UNIVERSITY OF CAPE COAST

THE CENTRAL/WESTERN ZONE COLLEGES OF EDUCATION IN GHANA AND THEIR DEMONSTRATION SCHOOLS' PARTNERSHIP

MARGARET FABEA BOAHENE

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BY

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree at this university or elsewhere.

Candidate's Signature: …… Date: ……..

Candidate's Name: Margaret Fabea Boahene

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature: …… Date: ……..

Supervisor's Name: Dr. Stephen Baafi-Frimpong

ABSTRACT

This study aimed to investigate the collaboration between colleges of education and demonstration schools in the Central/Western Zone of Ghana. A mixed method was used for this study. In all, a sample size of 360 (students 277, tutors 53, demonstration school teachers 20 and principals and head teachers 10) was used for the study. The study employed stratified, simple random and purposive sampling techniques to select participants for the study. School Partnership Questionnaire (SPQ) and focus group discussion were used to elicit information from the respondents. Descriptive statistics were used to analyze data obtained from the structured questionnaire whiles focus group discussion was analyzed using thematic analysis. It emerged that Colleges of Education and demonstration schools in the Western/Central zone collaborated in terms of field experience, sharing of expertise and organization of training programmes for demonstration school teachers. It also emerged that such collaboration led to reflective teaching activities, observation and teaching practice in the schools, periodic in-service training for the Demonstration School teachers and collaborated in conducting research. The study further revealed that college-school partnership created opportunities for colleges and schools to share their resources and encourage learning through participation. The study unfolded that the challenges embedded in college-school partnership include inadequate time for carrying out activities among others. It is recommended that Demonstration schools and Colleges of Education leadership within the Central/Western zone seek support from NGOs and individual philanthropists as well as work hard to generate more funds internally to help provide funds and instructional materials for collaborative activities and not rely on only the government.

KEY WORDS

Demonstration Schools

Demonstration Schools' Partnership

Colleges of Education

Central/Western Zone of Ghana

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DEDICATION

To my lovely husband, Mr. Louis Kwasi Akuamoah

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CHAPTER ONE

INTRODUCTION

This research aimed to investigate the nature of the partnership or collaboration between educational institutions in Ghana and their affiliated demonstration schools, focusing specifically on colleges in the Central/Western region. The hypothesis is that when effectively organized and supervised, the alliance between colleges and schools can establish an advantageous atmosphere that leads to enhanced educational quality via research and informed methodologies. College-school partnership or collaboration allows for two-way communication, with college/university research informing basic school curriculum, instruction and policy and the real world of basic school education, informing programmes and research of a college of education or university.

It is also believed that such partnership will enhance pre-service teacher education as it will offer teacher-trainees' hands on experience instead of learning everything theoretically in the classroom.

Background to the Study

Education is said to be the key to the socio-economic and political development of every society or nation and the reasons for this are not far-fetched (Famade, 2012). Education plays a pivotal role in nurturing the human capital of a nation, equipping children with the essential knowledge and abilities to confront the rigors of everyday existence and capitalize on economic prospects (Burns, 2020). Furthermore, education holds a central position in alleviating poverty, stimulating economic advancement, promoting gender parity, and fostering societal progress. Importantly, education also

makes the individual less vulnerable to exploitation of all kinds (Edokpolor, & Egbri, 2017).

Girls and women who receive education, for instance, often experience improved health outcomes, exhibit lower fertility rates, attain higher income levels, and offer enhanced healthcare access for both themselves and their prospective offspring. It is for this reason that the renowned Ghanaian educationist, Dr. Kwegir Aggrey indicated that "If you educate a man, you educate an individual but if you educate a woman, you educate a nation". Being an important predictor of social status and economic well-being, education is often identified with opportunity for social mobility (Assari, 2018). Research also reveals that education helps to entrench democratic principles and societal values (Moreno, 2002).

Significantly, education is also perceived as a tool for individual empowerment and a means for societies to free themselves from oppression or domination and to actively participate in the milieu in which they operate and live for their collective good (Brown, 2004; Ratts & Greenleaf, 2018). The importance of education is even more crucial in this era of information technology and globalization. Without an educated citizenry, countries cannot be integrated into the global mainstream. Undoubtedly, the significance of learning, particularly in underprivileged nations such as Ghana, is immeasurable. It is in view of the recognition of the value of education that, as part of the Millennium Development Goals, countries are charged with the responsibility of making sure that every child is provided universal basic education and that boys and girls everywhere complete a full course of primary schooling (Ghana Statistical Service, 2013).

Ghana has officially recognized the entitlement of children to receive an education, firmly incorporating this principle within Article 25(1) of the 1992 Republican Constitution. To meet this committed responsibility, the Free Compulsory and Universal Basic Education (FCUBE) initiative was introduced in 1996, as documented by Acheampong (2009), Nudzor (2013), and Ekundayo (2018). A prominent objective of FCUBE is to enhance the availability of high-quality elementary education and to augment student engagement among the diverse ethnic communities within the nation. It is essential to recognize that the effectiveness of any educational system hinges on the caliber of its educators. Undoubtedly, teacher quality is critical if education is to contribute to development (Nordin, & Wahlström, 2019).

Teachers are essential in any education system and their critical roles at primary, secondary, and university levels cannot be denied (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). If it is unquestionably true that educators play a pivotal role in each and every educational reform endeavor, then the process of preparing educators—where individuals acquire the necessary capabilities to convey knowledge and expertise—must be a top priority for policymakers, educational institutions, and indeed, all those invested in the field of education (Darling-Hammond, 2006). Thus, it is important to note that, it is not just enough to produce the quantity of teachers needed but more importantly, their quality must be a top priority. Effective educators play a critical role in addressing the worldwide education challenges and narrowing the disparity between subpar and high-quality educational experiences (Kabay, 2021).

Consequently, it remains imperative to ensure that every child receives instruction from well-prepared and enthusiastic instructors (Buabeng, Ntow & Otami, 2020). While educators undeniably exert a profound influence on the quality of education, the traditional certification of teachers may not consistently prove to be the most efficacious method for ensuring top-tier instruction (Kimbrel, 2019; Hanushek, & Rivkin, 2006; Goe, 2007). Among other things, one way to improve outcomes for students is to raise standards for teachers. This can be achieved partly, by adequately preparing teachers during the initial training (Adu-Yeboah, & Kwaah, 2018). This aligns with the educational goals for teacher training in Ghana, aimed at establishing a strong basis for enhancing teaching and learning outcomes.

The objective is to deliver an extensive teacher training program encompassing both pre-service and in-service training, ultimately yielding proficient, devoted, and resolute educators, thereby enhancing the caliber of instruction and learning within Ghana's educational settings (Ministry of Education, 2006; Adu-Yeboah, & Kwaah, 2018). The caliber of educators generated significantly hinges on the nature of their foundational training. The inception of teacher education ought to be structured to furnish aspiring instructors with the requisite knowledge, attitudes, conduct, and proficiencies necessary for proficient and effective performance in educational settings, encompassing classrooms, schools, and the broader community (Buabeng, Ntow & Otami, 2020).

Specifically, the content within their pre-service curriculum should seamlessly align with and remain pertinent to the duties and obligations they will encounter both within and beyond educational environments. This calls

for hands-on and practical experience whereby teacher trainees are able to relate theory to practice (Adu-Yeboah, & Kwaah, 2018). It is for this and many other reasons that professional development or laboratory or practice or demonstration schools were established and attached to colleges of education (Darling-Hammond, 2006). In line with the findings of Donitsa-Schmidt and Ramot's research from 2020, a demonstration school can be described as an educational institution at the elementary or secondary level that is closely affiliated with a higher education institution, such as a university or college.

These schools serve the dual purpose of training aspiring educators and providing a platform for educational innovation, research, and the enhancement of professional development. Thus, a demonstration school serves as a link for University/College-School collaboration or partnership (Darling-Hammond, 2006). Effective University/College-School partnership as pointed out in the introduction is a kind of relationship, which allows for two-way communication with university research informing basic school curriculum, instruction and policy and the real world of basic school education informing programmes and research of a College of Education or University (Armstrong, 2015). Illuminating a partnership of this nature can be characterized as a constructive approach to begin enhancements in educational institutions.

There are several ways in which collaborations of this kind might be beneficial. Teachers who participate in inter-school collaboration, for instance, report feeling more inspired to have professional conversations with their peers (Armstrong, 2015), as well as a general shift towards more learning-oriented and inquiry-based cultures within their schools (Stoll, 2015).

Ainscow, Muijs, & West (2006) found that when schools work together, they are better able to come up with new lessons and solve problems. As schools look to improve their leadership capacity to bear the additional burden of partnership work, interschool collaboration can also provide opportunities for leadership training and development. Therefore, staff members have more opportunities to lead within and across schools, as well as to work with and learn from the leaders of other organisations (Armstrong, 2015; Hill, 2010; Hadfield & Chapman, 2009).

Henderson, Mapp, Johnson and Davies (2007), in their book "Beyond the Bake Sale", argue that college-school partnerships and student accomplishment are strictly related. They believe such partnerships also provide the function of helping universities/colleges define research that is relevant to the schools and have potential to inform instructional practice. In particular, it has a lot of implications for action research which tends to improve immediate classroom practice. In addition, a strong partnership between the university and the school allows for the incorporation of theory and practise through meticulously tracked hands-on knowledge. Effective training for teachers helps prepare them to succeed in the classroom. Moreover, it inspires reflection on learning as active engagement rather than passive assimilation.

Similarly, the Transforming Teacher Education and Learning (T-TEL) program in Ghana has been implemented to equip student teachers with professional values, attitudes, knowledge, and practice to teach at the Ghanaian basic and junior high schools (Aikins & Akuffo, 2022). However, the COVID-19 pandemic has posed significant challenges to the traditional

face-to-face teaching and learning methods, leading to the adoption of various mediums such as online, eLearning, and practical activities to facilitate education (Aikins & Akuffo, 2022). Understanding the dynamics of the partnership between colleges of education and their demonstration schools in the Central/Western Zone of Ghana is essential for addressing the evolving needs of teacher training and education in the country.

In Ghana, it is because of the benefits of such college-school partnerships that basic schools were established as practice or demonstration schools and attached to all teacher training colleges. Unfortunately, it appears the demonstration schools are not meeting the purpose for which they were established (Nti-Adarkwah, Ofori, Nantwi, & Obeng, 2019). In a study of the instructional leadership of the principals of the colleges of education in Ghana by Baafi-Frimpong (2009), all the principals acknowledged that they were relaxed in their supervisory role and had not lived up to expectation in terms of the colleges conducting research and applying the findings in the schools.

Despite the increasing collaboration between the colleges and their demonstration schools, the knowledge base in this area remains sparse (Armstrong, 2015). The paucity of substantial research in the area makes it judgemental and a matter of opinions rather than evidential (Robertson, 1992) Some school's management have also indicated that in recent times the colleges do not have control over the demonstration schools as it used to be in the past. So, the question is, what kind of collaboration exists between the colleges of education and the demonstration schools? Are the schools serving the purpose for which they were established? Finding answers to these pertinent questions was the source of motivation for this study.

Statement of the Problem

As previously mentioned in the study's introduction, a demonstration or professional development school refers to an elementary, middle, or high school that engages in a collaborative partnership with the College of Education. This collaboration aims to cultivate and showcase exemplary educational practices, offer practical training opportunities for aspiring teachers, and advance the exploration of novel educational insights. Thus, it is a mutually beneficial collaboration. However, in Ghana it is doubtful, if the colleges and the schools are deriving the required benefits from such collaboration or partnership (Acheampong, 2017). This also prompts additional questions, as it seems that there hasn't been extensive scientific research conducted to confirm this.

Armstrong (2015) also argues that there remains a limited understanding of the varying effects of inter-school collaboration, and how distinct collaborative setups may differ in terms of their efficacy, long-term viability, and the specific impacts they generate for both colleges and their partner schools. Moreover, the various forms of partnerships between the colleges and their demonstration schools have not received the needed attention it deserves as well as the effect on the school system and the pupils it serves (Sandals & Bryant, 2014).

Moreover, existing literature highlights that research within the realm of colleges of education has predominantly focused on topics such as the evaluation of teacher education curricula and the leadership within these institutions (Asare-Danso, 2014), the impact of educational policies on teacher education (Buabeng et al., 2020), instructional leadership among college

principals, professional development for college tutors (Amankwah, Oti-Agyen, & Sam, 2017), and the supervision of teaching practices (Owusu & Brown, 2014; Ampofo, Onyango, & Ogola, 2019). However, it has not extensively explored the subject of college-school partnerships. To address this research gap, this study aims to investigate the nature of collaboration between Colleges of Education and demonstration schools in the Central/Western Zone of Ghana.

Purpose of the Study

The study seeks to explore the colleges of education and their demonstration schools' partnership in the Central/Western Zone of Ghana.

Research Objectives

In particular, the research aimed to:

1. Find out the forms of collaboration that exists between the colleges of education and their demonstration schools.
2. Assess how teachers in demonstration schools and colleges of education collaborate to promote teaching and learning.
3. Investigate the research activities that teachers in colleges of education and the demonstration schools engage in.
4. Assess the benefits that are derived from the college-school partnership.
5. Find out the challenges that hinder the effectiveness of college-school partnership.

Research Questions

The study is guided by the following research inquiries:

1. What forms of collaboration exists between the colleges of education and their demonstration schools?

2. How do teachers in demonstration schools and colleges of education collaborate to promote teaching and learning?
3. What research activities do teachers in colleges of education and the demonstration schools engage in?
4. What benefits are derived from the college-school partnership?
5. What challenges hinder the effectiveness of college-school partnership?

Significance of the Study

There are many reasons why a study of this kind matters. First, the research findings may provide a scientific basis for college-school partnership in Ghana, specifically, Central and Western regions, by providing vital information on how such collaboration can be effectively implemented. The findings of the study will also guide college of education administrators as to what strategies to put in place to promote effective college-school partnership for their mutual benefit. In particular, it will help the colleges to be abreast with issues in the basic schools and therefore design appropriate curriculum or research to help address such concerns. On the other, the schools can benefit from college research resulting in adopting new methods of teaching or improved curriculum.

Furthermore, the findings of the study may help policy-makers such as the Ministry of Education (MoE), Ghana Education Service (GES), Ghana Tertiary Education Commission (GTEC) etc. to review policies, rules and regulations governing the colleges of education and their demonstration schools' partnership. Again, the study may help identify challenges militating against effective partnership or collaboration between the colleges of education and their demonstration schools and the identification of such

challenges will be the first step towards finding solutions to the problems. Lastly, the study may immensely contribute to knowledge and the scanty literature on the colleges of education and their demonstration schools' partnership in Ghana and Africa and serve as the basis for further research in the area.

Delimitations

The researchers focused only on the demonstration schools and the five colleges of education in the Central/Western region of Ghana. Participants in the study were limited to seniors and faculty advisors from participating colleges of education, as well as instructors at demonstration schools for the 2019-2020 school year. The selected Colleges were Komenda, OLA, Foso, Holy Child and Wiawso Colleges of Education. The study focused on school partnership types, practices, benefits of school-partnership and challenges hindering school-partnership programmes among Colleges of Education in the Central/Western zone and their demonstration schools.

Limitations

The researcher made every attempt to assure the validity and trustworthiness of the findings, but there were still some caveats that couldn't be ignored. The use of questionnaires was one weakness of the study design. In most cases when the issues bordered on the integrity of the respondents they would not respond to the questions as frankly as expected. Furthermore, with the use of questionnaires, one may not be able to probe for further details. However, with the use of a focus group discussion as an additional data collection method, the researcher could probe for detailed information on the

issues of interest. Besides the questionnaire and focus group discussion were used for the purpose of triangulation.

