBA model, which requires that competencies be demonstrated through the effective use of instructional materials, as supported by Coffie et al. (2021).
Pre and Post-Lesson Discussions	58% agreed they engaged in both pre- and post-lesson discussions (Mean = 3.9, SD = 0.8); 30% were neutral; 12% disagreed.	"I had post-lesson discussions with my mentor, though pre-lesson briefings were less frequent, which sometimes left me unprepared." (Trainee 3)	Reflective discussions are central to ELT—facilitating the reflective observation phase—and are key to the CBA in providing structured feedback for competency development. The mixed responses suggest a need for standardising this practice, as noted by Coffie et al. (2021).
Mentors' Use of Diverse Teaching Approaches	51% agreed their mentors used diverse teaching methods (Mean = 3.4, SD = 0.7); 38% were neutral; 11%	"My mentor used traditional methods like group work and peer teaching, but ICT tools were rarely incorporated due to limited resources." (Trainee 1)	The use of varied instructional approaches aligns with the CBA, which emphasises adaptable teaching strategies, and ELT, where exposure to diverse methods enriches the concrete experience phase. The limited integration of ICT indicates

disagreed.	resource challenges noted by Otoo et al. (2021).

Source: Field Survey, 2022

Explanation of Table 4.16

The integrated findings from teacher trainees' responses reveal a generally positive experience with several core components of the STS Programme, yet they also expose significant areas for improvement. For example, all trainees (100%, M = 4.8, SD = 0.3) agreed that they were assessed by their college supervisors during the practicum. This finding is corroborated by Coffie et al. (2021) and the National Teacher Education Curriculum Framework (2017), which both emphasise the importance of systematic assessments in teacher preparation. However, some trainees noted that fairness in assessments was occasionally compromised by subjective judgments, a concern that contradicts the expectation of objective evaluation inherent in the Competency-Based Approach (CBA). These discrepancies indicate a need for more standardised assessment criteria, which would ensure that feedback is both reflective and aligned with the competencies outlined in both CBA and Kolb's Experiential Learning Theory (ELT), thereby enhancing the reflective observation phase of learning.

Similarly, the practice of writing weekly journals was uniformly embraced by all trainees (100%, M = 4.7, SD = 0.4), with qualitative feedback underscoring the value of reflective documentation in linking theory to practice. This practice aligns with ELT, which stresses the importance of reflective observation and abstract conceptualisation for deep learning, as supported by Coffie et al. (2021). Nonetheless, while the universal adoption of journaling is encouraging, some literature suggests that the quality and

depth of these reflections can vary, indicating an area for future research to assess the impact of digital journaling tools on reflective practices.

Supervision by tutors is a critical component of the STS Programme, with 96% of trainees reporting that they were regularly supervised by their tutors (M = 4.7, SD = 0.4). Trainees noted that regular visits from tutors, who reviewed their weekly journals and provided constructive feedback, played an essential role in monitoring their progress and reinforcing their teaching skills. This finding aligns with Kolb's Experiential Learning Theory, which posits that continuous feedback and reflective observation are key to the experiential learning cycle. In addition, the Competency-Based Approach underscores the importance of structured supervision in ensuring that trainees develop the necessary teaching competencies. The high level of tutor supervision supports the National Teacher Education Curriculum Framework (2017) and suggests that systematic oversight is crucial for effective field-based teacher training. However, while the overall response is positive, some trainees indicated that supervisory practices could be further enhanced by standardising the frequency and depth of visits, particularly across different regions. This gap calls for policy interventions to establish uniform supervisory protocols and further research to assess how variations in supervision impact long-term competency development.

Regarding orientation, 94.5% of trainees (M = 4.6, SD = 0.6) reported receiving proper orientation on the STS Programme, a finding that is consistent with the structured training model advocated by the National Teacher Education Curriculum Framework (2017) and the CBA's emphasis on clear competency benchmarks. Qualitative insights, such as one trainee noting that the orientation session "clarified my role and expectations," reinforce this finding. However, this result contrasts with Amankwah et al. (2017), who observed a lack of proper orientation in some contexts,

suggesting that while orientation practices may have improved in the current study sample, regional disparities remain that warrant further investigation and policy standardisation.

In terms of co-curricular activities, 85% of trainees (M = 4.3, SD = 0.5) agreed that such involvement enriched their overall learning experience. Qualitative feedback confirms that active participation in extracurricular programs provided practical exposure and enhanced social competencies, which supports the holistic learning approach advocated by the National Teacher Education Curriculum Framework (2017) and corroborated by Amankwah et al. (2017). This finding underscores the importance of integrating co-curricular activities into teacher training to foster comprehensive skill development, a key tenet of the CBA.

When examining support in developing teaching and learning resources (TLRs), 80% of trainees (M = 4.5, SD = 0.4) acknowledged receiving adequate support from their mentors in this area. Qualitative responses highlighted that mentor guidance was critical for adapting and effectively utilising TLRs. This finding aligns with the CBA's focus on practical, hands-on experience and is consistent with Coffie et al. (2021), who argue that material support is essential for translating theoretical knowledge into effective practice. Nevertheless, literature by Abudulai (2021) indicates that resource availability can be inconsistent, suggesting a need for more systematic resource allocation across institutions.

Pre- and post-lesson discussions, however, were less consistently implemented, with only 58% of trainees agreeing that such discussions occurred (M = 3.9, SD = 0.8), while 30% were neutral and 12% disagreed. Qualitative feedback revealed that while some trainees benefited from reflective post-lesson discussions, the lack of pre-lesson

guidance left others feeling unprepared. This variability supports the findings by Coffie et al. (2021) and highlights the importance of structured feedback in the ELT cycle. The mixed responses suggest a critical gap that policymakers must address by establishing mandatory, structured pre- and post-lesson discussion protocols to ensure that all trainees benefit from reflective learning.

The use of diverse teaching approaches by mentors was acknowledged by 51% of trainees (M = 3.4, SD = 0.7), with 38% remaining neutral and 11% disagreeing. Qualitative insights revealed that although traditional methods such as group work and peer teaching were common, the integration of advanced ICT tools was limited due to resource constraints. This finding aligns with the CBA, which calls for diverse instructional methods to develop comprehensive teaching competencies, and ELT, which posits that varied concrete experiences are essential for adaptive learning. However, the limited use of ICT also corroborates previous research by Otoo et al. (2021), indicating that resource limitations continue to hinder innovation in teaching practices.

The integrated analysis reveals that the STS Programme's foundational components, such as structured assessments, reflective journaling (M = 4.7, Table 4.9), and comprehensive orientation, are well-established, aligning with Kolb's Experiential Learning Theory (ELT) and fostering adaptive teaching competencies. Trainees' school observations (Table 4.5) and hands-on teaching (Table 4.9) provided concrete experience, while reflective journals enabled reflective observation, as exemplified by trainees analysing pedagogical strategies: "I noted how my mentor adjusted activities for slow learners, this changed my approach" (Trainee 3). Mentors' pre- and post-lesson discussions (M = 4.0, Table 4.8) facilitated abstract conceptualisation by linking theory (e.g., inclusive pedagogy) to practice, and trainees' ability to design TLRs (M = 4.6)

and adapt lessons (M = 4.7, Table 4.10) demonstrated active experimentation. However, gaps persist in standardising pre-lesson discussions, integrating ICT-driven methods, and allocating resources for TLRs, which hinder the full potential of this experiential cycle. These findings, supported by Chomsky's Competency-Based Approach (CBA), underscore the need for policy reforms: standardising training practices, investing in technological tools, and formalising feedback mechanisms to strengthen competencies outlined in Ghana's National Teachers' Standards. Further research should explore the systematic implementation of these enhancements, ensuring the STS Programme bridges theory-practice divides through structured, experiential learning, ultimately optimising teacher preparedness in southern Ghana.

4.7.3 Integrated discussion: How do Teacher Trainees Perceive the Achievement of the Objectives of the STS Programme?

Table 4.17 presents a comprehensive, integrated analysis of findings from the explanatory sequential mixed methods study conducted to examine the extent to which the objectives of the Supported Teaching in School (STS) Programme are being achieved. The presentation is structured thematically, aligning with the key components of the STS Policy Framework and the National Teachers' Standards (NTS), which collectively guide the professional preparation of pre-service teachers in Ghana. Each theme encapsulates a specific dimension of teacher competency development, including reflective practice, assessment literacy, instructional planning, mentorship, and research engagement. The quantitative component presents descriptive statistics, mean scores, standard deviations, and percentage agreement levels derived from teacher trainees' survey responses, providing a general overview of perceptions and levels of attainment. These statistical findings are subsequently enriched through

qualitative data, drawn from semi-structured interviews with a purposive sample of teacher trainees, to offer deeper interpretive insights into the patterns observed.

The integration of these two strands of data adheres to the logic of an explanatory sequential design, whereby quantitative results are initially established and subsequently explained through qualitative elaboration. This approach enhances the interpretive validity of the findings, allowing for a nuanced understanding of the extent and nature of trainee teachers' experiential learning during the STS Programme. The interpretation of findings is anchored in Kolb's Experiential Learning Theory (ELT), which conceptualises learning as a cyclical process involving concrete experience, reflective observation, abstract conceptualisation, and active experimentation. This theoretical lens provides a coherent framework for understanding the developmental trajectories of trainee teachers as they engage in school-based teaching practice. Additionally, Chomsky's Competency-Based Approach (CBA) is employed to justify the emphasis on measurable outcomes and performance-based standards, which underpin the design and objectives of the STS framework. Furthermore, the thematic interpretations are supported by relevant literature to substantiate the empirical observations and align the findings with existing scholarship in teacher education. This integrated tabular presentation therefore offers a holistic and theoretically grounded account of how teacher trainees perceive and experience the STS Programme and the extent to which it contributes to the attainment of key professional competencies.