Organisation of the Study

There were five chapters to this investigation. The first chapter is an introduction that details the study's context, problem statement, purpose, research questions, importance, delimitation, and limits. Chapter Two presents the review of literature on several related topics under school partnership types, practices, factors motivating college-school partnership and challenges that confront such partnership. The chapter also looks at both the theoretical and empirical reviews. In Chapter Three of the study, the methods used are explained, including the study's design, population, sampling method, data collection tools, data collection processes, and procedures for processing and analyzing the data. In Chapter Four, the study's results are presented and discussed. An overview of the study is provided in Chapter Five, along with conclusions, recommendations, and ideas for further research based on the findings and conclusions.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter provides an overview of the literature on the partnership or collaboration between colleges of education and schools. The literature review helped the researcher identify existing knowledge gaps related to the study's objectives and justify the need for research on the partnership between Colleges of Education and their demonstration schools. The review is organized into the following themes: theoretical review, conceptual review, empirical review, and a summary of key points that emerged from the review.

Theoretical Review

The schools' partnership is built upon intricate theoretical foundations, incorporating diverse formal and informal collaborative activities that engage schools of various types and contexts. Additionally, schools collaborate for multiple reasons, with different timeframes and levels of success in terms of impact and sustainability. This research has implications for systems theory, as it explores the complex dynamics of educational collaborations (Armstrong, 2015).

Systems theory

Systems theory is an interdisciplinary theory about the nature of complex systems in nature, society, and science, and is a framework by which one can investigate and/or describe any group of objects that work together to produce some results. A system is composed of regularly interacting or interrelating groups of activities (Mele, Pels & Polese, 2010). For example, in noting the influence in organisational psychology as the field evolved from ‘an

individually oriented industrial psychology to a system and developmentally oriented organisational psychology,' it was recognised that organisations are complex social systems; reducing the parts from the whole reduces the overall effectiveness of organisations. Mele et al. (2010) stressed that this is at odds with conventional models that centre on individuals, structures, departments and units separate in part from the whole instead of recognising the interdependence between groups of individuals, structures and processes that enable an organisation to function.

The relationship between organisations and their environments became recognised as the foremost source of complexity and interdependence (Barille & Polese as cited in Mele et al., 2010). In most cases the whole has properties that cannot be known from analysis of the constituent elements in isolation. The systems view is a world-view that is based on the discipline of system inquiry. According to Barille and Polese, central to systems inquiry is the concept of system. In the most general sense, a system means a configuration of parts connected and joined together by a web of relationships. The Primer group defines a system as a family of relationships among the members acting as a whole according to Ee and Gandara (2020). Von Bertalanffy and LaViolette (2019) defined a system as elements in a standing relationship.

Similar ideas are found in learning theories that developed from the same fundamental concepts, emphasising that understanding, results from knowing concepts both in part and as a whole. A system can be defined as an entity, which is a cohesive whole (Ng, Maull, & Yip, 2009) such that a boundary is recognised around it to differentiate internal and exterior elements and to identify input and output relating to and emanating from the entity.

Thus, a systems theory is a theoretical perspective that analyses an event as a whole rather than as the sum of its component parts. In order to comprehend an entity's organisation, operation, and results, the emphasis is on the interactions and relationships between its pieces (Rogers, 1995).

A system can be defined as an assemblage of objects united by some form of regular interaction or interdependence. "A system can be natural (e.g., lake) or built (e.g., government), physical (e.g., space shuttle) or conceptual (e.g., plan), closed (e.g., chemicals in a stationary, closed bottle) or open (e.g., tree), static (e.g., bridge) or dynamic (e.g., human). In regard to its elements, a system can be detailed in terms of its components, composed of people, processes and products; its attributes, composed of the input, process and output characteristics of each component; and its relationships, composed of interactions between components and characteristics" (Cavelieri & Pezzotta, 2012, pp.23-24).

The fundamental unit of analysis is 'a system' made up of many parts or structures (Parsons as cited in Mele et al., 2010). From a systemic perspective, every system, at a certain level, is in relation with supra-systems and subsystems. The former is hierarchically ordered as a function of their influence on the system; the latter ought to be directed and managed by the system in order to contribute to its finality (Polese, Tommasetti, Vesci, Carrubbo & Trossi, 2016). The introduction of these concepts challenges the question of system boundaries which, from this perspective, make little sense. As contact creates participation; a given system tends to absorb supra-systems and subsystems (components) in order to develop as a whole system (Polese et al., 2016).

Within systems thinking, it is important to note the observer/observed relationship, highlighting how important the specific viewpoint is in interpreting organisational behaviour. Behavioural aspects underline the importance of individuals in the performance of businesses (Mele et al., 2010), suggesting the need to look at social relationship dynamics, individual lifestyles, individual motivations, and individual conditions (Barile, Lusch, Reynoso & Saviano, 2016). In short, the concept of a system is not connected with the notion of objectivity, but instead refers to a specific point of view and can vary from actor to actor; it strictly depends on the contextualised system's perception in time and space.

By combining psychological, community, and social methods, the systems theory offers a unified strategy that is unimaginable with the vast majority of other theories. The theory's inherent consideration for interaction processes also contributes to its superiority in comparison to other models (Rutan, Stone & Shay, 2014). As a result, it facilitates comprehension of how humans connect and influence one another. It also aids the comprehension of the impact of interactions between systems (Rutan et al., 2014). The theory of systems is also dynamic. This quality makes it applicable to the ever-changing global circumstances.

In addition, it gives multiple integrated approaches for addressing a problem or issue. Rutan et al. emphasised that this actually increases its efficacy in comparison to other theories. By providing multiple routes to comprehending behaviour, systems theory avoids simplistic explanations or accounts of specific behaviours, making it more comprehensive in its ability to predict and account for behaviour. However, the systems theory has a number

of intrinsic flaws. It has a tendency to present broad concepts. This lack of specificity, according to Rutan et al. (2014), results in ineffectiveness when applied to specific case scenarios. Its lack of prescriptiveness is also its downfall. According to Rutan et al. (2014), this is due to the lack of explicit recommendations for specific scenarios.

Others, however, have seen this as a licence for practitioners to employ a variety of answers and tactics as opposed to a single potentially infectious strategy. It has also been criticised for its inability to provide a single functional theory and reliance on connections to provide coherence. Moreover, Rutan et al. (2014) noted that it is not the most understandable of all theories; it can be extremely technical, yet overly conservative, resulting in systems that are too stable or too self-reliant, while overstating social cohesion. Some have determined that its explanation contains too much extraneous material and have thus called for a theory that emphasises the explanation of the most essential features of human relationships.

Despite these shortfalls of the systems theory, it remains one of the robust and relevant theories in explaining how effectively individuals and units of an organisation interact holistically. Therefore, the adoption of systems theory as the theoretical framework for this study is justified by its potential to provide numerous insights into the partnership strategies and collaborations that Colleges of Education can initiate to foster effective interaction and collaboration among their demonstration schools in the Western/Central zone.

Conceptual Review

Overview of college-school partnerships

Theory and practice are essential to successful teacher education (Zeichner, Payne & Brayko 2015; Barnett & Hughes, 2010). One cannot expect teacher trainees to successfully support their future students without practical experience as a part of their teacher preparation programme. In the same vein, engaging in practice without supporting research can also be futile. There should be a blended overlap; both should influence and complement each other as candidates are prepared for the classroom. With the evolving student population in schools, Colleges of Education must also be intentional with clinical and theoretical preparation of teachers. Teacher education candidates need to learn about culturally-responsive teaching methods and should participate in clinical placements that allow them to work with learners' representatives of both the local community and the nation's basic education at large within communities established.

Teacher trainees for instance need to understand the changing definition of family (Paquette, 2016) and how family dynamics impact the educational team. Partnerships between Colleges of Education and demonstration schools are an obvious vehicle for combining theory and practice in an authentic way. Partnerships allow colleges of education to provide opportunities for candidates to apply theory, reflect on their decisions, and have more opportunities to try other options and improve over time in a real learning environment (Armstrong, 2015; Jones et al., 2016). The establishment of demonstration schools in colleges of education were born out of the dual needs to provide adequate training for their candidates and to

support the literacy needs of the children in our community (Carpenter & Sherretz, 2012).

College-school partnerships are widely promoted by accrediting bodies, professional organisations and state legislatures (National Council for the Accreditation of Teacher Education, 2001; Council for the Accreditation of Educator Preparation, 2013). Yet, such collaborations are complex to enact (Goldring & Sims, 2005; Klieger & Wagner, 2014). Insufficient research exists that examines relational dynamics within school-university partnerships or that draws upon participants' multiple perspectives. The literature is disparate, failing to connect research in a way that builds theory or provides recommendations for effective collaboration among partners (Yamauchi, Ponte, Ratliffe & Traynor, 2017; Sheridan, 2016).

In order to create the right collaborative conditions for positive school and university culture change, the needs of the school, the learning of both future and current teachers, and effective processes within university-school partnerships must all be taken into consideration (Crea & Reynolds, 2015). Partnerships between colleges and schools are considered to be central to effective teacher preparation and to positive basic education student learning. The Holmes Group (1986) used the term, professional development school to identify a set of principles for learning environments designed to promote a caring climate of teaching and learning to benefit all children, to encourage inquiry and learning by teachers, teacher-educators and administrators, and to bridge common tensions between schools and colleges through partnership relationships.

The Colleges of Education located in the Central/Western zones, which offer Bachelor of Education (Basic Education) programmes typically graduate about 1500 teachers annually. To prepare the calibre of teachers with the requisite professional skills and competencies calls for effective collaboration between the colleges and the demonstration schools specifically established and attached to the colleges of education. In many countries, school-university partnerships are not a new concept, and they have existed for several decades, with a purpose and an agenda to educate student teachers (Zeichner, 2010). There is also literature regarding school teachers who undertake action research, supported by university researchers (Allen, 2010). These studies demonstrate that school teachers and faculty staff of Colleges of Education can productively work together, despite the many cultural differences between their organisations (Nugent & Faucette, 2013).

However, as van Schaik et al. (2018) recognise, questions remain about how school-university partnerships might enable schools to engage with research. If it is true that schools and universities can benefit from 'sharing their knowledge', as claimed (Department for Education, 2018), it would be helpful to know what sorts of links currently exist between schools and universities, and to consider how these links might enable such sharing. Recent work examining college–school partnerships has grown beyond school walls to include demonstration school partnerships (Epstein, 2010; Lester, Kronick & Benson, 2013; Luter, Lester, Lochmiller & Kronick, 2017). Many institutions of higher education have prioritised an interest in building strong relationships with the demonstration schools that surround their campuses.

These partnerships can be utilised so that colleges of education students can participate in service activities or field work requirements. These allow colleges of education students to address basic school needs while receiving academic credit and reflecting on their experiences.

Concept of college-school collaboration

According to Association of Colleges (2014), collaboration has taken place in the education sector for a long time and has enjoyed differing degrees of success. Moving forward, collaboration is likely to have a role to play in the educational sector with providers (both public and private) identifying ways of working together more effectively. Association of Colleges further stressed that collaboration offers organisations the opportunity to find efficiencies through specialisation; this may involve giving up elements of their provision to others who may offer better quality and/or more cost-effective delivery models. To the Association of Colleges, in the past, meaningful collaboration has been difficult as colleges have been encouraged, since incorporation, to work in competition, particularly in their local area with their demonstration schools.

Collaborative working requires trust between all parties and the need to develop working relationships over time. The term collaboration is usually thought to mean an equal partnership between two academic bodies who are pursuing mutually interesting and beneficial research, teaching and learning activity. Different in purpose and design though they may be, research, teaching, or writing centred collaborations are beginning to flourish because, quite simply, they make sense (Marris, Balmert & Calvert 2015, as cited in Story, 2014). When an individual school tries to address its own particular

teaching and learning, it discovers all too frequently that it is inadequate to the task, not because it lacks the skill or commitment required, but because it lacks the larger perspective from which to examine and evaluate its programmes.

For example, a demonstration school cannot effectively prepare its students for the demands of high schools unless it knows what higher education expects from incoming freshmen. Similarly, a college cannot very well design its programme for teachers unless it knows how schools prepare students. According to Marris, Balmert and Calvert (2015), collaboration between the sectors, then, becomes the means for bridging the gap between school and college, for ensuring the continuity of excellence throughout the system. It is imperative that college instructors, too long aloof, isolated, and absorbed in the demands of their own disciplines, come to understand and appreciate the concerns and priorities of, and the demands made upon their colleagues in schools.

A college-school collaboration can provide tutors, teachers and candidate teachers with a splendid opportunity to interact with their colleagues and to share experiences, strategies, and insights into teaching (Marris, Balmert & Calvert, 2015). Such a collaboration offers teachers the freedom and flexibility unavailable in the traditional classroom situation. In the classroom setting, the opportunity exists to develop and refine diagnostic and conferencing skills, to experiment with new strategies and new techniques, to test the effectiveness of various materials and to develop new ones. Thus, in addition to bridging the gap between school and college, a collaboration also bridges the gap between rhetorical theories and classroom activities (Marris,

Balmert & Calvert 2015). The result, beneficial to teachers and students alike, is an on-going and growing community of teachers, mutually supportive, and mutually instructive.

Shared conversation centered upon professional practice is important for all teachers, but novice teachers may gain measurably more from the experience, as they benefit from an extension of mentoring that rarely exists after student teaching (McNiff, 2013). Hargreaves and O'Connor. (2018) postulated that collaboration affords teachers an opportunity to come together in an effort to improve practice, and through this, effort to assist novice educators. Besides, many veteran teachers also find a renewed interest in their craft, which may have been flagging or on the verge of burnout prior to the experience. According to Williams (2010), the formation of collaborative partnership between schools and colleges, such as those required by collaborative professional development, serves to combat the sense of frustration and feelings of isolation that grow when teachers do not have supportive and reflective collaborative partners.

Collaboration has powerful implications for collective learning and building consistent educational practices within schools. Herr and Anderson, (2014, p. 350) said the "key to this kind of professional growth is structures that break down isolation, empower teachers with professional tasks, and provide areas for thinking through standards of practice." These interactive networks in schools provide opportunities to develop leadership capacity in teachers. Donaldson (2006) adds that leadership is not only found in formalised roles; it emerges from informal relationships as well. Williams (2010, p. 350) asserted "collaboration brings teachers together to assess their

students' understanding; design, plan and implement new instructional practices; and reflect on their own teaching."

In the collaborative setting, "teachers must reflect upon their instruction and their specific interactions with students, which is a component required if instructional practices are going to change" (Hargreaves & O'Connor. 2018, p. 351). This model of team interaction for educational decision-making purposes, in the form of the professional learning communities' model, is "likely to be effective and enduring when those responsible for its implementation are included in the decision-making process" (Bensimom, 2012, p. 71). Further, Peppers (2014) highlights that action research is a relatively common practice in European and Asian schools, which fare far better in terms of student outcomes on international assessments.

Collaboration is a practice heavily emphasised by the professional learning communities' model, though there are varying systems schools utilise to achieve teacher collaboration. Essentially, collaboration is a constructivist, inquiry-based practice for adult learners. A collaborative school culture allows for "the possibility of individual transformation as well as the transformation of the social settings within which individuals work" (Lovan, Murray & Shaffer 2017 p. 948). Stollar (2014) also finds that collaborative settings such as the professional learning community are preferred in most schools as a forum to facilitate the exchange of ideas and to assist in the formulation of common instructional designs and assessments.

Mitchell and Sackney (2011) apply distributed leadership theory to collaboration as a way to measure the effect of teacher leadership and teacher efficacy that grows as a result of collaborative structures in high schools.

Components of college-school collaborative culture

Kools and Stoll (2016) note that schools with effective cooperation models are primarily concerned with student learning. When there is a genuine culture of collaboration in a school, there is shared responsibility for all aspects of learning, from curriculum creation to diagnostic assessment of kids' learning needs. Due to the fact that true collaboration takes time to establish, many schools have variable levels of effective collaboration implementation, which has varying effects on student learning. There is no preferred or "correct" method of collaboration; rather, participating schools are better suited to select the arrangements that meet their needs. Depending on the nature of the addressed need, collaboration may be temporary, long-term, or evolve with time.

It may be very casual, as in the case of social and sporting activities, or it may be more formal and supported by partnership or funding agreements with an established governance structure, as in the case of riskier shared facilities. Carter (2012) defines four levels of collaborative structures within college-schools partnership:

1. Fragmented individualism – the traditional form of teacher isolation.
2. Balkanization – consisting of subgroups and cliques operating as separate sub entities.
3. Contrived collegiality – leading to a proliferation of unwanted contacts among teachers that consume already scarce time with little to show for it.
4. True collaborative cultures – deep personal enduring cultures central to teachers' daily work (Hiebert & Morris, 2012).

Within collaborative groups, there are three key features that demonstrate promise in supporting teacher learning and changing classroom practice:

1. Collaboration in the intellectual work of teaching. Teachers engage over the school year in cycles of planning, enacting, and reflecting upon one's teaching (Kazemi & Ghousseini, 2016) Teachers become accepting of new practices as they try them out in a supported and safe context and observe the results in their own and each other's classrooms.
2. A common orientation to teaching and learning. Teachers work with a body of concepts and principles related to their content area and come to some shared understanding of those concepts and how to apply those (Williams, 2010).
3. Sharing of expertise. Teachers make available to one another their specialised content knowledge and 'pedagogical content knowledge,' instructional approaches for facilitating students' learning of the content (Hindin et al., 2007).

Honigsfeld and Dove (2016, p.148) surmised that "sharing of expertise is particularly powerful in terms of changing practice, as teachers can use the expertise of colleagues to adjust or improve their own teaching practice or to adjust, extend, substitute, or supplement their own beliefs." Because learning is a social process, the collaborative context of interactive planning and reflecting upon student outcomes is even more important (Warwick, Vrikki, Vermunt & Mercer, 2016). Warwick et al., (2016, 227) further asserted that teachers learn through "practice (learning by doing), through meaning

(learning as intentional), through community (learning as participating and being with others), and through identity (learning as changing who we are)."

In the view of Williams (2010), key to the collaborative culture of schools and colleges is shared purpose. Without teachers uniting behind a common vision for improved student achievement and improved instructional practice, the functionality of teacher collaboration is substantially minimised. According to Williams, one way to facilitate the development of shared purpose rests on the school leader. A school leader may choose to lead faculty members through a book study or a series of article studies that help teachers develop a clear picture of current research and trends in pedagogical practice. By developing a deeper understanding of educational trends and research supporting them, school leaders help to create a sense of urgency, which is critical in initiating the change process and is a first step in developing a common vocabulary centred upon improvement in instruction.

It is the information that teachers gather through the active learning steps required of collaborative action research that build, a sense of efficacy (Ghavifekr, 2020). Further, Warwick et al., (2016, p. 48) report that "collaborative and collegial learning environments ...develop communities of practice able to promote school change beyond individual classrooms…when whole grade levels, schools, or departments are involved, they create a critical mass for changed instruction at the school level."

General characteristics of college-school partnership

The first stage in establishing effective university-school relationships is for both parties to define a shared vision that includes common objectives. According to a school administrator, our partnership has been successful

because the shared objective (improving the mathematics education of young children with deafness or hearing impairments through the use of technology) was crystal clear from the start and received strong and unanimous support from school administrators and teachers (Kim, Park, Cho & Kim, 2013). The second component is money, both internal and external contributions being considered. Lastly, irrespective of the type of school, inter-impact mechanisms can be a hopeful element of a successful university-school cooperation. A collaboration must be bidirectional as opposed to unidirectional in order to provide mutual benefits for all parties involved (Auerbach, 2012).

In the distribution phase, the cooperation inspired the development of a new university student group and encouraged Indiana State University students to join in and learn about deaf culture.

Specific characteristics of college-school partnership

Interdisciplinary collaboration is the first particular and necessary element in the creation of collaborations with specialised schools (Mullis & Ghazvini, 1999). This type of collaboration is particularly vital for a partnership targeted at supporting students with disabilities, as it can contribute both subject-matter expertise and knowledge of unique adjustments. For an effective cooperation with specialised schools, university administrators must encourage collaborative and interdisciplinary exchanges among faculty members without empowering them hierarchically (Crane & Livesey, 2017; Jones 2013). Principal to the partnership's success was the continuous and regular collaboration of academic members from a variety of disciplines.

Due to the involvement of academic members from three universities, multiple modes of communication were utilised, including emails with attachments, Skype video conferences, and word processing software with the "track changes" capability (Kim et al., 2013). Kim et al. added that continual communication was the outcome of a dedication to a shared objective, an understanding of each participant's unique function, and cooperation abilities. For the continuation of the current partnership and for its enhancement, a number of actions must be taken, including a constant search for improved communication channels, a constant reminder of the shared objective through regular documentation and briefing of the current status, and a continuous commitment to and respect for the unique role of each university faculty participant.

The formation of distinct roles is the second specific component of cooperation with specialised institutions. How to define the appropriate power balance between university and school experts and how they should communicate with one another is a crucial concern (Palloff, & Pratt, 2013 as cited in Kim et al., 2013). To facilitate a collaborative working relationship, colleges and schools must accomplish effective communication. Due to various particular requirements of our relationship (e.g., ASL translation, specialised understanding of deaf students, and deaf culture), the different roles of ISD members were essential to creating a successful, long-lasting partnership between university academics and ISD participants.

In order to address the educational demands of students with impairments, specialised understanding of their conditions is crucial. In effective cooperation with specialised institutions, the necessity for context-

dependent knowledge validates the third component, specialist resources. In order to achieve our shared goal of enhancing learning opportunities for young children with deafness or hearing impairments, their project, for example, required the use of paired interview methods rather than individual interview methods due to the relatively strong preference for collaboration among these children (Kim et al., 2013).

Benefits of college-school partnership

Educational partnerships are formed for a variety of reasons: to effect educational reform, to provide regional economic development, to allow dual enrollment for K–12 students, to encourage transfer between community colleges and four-year universities, to improve student learning, to conserve resources, to obtain a shared goal or vision, and to establish international partnerships (Kapadia, 2021). Each partnership uses definitions of partnership or collaboration that are tailored to its own environment and group objectives, which can lead to a lack of shared meaning when comparable terms carry diverse connotations for individuals involved (Holt, 2020).

Educational reform

A Nation at Risk (National Commission on Excellence in Education, 1983) and the Spellings Report (U.S. Department of Education, 2006) have highlighted the need to transform educational systems and the need for systemic change in educational systems (Ghavifekr, Afshari & Amla 2012; Osmond-Johnson & Campbell, 2018). Reform demands novel ways of conceiving of roles and means of transformation (Aslan & Reigeluth, 2013). Reform efforts, for instance, aim to rectify educational systems that do not support historically underrepresented minorities (Archer, 2013) and to make

educational institutions accountable for student learning (see, for example, the No Child Left Behind Act of 2001 [P.L. 107–10] and the Spellings Report [U.S. Department of Education, 2006]).

At the heart of educational reform is the conviction that current systems are unsuccessful at achieving the necessary levels of student achievements, and that partnerships offer a mechanism to attain these objectives. In addition, the rise of for-profit educational institutions alters the landscape of higher education, as these schools provide students an option and a method to address educational reform. The introduction of for-profit higher education institutions increases competitiveness. In order to compete with the more service-oriented and specialised missions of the for-profits, existing institutions of higher education frequently collaborate to offer a broader range of services.

The concept of a unified educational system is a reform attempt that is gaining traction and driving partnerships. The construction of a P–16 pipeline is predicated on the premise that the pipeline requires a shared vision for educating pupils throughout the educational continuum (Mansfield & Thachik, 2016). The P-16 framework is intended to leverage and supplement the work already being done throughout our Early Learning methods. P-16 is the abbreviation for a student-centered, comprehensive, and integrated system that connects all stages of education, from preschool (P) to postsecondary (16). It is a powerful paradigm that people and governments may utilise to improve teaching and learning, and so better prepare kids for living, learning, and working in a rapidly changing world.

Several states have enacted P–16 initiatives ranging from required programmes to volunteer task teams (Rodriguez & Martinez, 2016), yet legislators face a plethora of challenges annually and can only handle a limited few (MacKenzie, 1983). Consequently, a lack of constant focus on P–16 projects frequently result in the failure of such partnerships. In 2009, the American Association of State Colleges and Universities listed college preparation as one of the top ten policy concerns facing states and determined that collaborations created through P–16 initiatives were a crucial tool for tackling this issue.

Economic development

Partnerships are seen as means of enhancing economic development. Federal funding agencies such as the National Science Foundation look to support partnerships that allow for technology transfer between colleges and business to help support economic development. Another form of partnerships with a goal of economic development centres on workforce development plans. Eddy (2010) studied a multiyear university-government partnership concerning workforce development and found that the collaboration helped align training to employers' needs more closely. The findings underscore the need to understand the context and industry mission of workforce education programmes.

Key to partnerships with a goal of economic development is identifying and fostering a mutual benefit that moves beyond traditional forms of consultancy toward a more strategic approach of planning and operations with an eye toward long-term sustainability. Partnerships built on trust, communication, and common purposes are more successful, whereas

inequality among the partners and fewer resources undermine joint ventures (Clevenger, 2019).

Dual enrolment or student transfer

Two key transition points involving different educational partnerships occur at the nexus of high school and college (dual enrolment) and between community colleges and four-year universities (transfer). Dual enrolment and transfer require partnering among K–12 schools, community colleges, and universities that is often legislatively mandated. Dual enrolment occurs when high-ability high school students enrol concurrently in an institution of higher education, typically a community college, to help meet their educational needs for more advanced coursework (Wang, Chan & Phelps, 2015). However, in Ghana, the situation is not the same. College transfer occurs when students move between a community college and four-year college or between two four-year institutions.

Howley, Howley, Howley and Duncan (2013) indicated that key elements in community college transfer included previous relationships between institutions, the support of the college presidents, adequate and sustained funding, and the importance of the university in maintaining a presence on the community college campus. Typically, articulation agreements between community colleges and universities outline the requirements of the transfer process, potentially eliminating common barriers and challenges faced in partnership development (Renbarger & Long, 2019). Ease of movement between educational institutions helps in retaining students, eliminates redundancy in course taking, and may result in cost savings for students and their families. Nevertheless, in Ghana, the situation is not the

same as limited policy exists to permit transfer among college students (Nkrumah, 2021).

Student learning

Institutions are often motivated to partner because they share interest in students' success. One focus of student learning initiatives involves preparing students for college. These collaborations often target underserved groups through programmes such as TRIO, Upward Bound, and locally created access programmes (Schinske et al., 2017; Barnett et al., 2012). These programmes involve colleges and universities partnering with public schools and community groups to open paths to college for students not typically attending. Another focus of partnership centered on student learning involves service learning. Despite challenges in building and sustaining service-learning collaborations, Hines et al. (2020) discovered a high sense of understanding and commitment to student learning among partners, with the common goal of student learning helping to bolster the partnerships.

Another focus on student learning occurs in vocational training programmes in community colleges that work to support apprenticeships for students in area businesses (Amey & Eddy 2010: Murphy & Knight, 2016) and in technology preparation programmes that provide high school students with work experiences (Lebedyk, 2015). As noted earlier, a common area of partnership activity occurs among educational institutions along the P–16 continuum (Eckman, Williams, & Silver-Thorn 2016; Murphy & Knight, 2016). P–16 initiatives not only address educational reform but also offer opportunities to partner to heighten student learning. Though the overarching goal of all educational institutions is to educate students, differences in culture,

teaching approaches, policy oversight, and philosophies emerge (Barnes, Hall, Lowe & Pottinger 2020; Hines et al., 2020).

For example, Brezicha and Bergmark (2015) reviewed a partnership between a school and a university, noting that different views on the teacher's role in school reform created fissures in the partnership. Different perspectives ultimately shifted the goals and outcomes of the collaboration.

Resource savings

The decline in public funding for higher education pushes faculty and institutions to seek supplementary revenue sources and to look at partnerships as a money-saving enterprise (Eddy, 2010). For example, educational institutions involved in P–16 endeavours can help states save resources but require a reduction in the competitive nature of higher education (Newman & Couturier & Scurry, 2010). Resource savings are often a motivator for institutions in rural areas that strive to create better opportunities for students, businesses, and the community (Eddy, 2010). Although one source of revenue comes from partnering with business, an issue often raised in business and educational partnerships is the loss of academic freedom for faculty members and the push of a business agenda (Austin, 2010).

Concerns also occur regarding the impact on the academic culture, but Huxham and Vangen (2013) found that the faculty in the case investigated felt that the academic culture of their department was unaffected by their partnership with industry collaborators. Lynch and Smith. (2012) provided a different perspective on education business partnerships, underscoring the symbiotic relationships between regional employers and community college programmes. In this case, businesses receive a well-trained workforce,

colleges create cutting-edge curricula to support student learning, and students gain valued experience in the workforce.

Central government's grant funding agencies encourage partnerships between public schools and colleges as a means to pool resources and address problems of poor student performance (Clifford & Millar, 2008). A common perception is that alliances result in economies of scale and ultimately the expenditure of fewer resources. One form of resource savings occurs when partners share facilities. Watson (2007) studied a partnership among a high school, community college, and four-year university in which the construction of a new high school afforded the opportunity to create space to include programmes on site provided by the two-year college and the four-year university. Each educational representative held different motivations and desires for sharing space, but all were accommodated in the high school space.

Shared goals and visions

Partners' shared interests in particular outcomes are a second reason for forming partnerships. Having a shared objective or vision for a partnership may be motivated by a variety of circumstances, including those described above. Association of Research Libraries and Association of American Universities are an example of policy-level organisations with shared objectives. Duane Webster, executive director of ARL, championed the cooperation that benefited both organisations, but especially those that were part of a larger network of partnerships and collaborations (Eddy, 2010). Another example of an informal relationship between groups is the exchange of student data in New Hampshire regarding the postsecondary aspirations of students across the state with lawmakers (Lemaire, Knapp & Lowe, 2008).

In this instance, the purpose of pooling information through a collaborative effort assisted in addressing the dearth of uniform data on higher education in the state, which eventually benefited all institutions and students. As the number of partnerships increases, state agencies develop regulations to explain how agreements should be implemented and to assist new partners in outlining their roles and duties (Eddy, 2010). Similarly, colleges collaborate with community organisations to achieve shared objectives and desired outcomes, such as enhanced health and safety, community improvement, and a desire to expand learning possibilities. The greater the alignment of the common vision, the greater the likelihood that the partnership will be sustainable and achieve its objectives (Kruss, 2006).

Improved curriculum provision for students

Some schools may not have enough students to provide every topic, or they may find it challenging to recruit subject-matter experts. By collaborating, schools can offer full-time instruction by sharing the expense of the instructor, or they can share specialised programmes or resources. Collaboration can expand learning possibilities for all kids in a community, ultimately boosting student engagement and achievement (Lewallen, Hunt, Potts-Datema, Zaza & Giles, 2015).

Pooled resources

Due to their small size or remote location, it may be challenging for some schools to engage services or access amenities. Schools from various sectors may elect to combine resources or efforts and share resources they would not otherwise be able to acquire. This can improve students' and the surrounding community's access to specialised education, services, and

supports, such as health and wellness. This can also reduce planning and administrative costs (Leeming, 2018).

Knowledge sharing

Not all schools are located near other schools within the same sector, nor do they face the same educational issues or have the same requirements. By partnering with a school from a different sector, administrators and teachers can share information and develop practises that effectively address similar difficulties or possibilities. This may involve shared professional development opportunities and teaching and learning strategies (Wang & Noe, 2010).

Broader community benefits

Cross-sector collaboration between schools can provide enormous community advantages. Schools from all sectors may collaborate with the community to create a comprehensive response to local needs, such as student absenteeism or mental health results. Through increased participation in joint educational, cultural, and sporting events, collaborative efforts can help promote a sense of shared responsibility for the education and well-being of all children and youth in the local community (Sharman, Nash & Cleland, 2019).