Table 4.17: How Teacher Trainees Perceive the Achievement of the Objectives of the STS Programme

Theme/STS Activity	Quantitative Analysis	Qualitative Insights	Theoretical Underpinning / Literature Justification
Critiquing Teaching to Improve Practice	95% agreed; Mean = 4.8, SD = 0.4	"I regularly critique my teaching to identify areas for improvement, which helps me adjust my approach." (Trainee 1)	This reflects ELT's emphasis on reflective observation and aligns with CBA's focus on measurable feedback. Abudulai (2021) also underscores the importance of critical self-assessment in enhancing teaching effectiveness.
Tailoring Lessons to Suit Pupils' RPK	100% agreed; Mean = 4.7, SD = 0.8	"I tailor my lessons by first asking questions about my learners' immediate environment, then building on their responses." (Trainee 4)	The ability to tailor instruction is central to the CBA, ensuring that learning is context-specific and supports ELT's concrete experience phase. Otoo et al. (2021) emphasise the significance of aligning lessons with learners' prior knowledge.
Cordial Relationship with Learners	100% agreed; Mean = 4.7, SD = 0.4	"I maintain a cordial relationship with my learners by encouraging them to ask questions both during and after lessons." (Trainee 2)	Fostering positive relationships is crucial for effective learning, as per ELT's focus on social learning and is a key aspect of CBA, which values holistic

			development. This finding corroborates Otoo et al. (2021).
Producing and Using Appropriate Resources	94.5% agreed; Mean = 4.6, SD = 0.6	"I can select and adapt teaching materials effectively, which greatly aids my lesson planning. (Trainee 3)	Resourcefulness is vital for the concrete experience phase in ELT and for demonstrating practical competencies under CBA. Adu-Yeboah and Kwaah (2018) highlight that effective resource use is essential for pedagogical skill development.
Awareness of Learners' Background	85% agreed; Mean = 4.6, SD = 0.5	"During my Level 400 practice, I visited learners' homes and learned about their challenges, which helped me support them better in class." (Trainee 5)	Understanding learner context is integral to both ELT and CBA, ensuring that teaching is responsive to students' needs. Coffie et al. (2021) confirm that contextual awareness is linked to improved learner support.
Integrating a Variety of Assessment Modes	80% agreed; Mean = 4.4, SD = 0.4	"I use assessments before, during, and after lessons, such as quizzes and class tests to gauge learning effectively." (Trainee 3)	Diverse assessment strategies are essential for ELT's feedback cycle and for CBA's objective measurement of competencies. Otoo et al. (2021) support the use of varied assessment modes to enhance instructional effectiveness.

How Teacher Trainees Perceive the Achievement of the Objectives of the STS Programme

Theme/STS Activity	Quantitative Analysis	Qualitative Insights	Theoretical Underpinning / Literature Justification
Writing a Comprehensive Teaching Portfolio	58% agreed; 30% neutral; 12% disagreed; Mean = 4.3, SD = 0.8	"I find it challenging to compile a comprehensive portfolio, though I understand its importance for reflection."(Trainee 2)	Portfolio development is a crucial reflective practice within ELT and is important for competency demonstration per CBA. Variability here indicates a need for further support and standardisation as noted in the National Teachers' Standards.
Preparing Weekly and Termly Objectives	100% agreed; Mean = 4.3, SD = 0.3	"I consistently prepare clear, measurable lesson objectives that guide my teaching." (Trainee 5)	Clear objective-setting is fundamental in CBA to ensure that learning outcomes are measurable and align with ELT's active experimentation phase. This practice is supported by the National Teachers' Standards.
Assessing Learners' Learning	100% agreed; Mean = 4.1, SD = 0.6	"I assess my learners through oral questions, class tests, and projects, which helps me adjust my instruction." (Trainee 1)	Effective assessment practices support ELT's feedback loop and are critical in CBA for evaluating competency development, consistent with findings from Otoo et al. (2021).
Providing Extra Support to Slow Learners	96% agreed; Mean = 4.0, SD = 0.8	"I give extra time and support to slow learners so they can catch up with the rest of the class." (Trainee 2)	Inclusive teaching practices are central to both ELT and CBA. This approach is recommended by the National Teachers' Standards (2017) and aligns with Abudulai's (2021) findings on learner support.

Setting Meaningful Tasks for Learner Collaboration	94.5% agreed; Mean = 4.0, SD = 0.3	"I set tasks that encourage group work and peer teaching, which enhances collaboration among learners." (Trainee 1)	Collaborative task setting is a key element of the CBA, which promotes practical, real-world competencies and aligns with ELT's concrete experience phase. This finding is consistent with curriculum benchmarks.

How Teacher Trainees Perceive the Achievement of the Objectives of the STS Programme

Theme/STS Activity	Quantitative Analysis	Qualitative Insights	Theoretical Underpinning / Literature Justification
Promoting Inclusion and Tolerance	85% agreed; Mean = 4.0, SD = 0.5	"I make sure to arrange seating and adapt my teaching to ensure that all learners, including those with disabilities, are included." (Trainee 2)	Inclusive practices are critical for achieving equitable learning environments, supporting both ELT's holistic learning and CBA's structural approach to developing diverse competencies. Abudulai (2021) also supports this finding.
Preparing a Comprehensive Scheme of Work and Lesson Plans	75% agreed; 15% neutral; 10% disagreed; Mean = 4.0, SD = 0.7	"I can develop detailed lesson plans that align with the SBC and CCP curricula, ensuring all objectives are measurable." (Trainee 1)	Effective lesson planning is fundamental under CBA to meet competency benchmarks and is reinforced by ELT's active experimentation phase. This is consistent with Adu-Yeboah and Kwaah (2018b).
Understanding Educational Policies (incl. Sexual Harassment Policies)	58% agreed; 30% neutral; 12% disagreed; Mean = 3.9,	"The STS programme helped me understand policies through regular discussions and reading assignments, though	Policy understanding is crucial for professional practice. This moderate result suggests partial success in policy training, aligning with

	SD = 0.4	not all aspects are clear." (Trainee 5)	some curriculum expectations but indicating room for improvement, as noted in the literature on policy awareness.
Conducting Action Research	58% agreed; 20% neutral; 22% disagreed; Mean = 3.1, SD = 0.7	"I have attempted action research as part of my programme, but I find it challenging to apply consistently." (Trainee 3)	The ability to conduct action research is integral for reflective practice in ELT and competency demonstration in CBA. The lower mean suggests a need for enhanced research training, corroborating findings from Otoo et al. (2021).

Source: Field Survey, 2022

Explanation of Table 4.17

The integrated findings reveal that 95% of teacher trainees agreed that they regularly critique their teaching to improve learning, with a mean score of 4.8 (SD = 0.4). One trainee noted, "I regularly critique my teaching to identify areas for improvement, which helps me adjust my approach." This strong quantitative and qualitative alignment underscores the centrality of reflective practice, a core component of Kolb's Experiential Learning Theory (ELT), which emphasises the reflective observation phase as critical for transforming concrete experiences into learning. In addition, the Competency-Based Approach (CBA) supports the need for measurable and systematic feedback, and Abudulai (2021) further highlights the importance of critical self-assessment for enhancing teaching effectiveness. These results suggest that policy should promote structured reflection protocols and training modules that facilitate consistent self-evaluation and feedback among trainees.

Teacher trainees unanimously reported (100%, Mean = 4.7, SD = 0.8) that they tailor their lessons to suit learners' relevant previous knowledge (RPK), with one trainee explaining, "I tailor my lessons by first asking questions about my learners' immediate environment, then building on their responses." This finding aligns with both ELT and CBA; ELT emphasises the concrete experience phase in which contextual, real-world experiences inform teaching, while CBA underscores the necessity of adapting instructional strategies to meet specific competency benchmarks. Otoo et al. (2021) support this observation, arguing that aligning lessons with learners' prior knowledge is essential for effective teaching. Consequently, policy measures should further encourage the integration of context-specific strategies in teacher training programs.

The data indicate that all trainees (100%, Mean = 4.7, SD = 0.4) perceive that they maintain cordial relationships with their learners, with qualitative responses revealing

that trainees foster an environment where questions are welcomed both during and after lessons. This finding is consistent with the principles of ELT, particularly its emphasis on social learning, and it resonates with CBA, which values holistic development. Otoo et al. (2021) similarly affirm that positive teacher-learner relationships are a critical determinant of classroom success. These insights highlight the importance of fostering interpersonal skills through targeted training, suggesting that educational policies should continue to emphasise relationship-building as a core competency in teacher education.

A high percentage (94.5%, Mean = 4.6, SD = 0.6) of trainees agreed that they are capable of producing and using appropriate resources during lesson delivery. One trainee commented, "I can select and adapt teaching materials effectively, which greatly aids my lesson planning." This reflects the hands-on, resource-dependent nature of ELT, where practical engagement with materials is essential for learning, and aligns with the CBA's focus on ensuring that competencies are demonstrable through practical application. Adu-Yeboah and Kwaah (2018) highlight that effective use of teaching resources is fundamental for enhancing pedagogical skills, suggesting that further investments in resource provision and training on resource adaptation could strengthen this area.

The majority of trainees (85%, Mean = 4.6, SD = 0.5) agreed that they are aware of their learners' backgrounds, with one participant noting, "During my Level 400 practice, I visited learners' homes and learned about their challenges, which helped me support them better in class." This finding is critical as both ELT and CBA stress the importance of contextual awareness in ensuring that teaching practices are tailored to the needs of learners. Coffie et al. (2021) confirm that such contextual understanding

significantly enhances learner support, and policies should thus encourage deeper community engagement during teacher training.

Eighty per cent of trainees (Mean = 4.4, SD = 0.4) reported that they integrate a variety of assessment modes into their teaching. One trainee explained, “I use assessments before, during, and after lessons, such as quizzes and class tests to gauge learning effectively.” This practice underscores the importance of multiple formative and summative assessments in the feedback cycle, as emphasised by ELT’s iterative learning process and CBA’s requirement for objective performance measurement. Otoo et al. (2021) advocate for diverse assessment strategies, and the findings suggest that policy should standardise these practices to further enhance instructional effectiveness.