Benefits of college-school partnership to trainee teachers

With their first contract in hand, new teachers anticipate the autonomy and responsibility of having their own class, and they spend countless hours preparing their classrooms, bulletin boards, and lesson plans. However, as with any new endeavour, and particularly in circumstances where teachers tend to work alone, worries emerge. According to Planche and Donohoo

(2018), training and pre-service experiences are not the same as being solely responsible for one's own pupils in a classroom. A considerable majority of new instructors do not feel adequately prepared for classroom practise, according to research. According to a recent OECD research, many new instructors felt more comfortable with their subject matter than with practical practise and implementation challenges (Goodwin, 2012). When confidence wanes, our sense of well-being, resiliency, and willingness to take risks suffer.

For trainee teachers, OECD (2017) points out and practice substantiates, often have several foundational areas that shake their confidence, including classroom management and behavioural issues, assessment practices, and instructional planning. Assessment and instructional issues are intertwined, as a young teacher recently pointed out, because assessment "is not clear cut." Assessment includes tracking student progress and understanding how to use anecdotal information for reporting and planning purposes. In the view of Planche and Donohoo (2018), purposefully selecting impactful instructional strategies and knowing how and when to provide modifications and accommodations come with experience and are not necessarily part of a new teachers' repertoire.

If not addressed and supported, these areas also become reasons why teachers leave the profession. In particular, as our conversations with new teachers have illuminated, classroom management difficulties can greatly impact a teacher's sense of competence and prompt some to quickly abandon dreams of being innovative in their delivery of daily lessons (Planche & Donohoo, 2018). Instead, they fall back on more traditional methods to simply cope on a day-to-day basis. It becomes an issue of feeling in control and is

compounded if teachers feel they must mask or hide their feelings or if they feel they are alone in trying to solve classroom issues.

Collective efficacy can be a powerful outcome of this kind of learning when teachers have the structural support to engage in co-learning efforts (Goddard, Goddard, Kim & Miller, 2017). Goddard et al. (2017) stressed that the good news is that teacher confidence, feelings of preparedness, and skills can be increased through a variety of supports. In the view of Goddard et al. (2017), a coach, mentor, peer as a co-learner, or principal who will not judge inexperience can be a pivotal person in making a difference for a beginning teacher who is feeling somewhat overwhelmed. Following, this section highlights three strategic supports to teachers that go beyond initial induction training to professional learning through collaboration: mentoring, co-learning through collaborative inquiry, and coaching.

Mentoring

College-school partnership programmes are a tangible key to success for many teachers. As a 2017 longitudinal study on the New Teacher Induction Programme (NTIP) by Christine Frank and Associates for the Ontario Ministry of Education recently highlighted (Planche & Donohoo, 2018), teachers who were new to the profession identified a key support that was particularly helpful: mentoring from colleagues. To be clear, mentorship experiences appear to be on a continuum of effectiveness as highlighted in this report, but when teachers and mentors were a good match, the impact was significant. Planche and Donohoo further indicated that the report outlined important conditions for a successful mentoring relationship for new teachers such as:

1. Having a mentor or colleague willing to share information, advice and resources that were relevant and helpful
2. Co-creating new ideas for classroom programme delivery
3. Receiving support and encouragement
4. Feeling safe to make mistakes and ask questions
5. Collaborative work and problem solving.

As one fortunate participant in the study was reported saying that, having a mentor in the same subject area, we worked a lot together, co-planning and co-teaching, teachers helped trainee teachers go further in planning and teaching (Frank & Associates as cited in Planche & Donohoo, 2017). According to Planche and Donohoo (2017), personal support from the principal is also important. Ongoing feedback and encouragement from the principal were seen as integral to growth in the NTIP programme during its recent year one report in Ontario. To Planche and Donohoo, the principals' ability to be present, to listen attentively, to be intuitive to the needs of new staff and to provide tangible support such as an appropriate mentor and/or coach speaks to core administrative and leadership knowledge.

Collaborative inquiry

In a parallel process to inquiry teaching and co-learning with students, developing a co-learning culture where novice and experienced teachers take on supporting each other and where the principal is himself or herself a co-learner now represents the next level of leadership behaviour needed (Sharratt & Planche, 2016). Realistically, structural and organisational issues such as time to co-reflect have to be addressed to grow co-learning efforts. In the view

of Sharratt and Planche, the following are how school leaders can build a collaborative learning culture:

1. Creating a culture of safety and risk-taking
2. Maintaining a clear focus
3. Modelling co-learning
4. Empowering others to lead and share decision making
5. Demonstrating strong facilitation skills.

In a highly developed co-learning setting, starting teachers can co-assess, co-plan, co-teach, and co-debrief lesson impact with a range of different educators (Planche & Donohoo, 2017). These may include teaching colleagues, a coach, and/or a network spanning multiple schools. According to longitudinal research conducted for the Ontario Ministry of Education between 2012 and 2015, there is a high association between classroom observation and peer debriefing as part of a lesson's planning and the development of instructional practise. Adults as well as pupils benefit from the concept of collaborative learning.

A co-learning culture, according to Planche and Donohoo (2017), exemplifies what we know about high-quality professional development at its heart. It should centre on the issues of classroom practise and learning. In co-learning, student work can spark collaborative conversations about what students understand and potential next stages in instruction. Co-assessment of student learning, co-planning of upcoming sessions, co-analysis of student work, and co-reflection on student learning foster deeper learning and a sense of individual and group efficacy. We are aware that a scaffolding technique is advantageous for kids. Why wouldn't it also be advantageous for new

professionals? Using an inquiry-based approach to co-learning allows both experienced and inexperienced teachers to contribute to problem-solving with an equal voice, while connections, trust, and a sense of safety are fostered and reinforced.

Leaders (administrators and teacher leaders) who take the effort to be co-learners with others facilitate the development of learning partnerships inside their schools. Leaders who demonstrate their own vulnerability as learners inspire others to take risks and share their own learning experiences. Co-learning is supported by skilled facilitation, which can be taught as a leadership skill (Planche & Donohoo, 2017). Until policy enables it, not all instructors are able to co-assess, co-plan, co-teach, and co-reflect, despite the fact that many teachers indicate a desire to do so. Scheduling is frequently an obstacle to the development of a co-learning culture in small schools that lack common preparation periods. To allow collaborative learning designs to take root, system leaders need to advocate for professional co-learning time.

Coaching

Taking the effort to provide coaching to employees who require specific assistance also contributes to the development of cultures where professionalism is highly appreciated (Planche & Donohoo, 2017). Coaches may be teachers or school leaders and have the ability to provide feedback, ask questions to stimulate additional thought, and model techniques that may be novel for some students. As a knowledgeable other or instructional resource as well as a learning partner, coaches provide a breadth of expertise regarding proper assessment and instructional responses to their interactions with novice

instructors. A coach is a thinking partner for instructors, and coaching is a meeting of the minds, according to Knight (2011).

These three kinds of support — mentorship, co-learning via enquiry, and coaching – advance the concept of "collaborative professionalism" when they work in tandem. This term, as employed by Fullan and Hargreaves (2016), is predicated on the notion that teaching has become an interdependent profession that necessitates the integration of structural adaptations, such as schedule flexibility and opportunities for sustainable professional learning, into system thinking. Co-learning utilising an enquiry design is a technique that recognises and honours teachers as school development drivers, as opposed to improvement objectives. System and school leaders must cultivate robust cultures of co-learning (Planche & Donohoo, 2017).

Moreover, Planche and Donohoo noted that system thinking about teacher induction must change from being a support over a predetermined period of time to induction into a collaborative community of learners where growing one's capacity

is promoted throughout a teaching career.

Research activities of teachers in colleges

Colleges of education are not only the cradle of talent cultivation, but also the source of knowledge innovation. Throughout the history of university, scientific research at university has been a long-time activity, especially since Humboldt proposed that the university should conduct scientific research in the early 19th century. Scientific research has become conscious, systematic, and organised behaviour of universities (Quan-fen, Lian-sen & Hui, 2015).

Consequently, universities play a vital role in knowledge expansion and innovation.

Generally speaking, colleges of education focus on "pure science" research, basic research, or "discovery research," rather than application and development research or "invention research" whether from the perspective of "Being" or "To-be." According to Quen-fen et al. (2015), as the organisation to cultivate advanced specialised talents, university research is naturally foundational and theoretical. "The research which can closely combine with teaching and directly promote advanced talents cultivation should be the basic research that can generate and expand new knowledge and theories" (Hu, 2006, p. 31). Research in university is particularly typical at this point.

Historically, "The nature of university determines its particular interest in basic research" (Zhang, 2010, p. 187). Besides, "University is the cradle of thought" (Zhang, 2010, p. 188). The preference to academic freedom is the long-standing tradition at university and philosophy plays a leading role. Finally, speculation is supreme at university which dominates the experiment and the level of the experimental results (Zhang, 2010, pp. 187-188). Furthermore, universities, especially research universities, have not only natural interest in basic research but also unique advantages. The adequate young talent resources, high level scientific and technical experts, the fast interchange and renewal of personnel, the active academic thoughts, and the wide range of disciplines are particularly suitable for free exploratory, curiosity-driven, and interdisciplinary basic research (Quen-fen et al., 2015).

There are a broad range of disciplinary interpretations of research and research activity. For example, creative art and design practice itself may

constitute research (Candy, 2011) and in arts-based disciplines, practices such as performances, exhibitions, installations and recitals are all part of the discipline definition of research and therefore considered "authentic" to the research context. What constitutes research in literary studies is distinct from the role of undergraduate research in 'becoming a scientist' (Archer & DeWitt, 2016). In the sciences, the focus may be on experimentation and observation to generate data. Healey and Jenkins (2018) refuse to define undergraduate research because of the wide variety of interpretations, not only in disciplinary terms, but related to the differences between the contexts in which research takes place.

In an increasing number of examples, interdisciplinary research experiences are being undertaken that may bring together multiple disciplinary norms, values, methodologies and perspectives so this publication takes a broad definition of undergraduate research. Defining research with students is recommended by Walkington (2015), so that staff and students share an understanding of research norms in the discipline. Given Colleges of Education in Central/Wester zone's inquiry-intensive missions, research universities are thought to have a comparative advantage in terms of providing high quality research experiences for their undergraduates (Cronin, 2017). Many colleges of education, including OLA College of Education, Fosu College of Education, Holy Child College of Education, Komenda College of Education and Wiawso College of Education of the Central/Western zone, feature opportunities to work side by side with productive scholars on the cutting edge of their fields.

Research project is not only collecting, searching and saving information, but also prognosis of possible results in using these matters (Peinado, Wolf, Iribar & Ride, 2014). Such research gives us understanding and explanation of new matter and shows the way into getting knowledge. Research activity skill gives students an opportunity:

1. To develop a professional approach to scientific skills.
2. To develop research skills and evaluate their necessity.
3. To search information and collect evidence that apply to research problems.
4. To observe, evaluate information and bind it with research problems.
5. To introduce common terms and methods used in medical statistics, and to combine existing knowledge in using main statistical data and methods of information presentation.
6. To observe, determine and evaluate conclusions of research.
7. To inform colleagues, tutors and a wide audience about the process and results.
8. To develop pedagogical skills that can be used in all fields

Promoting effective teaching and learning

Effective primary school instruction is a serious concern in many nations throughout the world. For teaching to be effective, torchbearers are required (Lacina & Block, 2011) — teachers who distinguish themselves and stand out from the crowd. It is suggested that successful teaching also occurs when reflective practise exists (Delvin, Kift & Nelson, 2012). Reflective practises are considered the foundation and engine of good teaching, according to the literature to mean: “Without routinely engaging in reflective

practice, it is unlikely that we will be able to understand the effects of our motivations, prejudices, and aspirations upon the ways in which we create, manage, receive, sift, and evaluate knowledge; and importantly, the ways in which we are influencing the lives, directions, and achievements of those whom we nurture and teach" (Mupa & Chinooeka 2019, p.229).

On the other hand, some people believe that effective teaching takes place if teachers have been exposed to the foundations of education. Philosophy of education is central to the practice of teaching. In this regard, Mupa and Chinooeka (2019, p.85) suggested that, "as we learn more about the teacher, we are likely to come closer to understanding how effective teachers are made". Knowledge of effective pedagogical practices seem to be topical in coming up with the profile of effective teaching. Ghana has invested very heavily in human resources development in order to improve the quality of teaching in schools, especially, establishment of colleges of education. Paucity of material resources is a factor that contributes to ineffective teaching in primary schools. Chingos and West (2010) argue that the quality of learning materials such as textbooks is an important ingredient in improving instructions.

It is not the buildings themselves that are critical for effective teaching and learning but the quality of the processes that take place within the buildings (Butts, 2010). Physical infrastructures will have an impact if they prevent work from being done. Aldahmash, Alshmrani and Almufti (2017) has blamed poor academic performance on the dramatically lower number of learning hours in developing countries. Students standing in lecture rooms without being able to take lecture notes impacts negatively on the quality of

education. Sawchuck (2011) has found a high correlation between electricity in the school and pupils' achievements. There are positive effects of electricity such as long study hours, utilisation of television, electronic equipment and tools.

In the 21st century, the demand for effective teaching and learning has become a driving force; hence, this study. Teachers must prioritise educational approaches that equip all students with the knowledge and abilities required to contribute to the global community. Without understanding whether or not students learn as a result of particular teaching practises, it is impossible to establish whether or not they are effective. The challenge for the teacher is not only to identify and develop mastery of certain instructional strategies and behaviours accepted as effective practises, but also to develop the ability to effectively match these strategies and behaviours, at the appropriate time, to individual students and student groups, in specific teaching situations in relation to the teacher's desired student learning outcomes (Pichora-Fuller, Kramer & Eckert, 2016).

Challenges associated with college-school partnership

Throughout the education system, there is widespread agreement that strong college–school partnerships support preservice teachers' professional learning (Allen, 2011; Nosek, Spies & Motyl, 2012). The researcher's observation suggests that many entities can benefit from such partnerships. College tutors can stay connected with what is happening at the school level, principals can stay informed with the initiatives occurring in higher education, student achievement can be impacted, teacher candidates can hone their craft,

and professional development or adjunct opportunities can arise for classroom teachers.

However, research indicates that challenges exist to building and sustaining such school–college partnerships. Turnover rate, changes in policies, limited resources, and time are just a few of the barriers faced (Colwell, MacIsaac, Tichenor, Heins & Piechurra, 2014). Another challenge not widely accounted for in the literature remains the concern that large universities face how a large number of quality school placements are established. Research from various international contexts has also consistently emphasised significant challenges associated with building authentic school-university partnerships (Mtika, Robson & Fitzpatrick, 2014).

Empirical Review

In a study conducted by Fuentes and Spice (2015), the difficulties of establishing a university-high school relationship were examined. The authors described the second year of a multiyear study designed to increase collaboration between high school teachers and college freshmen. The project featured specific tools that assist partners in determining the optimal collaboration strategy, allowing it to be more flexible than conventional collaborations. The authors analysed the relationships that formed through the theoretical lens of communities of practise and discovered that they lacked a number of desirable traits. They analysed the contributing elements, proposed modifications, and provided suggestions for individuals interested in facilitating similar undertakings.

Hunt (2014) conducted a literature review on school-university partnerships for effective induction of new teachers. According to Hunt, the

first few years of teaching are crucial for the development of an expert teaching technique. By not participating in the professional development of new teachers, many colleges are missing out on tremendous possibilities to cultivate diversity and critical thought. This review of the literature investigates how colleges have attempted to assist school districts in implementing more intense kinds of new teacher induction. In the first years of teaching, school-university partnerships have the ability to meaningfully connect theory and practise. The author provides recommendations for developing effective partnerships for new teacher induction and poses questions for further research in the topic.

Delacruz and Guerra (2019) conducted research titled "Building sustainable afterschool literacy programmes through collaboration with university teacher candidates." The scope of their study was enlarged to include a community partner in addition to school–university partnerships. This study involved a partnership between an after-school tutoring initiative called the Discovery Centre (pseudonym) and a university reading class. According to Delacruz and Guerra (2019), this partnership, which was in its sixth year of operation, taught teacher candidates in the field of literacy while providing additional, free support to students in Kindergarten through Grade Two. Forty students participated in co-taught tutoring sessions led by twenty-four teacher candidates under the supervision of three centre directors and a university professor.