Only 58% of trainees (Mean = 4.3, SD = 0.8) agreed that they could compile a comprehensive teaching portfolio, with 30% remaining neutral and 12% disagreeing. As one trainee stated, “I find it challenging to compile a comprehensive portfolio, though I understand its importance for reflection.” This variability indicates a gap in reflective documentation, a process that is crucial in ELT for moving from reflective observation to abstract conceptualisation and is also central to the CBA in demonstrating competencies. The findings suggest that teacher education policies should incorporate more robust training in portfolio development and further research is needed to explore effective methods for enhancing reflective documentation.

All trainees (100%, Mean = 4.3, SD = 0.3) agreed that they prepare weekly and termly objectives, indicating a strong capacity for structured lesson planning. One trainee remarked, “I consistently prepare clear, measurable lesson objectives that guide my teaching.” This aligns with CBA’s emphasis on measurable outcomes and supports ELT’s active experimentation phase, ensuring that planning and execution are tightly

integrated. This consistency is a positive indicator for both practice and policy, reinforcing the need for sustained focus on structured planning in teacher education.

Every trainee (100%, Mean = 4.1, SD = 0.6) affirmed that they assess learners' learning using various methods such as oral questions, class tests, and projects. One participant stated, "I assess my learners through these varied methods, which helps me adjust my instruction effectively." This universal agreement underscores the importance of an effective feedback loop, as posited by ELT, and the objective evaluation criteria central to CBA. The literature by Otoo et al. (2021) supports the use of diversified assessments, and these findings advocate for policies that reinforce comprehensive assessment strategies within teacher training curricula.

Regarding extra support for slow learners, 96% of trainees (Mean = 4.0, SD = 0.8) agreed that they provide additional assistance to those who struggle. As one trainee noted, "I give extra time and support to slow learners so they can catch up with the rest of the class." This commitment to inclusivity is essential for both ELT and CBA, ensuring that all learners benefit from tailored support. The findings are in line with the National Teachers' Standards (2017) and Abudulai (2021), emphasising the need for institutional policies that mandate and support differentiated instruction.

A high percentage (94.5%, Mean = 4.0, SD = 0.3) of trainees agreed that they set meaningful tasks to encourage learner collaboration. One trainee explained, "I set tasks that encourage group work and peer teaching, which enhances collaboration among learners." This practice not only reinforces the active experimentation phase of ELT but also reflects the CBA's commitment to developing practical, collaborative competencies. The findings are consistent with curriculum benchmarks, suggesting that educational policies should continue to support collaborative learning structures.

Eighty-five per cent of trainees (Mean = 4.0, SD = 0.5) agreed that they promote inclusion and tolerance of all learners, including those with disabilities. One participant stated, “I make sure to arrange seating and adapt my teaching to ensure that all learners are included.” This outcome is critical for fostering equitable learning environments and is supported by both ELT’s holistic approach and CBA’s structural focus on developing diverse competencies. Abudulai (2021) reinforces the need for inclusive practices, indicating that policies must prioritise the provision of resources and training to support diverse learner needs.

Seventy-five per cent of trainees (Mean = 4.0, SD = 0.7) agreed that they could prepare a comprehensive scheme of work and detailed lesson plans aligned with the SBC and CCP curricula, while 15% were neutral and 10% disagreed. One trainee noted, “I can develop detailed lesson plans that align with the curriculum, ensuring all objectives are measurable.” This finding aligns with the CBA, which underscores systematic planning as critical for achieving competency standards, and with ELT’s active experimentation phase. However, the moderate agreement suggests that further emphasis on curriculum mapping and planning support is needed, and policies should address these gaps.

Fifty-eight per cent of trainees (Mean = 3.9, SD = 0.4) agreed that they have gained an understanding of educational policies, including sexual harassment policies. One trainee explained, “The STS programme helped me understand policies through regular discussions and reading assignments, although some aspects remain unclear.” This moderate result highlights the need for enhanced policy education within teacher training, as a clear understanding of policies is essential for ethical practice under both ELT and CBA. Policy measures should reinforce structured policy training and continuous professional development in this area.

Finally, only 58% of trainees (Mean = 3.1, SD = 0.7) agreed that they can conduct action research to facilitate effective teaching and learning. A trainee remarked, “I have attempted action research, but I find it challenging to apply consistently.” This lower level of agreement indicates significant gaps in research competencies, reflecting the challenges of implementing the reflective cycle central to ELT and the performance evaluation aspects of CBA. This suggests a need for stronger research training within the STS Programme, and future research should investigate strategies to enhance action research skills among teacher trainees.

The STS Programme’s alignment with Ghana’s National Teachers’ Standards (NTS) through the Competency-Based Approach (CBA) reveals both strengths and areas for growth. Under NTS Domain 1 (Professional Values/Attitudes), trainees demonstrated strong inclusivity (85% promoted tolerance, Table 4.10) and ethical conduct (94.5% orientation compliance, Table 4.9). Domain 2 (Professional Knowledge) highlights competencies in lesson planning (75% prepared schemes of work, Table 4.10) and curriculum alignment (M = 4.0), while Domain 3 (Professional Practice) is reflected in classroom management (85% co-curricular engagement, Table 4.9) and assessment proficiency (80% integrated varied methods, Table 4.10). However, gaps persist in action research (M = 3.1, Table 4.10) and disability inclusion (15% dissatisfaction, Table 4.10), underscoring the need for targeted interventions. These findings carry critical implications: policymakers must prioritise standardised protocols for assessment and supervision, allocate resources equitably, and expand professional development in underperforming areas. Practically, structured training in reflective documentation, lesson planning, and inclusive pedagogies is essential. Theoretically, the results validate Kolb’s Experiential Learning Theory (ELT) and Chomsky’s CBA, emphasising the interplay of hands-on experience and competency

development. Future research should explore the longitudinal impacts of these reforms and address regional disparities in STS implementation to ensure equitable, scalable outcomes across Ghana's teacher education landscape.

4.7.4 Challenges confronting the implementation of the STS Programme in Colleges of Education in Ghana

The challenges confronting the implementation of the STS Practice have been categorised into two perspectives, namely, the Mentors' Perspective and the Teacher Trainees' Perspective.

4.7.4.1 Integrated findings: Mentors' perception of the challenges confronting the implementation of the STS

Table 4.18 presents an integrated analysis of the challenges confronting the implementation of the STS Programme from the mentors' perspective. This integration employs an explanatory sequential mixed methods design, where quantitative survey data (including response rates, means, and standard deviations) are combined with qualitative insights from in-depth interviews. The table organises the challenges into key themes such as trainees' time consciousness, support from School Improvement Support Officers (SISOs), resource availability, supervision by affiliate university supervisors, mentor workload, trainee engagement, and alignment with the GES Academic Calendar. Each theme is interpreted within the frameworks of Kolb's Experiential Learning Theory (ELT), which highlights the importance of continuous reflective observation and structured engagement, and Chomsky's Competency-Based Approach (CBA), which emphasises the need for measurable and standardised performance in teacher development. The integrated presentation is further supported by relevant literature, both corroborative and contradictory, providing clear

implications for policy reform, instructional practice, and future research in teacher education within Ghana.

Table 4.18: Integrated Findings: Mentors' Perception of the Challenges Confronting the Implementation of the STS

Theme/STS Activity	Quantitative Analysis	Qualitative Insights (By Participants)	Theoretical Underpinnings / Literature Justifications
Time Consciousness of Trainees	86% agreed; 7% neutral; 7% disagreed; Mean = 4.1, SD = 0.8	"Teacher trainees consistently demonstrate punctuality and adhere to the practice schedule." (Mentor 1)	Aligns with the National Teacher Education Curriculum Framework (2017), which emphasises regular attendance. ELT highlights the importance of consistent engagement (concrete experience), and CBA stresses behavioural standards. Also corroborates with (Abudulai, 2021).
Trainees' Accommodating and Eager-to-Learn Attitude	79% agreed; 14% neutral; 7% disagreed; Mean = 4.1, SD = 0.9	"The trainees are very accommodating and always ready to learn, which makes our mentorship more effective." (Mentor 5)	Supports CBA's emphasis on readiness and adaptability, and is consistent with literature (e.g., Abudulai, 2021) that underscores the significance of trainee receptiveness for effective professional development.
Support from School Improvement Support Officers (SISOs)	72% agreed; 14% neutral; 14% disagreed; Mean = 3.5, SD = 0.7	"Our SISOs typically visit the school's head to inquire about trainee welfare, rather than directly observing the	Indicates partial alignment with the National Teacher Education Curriculum Framework (2017), though qualitative data suggest indirect supervision. ELT requires continuous

		trainees." (Mentor 3)	reflective observation, and CBA calls for consistent evaluation (Appiah Dankwah et al., 2021).
Availability of Resources for STS	78% agreed resources were not available; 10% neutral; 12% disagreed; Mean = 3.7, SD = 0.6	"Most resources are provided by partner schools or improvised by mentors; when not available, trainees are asked to source them themselves." (Mentor 5)	The lack of resources undermines the concrete experience component of ELT and contradicts CBA's requirement for robust structural support. This finding is corroborated by Amankwah et al. (2017) and Coffie (2020).
Supervision by Affiliate University Supervisors	82% agreed; 18% neutral; 0% disagreed; Mean = 4.2, SD = 0.2	"Supervisors from the affiliate universities rarely visit; most supervision comes from college staff." (Mentor 4)	Highlights a gap in the supervision model. ELT emphasises the need for continuous, reflective observation, and CBA requires consistent external evaluation. Similar supervisory inconsistencies are reported by Appiah Dankwah et al. (2021).
Overburdening of Mentors with Trainees	43% agreed; 35% neutral; 22% disagreed; Mean = 3.1, SD = 1.1	"There are often too many trainees per mentor; uniformity in the number of mentees would make supervision more effective." (Mentor 3)	The variability in responses suggests that excessive workload can hinder reflective practice (ELT) and dilute competency development (CBA). Abudulai (2021) highlights that high mentor loads compromise both trainee engagement and mentor effectiveness.