This study's data were acquired through focus groups with preservice teachers, interviews with centre directors, and interviews with parents. Throughout the semester, teacher candidates' knowledge of differentiation and

co-teaching expanded, according to the findings. Additionally, teacher applicants believed that additional tutoring sessions should be organised to provide for greater flexibility. The tutoring resulted in improved academic performance in reading, as reported by the parents. Their findings indicate that all parties viewed the collaboration as a great success, and they presented suggestions for how to deepen and develop similar relationships elsewhere.

In their comprehensive study conducted in 2019, Heinz and Fleming delved into the intricate dynamics of collaboration between educational institutions, particularly universities and schools, within the context of initial teacher education curricula. The study addressed a pervasive concern within the field, namely, the criticism surrounding the disconnection between educational theory and practical school applications in teacher preparation programs. To bridge this divide, the authors explored the notion of forging deeper partnerships between schools and teacher education providers. Employing a narrative approach, Heinz and Fleming meticulously examined a complex case study involving the establishment and management of a substantial school-university partnership (SUP) network in the Republic of Ireland.

Within this narrative, the protagonists and researchers vividly portrayed the intricate journey of developing and orchestrating the SUP. The authors' analysis of the Irish case study illuminated the authentic transformation of teacher educators' institutional identities as a catalyst for meaningful collaboration. Simultaneously, it shed light on the ethical quandaries confronted by university tutors as they engaged more deeply in the cross-boundary space between schools and universities. These challenges,

stemming from power dynamics and imbalanced responsibilities, precipitated doubts, discomfort, and, on occasion, disillusionment among tutors. In response, they recalibrated their expectations regarding SUP and redirected their energies and aspirations toward cultivating future student teachers as agents of collaborative change.

Cain (2019) investigated "School-University Connections for Evidence-Based Practice." According to Cain, a variety of research have highlighted impediments to evidence-based practise in schools, and many of these studies propose school-university partnerships as a strategy of overcoming these barriers. In England, public policy also fosters school-university relationships, with the expectation that they will be mutually beneficial. The secondary analysis of data from five qualitative research projects reveals that school-university connections are forged through activities such as postgraduate degrees, research projects and evaluations, Teacher Research projects, research dissemination conferences and seminars, Initial Teacher Education, research-informed Continuous Professional Development (CPD), and funding bids.

Although on the surface it may appear that these activities enable more and better evidence-based practise in schools, school-university relationships are premised on diminishing, short-term activities that mainly rely on the enthusiasm of a few individuals. The author concluded with proposals for strengthening school-university ties so that research can more effectively inform practise. According to Cain, partnership agreements should enable instructors to engage in and with research so that, regardless of the partnership's activities, research-based ideas can be scrutinised, tested, and

reviewed by teachers in schools. Engaging with research can suggest new solutions to problems for educators, while also allowing for the testing of these solutions with a degree of methodological rigour (alternatively, if teachers engage only with research, their practise might not be changed by the research-based ideas that they encounter; if they engage only in research, they might spend considerable effort finding out what is already known).

Cain emphasised further that there is little evidence in the data that schools and universities structure their joint work to guarantee that instructors can participate in and with research; if this were done systematically, schools would likely become more research-informed. Peters, Fain, and Duncan (2018) also did research titled "Explore for more: Improving student literacy through a school-family-university relationship." According to Peters et al. (2018), numerous educator-preparation programmes seek partnerships with K-12 and community organisations. The writers describe the evolution of a cooperation between K-12 schools, universities, and families. In addition to fostering reading growth and engagement among P-12 students from varied language and cultural backgrounds, the partnership aimed to provide a sustainable training platform for present and future instructors.

Participation in the described summer literacy programme did not result in a decline in reading skills or enjoyment among elementary pupils (n=40) throughout the course of the summer months (p 0.05). Beyond the benefits to students, it is important to recognise that educator preparation programmes and K-12 schools have much to offer each other and mutually benefit when they collaborate; ways for developing and maintaining a healthy collaboration are highlighted. Peters et al. noted that schools and universities

frequently desire to make partnerships and recognise the importance of collaborations, but do not always know how to establish a link that is mutually beneficial. In light of this, they recommended that universities contact with local K-12 school leaders, as

both parties frequently seek partnership opportunities and have shared needs.

It was also emphasised that it is essential for partners to incorporate the voices of kids, families, communities, students, teachers, and teacher educators when generating ideas. Corbin, Chu, Carney, Donnelly, and Clancy (2017) conducted an important study titled "Understanding collaboration: A formative process evaluation of a state-funded school-university partnership." According to Corbin et al. (2017), school-university partnerships are widely promoted, but little is known about what factors contribute to their success. A participatory formative evaluation of a state-funded school-university relationship was reported in the study. As the analytical framework, the study utilised an empirically generated systems model, the Bergen Model of Collaborative Functioning (BMCF). Twenty-one semi-structured interviews were performed with a variety of subjects, transcribed, and then analysed using the BMCF.

According to Corbin et al. (2017), participants identified the foundation of partnership work between schools and universities as requiring the cultivation of humility to overcome hierarchical hurdles for students, parents, and school employees. The key findings include a practise model for changing organisational structures to institutionalise protected collaborative space, a theoretical model that provides a framework for better understanding the process of partnership, and a policy model that indicates the importance of

substantial funding to overcome organisational barriers and provide incentives for the required intensive, long-term work.

Pardieck, Bussan, Bond, and Greer (2017) researched "Fish philosophy and school culture: A collaboration between schools and universities." According to Pardieck et al., a Midwest early childhood education centre faced a period of transition in the fall of 2004 due to a major administration and staff turnover. A newly created Leadership Team appealed to the business community for improvement methods in an effort to enhance and maintain a positive school culture. As a basis for the improvement project, the Team modified and applied the well-established Fish Philosophy. Through their relationship with the school and university, they adapted the business concept, activities, and routines to their educational environments.

According to Pardieck et al., the four guiding principles of the philosophy were successfully implemented in school and university settings. Al Seyabi (2017) also did research on the relationship between colleges and high schools. The objective was to determine "Students' and teachers' perspectives on school-university partnership in the context of Omani EFL." According to Al Seyabi, educational partnership between schools and higher education institutions has become a key strategy for boosting students' achievement in both contexts and college readiness. In addition, it has been acknowledged as a crucial element of educational reform. The study examined various models of school-university partnerships from around the globe. It also provided the findings of a study that, among other things, analysed the perspectives of 749 students and 68 teachers on the topic of school-university relationship.

The following is a summary of participant comments on how to develop a better transition between EFL syllabuses in post-basic schools and foundation programmes in Omani institutions, with specific reference to EFL reading and writing instruction. The majority of student ideas centred on three themes: administrative coordination, the necessity for orientation programmes, and exchange visits. The majority of teachers' comments centred on the need for curriculum modification and alignment between the Ministry of Education and the higher education sector. Al Seyabi concludes that an effective and successful collaboration is expected to be a sustained effort that does not require a specific need on the part of the school or higher education institution, but rather seeks to produce long-term or systemic change.

Kim, Park, Cho, and Kim (2013) analysed university school partnership similarly. The objective of their study was to identify six key features involved in the development and enhancement of a university-school partnership and to share insights on how these features can be used to promote richer experiential learning opportunities for university students and young children with deafness or hearing impairments, resulting in synergistic university-school interactions. According to Kim et al. (2013), the key features are categorised into general characteristics applicable to many university-school partnerships (shared goals, availability of funding for a highly successful revamped partnership, and inter-impact mechanisms) and specific characteristics for university partnerships with specialised schools (interdisciplinary collaboration, distinct roles, and expertise resources) in the development and implementation of university-school partnerships.

Kim et al. also emphasised that the essential characteristics and their implications for future university-school relationships are examined within an educational setting.

Chapter Summary

The reviewed literature reveals that college-school partnerships are widely promoted by accrediting bodies and professional organisations. In Ghana, it appears insufficient research exists that examines relational dynamics within school-university partnerships or that draws upon participants' multiple perspectives. The literature is disparate, failing to connect research in a way that builds theory or provides recommendations for effective collaboration among partners. However, the researcher does not know the extent to which this is so in the selected colleges. It is important to note here that, although many works have been done on college-school partnership and related topics, some gaps still exist.

One gap stem from the fact that these studies were not conducted in Ghana. There is, therefore, the need to ascertain the effectiveness of the colleges of education and their demonstration school partnership in the Central/Western zone. Again, failure by all preceding studies to take cognisance of how different the college-demonstration school partnership from the partnership with other schools in the college's catchment area is an obvious gap which this work tends to bridge.

CHAPTER THREE

RESEARCH METHODS

Introduction

The study sought to investigate the colleges of education and their demonstration schools' partnership in the Central/Western zone of Ghana. This chapter describes the methodological issues involved in the study. It discusses the study design, population, sample and sampling procedures, as well as the data collection instrument, validity and reliability of the instrument. Furthermore, data collection procedures, as well as data processing and analysis procedures are discussed.

Research Design

A research design is said to be a logic plan of study that guides the researcher as he/she collects, analyses and interprets data. Kombo and Tromp (2006) viewed it as "the structure of research, … the 'glue' that holds all the elements in the research project together" (p.70). Creswell (2009) states that researchers attempt to describe phenomena as they appear in everyday life before they are theorised, interpreted, explained and otherwise abstracted. The research design employed was a descriptive survey using the mixed method approach involving the quantitative and qualitative paradigms. A descriptive survey design was considered as the most appropriate for conducting the study because it is concerned with conditions that exist, practices that prevail, beliefs and attitude that are held, processes that are on-going and trends that are developing (Gay & Airasian, 2003).

The descriptive survey design was also found to be suitable because the method deals with questions concerning what exists with respect to

variables or conditions in a situation (Ary, Jacobs & Razevieh, 1990). It is however, important to note that, like any other research design, the descriptive survey has its own strengths and weaknesses. The major strength for using the descriptive design is that it provides researchers with a lot of information from various respondents. Also, the data collected are easy to analyse. On the other hand, two major weaknesses of descriptive survey design are how to obtain honest and sincere responses and how to retrieve all the questionnaires that have been distributed. To overcome these challenges, the respondents were assured of anonymity and confidentiality while the use of focus group discussion, as an additional method of data collection, helped with the triangulation of data obtained.

Also, persistent visits were made to participants to ensure all questionnaires administered were retrieved. Mixed methods research, commonly known as the "third methodological orientation" (Teddlie & Tashakkori, 2008), combines the qualities of qualitative and quantitative research. While there is no universal definition of mixed methods research, Creswell and Plano Clark (2011) outline its core characteristics: in a single research study, qualitative and quantitative data are collected and analysed separately, and then integrated (either concurrently or sequentially) to answer the research questions. Onwuegbuzie and Combs (2010, p. 414) concur, writing, “mixed method analyses involve the use of at least one qualitative analysis and at least one quantitative analysis – meaning that both analysis types are needed to conduct a mixed analysis.”

Instead of approaching a research subject via the binary lens of quantitative or qualitative research, the mixed methods research strategy has

the potential to improve scholarly discourse by combining the benefits of both methodologies. Sequential explanatory mixed methods approach was employed in this study. This approach is a two-phase mixed method with the overall purpose of using qualitative data to explain or build upon initial quantitative findings (Creswell, 2003). The researcher first collects and analyses quantitative data followed by the collection and analysis of the qualitative data. The qualitative data collection was designed in such a way that it followed from the findings of the quantitative data gathered. Much emphasis was placed on the quantitative data than the qualitative data. This approach was used because there was the need for the qualitative data to further explain significant and insignificant findings in the study (Morse, 2002). Moreover, multiple sources or methods of data gathering increased the credibility and dependability of the data since the strengths of one source compensated the potential weaknesses of the other (Johnson & Onwuegbuzie, 2004).

In addition, mixed methods research has a complementarity function, which aims to produce a comprehensive understanding of the research enquiry by examining its different aspects (Creswell & Plano Clark, 2011). In the view of Creswell and Plano Clark, one of the functions of the mixed methods approach is triangulation, which seeks convergence, corroboration and correspondence of results from the different methods. Creswell (2009) identifies this process as 'validation-through-convergence' because it increases research validity and overcomes the limitations and biases of using one research method. Triangulation does not entail congruence between the findings of different instruments; on the contrary, it can be viewed as the

mixing of data or methods so that diverse viewpoints or standpoints cast light upon a topic (Olsen, 2004).

In this case, triangulation was aimed at providing an in-depth understanding of practices of college-school partnerships among Central/Western zone Colleges of Education in Ghana.

Population

A research population is a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait. The target population of this study was all the students, tutors, principals and teachers in the Colleges of Education in the Central/Western zone, Ghana and their demonstration schools during the 2019/2020 academic year. The accessible population however, comprised all final year students, tutors and principals of OLA, Fosu, Komenda, Holy Child and Wiawso Colleges of Education and teachers of their demonstration schools. The estimated accessible population for the study was 2,359 comprising 1882 final year students, 364 tutors, 103 teachers from the demonstration schools and 10 principals and head teachers. Table 1 presents lists of the accessible population.

Table 1: Distribution of Accessible Population

College	Tutors	Students	Teachers	Principals & Head Teachers	Total
OLA	78	330	15	2	425
Komenda	67	387	25	2	481
Foso	83	436	19	2	540
Holy Child	73	344	21	2	440

Wiawso	63	385	23	2	473
Total	364	1882	103	10	2359

Source: Website of respective Colleges (2021)

Sample Size and Sampling Procedure

The procedure for selecting a sample is known as sampling. A sample size consists of a carefully selected subset of the units that comprise the population. The study employed stratified, simple random and purposive sampling techniques to select participants for the study**.** Stratified sampling technique was used in the first stage to group the population into groups. Participants were demarcated according to their colleges. The groups were labelled based on their initial names; OLA College of Education, Komenda College of Education, Fosu College of Education, Wiawso College of Education and Holy Child College of Education.

The second stage used a simple random sampling technique where all possible participants were likely to be selected. The names of students and tutors were written on slips of paper and put in a container. The papers were mixed well; one slip of paper at a time were drawn from the container without replacement and looking into it. A slip is selected and recorded and the process was continued until the required number of participants were recorded. Similarly, the purposive sampling technique was used to select five participants for focus group discussion from each college. It is a sampling technique that is based on the researcher's use of his or her special knowledge or expertise in the selection of participants for inclusion in research. This was to ensure that individuals with certain attributes and knowledge with regard to the issue are included in the study (Creswell, 2009).

Total sample size was drawn from colleges of education based on Krejcie and Morgan (1970) table for determining the sample size. The sample determination table indicates that a population figure of 2359 (students=1882, tutors=364, teachers=103, principals & head teachers=10) requires a sample size of 360 (277 students, 20 demonstration teachers, 53 tutors and 10 principals and teachers). The equation below expresses how samples were selected from each College of Education:

$$Sample\ size\ (College) = \frac{Total\ population\ at\ the\ College}{Total\ population\ of\ students/tutor/teachers/HeadTeacher} \times sample\ size\ required$$

A total sample size of 360 (students=277, tutors=53, demonstration teachers=20 and principals and teachers=10) was used in the study. Table 2 presents sample size representation based on selected colleges of education.

Table 2: Sample Size Representation Based on Colleges of Education

College	Tutors	Students	Demonstration Teachers	Principals & Teachers	Total
OLA	11	49	3	2	65
Komenda	10	60	5	2	77
Foso	12	64	4	2	82
Holy Child	11	51	4	2	68
Wiawso	9	53	4	2	68
Total	53	277	20	10	360

Source: Field survey (2021)

Data Collection Instruments

The study used questionnaire and focus group interview protocol to collect data. The study employed the School Partnership Questionnaire (SPQ)

and focus group interview protocol. The focus group interview protocol contained eight items to solicit information from students on college-school partnership. The School Partnership Questionnaire (SPQ) was used to elicit information from students, tutors, teachers, principals and head teachers at the Colleges of Education and their demonstration schools at the Central/Western zone. A questionnaire consists of a collection of questions or statements pertaining to the objectives of the study, as well as research questions to be verified and replied, to which the responder must provide written responses. It provides better assurance and anonymity and promises a wider coverage since the researcher can reach respondents more readily than with other techniques (Amedahe as cited in Nyarko-Sampson, 2010).

If well-constructed, it is also recognised for its validity and dependability. Literature (Ary, Jacobs, Razavieh, & Sorensen, 2006) further indicates that the use of a questionnaire has the advantage of allowing the researcher to reach out to a large number of respondents in the shortest amount of time, particularly when the geographical area is expansive. Additionally, it is regarded as cost-effective. However, the return rate for the questionnaire is typically low. The questionnaire is however not with limitations. Questionnaires often provide limited response options, which may not capture the full range of responses from the participants resulting in incomplete or inaccurate data; participants may not answer questions truthfully or accurately due to social desirability bias or other factors resulting in inaccurate data and affect the validity of the study; long questionnaire can lead to respondent fatigue, resulting in incomplete or rushed responses.

To overcome these limitations of questionnaire, the researcher pre-test the questionnaire to identify and address any issues before administering them to the target population. Items on the questionnaire were derived from information obtained from the review of related literature. The data collection instruments (SPQ) were divided into two parts. The first part which contains two items elicited demographic information from respondents with respect to age and sex. The second part were divided into five sections with 42 close-ended items on a Likert Scale. Section (A) contained eight items and covered the type of school partnership demonstrated by the colleges of education. Section (B) contained eight items and covered how tutors promote teaching and learning among colleges of education and their demonstration schools at the Central/Western zone.

Section (C) contained five items and covered research activities tutors at the colleges of education engaged in. Section (D) contained 13 items and covered information on benefits of college-school partnership among colleges of education in the Central/Western zone. Section (E) contained eight items and elicited information from participants on the challenges hindering college-school partnership programmes of the Colleges of Education in the Central/Western zone.

Pilot-Testing

Pilot testing in the view of Donald (1990) helps the researcher to decide whether the study is feasible and worthwhile to continue and also provides an opportunity to assess the appropriateness and practicality of the data collection instrument. The researcher pilot-tested the instrument on 50 respondents (tutors=5; teachers=5; final year students=40) from Accra College

of Education in the Eastern/Accra zone, different from those that were involved in the real study. The main purpose of the pilot test was to test the readability of the items, the time given, the consistency and content of the items. It helped in assessing whether the sampling frame and technique were effective. Again, the format and order of the statements were improved. Based on the inter-item correlation,

some of the items were modified.

Validity and Reliability

The data collection instruments were given to the researcher's supervisor to determine the face and content validity of the instrument. The expert's comments and suggestions were incorporated in the corrections for the final instrument. That is, ambiguous, biased and deficient items were reframed, and irrelevant items were duly deleted. The reliability of the two instruments were estimated using Cronbach's alpha to determine whether each item under the questionnaire related to each other after the pilot-testing exercise. Similarly, a field test was conducted to establish the trustworthiness and credibility of the interview protocol. Table 3 shows the Cronbach's alpha coefficient of the constructs underpinning the study.

Table 3: Reliability of the Questionnaire Items

No.	Construct	No.	Cronbach Alpha
1	Forms of collaboration	8	0.798
2	Promoting teaching and learning	8	0.871
3	Research Activities	5	0.933
4	Benefits of College-School Partnership.	13	0.712

5	Challenges hindering the effective college-school partnership.	8	0.826

Source: Field survey, (2021)

Table 3 shows the Cronbach Alpha of the various constructs after pretesting. None of the constructs recorded a Cronbach Alpha lower than the threshold of 0.70. This indicates that the items were reliable in measuring the constructs.

Data Collection Procedures

The researcher requested for an introductory letter from the Director of the Institute for Educational Planning and Administration, University of Cape Coast, to solicit the assistance of the principals and tutors of the selected colleges for the effectiveness of the study. The researcher then visited the selected colleges of education and demonstration schools to seek permission and then arranged for convenient days and time for the administration of the questionnaire. During the administration, teachers, tutors and students were briefed on the objectives of the study and the need to respond frankly to the items. The questionnaires were then distributed to them. The students, teachers and tutors' concerns were addressed after which they were given time to respond to the items.

The completed questionnaires were retrieved the same day with the assistance of the tutors of the respective colleges of education which ensured a 100% return rate. Face-to-face focus group discussions were conducted for students of the selected Colleges of Education in the Central/Western zone. Participants were interviewed on an agreed time that was not likely to disrupt

their work schedule. The interviews were audio taped and this helped ensure a more accurate picture of the questions and answers.

Data Processing and Analysis

To process and analyse data relating to Research Question One, on the type of college-school partnership demonstrated by the colleges of education in the Central Region, the data obtained from the participants using the questionnaire were scored for individual participants. The obtained responses were coded to determine the direction of the respondent's responses, that is, whether they have a positive or negative view of the types of school partnership offered. In order to do this, the responses obtained from the data collection process were coded from 1-2 for worded items from 'Yes' to 'No'. The coding indicated the relative standing of the individuals on the dimensions of their view on the instrument after which individual item frequency distribution were calculated.

Data Analysis

Descriptive statistics such as frequencies, percentages, means and standard deviation were used in the data analysis. The frequencies and their corresponding percentages were used to analyse data collected on the research questions. The Research Question Two ascertained how teachers in demonstration schools and colleges of education collaborate to promote teaching and learning. The data obtained from the participants on the questionnaire were scored for individual tutors and students after which individual item means and standard deviation was calculated. The obtained responses were coded to determine the direction of students and tutors'

responses, that is, whether they had positive or negative view of the motivating factors.

In order to do this, the responses obtained from the data collection process were coded from 1-4 for positively worded items from 'Strongly Disagree' to 'Strongly Agree' in that continuum. The coding indicated the relative standing of the individuals on the dimensions of their view on the instrument. Individual item means were calculated and commented on. The criterion for judging the effectiveness or otherwise of promoting teaching and learning means that a mean of means' score of 2.50 or higher shows how teachers promote teaching and learning through college-school partnership and vice versa.

The third research question sought to find out the research activities of college-school partnership programmes among colleges of education in the Central Region. The data obtained from the participants on the questionnaire were scored for individual tutors and students after which individual item means and standard deviation were calculated. The obtained responses were coded to determine the direction of students and tutors' responses, that is, whether they had a positive or negative view of the research activities. In order to do this, the responses obtained from the data collection process were coded from 1-4 for positively worded items from 'Strongly Disagree' to 'Strongly Agree' in that continuum.

The coding indicated the relative standing of the individuals on the dimensions of their view on the instrument. Individual item means were calculated and commented on. The criterion for judging the effectiveness or otherwise of the partnership means that a mean of means' score of 2.50 or

higher shows research activities are carried out in colleges of education and the demonstration schools' partnership and vice versa.

The fourth research question sought to determine the benefits derived from the college-school partnership programmes among colleges of education in the Central/Western zone. The obtained responses were coded to determine the direction of students and tutors' responses, that is, whether these benefits are derived from college-school partnership. In order to do this, the responses obtained from the data collection process were coded from 1-4 for positively worded items from 'Strongly Disagree' to 'Strongly Agree' in that continuum. The coding indicated the relative standing of the individuals on the dimensions of their view on the instrument. Individual item means were calculated and commented on.

The Research Question Five explored challenges hindering college-school partnership programmes of the colleges of education in the Central/Western zone. The obtained responses were coded to determine the direction of students, teachers and tutors' responses, that is, whether these factors hinder college-school partnership. In order to do this, the responses obtained from the data collection process were coded from 1-4 for positively worded items from 'Strongly Disagree' to 'Strongly Agree' in that continuum. The coding indicated the relative standing of the individual items on the level of agreement with the factors on the instrument. Individual item means were calculated and commented on and discussed to answer the research question.

On the other hand, the qualitative data were analysed using thematic analysis. The interview data were first transcribed by focusing on the key elements in the narrative that highlighted the objectives of this research.

Personal and identifying details were left out to ensure the anonymity of the participants. Additionally, only those grammatical nuances, idioms and figures of speech deemed necessary were included in the transcription in order to create data that were as close to the recorded voice as possible (Bedu-Addo, 2010). The audio taped proceedings of the interviews were transcribed and subjected to thematic analysis.

According to Kusi (2012), thematic analysis is an analytical strategy which requires the researcher to organise or prepare data, immerse himself or herself in and transcribe the data, generate themes and code the data, and describe them. Open and axial coding were used in the analysis. Open coding primarily involved giving descriptive codes as well as a low level of abstraction were used to help highlight themes from the interview data. Codes that were generated were compared with the recorded data as well as the findings of the quantitative data. The comparison helped to have a deeper and newer understanding of issues as the analysis progresses. Similarly, axial coding which deals with organising themes into a coherent manner were used to align similar ideas into their corresponding themes. The axial coding helped to cluster the emerging ideas into coherent units, allowing the emerging themes to stand out.

Finally, quotations from views raised by the participants were used to support the findings. In ascribing quotations to the participants, the students, tutors, demonstration teachers and principals were represented by pseudonyms. The serial numbers for the participants (Student(S), teacher (T), principal (P), coding regimes (1, 2, 3, 4……) were generated together with initials of focus group (FG). For instance, FG4R3, FG4R4.

Ethical Consideration

Credible evidence was provided by the researcher to suggest to the respondents that the information provided by them is for only academic purposes. This was communicated to the respondents. This was done by showing to the respondents the student Identity Card of the researcher to prove that the researcher was a student and undertaking such a programme at UCC and for that matter the information gathered was purely for academic purposes. Confidentiality and respondent's anonymity was assured to the respondents. To ensure respondents confidentiality and anonymity, the respondents' names were not required. Participating in the research by the respondents was optional. Besides, the participants were given enough time to answer the research questionnaires.

Chapter Summary

In this chapter, the methodology and the design of the study were outlined and situated within a descriptive survey design of research. It justifies the use of the descriptive design in the study and describes the target and accessible population. Building on the research design, this chapter further discussed the sampling procedure, data collection instruments, data collection procedures and data processing and analysis procedures.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The study sought to investigate the Colleges of Education and their demonstration schools' partnership in the Central/Western Zone of Ghana. This section presents the results and discussion of the findings. Data on the College-School Partnership research questions were analysed using quantitative and qualitative tools. The quantitative tools used descriptive statistics (frequencies, percentages, means and standard deviations). The qualitative aspect employed thematic analysis.

Demographic Characteristics

A sample of 330 respondents was selected from five Colleges of Education in the Western/Central zone. The demographic characteristics of the respondents include their age range and gender. The results are presented in Tables 4.

Table 4: Demographic Characteristics of Respondents

Variable	Frequency (f)	Percentage (%)
Age		
Below 21	98	27.22
21 – 26	143	39.72
Above 26	119	33.06
Gender		
Male	159	44.17
Female	201	55.83
Total	360	100.0

Source: Field survey (2021)

Table 4 shows that the majority [143 (39.72%)] of the participants fell within the age range of 21-26. Next to this, age 'Above 26 recorded 33.06% of the participants representing 119 of the responses. Also, 98 (27.22%) of participants fell 'Below 21years. This demographic dominance within this particular age range underscores the significance of targeting educational and developmental interventions that cater to the needs and preferences of young adults, potentially reflecting the prevalent age group in the population under investigation. Moreover, the noteworthy presence of participants aged 'Above 26' (33.06%) and 'Below 21' (27.22%) emphasises the importance of adopting a multifaceted approach in program design and implementation to accommodate a diverse range of age groups among the study's subjects, thereby promoting inclusivity and addressing potential variations in experiences and perspectives within the cohort.

Table 4 also shows that the majority [201 (55.83%)] of the respondents were females while 159 representing 44.17% were males. Given the uneven gender distribution, the study inferred that the aggregated responses to the research questions were more representative of the female perspective.

Collaboration that exists between the colleges of education and their demonstration schools

Research question one sought to identify the forms of collaboration that existed between the colleges of education and their demonstration schools. The notion was that the existence of the form of collaboration could help the students to at least gain some knowledge about the purpose of College-School partnership. The data obtained from the respondents were analysed using percentages and frequencies. The results are presented in Table 5.

Table 5: Forms of Collaboration

Collaborations	Yes		No	
	Freq.	%	Freq.	%
The Demonstration School and the College collaborate to provide early field experience for the college students	333	92.5	27	7.5
The College develops learning programmes for implementation in the demonstration school.	286	79.44	74	20.56
The College engages in the professional development of demonstration school teachers	302	83.89	58	16.11
Demonstration school teachers collaborate with college tutors for research purposes.	265	73.61	95	26.39
The College and Demonstration School collaborate by way of sharing their expertise.	324	90.0	36	10.0
The College and Demonstration School collaborate in the field of sports and games.	255	70.83	105	29.17
The Demonstration School and the College collaborate in terms of welfare.	236	65.5	124	34.4
The College and Demonstration School collaborate in terms of attending school or college functions.	328	91.11	32	8.89

Source: Field survey (2021)

Table 5 shows the forms of collaboration as indicated by the respondents in the Colleges of Education in Western/Central zone. There were 333 (92.5%) of the respondents who responded positively with a 'Yes' response for the statement 'The Demonstration School and the College collaborate to provide early field experience for the college students. However, 27 (7.5%) said 'No' indicating they did not know this form of collaboration existed. The statement 'The College and Demonstration School collaborate by way of sharing their expertise' recorded 324 (90.0%) responses for 'Yes' and 36 (10%) responses for 'No'. 'The College and Demonstration School collaborate in terms of attending school or college functions' was selected 255 times representing 70.83% for 'Yes' and 105 (29.17%) for 'No'.

Similarly, the statement 'The College engages in the professional development of demonstration schoolteachers' recorded 302 (83.89%) responses for 'Yes' and 58 (16.11%) responses for 'No'. 'The College develops learning programmes for implementation in the Demonstration School' was selected 286 times representing 79.44% for 'Yes' and 74 (20.56%) for 'No'. In the same vein, 'Demonstration school teachers collaborate with college tutors for research purposes' recorded 265 (73.61%) out of 360 respondents for 'Yes' and 95 (26.39%) of the respondents for 'No'. Furthermore, 'The Demonstration School and the College collaborate in terms of welfare' recorded 236 (65.5%) out of 360 respondents for 'Yes' and 124 (34.4%) of the respondents for 'No'.

Again, the statement 'The College and Demonstration School collaborate in the field of sports and games' recorded 328 (91.11%) responses for 'Yes' and 32 (8.89%) responses for 'No'. The implication of these

findings is that majority of the participants had knowledge about the existence of the type of collaboration such as early field experience for the college students, sharing their expertise, attending school or college functions, professional development of demonstration school teachers, development of learning programmes for implementation, collaboration with college tutors for research purposes, and collaboration in the field of sports and games that were offered to students, teachers and tutors of Colleges of Education and their demonstration schools in the Western/Central zone.

These findings were similar to the views expressed by the focus group members. The major forms of collaborations indicated by the student was to provide early field experience, share expertise, the field of sports and games, etc. Some of the critical statements were:

> *"Thank you, the college and the demonstration school collaborate in many ways such as academic activities whereby we students are sent there to put theory into practice, model our teaching styles and learning from the job through field activities. Also, we do sports activities with the demonstration school and it is not effective as compared to the teaching and activities we perform together."* **FG1R3#**
>
> *With these demonstration schools available on our campuses, we do have some form of collaborations. These can be seen from sporting activities, teaching experience for students whereby we are assigned to classes for mentoring by the teachers to help us gain some form of classroom experience. The early part of this academic year, I had the*

privilege to be an usher during the training sessions our college tutors organised for the teachers in the demonstration school. **FG2R4#**

For me, I see the collaboration in terms of attending school or college functions together, teaching and learning activities and sporting activities such as football, volleyball, athletics and so on. For teaching experience, college students are sent there to gain field experiences. And another important activity we perform together usually is speech days and Christmas activities. **FG3R5#**

The Principals of the Colleges also expressed their views in relation to collaboration of colleges and demonstration schools. The first Principal stated that:

I see teacher collaboration as an important aspect of teachers' professional lives, as a means to continuously reflect on and improve the practice of teaching. In collaboration, teachers can, for example, share knowledge, critically reflect on teaching practices, provide collegial support or peer feedback, and collectively design teaching methods. **FG3R6#**

Collaborative is an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together. As you can see, my students collaborate with the teachers from demonstration schools teach some of the subjects. This is what I see as collaboration. This is because the benefits go to both parties. My students would get the requisite skills whereas the demonstration schools would get enough teachers to teach the students. **FG3R7#**

Promotion of Teaching and Learning by collaboration between Teachers in demonstration schools and colleges of education

Research question two sought to determine how teachers in demonstration schools and colleges of education collaborate to promote teaching and learning. The data obtained from the respondents were analysed using means and standard deviations. A higher mean shows that the majority of the respondents indicated that their schools effectively implement guidance services. The results are presented in Table 6.