Integrated Findings: Mentors' Perception of the Challenges Confronting the Implementation of the STS

Theme/STS Activity	Quantitative Analysis	Qualitative Insights (By Participants)	Theoretical Underpinnings / Literature Justifications
Trainee Interest in the STS Programme	10% agreed; 7% neutral; 83% disagreed with "Trainees show no interest"; Mean = 1.8, SD = 0.3	Although not directly quoted, mentors consistently noted that trainees are engaged and motivated. (Mentor 2)	The low mean value indicates strong disagreement with the notion of low interest, aligning with both ELT and CBA by demonstrating effective engagement. This finding supports the programme's overall goals as noted by Appiah Dankwah et al. (2021).
Participation in School Activities	20% agreed; 9% neutral; 71% disagreed with "Trainees do not take part in school activities"; Mean = 2.1, SD = 0.9	"Trainees actively participate in meetings and other school activities, enhancing their practical experience." (Mentor 1)	Disagreement with the negative statement confirms active engagement. This aligns with the National Teachers' Standards and supports ELT's requirement for real-world experience, as well as CBA's emphasis on collaborative skills (Otoo et al., 2021).
Awareness of STS Programme Expectations	12% agreed; 5% neutral; 83% disagreed with "Trainees do not know about STS expectations"; Mean = 1.8, SD = 0.4	"Trainees are well informed about the STS expectations, having received comprehensive orientation." (Mentor 1)	A low mean value here indicates high awareness, in line with curriculum directives. This finding supports both ELT's concrete experience phase and CBA's structured training model.
Alignment of STS Calendar with GES Academic	9% agreed; 5% neutral; 86% disagreed with "The STS Calendar was	"The STS practice adheres to the GES Academic Calendar" (Mentor 3)	The low mean for the negative statement indicates that the STS schedule is consistent with policy requirements, supporting ELT's need for regular

Calendar	not in line with the GES Academic Calendar"; Mean ≈ 0.4–0.7		experiences and CBA's requirement for consistent performance, as noted by Appiah Dankwah et al. (2021).
Regular Attendance for STS Practice	86% disagreed with "Trainees do not come regularly"; Mean = 1.4, SD = 0.7	"Trainees come regularly, especially during Level 400 practice when they camp in the school community, unlike the observation phase in Levels 100–300." Mentor 4)	The low mean value reinforces that trainees attend regularly, which is crucial for ELT's structured engagement and CBA's emphasis on consistent performance. Literature (Appiah Dankwah et al., 2021) supports the importance of regular attendance.

Source: Field Survey, 2022

Explanation of Table 4.18: Mentors' Perspective on the Challenges Confronting the Implementation of the STS Programme

Below is an integrated explanation of table 4.18 that presents teacher trainees' perceptions of the achievement of the STS Programme's objectives. Each paragraph below addresses one key theme by weaving together the quantitative findings, qualitative insights, and theoretical underpinnings, with literature justifications that either corroborate or challenge the results.

The data indicate that a vast majority (95%, Mean = 4.8, SD = 0.4) of teacher trainees consistently critique their teaching practices to improve instruction. One participant noted, "I regularly critique my teaching to identify areas for improvement, which helps me adjust my approach." This high level of self-criticism reflects Kolb's Experiential Learning Theory (ELT), particularly its emphasis on reflective observation as a means to transform concrete experiences into meaningful learning. In addition, Chomsky's Competency-Based Approach (CBA) supports the necessity of systematic feedback to measure and enhance performance. These findings are in line with Abudulai (2021),

who underscores the importance of reflective self-assessment for improving teaching effectiveness. From a policy standpoint, the results suggest that teacher education programs should continue to embed structured reflective practices into their curricula and provide ongoing professional development that reinforces these practices.

Teacher trainees unanimously reported (100%, Mean = 4.7, SD = 0.8) that they tailor their lessons to suit pupils' relevant previous knowledge (RPK). As one trainee explained, "I tailor my lessons by first asking questions about my learners' immediate environment, then building on their responses." This practice is integral to both ELT and CBA, with ELT's concrete experience phase emphasising context-based learning and CBA advocating for instruction that is responsive and measurable. The findings corroborate those of Otoo et al. (2021), who emphasise that adapting lessons to learners' prior knowledge is critical for effective teaching. Policy implications include the need to institutionalise teaching strategies that consistently incorporate learners' backgrounds, and future research should explore how tailored instruction impacts learner achievement in diverse contexts.

In maintaining positive teacher-learner relationships, all trainees (100%, Mean = 4.7, SD = 0.4) reported strong interpersonal engagement. One trainee stated, "I maintain a cordial relationship with my learners by encouraging them to ask questions both during and after lessons." This result supports ELT's social learning principles and is consistent with CBA's emphasis on holistic competence development. Literature, such as that by Otoo et al. (2021), confirms that nurturing supportive relationships is a key determinant of classroom success. Thus, teacher training policies should continue to emphasise the development of interpersonal skills and provide opportunities for trainees to practice and refine these skills.

The ability to produce and use appropriate resources was highly rated by 94.5% of trainees (Mean = 4.6, SD = 0.6), with one trainee noting, “I can select and adapt teaching materials effectively, which greatly aids my lesson planning.” This finding reflects the hands-on engagement necessary for the concrete experience phase in ELT and aligns with the performance indicators outlined in CBA. However, given ongoing challenges reported in related literature (Adu-Yeboah & Kwaah, 2018; Coffie et al., 2021), these results indicate that while current practices are effective in some settings, there remains a need for enhanced resource allocation and improved infrastructural support at a policy level.

Eighty-five per cent of trainees (Mean = 4.6, SD = 0.5) reported a high level of awareness regarding their learners’ backgrounds. One trainee explained, “During my Level 400 practice, I visited learners’ homes and learned about their challenges, which helped me support them better in class.” This contextual awareness is a critical component of both ELT and CBA, ensuring that teaching practices are informed by the real-world experiences of learners. Coffie et al. (2021) have similarly noted that understanding learners’ contexts enhances instructional responsiveness. Policy measures should further encourage community engagement initiatives, and future research might examine the relationship between contextual understanding and learner outcomes.

In terms of assessment, 80% of trainees (Mean = 4.4, SD = 0.4) agreed that they integrate various assessment modes into their teaching. As one trainee stated, “I use assessments before, during, and after lessons, such as quizzes and tests to gauge learning effectively.” This finding is essential for maintaining a robust feedback loop as posited by ELT and satisfies the objective evaluation criteria of CBA. The literature (Otoo et al., 2021) supports the integration of diverse assessment strategies to enhance

instructional effectiveness. To ensure this practice is uniformly implemented, policies should standardise assessment protocols, and additional research should explore its direct impact on student learning.

The development of a comprehensive teaching portfolio received mixed responses; only 58% of trainees agreed (Mean = 4.3, SD = 0.8) that they could compile such a portfolio, with 30% remaining neutral and 12% disagreeing. One trainee commented, "I find it challenging to compile a comprehensive portfolio, though I understand its importance for reflection." This variability points to a need for enhanced support in reflective documentation, which is central to ELT's process of abstract conceptualisation and CBA's emphasis on demonstrable competencies. Policy implications include the implementation of standardised portfolio development training, and further research should focus on best practices for reflective documentation in teacher education.

All trainees (100%, Mean = 4.3, SD = 0.3) confirmed that they prepare weekly and termly lesson objectives, while they also unanimously (100%, Mean = 4.1, SD = 0.6) reported using varied methods to assess learners' learning. These findings demonstrate strong planning and evaluative skills, aligning with both the active experimentation phase of ELT and the measurable outcomes central to CBA. The consistency of these practices reinforces the effectiveness of current training models, suggesting that policies should continue to prioritise structured planning and assessment in teacher education.

Regarding the provision of extra support for slow learners, 96% of trainees agreed (Mean = 4.0, SD = 0.8) that they provide additional assistance. One trainee noted, "I give extra time and support to slow learners so they can catch up with the rest of the

class." This commitment to inclusivity is integral to both ELT and CBA and is supported by the National Teachers' Standards and findings from Abudulai (2021). Policy recommendations should ensure that differentiated instruction is embedded within teacher training curricula, while further research could explore the long-term impact of such practices on learner achievement.

Furthermore, a substantial majority (94.5%, Mean = 4.0, SD = 0.3) of trainees agreed that they set meaningful tasks that encourage learner collaboration. Qualitative insights reveal that trainees engage in group work and peer teaching to foster collaborative learning. This practice is well supported by ELT, which promotes active experimentation, and by CBA, which requires practical collaboration skills. These findings imply that policies should incorporate structured collaborative projects into the curriculum, and future studies should assess their influence on classroom dynamics.

Eighty-five per cent (Mean = 4.0, SD = 0.5) of trainees also reported promoting inclusion and tolerance, with qualitative comments noting adaptations in teaching methods to accommodate learners with disabilities. This finding is consistent with both ELT's holistic learning model and CBA's structural approach to developing inclusive competencies, corroborated by Abudulai (2021). Policies should further support inclusive teaching strategies, and additional research could investigate the efficacy of these practices in diverse classroom settings.

Seventy-five per cent of trainees (Mean = 4.0, SD = 0.7) indicated that they can prepare a comprehensive scheme of work and detailed lesson plans. One trainee observed, "I can develop detailed lesson plans that align with the curriculum, ensuring that all objectives are measurable." This ability is critical to the systematic planning emphasised in CBA and the active experimentation phase of ELT. However, some

variability suggests that additional support in curriculum mapping may be necessary. Policy should address these gaps, and further research should explore the relationship between detailed planning and effective classroom practice.

Fifty-eight per cent of trainees (Mean = 3.9, SD = 0.4) agreed that they have gained an understanding of educational policies, including sexual harassment policies, while qualitative responses indicate that some aspects remain unclear. This moderate level of policy comprehension implies that although training is partially effective, further emphasis on policy literacy is required. Both ELT and CBA advocate for a solid understanding of professional regulations, suggesting that teacher education programs should intensify policy-oriented sessions. Literature in this area indicates room for improvement, and future research should focus on refining policy training within the STS framework.

Finally, only 58% of trainees (Mean = 3.1, SD = 0.7) agreed that they could conduct action research to facilitate effective teaching and learning, with qualitative feedback revealing considerable challenges. One trainee remarked, “I have attempted action research as part of my programme, but I find it challenging to apply consistently.” This lower level of competence indicates a significant gap in research training, crucial for reflective practice as outlined by ELT and for meeting CBA’s performance criteria. The literature (Otoo et al., 2021) confirms these difficulties, suggesting that policies should prioritise enhanced research training and that further research should identify effective strategies for integrating action research into teacher education.

Additionally, regarding regular attendance, 86% of trainees disagreed with the statement that they do not come regularly for STS practice (Mean = 1.4, SD = 0.7). Qualitative responses indicate that trainees, particularly at Level 400, attend regularly

and even camp within the school community during practice. This high level of attendance supports ELT's emphasis on consistent engagement and CBA's requirement for measurable performance, reinforcing that the STS Programme aligns with the GES Academic Calendar. Policy implications include ensuring that consistent attendance is maintained across all levels, particularly addressing challenges faced by lower-level trainees.

The integrated findings reveal that Ghana's STS Programme successfully fosters key professional competencies through its alignment with Kolb's Experiential Learning Theory (ELT) and Chomsky's Competency-Based Approach (CBA). Trainees demonstrated strong reflective practice (e.g., journaling, M = 4.7, Table 4.9), context-specific lesson tailoring (M = 4.7, Table 4.10), and effective learner engagement (85% co-curricular involvement, Table 4.9), fulfilling core objectives of the National Teachers' Standards (NTS). However, gaps persist in portfolio development (M = 4.3, Table 4.10), action research (M = 3.1, Table 4.10), and policy understanding (58% awareness, Table 4.10), mirroring challenges observed in Kenya, where underprepared mentors hinder competency mastery (Mulkeen, 2010). Similar to Nigeria's resource deficits (Lauwerier & Akkari, 2015), 71% of Ghanaian mentors cited TLR shortages (Table 4.6), while South Africa's Funza Lushaka Bursary model (Department of Basic Education, 2021) offers a viable blueprint for incentivising mentorship. To optimise the STS Programme, policymakers must prioritise standardised protocols for assessment and supervision, allocate resources equitably, and integrate ICT-driven pedagogies. Theoretically, these findings reaffirm ELT and CBA as critical frameworks for teacher education, emphasising experiential and competency-driven learning.

The interplay of data highlights the STS Programme's strengths and vulnerabilities: TLR Shortages: Quantitative data (Table 4.6) and qualitative accounts (Mentor 5,

Trainee 12) jointly emphasise systemic resource gaps, aligning with Nigeria's struggles (Lauwerier & Akkari, 2015). Assessment Inconsistencies: While most mentors endorsed fairness, dissenting voices (Mentor 9) and trainee experiences (Trainee 7) reveal procedural ambiguities, mirroring Kenya's mentorship challenges (Mulkeen, 2010). Future research should explore the longitudinal impacts of these reforms and address regional disparities in implementation to ensure equitable outcomes across Ghana's Colleges of Education. Standardise Assessment Protocols: Develop clear rubrics and train mentors on equitable evaluation, adopting models from South Africa's Funza Lushaka Bursary (Department of Basic Education, 2021). Prioritise Resource Allocation: Partner with NGOs (e.g., Kenya's Zizi Afrique) to streamline TLR distribution.

4.7.4.2 Integrated findings: Trainees' perception of the challenges confronting the implementation of the STS

Table 4.19 presents an integrated analysis of the challenges encountered by teacher trainees during the Supported Teaching in School (STS) programme, framed within Kolb's Experiential Learning Theory (1984) and Chomsky's Competency-Based Approach (CBA). Kolb's model emphasises learning through experience, reflection, and adaptation, while CBA focuses on the acquisition of measurable teaching competencies through practical engagement. Using an explanatory sequential mixed methods approach, qualitative insights were used to explain and enrich the quantitative results. The themes are presented with illustrative participant quotations, offering deeper insight into systemic issues such as limited orientation, weak mentoring structures, and lack of teaching resources. These findings reflect inconsistencies between the intended experiential and competency-based ideals of the STS and the actual conditions of implementation. By merging theory with literature and participants'

voices, the table offers a holistic perspective on how structural and contextual limitations hinder effective teacher preparation.

Table 4.19: Integrated findings –Trainees' Perception of the Challenges Confronting the Implementation of the STS

Theme	Quantitative Analysis	Qualitative Insights (Participant Quotes)	Theoretical & Literature Justification
Orientation Before STS	90% agreed, Mean = 4.5, SD = 0.4	"We were given clear expectations before the practice; it helped me understand what to do right from the start." (Trainee 1)	Kolb's ELT supports the importance of concrete experience and reflective observation; orientation serves as a foundation for effective experiential learning. Literature (NTECF, 2017) affirms that orientation is critical for STS success.
Mentor-Mentee Relationship	91% agreed mentors were harsh, Mean = 4.4, SD = 0.7	"My mentor didn't even want to talk to me in the beginning. It felt like I was disturbing him, but things got better in Level 400." (Trainee 4)	CBA emphasises supportive learning environments that build competence through mentorship. Studies (Abudulai, 2021; Coffie, 2021) corroborate that poor mentor-mentee relationships hinder trainee development.
Unfavourable STS Timing	85% agreed, Mean = 4.2, SD = 0.7	"We had to attend school and prepare lessons at the same time. Sometimes I was too tired to study after STS." (Trainee 2)	Kolb's ELT warns that poorly timed experiences can inhibit reflection and learning. Literature (Abudulai, 2021; Appiah Dankwah et al., 2021) confirms that time pressure undermines experiential learning in STS.
Fatigue and Academic Stress	75% agreed, Mean = 3.9, SD = 0.7	"After teaching, I'd be too tired to read or complete my assignments. It	Kolb's ELT stresses the balance of learning cycles; physical exhaustion impairs the reflective and abstract conceptualisation

		affected my studies." (Trainee 3)	phases. Findings support Abudulai (2021), who highlights similar exhaustion among trainees.

Integrated findings –Trainees' Perception of the Challenges Confronting the Implementation of the STS

Theme		Quantitative Analysis	Qualitative Insights (Participant Quotes)	Theoretical & Literature Justification
Lack of Teaching and Learning Resources (TLRs)		84.5% disagreed with receiving adequate materials, Mean = 2.6, SD = 0.8	"I had to improvise because there were no charts or materials. Some schools had absolutely nothing." (Trainee 5)	CBA prioritises access to tools for skills development. Literature (Nyamota et al., 2018; Dankwah et al., 2021) aligns with the findings, noting resource inadequacy in partner schools.
	Perceived Benefits of STS	80% disagreed with not benefiting, Mean = 2.6, SD = 0.8	"STS taught me how to plan lessons and manage learners. I feel more confident now as a teacher." (Trainee 5)	Kolb's ELT validates that real-world engagement improves professional competence. Literature (Abudulai, 2021) affirms that STS builds

				pedagogical and reflective capabilities.
	Transportation Challenges	85.5% disagreed with ease of transportation, Mean = 1.7, SD = 0.3	"Sometimes we missed STS because there was only one bus. The schools were far, and it delayed us a lot." (Trainee 4)	CBA emphasises logistical support for meaningful competency acquisition. This supports studies (Abudulai, 2021; Appiah Dankwah et al., 2021) that report inefficient transport systems as major barriers.

Source: Field Survey, 2022

Explanation of Table 4.19

Below is a an academically rigorous discussion that integrates the quantitative and qualitative findings from teacher trainees' perspectives on the challenges confronting the implementation of the STS Programme. Each paragraph discusses a theme in depth, begins with a transitional phrase, and explicitly links the findings to Kolb's Experiential Learning Theory (ELT) and Chomsky's Competency-Based Approach (CBA), along with literature-based justifications.

Firstly, regarding orientation, the data indicate that 90% of teacher trainees agreed they were well-oriented on the objectives and expectations of the STS Programme (M = 4.5, SD = 0.4). Qualitative feedback reinforced this finding with statements such as, "We were given clear expectations before the practice; it helped me understand what to

do right from the start." This robust orientation is essential as it lays the foundation for the concrete experience phase described in Kolb's ELT, ensuring that trainees commence their practicum with a clear understanding of their roles. Additionally, the Competency-Based Approach underscores the importance of structured training in building measurable competencies. The finding corroborates the National Teacher Education Curriculum Framework (2017) and supports the literature within the thesis (e.g., Abudulai, 2021), which stresses that effective orientation is vital for successful programme implementation. Policy implications here include standardising orientation protocols across all institutions to ensure consistency, while further research might examine the long-term impact of enhanced orientation on trainee performance.

Secondly, concerning mentor-mentee relationships, 91% of trainees reported that their mentors were harsh and unfriendly (M = 4.4, SD = 0.7), with direct quotes such as, "My mentor didn't even want to talk to me in the beginning. It felt like I was disturbing him, but things got better in Level 400." This finding indicates significant interpersonal challenges that disrupt the reflective observation phase of ELT and hinder the supportive environment crucial to the CBA. Poor mentoring directly affects the ability of trainees to engage in effective self-reflection and to develop necessary professional competencies. The literature within the thesis (Abudulai, 2021; Coffie et al., 2021) similarly highlights that inconsistent mentor behaviour can impede the development of teaching skills. From a policy and practice perspective, there is a clear need for targeted mentor training initiatives that foster constructive feedback and interpersonal support, ensuring that mentors become positive role models for their trainees.

Additionally, the issue of unfavourable scheduling and time allocation emerged prominently. Quantitatively, 85% of teacher trainees agreed that the timing and dates

allocated for the STS Programme were unfavourable (M = 4.2, SD = 0.7), with qualitative insights noting, “We had to attend school and prepare lessons at the same time. Sometimes I was too tired to study after STS.” This misalignment hampers both the concrete experience and reflective observation stages in Kolb’s cycle, as trainees are forced to balance practicum responsibilities with academic work, leading to fatigue and reduced learning efficacy. The CBA further suggests that adequate, uninterrupted practice time is essential for the development and demonstration of teaching competencies. These findings are consistent with previous research cited in the thesis (Abudulai, 2021; Appiah Dankwah et al., 2021), which indicates that time constraints are a significant barrier to effective learning. Policy revisions that adjust the STS calendar to better accommodate academic commitments would likely improve trainee outcomes, and future research should explore optimal scheduling models for practice.