Table 6: Promoting Teaching and Learning

Statement	X	SD
The College designs curriculum to meet Demonstration School pupils' learning needs.	3.51	.64
Demonstration School teachers are introduced to new methods of teaching developed by College tutors to be implemented in the classroom	3.60	.56
Collaborative action research between Demonstration School teachers and College tutors is undertaken to improve immediate classroom practice.	3.60	.61
College students (teacher trainees) sent to the Demonstration School for observation or teaching practice to introduce the teachers to new methods of teaching.	3.72	.50
The College organizes periodic in-service education and training for the Demonstration School teachers to help improve the quality of teaching and learning.	3.63	.63

The College allows the Demonstration School to use her facilities (equipment, science laboratory etc.) to improve the quality of teaching and learning.	3.67	.59
Field experience in the Demonstration School helps teacher trainees to relate theory to practice hence foster a better understanding of teaching and learning.	3.70	.53
Demonstration School and College collaboration enable College students and teachers to engage in reflective teaching.	3.72	.49
Total	3.64	.57

Source: Field survey (2021)

Table 6 shows how college-school partnership activities are carried out to promote teaching and learning. It can be seen from the table that the statement 'Demonstration School and College collaboration enables College students and teachers to engage in reflective teaching' recorded the highest mean of 3.72 and a standard deviation of 0.49. Next, to this, College students (teacher trainees) sent to the Demonstration School for observation or teaching practice introduce the teachers to new methods of teaching (M=3.72, SD=0.50), Field experience in the Demonstration School helps teacher trainees to relate theory to practice hence foster better understanding and learning (M=3.70, SD=0.53), The College allows the Demonstration School to use her facilities (equipment, science laboratory etc.) to improve quality of teaching and learning (M=3.67, SD=0.59).

The College organizes periodic in-service education and training for the Demonstration School teachers to help improve the quality of teaching and

learning (M=3.63, SD=0.63) and Demonstration School teachers are introduced to new methods of teaching developed by College tutors to be implemented in the classroom (M=3.60, SD=0.56). Additionally, the statement 'Collaborative action research between Demonstration School teachers and College tutors is undertaken to improve immediate classroom practice' recorded a mean of 3.60 and a standard deviation of 0.61, The College designs curriculum to meet Demonstration School pupils learning needs (M=3.51, SD=0.64)).

Table 6 shows that the mean of means score of college-school partnership activities that promote teaching and learning is 3.64. This figure is higher than 2.50 and this depicts that college-school partnerships promoted teaching and learning. This implies that college-school partnership activities such as students and teachers' engagement in reflective teaching, observation or teaching practice, field experience relating theory to practice, use of college's facilities (equipment, science laboratory, etc.), organization of periodic in-service education and training for the Demonstration School teachers, and collaboration in action research promote effective teaching and learning in both

the schools and colleges of education.

The students interviewed through focused group discussion also indicated that colleges and their demonstrated schools carried out activities that promoted effective teaching and learning. They indicated that teachers promoted teaching and learning through reflective teaching, observation or teaching practice which introduced the teachers to new methods of teaching,

use of college facilities by demonstration schools and so on. Specifically, some of the comments were:

> *As a student, it is important to say that teachers in demonstration schools and colleges of education collaborate to promote teaching and learning. I see it in two ways that is, teaching practice or field teaching. Field experience in the Demonstration School helps us as student teachers to put theory into practice for us to better understand teaching and learning.* **FG1R1#**
>
> *I strongly believe the central aim of the collaboration is to promote teaching and learning activities as teachers, student teachers and tutors in demonstration schools and colleges of education. We collaborate to help this agenda. As student teachers, we are made to observe teachers in the demonstration school, learning and learning new methods of teaching. Again, this allows us student teachers to engage in insightful teaching with demonstration school teachers.* **FG3R2#**
>
> *I see this form of collaboration as an avenue for the colleges of education to use available facilities at their disposal to improve the quality of teaching and learning in the demonstration schools. Some of the facilities are the science laboratories, school parks, sporting equipment and assembly halls for large events.* **FG4R3#**

With respect to the principals, they stated the following as their views.

> *For my view, collaboration between teachers and colleges of education can be promote teaching and learning by allowing teachers to choose the demonstration school they wish to teach. Teachers who*

are not comfortable with the study area are likely not to give their best out. Being at the right environment and institution would ensure proper engagement with students. This would enhance the teaching and learning activities. **FG4R4#**.

Research activities teachers in colleges of education and the demonstration schools engaged in

Research question three sought to identify research activities teachers in colleges of education and their demonstration schools engaged in. The data obtained from the respondents were analysed using means and standard deviations. A higher mean shows that the majority of the respondents indicated that they agreed to the statement and vice versa. The results are presented in Table 7.

Table 7: Research Activities

Statement	X	SD
The College and Demonstration School collaborate in general research	2.42	.87
The College collaborates with the Demonstration School to conduct action research.	2.89	.80
College research findings are disseminated to the Demonstration School.	2.30	.96
College tutors' promotion is based on collaborative research with Demonstration School teachers	2.74	.89
Demonstration School teachers are given orientation on how to conduct research by the college	3.18	.79
Total	2.71	.86

Source: Field survey (2021)

Research question three basically sought to determine whether research activities were effectively offered by colleges of education to their demonstration schools. Table 7 shows research activities carried out at the various demonstration schools. It can be seen from Table 7 that the item 'Demonstration School teachers are given orientation on how to conduct research by the college' recorded the highest mean of 3.18 and a standard deviation of 0.79. Next, 'The College collaborates with the Demonstration School to conduct action research' (M=2.89, SD=0.80) and College tutors' promotion is based on collaborative research with Demonstration School teachers (M=2.74, SD=0.89).

However, the statements 'The College and Demonstration School collaborate in general research (M=2.42, SD=0.87) and College research findings are disseminated to the Demonstration School (M=2.30, SD=0.96) recorded mean less than the established benchmark. Table 7 shows that the mean of means scores of the research activities teachers engaged in is 2.71. This figure is higher than 2.50 and this depicts that research activities were carried out. The findings of the current study implies that School teachers were given orientation on how to conduct research by the college, College collaborates with the Demonstration School to conduct action research and College tutors' promotion is based on collaborative research with Demonstration School teachers.

On the other hand, the study showed that the Colleges and Demonstration Schools did not collaborate in general research and that, the College research findings were not disseminated to the Demonstration School as expected. In like manner, all the students interviewed during the focus

group discussion indicated that the Colleges of Education collaborated with demonstration schools to conduct action research and that, teachers were given orientation on how to conduct research. Some of the critical statements to this effect are as follows.

> *There are few research activities that are mostly undertaken by students in colleges of education in the demonstration schools. These research activities are action types that we carried at the demonstration school. But I don't see the relevance of these research works as we don't know what it has been used for. It is perhaps just for marks and graduation requirements.* ***FG1R2#***
>
> *It is a requirement as a final year student to be engaged in some form of research and I believe collaborating with demonstration school gives the opportunity to be able get support from teachers and available data for action research. Sometimes some of our tutors send us to the school to assist them in data collection for their personnel research.* ***FG2R4#***
>
> *In the college we are advised to conduct research in the demonstration school on campus. This is purely action research that we must be engaged in the final period of our programme. Tutors and teachers have been helpful in the research activities of students, for example I needed guidance from teachers in the demonstration school to assist in my data analysis. I remember the teachers indicated that the College has been giving them training on how to conduct research.* ***FG3R1#***

Benefits Derived from the College-School Partnership

Research question four sought to examine the benefits derived from the college-school partnership. The data obtained from the respondents were analysed using means and standard deviations. A higher mean shows that the majority of the respondents indicated that college-school partnership was beneficial. The results are presented in Table 8.

Table 8: Benefits of College-School Partnership

Statement	X	SD
Effective partnership promotes teacher trainees and pupils' achievement	3.70	.59
Colleges define research that is relevant to the schools and have potential to inform instructional practice	3.63	.64
Collaborative Action Research improves immediate classroom practice	3.58	.69
Carefully supervised practical experiences complement course work, insuring the integration of theory and practice	3.67	.59
Teacher trainees engage in observational and instructional activities in natural education settings	3.69	.57
Helps colleges to modify their curricula to produce teachers who can function effectively	3.68	.58
New ideas for improving teaching and learning	3.71	.52
Simultaneous renewal of schools and teacher education	3.67	.59

High quality professional preparation	3.71	.53
School and college-based staff development	3.72	.54
It encourages thought about learning as participation rather than simply the acquisition of knowledge or skills	3.72	.53
Partnership promotes policy initiation	3.69	.59
Opportunity for colleges and schools to share their resources	3.74	.50
Total	3.69	.57

Source: Field survey (2021)

Table 8 shows some of the benefits derived from college-school partnership activities. It can be seen from the table that the statement 'Opportunity for colleges and schools to share their resources' recorded the highest mean of 3.74 and a standard deviation of 0.50. Additionally, it encourages thought about learning as participation rather than simply the acquisition of knowledge or skills (M=3.72, SD=0.53), School and college-based staff development (M=3.72, SD=0.54), New ideas for improving teaching and learning (M=3.71, SD=0.52), High quality professional preparation (M=3.71, SD=0.53), Effective partnership promotes teacher trainees and pupils' achievement (M=3.70, SD=0.59),

Teacher trainees engage in observational and instructional activities in natural education settings (M=3.69, SD=0.57), Partnership promotes policy initiation (M=3.69, SD=0.59), and Helps colleges to modify their curricula to produce teachers who can function effectively (M=3.68, SD=0.58). Again, the statement 'Simultaneous renewal of schools and teacher education' and

'Carefully supervised practical experiences complement course work, ensuring the integration of theory and practice' both recorded a mean of 3.67 and standard deviation of 0.59, 'Colleges define research that is relevant to the schools and have potential to inform instructional practice' (M=3.63, SD=0.64), and 'Collaborative Action Research improves immediate classroom practice' (M=3.58, SD=0.69).

Table 8 shows that the mean of means' score of the benefits derived from college-school partnership activities is 3.69. This figure is higher than 2.50 and this depicts that the college-school partnership is highly beneficial. This suggests that there are opportunities for colleges and schools to share their resources, encourage learning as participation, to promote school and college-based staff development, introduce new ideas for improving teaching and learning, promote high quality professional preparation, as well as engage in collaborative action research to improve immediate classroom practice.

The students interviewed through focused group discussion also revealed that benefits are derived from college-school partnership. They viewed the benefits as improvement in pupils and teacher trainees' achievement, conduct of action research, high professional development preparation, and so on. Some of their direct statements are:

> *There are numerous benefits of College's collaboration with the demonstration school. Firstly, I would say active partnership helps trainee teachers and pupils' achievement. Students' achievement is important as we the trainee teachers also get the opportunity to remediate, assist and introduce new teaching to the classroom which enhances pupils' learning. Secondly, there is an addition of theory and*

practice whereby trainee teachers get the opportunity to have hands-on experience after a successful classroom instruction at the College. ***FG1R5#***

I see the benefit emanating from sharing of resources. This is a great opportunity for sharing materials from resources to facilities. The demonstration school usually uses the College's Park for games, laboratory for science lessons and so on. Performance of pupils at the demonstration school is improved as student teachers assist teachers in teaching. ***FG4R1#***

I believe preparing a high-quality professional is central to our field of study. This is the only chance to be developed and groomed for the job ahead and as we learn a lot while having field experience through observation and reflective teaching. Another important benefit of College-School partnership is conducting action research to improve immediate classroom practices. ***FG3R3#***

Challenges Hindering Effective College-School Partnership

Research question five sought to identify the challenges that hinder effective college-school partnership. The data obtained from the respondents were analysed using means and standard deviations. A higher mean shows that the majority of the respondents indicated that most of the respondents agreed to the statement and vice versa. The results are presented in Table 9.

Table 9: Challenges hindering the Effective College-School Partnership

Statement	$\underline{\bar{X}}$	SD
There are limited resources for carrying out collaborative activities	3.55	.65

There is inadequate time for carrying out college-school partnership activities	3.59	.56
Changes in policies hinder college-school partnership	3.63	.58
Poor attitude on the part of tutors, teachers and teacher trainees	3.55	.64
Ineffective college leadership	3.54	.71
Ineffective school administration	3.51	.75
Colleges' lack of control over the demonstration schools	3.51	.69
Misunderstanding of what such partnership entails	3.52	.76
Total	3.55	.67

Source: Field survey (2021)

Table 9 shows challenges colleges of education and their demonstration school encounter during the collaboration period. It can be seen from the table that the statement 'Changes in policies hinder college-school partnership' recorded the highest mean of 3.63 and a standard deviation of 0.58. Next, to this, there is inadequate time for carrying out college-school partnership activities (M=3.59, SD=0.56), Poor attitude on the part of tutors, teachers and teacher trainees (M=3.55, SD=0.64), There are limited resources for carrying out collaborative activities (M=3.55, SD=0.65), Ineffective college leadership (M=3.54, SD=0.71) and misunderstanding of what such partnership entails (M=3.52, SD=0.76).

Additionally, the statement 'Colleges' lack of control over the demonstration schools' recorded a mean of 3.51 and standard deviation of

0.69 and 'Ineffective school administration' recording a mean of 3.51 (SD=0.75). Table 9 shows that the mean of means' score of the challenges hindering college-school partnership is 3.55. This figure is higher than 2.50 and this depicts that these factors hinder effective college-school partnership. The implication of the findings is that changes in policies, inadequate time for carrying out college-school partnership activities, poor attitude on the part of tutors, teachers and teacher trainees, limited resources, poor leadership on the part colleges and their demonstration schools, and lack of control over demonstration schools by the colleges hinder effective college-school partnership.

These findings were similar to the views expressed by focused group members. The major issues indicated by students were limited resources, inadequate time, colleges' lack of control over demonstration school, etc. They expressed worry at not getting the required resources for field experiences. Some critical statements made were:

> *As I mentioned earlier, the College-School partnership is important but the issue of inadequate time to carry out collaboration activities is important. My colleagues and I complained of less time given in the classroom that affected our observation and even reflective teaching. Again, the attitude of the teachers is worrying and needs urgent attention.* **FG1R3#**
>
> *There are a lot of factors hindering the collaboration of the College and the demonstration school. Firstly, resources are limited for carrying out collaborative activities. As student teachers we have to contribute to make purchases for certain teaching and learning*

materials to aid our teaching practice. Similarly, poor attitude on the part of tutors, teachers and teacher trainees is high and does not encourage college-school partnership. ***FG2R5#***

Every institution has some challenges, but these are obvious for college-school partnership. Inadequate resources and time, poor attitude of student teachers and teachers in demonstration school, poor policy governing the collaboration and the college's lack of control over the demonstration school prevent effective implementation of new ideas as a headteacher usually wants to notify GES officers most at times. ***FG4R5#***

Discussion

This segment recaps and deliberates on the study results with an effort to integrate findings with current literature in the area. The discussion was systematised around the research objectives and questions in the first chapter. The study revealed that majority of the participants had knowledge about the existence of the type of collaboration such as early field experience for the college students, sharing their expertise, attending school or college functions, professional development of demonstration school teachers, development of learning programmes for implementation, collaboration with college tutors for research purposes, and collaboration in the field of sports and games that were offered to students, teachers and tutors of Colleges of Education and their demonstration schools in the Western/Central zone.