Furthermore, fatigue and academic stress were identified as critical concerns. 75% of teacher trainees reported becoming exhausted after STS practice (M = 3.9, SD = 0.7), with remarks such as, “After teaching, I’d be too tired to read or complete my assignments.” This exhaustion interferes with the iterative learning cycle crucial to Kolb’s ELT, particularly affecting reflective observation and abstract conceptualisation. Under the CBA, the capacity to manage physical and cognitive load is key to achieving competency in teaching. The finding aligns with Abudulai’s (2021) observations on trainee fatigue, suggesting that the current scheduling and workload may be too demanding. Practically, this underscores the need for adjustments in the frequency and duration of STS sessions to prevent burnout, while theoretically, it reinforces the importance of maintaining a balance between experiential engagement and academic study.

Also, the inadequacy of teaching and learning resources (TLRs) is a pervasive challenge. Quantitatively, 84.5% of trainees disagreed that they were provided with the expected materials (M = 2.6, SD = 0.8), and qualitative insights include comments like, "I had to improvise because there were no charts or materials. Some schools had absolutely nothing." This shortfall compromises the active experimentation phase in Kolb's ELT, where access to appropriate resources is essential for practical learning and skill demonstration. Similarly, the CBA framework demands that a robust set of resources be available to ensure that competencies can be developed and measured. The findings corroborate the literature within the thesis (Nyamota et al., 2018; Coffie, 2020; Abudulai, 2021), which consistently points to resource inadequacy as a structural barrier. Policy initiatives should prioritise the allocation of resources to partner schools, and further research could examine innovative solutions such as digital or mobile resources to address these gaps.

Trainees generally perceived substantial benefits from the STS Programme. The data indicate that 80% of trainees disagreed with the notion that they had not benefited (M = 2.6, SD = 0.8), with qualitative responses emphasising improvements in lesson planning, classroom management, and action research skills. This positive perception supports Kolb's ELT, which validates the importance of real-world teaching experiences for professional growth, and it aligns with the CBA's emphasis on acquiring measurable competencies. These findings are consistent with the thesis literature (Abudulai, 2021; Coffie et al., 2021), underscoring that despite several challenges, the STS Programme contributes significantly to the professional development of teacher trainees. Practically, these outcomes suggest that further refinement and scaling of the STS model could enhance teacher preparation nationwide.

Finally, transportation challenges emerged as a critical logistical barrier. Quantitatively, 85.5% of trainees disagreed that they had easy access to transportation ($M = 1.7$, $SD = 0.3$), and qualitative feedback included statements such as, “Sometimes we missed STS because there was only one bus. The schools were far, and it delayed us a lot.” Such transportation difficulties interfere with the concrete experience phase of Kolb’s learning cycle by limiting punctuality and regular engagement with the practicum environment. Furthermore, CBA underscores that consistent logistical support is necessary for the effective acquisition of teaching competencies. These findings are corroborated by research in the thesis (Abudulai, 2021; Appiah Dankwah et al., 2021), which highlights transportation as a persistent challenge. Policy recommendations should include enhanced transportation provisions or localised practice placements to mitigate these issues, and further research might explore the impact of transportation logistics on overall trainee performance.

In conclusion, the integrated findings from teacher trainees’ perspectives reveal a multifaceted picture of the challenges and benefits associated with the STS Programme. While effective orientation and perceived professional gains indicate that the programme holds substantial potential for enhancing teaching competencies, significant challenges such as harsh mentorship, scheduling conflicts, fatigue, inadequate resources, and transportation issues impede its full realisation. The integration of Kolb’s ELT and Chomsky’s CBA within this analysis provides a robust theoretical framework that not only elucidates the experiential and competency-based dimensions of teacher training but also highlights critical areas for policy reform and further research. Addressing these challenges through targeted policy interventions, enhanced resource allocation, and improved mentor training is essential for optimising the STS Programme and ultimately improving teacher education outcomes in Ghana.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Overview

This chapter consists of the summary of the study, key findings, conclusion and limitations of the study. The chapter also discusses recommendations and suggestions for further studies.

5.1 Summary of the Study

The purpose of this study was to explore the implementation of the STS Programme in Colleges of Education in the southern sector of Ghana. The specific objectives of the study were to:

1. Examine the availability of resources for implementing the STS Programme in Colleges of Education in the southern sector of Ghana.
2. Analyse mentorship support, supervision frequency, and trainee engagement levels in the STS Programme.
3. Assess teacher trainees' perceptions of the extent to which the STS Programme objectives have been achieved.
4. Identify the challenges faced by teacher trainees and mentors in the implementation of the STS Programme.

To achieve the research objectives of the study, the researcher formulated four research questions to guide the study. The study was supported by the Competency-Based Approach (Chomsky, 1968) and the Experiential Learning Theory (Kolb, 1984).

Literature was reviewed on the various variables in the research objectives and other related works relevant to the current study. To achieve convergence of the results obtained via quantitative and qualitative approaches, the study adopted the pragmatist philosophy, drawing data from the quantitative and qualitative approaches. The research design employed was sequential explanatory. The study sampled 300 respondents, consisting of 100 mentors and 200 teacher trainees from two Colleges of Education in the southern part of Ghana, using a stratified random sampling technique for the quantitative data and a purposive criterion sampling technique for the qualitative data to enhance a mixed methodological approach. Questionnaires and Interview guides were used as instruments for data collection. Descriptive statistics such as frequency, percentages, means, and standard deviation were used to analyse the quantitative data, whilst the qualitative data was analysed thematically.

5.2 Main Findings

The following key findings emerged from the study:

5.2.1 Availability of Resources for the Implementation of the STS Programme

For the availability of resources for the implementation of the STS programme, the study found that while foundational resources such as mentor orientation, handbooks, access to partner schools, and participation in Professional Learning Communities (PLCs) were widely available, critical gaps impeded the STS Programme's effectiveness. Key challenges included a lack of financial incentives for mentors, insufficient Teaching and Learning Resources (TLRs), inadequate transportation support for trainees, and overcrowded classrooms, which limited individualised teaching practice. Supervision was inconsistently applied, with robust engagement at Level 400 but minimal oversight for Levels 100–300, undermining early-stage skill

development. Furthermore, while mentors received initial training, they lacked sustained access to Continuing Professional Development (CPD) workshops and logistical support, hindering their ability to maintain high-quality mentorship. These systemic and resource-related deficiencies collectively obstructed the programme's capacity to deliver equitable, experiential learning outcomes.

5.2.2 Analysis of Mentorship Support, Supervision Frequency, and Trainee Engagement Levels in the STS Programme

For the analysis of mentorship support, supervision frequency and trainee engagement levels in the STS programme, the study found that Mentorship within the STS Programme is characterised by mentors' professionalism and use of diverse instructional strategies, including structured pre- and post-lesson discussions, though these practices are inconsistently applied across schools. While mentorship provides foundational guidance, its effectiveness is constrained by high trainee-to-mentor ratios, limiting individualised support. Supervision by college tutors is irregular, with a pronounced focus on final-year trainees (Level 400), resulting in minimal oversight at earlier stages (Levels 100–300). Trainees demonstrate strong engagement through active participation in classroom teaching, co-curricular activities, and consistent documentation of experiences via reflective journals. However, structured opportunities for advanced reflective practices such as action research or collaborative problem-solving remain lacking, restricting deeper professional development.

5.2.3 Assessment of teacher trainees' perceptions of the extent to which the STS Programme Objectives have been Achieved

For the assessment of the teacher trainees' perceptions of the extent to which the STS Programme objectives have been achieved, the study found that Teacher trainees

perceive the STS Programme as instrumental in developing foundational professional competencies, including confidence in teaching, improved lesson planning, and effective classroom management, with hands-on classroom experiences enhancing their instructional skills and professional readiness. However, they identify gaps in advanced skill development, particularly in action research, interpretation and application of educational policies (e.g., inclusive education frameworks), and strategies to address diverse learner needs, especially for students with disabilities. Trainees also highlight systemic challenges such as overcrowded classrooms and resource shortages, which hinder their ability to fully translate theoretical knowledge into practice, underscoring a need for greater alignment between programme objectives and real-world classroom dynamics.

5.2.4 Challenges of the STS Programme Implementation

Identifying the challenges faced by mentors and trainees in the STS programme implementation, the study found that the implementation of the STS Programme is challenged by several interrelated factors. Mentors faced heavy workloads, a lack of motivation due to an absence of recognition or incentives, and limited preparation time. Trainees encountered logistical difficulties such as transportation problems and limited access to teaching materials. Both mentors and trainees operated within environments affected by large class sizes and minimal use of digital or multimedia teaching tools. Moreover, communication and collaboration between colleges and partner schools were not always effective, leading to unclear roles and support expectations.

5.3 Conclusions

The findings of the study provide enough grounds for the following conclusions to be drawn: given the limited empirical research about the implementation of the STS Programme from the perspective of the teacher trainees and mentors, the study

contributes to knowledge by filling this important gap in the literature. Contextually, the following conclusions were drawn about the four research questions;

On the findings made on the availability of resources for the implementation of the STS programme, it can be concluded that while foundational structures and materials provide a basic operational framework for the STS Programme, critical resource deficiencies, including inequitable access to teaching materials, logistical shortcomings, and inconsistent mentor motivation, undermine its implementation. The absence of sustained supervision during early training stages further limits opportunities for skill reinforcement. These systemic gaps collectively hinder trainees' and mentors' capacity to engage effectively, eroding the programme's potential to foster sustained professional growth, equitable hands-on training, and meaningful reflective practice.

Secondly, the findings made on the analysis of mentorship support, supervision frequency and trainee engagement levels in the STS programme can be concluded that the STS Programme demonstrates commendable mentorship quality and strong trainee engagement in practical tasks, reflecting foundational strengths in its implementation. However, systemic challenges, including mentor workload imbalances, fragmented supervision, and inconsistent oversight standards, impede opportunities for critical reflection and deeper professional development. While trainees exhibit dedication, these structural gaps undermine the programme's capacity to foster holistic growth, highlighting the need for standardised frameworks to align mentorship and supervision with experiential learning goals.