The findings of the current study are consistent with those of Story (2014), who found that a college-school collaboration can provide tutors, teachers, and pre-service teachers with numerous opportunities to interact with

their colleagues from other institutions and share teaching and learning-enhancing experiences, strategies, and insights. According to the researcher, such a partnership provides teachers with freedom and flexibility not accessible in a conventional classroom setting. This study confirms previous findings that colleges of education benefit from strong partnerships with their demonstration schools, providing students with ample opportunities to hone their diagnostic and conferencing skills, try out novel instructional approaches, evaluate existing materials, and create brand-new ones.

These results are consistent with those of Williams (2010), who found that teachers' frustration and isolation increase when they do not have supportive and reflective collaborative partners, such as those mandated by collaborative professional development, to facilitate early field experience and welfare collaborative partnership between schools and colleges. According to the study's participants, major activities carried out in colleges of education and their demonstration schools promote teaching and learning. These activities include students and teachers engaging in reflective teaching, observation or teaching practise that exposes teachers to new teaching methods, field experiences, and helping teacher trainees relate to their students.

These conclusions were supported by Lacina and Block's (2011) findings, which show that field experiences gained from demonstration schools as a result of collaboration stimulate the development of teacher candidates' abilities to teach and assess a wide variety of instructional strategies and assessment instruments. The current study found out that school teachers are given orientation on how to conduct research by the colleges, colleges collaborate with the demonstration school to conduct action research

and college tutors' promotion is based on collaborative research with demonstration school teachers. On the other hand, the study showed that colleges and demonstration schools did not collaborate in general research and that college research findings are not disseminated to the demonstration school.

The findings are in line with the findings of Quan-fen, Lian-sen and Hui (2015) that scientific research has become conscious, systematic, and organised behaviour of colleges. Consequently, colleges play a vital role in knowledge expansion and innovation. According to Quen-fen et al. (2015), as the institution cultivates advanced specialised talents, university/college research is certainly foundational and theoretic. Given Colleges of Education in Central/Western zone's inquiry-intensive missions, research universities such as Colleges of Education are thought to have a comparative advantage in terms of providing high quality research experiences for their students and staff of which demonstration school teachers are not left out (Gonzalez, 2001).

Additionally, the conduct of research in a college which thoroughly combines teaching and learning unswervingly encourages cutting-edge capacities cultivation that must be the basic action research that generate and increase new knowledge of teaching methods and models (Hu, 2006). The study further revealed that college-school partnership is effectively beneficial. Majority of the participants indicated that college-school partnership create opportunities for colleges and schools to share their resources, encourages learning as participation, school and college-based staff development, new ideas for improving teaching and learning, high quality professional preparation, effective partnership promotes teacher trainees and pupils' achievement, teacher trainees engage in observational and instructional

activities in natural education settings, as well as collaborative action research improving immediate classroom practice.

These findings are in line with the findings of Allen (2011) that throughout the education system, there is widespread agreement that strong college–school partnerships support preservice teachers' professional learning that in a long run, impact student achievement. Goodwin (2012) indicated that many new teachers felt more comfortable with their subject content assigned to a mentor for observation than with actual practice and issues of implementation. To Godwin, when confidence wanes, it impacts the sense of well-being, resilience, and ability to take risks that symbolises high quality of professional development through observation and reflective teaching.

For trainee teachers, OECD (2017) points out and practice substantiates, often have several foundational areas that shake their confidence, including classroom management and behavioural issues, assessment practices, and instructional planning. In addition, Goddard et al. (2017) stressed that the good news is that teacher confidence, feelings of preparedness, and skills can be increased through a variety of supports. In the view of Goddard et al. (2017), a coach, mentor, peer as a co-learner, or principal who will not judge inexperience can be a pivotal person in making a difference for a beginning teacher who is feeling somewhat overwhelmed. Besides, many veteran teachers also find a renewed interest in their craft, which may have been flagging or on the verge of burnout prior to the experience.

The study further showed that changes in policies and inadequate time for carrying out college-school partnership activities are the major issues confronting colleges-school partnership. Aside from these, poor attitude on the

part of tutors, teachers and teacher trainees, limited resources, poor leadership on the part of colleges and their demonstration schools, and lack of control over demonstration school calls for attention of stakeholders. All these factors have the potency of hindering effective college-school partnership. The findings confirm the findings of Fuentes and Spice (2015) who reported challenges encountered in building a university-high school collaboration.

The authors described the challenges to fostering collaboration between high school teachers and colleges as stumbling block to professional development and improved achievement. These authors revealed that changes in policy, poor attitude of teachers and college students hinder effective collaborations. The findings of the current study were also confirmed in another study, as Colwell, MacIsaac, Tichenor, Heins and Piechurra (2014) indicated that turnover rate, changes in policies, limited resources, and time are just a few of the barriers faced by college-school partnership. Similarly, the findings are in consonance with the findings of Mtika, Robson and Fitzpatrick (2014) that research from various international contexts has also consistently emphasised significant challenges associated with building authentic college-school partnerships.

Additionally, Hunt (2010) revealed that the first few years of teaching are a critical time in the development of expert teaching. However, many universities are missing valuable opportunities to foster diversity and critical thinking by not participating in the professional development of new teachers because of poor leadership and cutting-edge policies.

Chapter Summary

In this chapter, the study's results and their corresponding discussion are expounded upon. The study employed a two-fold approach encompassing descriptive statistics and focused group discussions, through thematic analysis to elucidate the findings. The ensuing discussion is intricately aligned with the research objectives that were formulated to provide direction and purpose to this study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Overview of the Study

This study sought to explore the colleges of education and their demonstration schools' partnership in the Central/Western Zone of Ghana. A sequential mixed method was used for this study. In all, a sample size of 360 (students 277, tutors 53, demonstration teachers 20 and principals and teachers 10) were used for the study. The study employed stratified, simple random and purposive sampling techniques to select participants for the study. School Partnership Questionnaire (SPQ) and focus group discussion protocol were used to elicit information from the respondents. Descriptive statistics were used to analyse data obtained from the structured questionnaire whiles focus group discussion was analysed using thematic analysis. This chapter presents the summary, conclusions and recommendations of the study. Suggestions for further research are also given in this chapter.

Summary of Key Findings

The first research question focused on the forms of collaboration that existed between the colleges of education and their demonstration schools in the Central/Western Zone of Ghana. It was discovered from the study that Colleges of Education and demonstration schools in the Western/Central zone collaborated in early field experience for the college students, sharing their expertise, attending school or college functions, and professional development of demonstration school teachers.

The second research question was on how teachers in demonstration schools and colleges of education in Western/Central zone collaborated to

promote teaching and learning. The result of the study revealed that teachers engaged in reflective teaching activities, observation or teaching practice, field experience, organization of periodic in-service education and training for the Demonstration School teachers and collaboration in conducting research.

The third research question was to discuss the research activities teachers in colleges of education and the demonstration schools in the Western/Central zone engaged in. The study revealed that demonstration school teachers are given orientation on research work. More so, college collaborates with the demonstration school to conduct research.

The fourth research question was to examine the benefits derived from the college-school partnership among colleges of education and their demonstration schools in the Central/Western Zone of Ghana. The study revealed that college-school partnership created opportunities for colleges and schools to share their resources, encouraged learning as participation, school and college-based staff development, and provided new ideas for improving teaching and learning.

The fifth research question was to explore the challenges that hinder effective college-school partnership among colleges of education and their demonstration schools in the Central/Western Zone of Ghana. The study unfolded that the challenges embedded in college-school partnership included inadequate time for carrying out activities, poor attitude, limited resources, and poor leadership on the part of the schools and colleges.

Conclusions

The findings of the study indicated that colleges of education and their demonstration schools collaborated in diverse ways and engaged in various

activities. It is therefore concluded that when well managed such collaboration would significantly promote effective teaching and learning in both colleges of education and their demonstration schools.

By the admission that the colleges of education and the demonstration schools engaged in action research, it is concluded that both institutions could enhance their classroom practice, hence improving students/pupils' academic performance.

Since Demonstration schools and the colleges of education benefit from the college-school partnerships in multiple ways, it is concluded that any attempt to strengthen such partnership will receive their blessing.

From the findings, it is also concluded that, successful collaboration develops in response to needs identified by practicing teachers/tutors in their specific classrooms and curricula.

Finally, since the study identified some challenges associated with the colleges and schools' partnership, it is concluded that such collaboration would be more productive and successful only when such challenges are addressed.

Recommendations

The following recommendations are made based on the findings of the study and conclusions derived from them:

1. Demonstration schools and Colleges of Education leadership within the Central/Western zone should seek support from NGOs and individual philanthropists as well as work hard to generate more funds internally to help provide funds and instructional materials for collaborative activities and not rely on only the government. This is because

inadequate funds were identified as one of the major challenges militating against effective collaboration.

2. Since lack of effective control of the demonstration schools by the colleges was identified as a major challenge to effective collaboration, it is recommended to the Ministry of Education and the GES to reverse the management of the demonstration schools back to the colleges of education. This will enable the colleges of education plan and implement collaborative activities more effectively.
3. One of the ways to promote the collaboration was to design a curriculum that meets the demonstration school pupils learning needs. The study therefore recommends that research activities at the colleges and the demonstration schools should continually be promoted.
4. Principals must institute collaborative action research that would improve immediate classroom practices.

Suggestions for Further Research

Further study should be conducted to investigate research activities colleges of education and their demonstration schools engage in. The study may also be replicated in other remaining zones in Ghana. The researcher suggests that further research should add actual observation and document analysis as part of the data collection instrument and procedures. This would help provide actual information concerning the state of college-school partnership as observed by the researcher.

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APPENDIX

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

MASTER OF PHILOSOPHY DEGREE IN ADMINISTRATION IN HIGHER EDUCATION

COLLEGE-SCHOOL PARTNERSHIP QUESTIONNAIRE

APPENDIX A (QUESTIONNAIRE)

Dear Respondent,

This questionnaire is being administered as part of a study on colleges of education and their demonstrated school partnership in Central Region.

This research is purposely for academic work and so your honest and sincere response would contribute a lot to the study. There are no 'right' or 'wrong' answers. Your identity would be held in confidence with regards to the information given.

Be sure to give a response for all statements. If you change your mind about any response, just cross it out and circle another. Some statements in this questionnaire are fairly similar to other statements. Don't worry about this. Please give your opinion about all statements by ticking [√] in the box against your response.

PART A

Personal information

1. Age: Below 20 [ ]

   21 – 25 [ ]

   Above 26 [ ]

2. Sex: Male [ ] Female [ ]

PART B

SECTION A: FORMS OF COLLABORATION

In the ensuing items, you are required to tick to indicate whether the form of collaboration exist between colleges of education and demonstrated schools.

S/N	Statement	Yes	No
3	The Demonstration School and the College collaborate to provide early field experience for the college students.		
4	The College develops learning programmes for implementation in the Demonstration School.		
5	The College engages in professional development of demonstration schoolteachers.		
6	Demonstration schoolteachers collaborate with college tutors for research purposes.		
7	The College and Demonstration School collaborate by way of sharing their expertise.		
8	The College and Demonstration School collaborate in the field of sports and games.		
9	The Demonstration School and the College collaborate in terms of welfare.		
10	The College and Demonstration School collaborate in terms of attending school or college functions.		

SECTION B: PROMOTING TEACHING AND LEARNING

Please give your opinion on the extent to which teaching and learning are effectively promoted through Colleges-School Partnership by ticking [√] in the box against your response.

Key: Strongly Disagree (1), Disagree (2), Agree (3) and Strongly Agree (4)

S/N	**Statement**	**1**	**2**	**3**	**4**
11	The College designs curriculum to meet Demonstration School pupils learning needs.				
12	Demonstration School teachers are introduced to new methods of teaching developed by College tutors to be implemented in the classroom				
13	Collaborative action research between Demonstration School teachers and College tutors is undertaken to improve immediate classroom practice.				
14	College students (teacher trainees) sent to the Demonstration School for observation or teaching practice introduce the teachers to new methods of teaching.				
15	The College organizes periodic in-service education and training for the Demonstration School teachers to help improve the quality of teaching and learning.				
16	The College allows the Demonstration				

	School to use her facilities (equipment, science laboratory etc.) to improve quality of teaching and learning.				
17	Field experience in the Demonstration School helps teacher trainees to relate theory to practice hence foster better understanding and learning.				
18	Demonstration School and College collaboration enables College students and teachers to engage in reflective teaching.				

SECTION C: RESEARCH ACTIVITIES

Please give your opinion on the extent to which research activities are enhanced through College-School Partnership by ticking [√] in the box against your response.

Key: Strongly Disagree (1), Disagree (2), Agree (3) and Strongly Agree (4)

S/N	**Statement**	**1**	**2**	**3**	**4**
19	The College and Demonstration School collaborate in general research				
20	The College collaborates with the Demonstration School to conducted action research.				
21	College research findings are disseminated to the Demonstration School.				
22	College tutors' promotion is based on				

	collaborative research with Demonstration School teachers				
23	Demonstration School teachers are given orientation on how to conduct research by the college				

SECTION D: BENEFITS OF COLLEGE-SCHOOL PARTNERSHIP

Please give your opinion on the extent to which the following are benefits of College-School Partnership in your school by ticking [√] in the box against your response

Key: Strongly Disagree (1), Disagree (2), Agree (3) and Strongly Agree (4)

S/N	**Statement**	**1**	**2**	**3**	**4**
24	Effective partnership promotes teacher trainees and pupils' achievement				
25	Colleges define research that is relevant to the schools and have potential to inform instructional practice.				
26	Collaborative Action Research improves immediate classroom practice				
27	Carefully supervised practical experiences complement course work, insuring the integration of theory and practice				
28	Teacher trainees engage in observational and instructional activities in natural education settings				

29	Helps colleges to modify their curricula to produce teachers who can function effectively				
30	New ideas for improving teaching and learning				
31	Simultaneous renewal of schools and teacher education				
32	High quality professional preparation				
33	School and college-based staff development				
34	It encourages thought about learning as participation rather than simply the acquisition of knowledge or skills				
35	Partnership promotes policy initiation				
36	Opportunity for colleges and schools to share their resources				

SECTION E: CHALLENGES HINDERING THE EFFECTIVE COLLEGE-SCHOOL PARTNERSHIP

Please give your opinion on the extent to which guidance services are effectively implemented in your school by ticking [√] in the box against your response.

Key: Strongly Disagree (1), Disagree (2), Agree (3) and Strongly Agree (4)

S/N	**Statement**	**1**	**2**	**3**	**4**
37	There are limited resources for carrying out collaborative activities.				

38	There is inadequate time for carrying out college-school partnership activities.				
39	Changes in policies hinder college-school partnership.				
40	Poor attitude on the part of tutors, teachers and teacher trainees.				
41	Ineffective College leadership				
42	Ineffective school leadership				
43	Colleges' lack of control over the demonstration schools				
44	Misunderstanding of what such partnership entails				

APPENDIX B

FOCUS GROUP PROTOCOL FOR TRAINEE TEACHERS

The interview guide examines colleges of education and their demonstrated school partnership in Central Region. Your response will contribute greatly towards meeting this objective and shall be used only for the purpose of this study. The confidentiality of your responses is assured.

1. What forms of collaboration exists between the colleges of education and their demonstration schools?
2. How do teachers in demonstration schools and colleges of education collaborate to promote teaching and learning?

   Probe further on the following: *teaching styles, pedagogical skills, teaching learning materials*

3. What research activities do teachers in colleges of education and the demonstration schools engage in?

   Probe further on the following: *action research, scientific inquiry, dissemination of research findings etc.*

4. What are some of the benefits of college-school partnership?
5. In your opinion, how different is the college-demonstration school partnership from the partnership with other schools in the college's catchment area?
6. In your view, how do teacher trainees benefit from the college-school partnership?
7. Finally, before we end, what are some of challenges hindering effective college-school partnership?

   Probe further on the following: *changes in policy, limited resources, inadequate time, etc.*

8. Do you have anything more to say?

Thank you.