In addition, concerning the findings on the assessment of the teacher trainees' perceptions of the extent to which the STS Programme objectives have been achieved,

it can therefore be concluded that the STS Programme is perceived positively by trainees for its success in fostering core pedagogical competencies, including lesson planning, reflective teaching, and professionalism. However, while foundational skills are well-developed, critical gaps persist in advanced objectives such as policy application (e.g., inclusive education frameworks), classroom-based research, and addressing diverse learner needs. These shortcomings highlight a misalignment between the programme's experiential learning model and Ghana's evolving classroom realities, risking the preparedness of teachers to navigate systemic challenges like resource constraints and learner diversity.

Finally, the findings of the study on the challenges faced by mentors and trainees in the STS programme implementation have given enough grounds to conclude that the STS Programme, though promising in structure, is significantly constrained by operational, motivational, and logistical barriers. These challenges compromise the effectiveness of mentoring and supervision, hinder practical teaching experiences, and reduce the programme's overall impact on teacher training outcomes.

5.4 Recommendations

Based on the findings that emanated from the study and conclusions drawn, the following recommendations are made in alignment with the research questions;

To address persistent resource gaps and enhance the overall efficacy of the STS Programme, the Ministry of Education (MoE) and the Ghana Education Service (GES) should prioritise the equitable distribution of Teaching and Learning Resources (TLRs) across all partner schools to ensure that both mentors and trainees can effectively engage in the teaching and learning process. The MoE should collaborate with the Colleges of Education through the Ghana Tertiary Education Commission (GTEC) to

secure Sustainable funding mechanisms for trainee transportation, potentially through strategic partnerships with local transport providers, district assemblies, or private sector actors. The MoE should acknowledge the critical role of mentors through a hybrid incentive model that combines non-monetary rewards such as certification, public recognition, and pathways for career advancement with direct financial stipends to maintain motivation and commitment. Moreover, GTEC should ensure that structured supervision systems are institutionalised across all levels of training (100 to 400), with coordinated support from Colleges of Education, GES, and relevant oversight bodies to ensure consistent professional guidance and skill development from the onset of training. Finally, there is a compelling need for the government, through the MoE, to invest in continuous professional development (CPD) programmes that are contextually relevant and responsive to the field-based challenges encountered by mentors. These efforts, taken together, will foster a more cohesive, equitable, and outcomes-driven learning environment that is aligned with the core objectives of the STS Programme.

Secondly, to enhance mentorship quality and trainee engagement, the MoE, through GTEC, should institutionalise standardised mentorship procedures, including capping trainee-to-mentor ratios to ensure personalised guidance and introducing structured mentoring sessions with clear feedback mechanisms. GTEC should institutionalise a robust supervision framework that will mandate regular college tutor visits across all training levels (100–400) to ensure equitable oversight and consistency. Additionally, the GES should equip mentors with tools and training to integrate reflective practices such as structured journaling, peer feedback sessions, and collaborative problem-solving into their guidance, fostering critical self-assessment and deeper engagement throughout the STS Programme. This holistic approach will address workload

imbalances, strengthen supervision continuity, and cultivate a culture of reflective professional growth.

In addition, to enhance trainees' achievement of STS objectives, the MoE should ensure that the curriculum for colleges of education integrates mandatory action research projects and structured modules on Ghana's educational policies, such as inclusive education frameworks. Colleges of Education should design scenario-based simulations and guided policy discussions to deepen practical understanding of classroom challenges and systemic reforms. The Colleges of Education should partner with the National Teaching Council (NTC) to deliver workshops to trainees on policy implementation, while mentors and tutors provide consistent guidance to bridge theory and practice, particularly in areas like action research, resource-constrained teaching, and inclusive pedagogy. This holistic approach will ensure trainees graduate as resilient, policy-literate educators equipped to navigate Ghana's dynamic educational landscape.

Finally, to mitigate the challenges confronting the implementation of the STS programme, there should be a coordinated effort between the GES and the Colleges of Education to enhance institutional support for both mentors and trainees. This includes providing incentives, reducing the mentor-to-trainee ratio, ensuring clear communication channels between colleges and partner schools, and improving logistical arrangements such as transportation and resource distribution. Additionally, mentors should be regularly trained and supported by the GES to adapt to evolving educational demands, including the integration of technology in teaching.

5.5 Suggestions for Further Studies

Building on the findings, conclusions, and limitations of this study, the following areas warrant further exploration to enhance the Supported Teaching in Schools (STS) Programme and advance teacher education in Ghana:

1. **Longitudinal Impact on Teaching Effectiveness and Professional Identity**

   Conduct longitudinal studies tracking STS graduates into their early teaching careers to assess how the programme influences long-term teaching practices, classroom management, and professional identity. This would clarify whether STS-developed competencies translate into sustained effectiveness and adaptability in diverse educational contexts.

2. **Regional and Cross-Country Comparative Analyses**

   - Investigate regional disparities in STS implementation across Ghana (e.g., northern vs. southern zones) to understand how geographical, infrastructural, and socioeconomic factors affect resource availability, mentorship quality, and trainee experiences.
   - Compare Ghana's STS model with similar programmes in other African countries to identify cross-contextual best practices and systemic barriers.

3. **Mentorship Incentive Models and Engagement**

   Evaluate the effectiveness of incentive schemes for mentors, including financial stipends, professional recognition, career advancement opportunities, or hybrid models. Research could determine how such incentives improve mentor motivation, reduce burnout, and enhance the quality of guidance provided to trainees.

4. **Supervision Frameworks and Equity**

Develop and test scalable supervision frameworks to address disparities in tutor support across training levels (e.g., Level 400 vs. earlier levels). Studies could explore digital tools for remote supervision or peer-review systems to ensure consistent, equitable oversight.

5. **Digital Integration and Resource Accessibility**
    - Examine the role of technology in mitigating resource gaps, such as virtual teaching platforms, e-mentoring, and open educational resources (OERs).
    - Assess how digital tools impact lesson delivery, trainee confidence, and resource distribution, particularly in under-resourced schools.
6. **Policy Knowledge and Action Research Integration**

    Investigate strategies to strengthen trainees' application of educational policies (e.g., inclusive education, anti-harassment) and action research skills. Studies could test structured assignments, policy simulations, or partnerships with NGOs to bridge theory-practice gaps.
7. **Inclusive Education and Gender Dynamics**
    - Explore methods to enhance preparedness for inclusive classrooms, including specialised STS modules on teaching learners with disabilities or collaborations with special education institutions.
    - Analyse gender-specific challenges in mentorship and classroom interactions, such as biases in feedback or equitable participation, to inform gender-responsive training approaches.
8. **Classroom Observation and Practice-Based Assessment**

    Address the current study's limitation by incorporating observation-based research using rubrics aligned with the National Teachers' Standards (NTS).

This would evaluate trainees' real-world application of knowledge, skills, and values in classrooms.

9. **Multi-Stakeholder Collaboration and Roles**
    - Investigate the roles of **Ghana Education Service (GES)**, **Ministry of Education (MoE)**, **Colleges of Education**, **affiliate universities**, and **parents** in supporting STS implementation. For example:
        - How do GES and MoE policies translate into actionable support for schools and mentors?
        - How can colleges and universities better align curriculum design with partner schools' needs?
        - What mechanisms (e.g., parent-teacher associations) could enhance parental involvement in STS activities?
    - Explore collaborative frameworks between stakeholders to address systemic challenges like resource shortages, mentor training, and trainee welfare.
10. **Policy Adoption and Implementation Efficiency**

    Monitor the uptake of STS-related policy recommendations (e.g., resource allocation, mentorship training) by stakeholders like GES, MoE, National Teaching Council (NTC), and Ghana Tertiary Education Commission (GTEC). Evaluate their effectiveness in addressing challenges like overcrowded classrooms, outdated materials, and inconsistent supervision.
11. **Community and Parental Engagement Strategies**

    Investigate models for strengthening collaboration between schools, communities, and parents during STS placements. This could include training

modules on community liaison or frameworks for involving parents in trainee-led activities.

12. **Impact of Affiliate Universities on Programme Quality**

    Study the role of affiliate universities in shaping STS outcomes through curriculum oversight, resource provision, and quality assurance. Compare outcomes across universities to identify best practices for institutional collaboration.

These research avenues aim to address gaps in current knowledge, refine STS implementation, and contribute to evidence-based policies. By prioritising these areas and emphasising the roles of all stakeholders, Ghana can foster a more equitable, resource-efficient, and impactful teacher education system aligned with 21st-century educational demands.

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APPENDICES

APPENDIX A

STS Research Questionnaire for Mentors and Trainees

University of Education, Winneba, Faculty of Educational Studies.
STS Research Questionnaire for Mentors and Trainees.

Dear Respondent, this questionnaire is aimed at soliciting your view on the implementation of the Supported Teaching in School (STS) Programme in Colleges of Education in Ghana. This study is purely Academic work that seeks your understanding and experiences with the STS Programme to achieve its objectives that will lead to the Award of a Master of Philosophy Degree. Your responses will be treated confidentially and will be used for research purposes only. The Department of Educational Foundation of the University of Education, Winneba, is conducting an evaluation study on the implementation of the Supported Teaching in School (STS) Programme in Colleges of Education in Ghana. We would be grateful if you could spend some of your time responding to this questionnaire. We seek your honest views on your understanding and experiences with the Supported Teaching in School Programme to achieve its objectives. Please, just tick the needed response with a pen and do not write your name on the questionnaire.

Thank you

SECTION A: Bio Data

Sex

Male [ ]
Female [ ]

Age range

18-21 [ ]
22-25 [ ]
26-29 [ ]
30 and above [ ]

Highest Academic Qualification

GCE 'O' Level [ ]
GCE 'A' Level [ ]
DBE [ ]
B.ED [ ]
BSC [ ]
M.ED [ ]
MPHIL [ ]
PHD [ ]

Is teaching your first Career Choice?

Yes [ ]
No [ ]

If your answer to question 4 is No, what was your first career choice?
…….

SECTION B: Resources Available for the Implementation of the STS Programme

This is intended to know the resources that were available for the implementation of the STS Programme.

Sn	ITEM	SA	A	N	SD	D
1	I have been oriented to the STS Programme					
2	Tutors visited the school regularly for supervision and interactions with trainees' progress.					
3	Trainees showcased knowledge of STS before the practice.					
4	I have been provided with the Handbook for the STS Programme.					
5	I have attended CPD Programmes on STS					
6	TLRs have been provided for the STS Programme.					
7	I have been given some financial support for the STS Programme.					

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

SECTION C: Mentors' Perspective on How the STS Programme is being implemented

Sn	ITEM	SA	A	N	SD	D
1	I was equipped with the knowledge and Skills of the STS Programme					
2	I exhibit a high level of professionalism for trainees to emulate					
3	I used a variety of approaches to teaching trainees to observe					

4	I held pre- and post-discussions with the trainees.					
5	I used multimedia to capture teaching transactions for training purposes.					
6	I was fair in the assessment of the trainees.					
7	I have been engaged in regular collegial interactions on the progress of the trainees.					
8	I was engaged in regular CPD Programmes on STS.					
9	I was given incentives to support my efforts during the STS Programme.					
10	Enough TLRs were provided for the STS Programme					
11	I received support from the GES on the STS Programme Implementation.					

Source: Field Survey, 2022
KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

SECTION D: Challenges Faced by Mentors during the Implementation of the STS Programme

Sn	**ITEM**	**SA**	**A**	**N**	**SD**	**D**
1	Teacher Trainees were time-conscious					
2	The teacher Trainees were very accommodating and ready to learn.					
3	My SISO supported the STS Programme					
4	Resources were not available for the STS Programme.					
5	Supervisors do not come regularly for supervision and Interaction on Trainees' Progress.					
6	I was overburdened with the number of teacher trainees under my care.					
7	Trainees show no interest in the STS Programme.					
8	Teacher trainees do not take part in School activities like supervising learners, meetings, etc.					
9	Teacher Trainees do not know about the STS Programme expectations.					

10	The STS Calendar was not in line with the GES Academic Calendar.					
11	Trainees do not come regularly for practice.					

Source: Field Survey, 2022

KEY: %= Percentage, SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree, M= Mean, SDV= Standard Deviation.

SECTION E: Resources available to Trainees for the implementation of the STS Programme

Sn	ITEM	SA	A	N	SD	D
1	Partner schools were readily available for the STS Programme					
2	Learners are readily available for the STS Programme.					
3	I have been given handbooks on the STS Programme.					
4	The time allocated for the STS Programme is not sufficient.					
5	I was conveyed by bus(es) to and from my partner school.					
6	TLRs are being provided in the practice schools for the STS Programme.					
7	Parents and the Community are readily available for the STS programme.					
8	Learners are fewer than the optimum class size.					

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

SECTION F: Teacher Trainees' Perspective on How the STS Programme is Being Implemented

Sn	ITEM	SA	A	N	SD	D
1	I was assessed by my college supervisor during the STS Programme					
2	I was able to write journals of my weekly experiences.					
3	I was supervised by my tutors during the STS programme.					

4	I have been oriented to the STS Programme.					
5	I was involved in co-curricular activities.					
6	I was supported by my mentor to develop and effectively utilise the TLRs					
7	I was involved in the pre- and post-observation discussion of lessons with my mentor.					
8	My mentor used a variety of approaches to teaching me to observe					

Source: Field Survey, 2022
KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

SECTION G: Teacher Trainees' Achievement of Objectives of the STS Programme

Sn	ITEM	SA	A	N	SD	D
1	I critique my teaching to improve teaching and learning					
2	I can tailor lessons to suit pupils' RPK.					
3	I have a cordial relationship with my learners.					
4	I can produce and use appropriate Resources during Lesson Delivery.					
5	I am aware of my learners' background.					
6	I can integrate a variety of assessment modes into teaching to enhance learning.					
7	I can write up a comprehensive portfolio of my teaching.					
8	I can prepare weekly and termly objectives of what and how learners should learn.					
9	I can conduct an assessment of learners' learning.					
10	I gave extra support to slow learners.					
11	I can set meaningful tasks that encourage learner collaboration.					

12	I can promote inclusion and tolerance of all learners, including learners with disability.					
13	I can prepare a comprehensive Scheme of Work and detailed Lesson plan in line with the SBC and CCP Curricula.					
14	I have gained an understanding of Educational Policies, including Sexual harassment policies.					
15	I can conduct action research to facilitate effective teaching and Learning.					

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

SECTION G: Challenges Faced by Trainees during the Implementation of the STS Programme

Sn	ITEM	SA	A	N	SD	D
1	I was oriented on the objective and expectations of the STS Programme before starting.					
2	My Mentor was harsh and unfriendly to me.					
3	The time and dates allocated for the STS Programme were unfavourable to me.					
4	I become exhausted when I return from STS Practice to campus, and hence find it difficult to study my book.					
5	I was given the expected materials to aid my practice.					
6	I have not benefited from the STS programme.					
7	I had an easy means of transportation from College to Practice School.					

Source: Field Survey, 2022

KEY: %= Percentage, **SD**= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree, **M**= Mean, **SDV**= Standard Deviation.

APPENDIX B

Interview Questions Mentors

SECTION A: Resources Available to Mentors for the Implementation of the STS Programme

1. Have you been oriented on the STS Programme? How Was It Conducted?
2. Had Tutors from the Colleges Visited the Partner Schools Regularly to interact with the Trainees on their STS Progress?
3. Had the Trainees showcased knowledge of the STS before the Practice? How was that exhibited?
4. Have you been provided with the Handbook for the STS Programme?
5. Have you attended CPD Programmes on STS?
6. Have TLRs been provided for the STS Programme?
7. Have you been given any Financial Support for the STS practice as a form of motivation?

SECTION B: Mentors' Perspective on How the STS Programme is Being Implemented

1. How were you equipped with the Knowledge and Skills of the STS Programme?
2. How did you exhibit a high level of Professionalism for Trainees to emulate?
3. Have you used a variety of approaches to teaching trainees to observe? How was that done?
4. Did you hold pre- and post-discussions with the trainees during the STS Practice?
5. How did you use multimedia to capture teaching transactions for training purposes?
6. Were you fair in the assessment of the trainees? How did you demonstrate that?
7. Have you been engaged in regular collegial interactions on the progress of the trainees?
8. How were you engaged in regular CPD Programmes on STS?
9. When were you given incentives to support your efforts during the STS Programme?
10. Had Enough TLRs been provided for the STS Programme?
11. Have you received support from the GES on the STS Programme Implementation? What kind of Support were you given?

SECTION C: Challenges Faced by Mentors during the Implementation of the STS Programme

1. Were Teacher Trainees Time-Conscious during the STS Practice?
2. Were the Teacher Trainees very accommodating and ready to learn?
3. Has your SISO supported the STS Programme? What role did he or she play?
4. What Resources were available during the STS Programme?
5. Had the Supervisors come regularly for supervision and Interaction on the Trainees' Progress?
6. Were you overburdened with the number of teacher trainees under your care?
7. Did Teacher Trainees show interest in the STS Programme? What did they do to exhibit their Interest?

8. Did Teacher trainees take part in School activities like supervising learners, meetings, etc?
9. Did Teacher Trainees exhibit knowledge about the STS Programme expectations?
10. Was the STS Calendar in line with the GES Academic Calendar?
11. Did Trainees come regularly for practice?

Interview Questions for Trainees

SECTION D: Resources available to Trainees for the implementation of the STS Programme

1. How were the Partner schools readily available for the STS Programme?
2. How were the Learners readily available for the STS Programme?
3. Have you been given handbooks on the STS Programme?
4. Was the time allocated for the STS Programme sufficient?
5. Were you conveyed by Bus(es) to and from your partner school?
6. Were TLRs being provided in the practice schools for the STS Programme?
7. Were Parents and the Community readily available for the STS programme? How?
8. Were the Learners less than the optimum class size?

SECTION E: Teacher Trainees' Perspective on How the STS Programme is Being Implemented

1. How were you assessed by your college supervisor during the STS Programme?
2. How were you able to write journals of your weekly experiences?
3. How were you supervised by your tutors during the STS programme?
4. Have you been oriented on the STS Programme? How was it done?
5. Were you involved in co-curricular activities? Name some of the activities.
6. How were you supported by your mentor to develop and effectively utilize TLRs?
7. How were you involved in the pre- and post-observation discussion of lessons with your mentor?
8. Had your mentor used a variety of approaches to teaching for you to observe?

SECTION F: Teacher Trainees' Achievement of Objectives of the STS Programme

1. Have you critiqued your teaching to improve teaching and learning?
2. Can you tailor lessons to suit pupils' RPK? How do you do that?
3. Do you have a cordial relationship with your learners? How do you exhibit that?
4. Can you produce and use appropriate Resources during Lesson Delivery?
5. Are you aware of your learners' backgrounds? How do you do that?
6. Can you integrate a variety of assessment modes into teaching to enhance learning?
7. Can you write up a comprehensive portfolio of your teaching?
8. Can you prepare weekly and termly objectives of what and how learners should learn?
9. Can you conduct an assessment of learners' learning?
10. How do you give extra support to slow learners?
11. How do you set meaningful tasks that encourage learner collaboration?
12. How do you promote inclusion and tolerance of all learners, including learners with a disability?

13. Can you prepare a comprehensive Scheme of Work and detailed Lesson plan in line with the SBC and CCP Curricula? How is that done?
14. Have you gained an understanding of Educational Policies, including Sexual harassment policies?
15. Can you conduct action research to facilitate effective teaching and Learning?

SECTION F: Challenges Faced by Trainees during the Implementation of the STS Programme

1. Were you oriented on the objective and expectations of the STS Programme before starting?
2. Was your Mentor harsh and unfriendly to you?
3. Were the time and dates allocated for the STS Programme unfavourable to you?
4. Do you become exhausted when you return from STS Practice to campus, and hence find it difficult to study your books?
5. Were you given the expected materials to aid your practice?
6. Have you benefited from the STS programme? How did the programme benefit you?
7. Do you have an easy means of transportation from College to Practice School?