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TOWARDS IMPLEMENTING THE STANDARDS-BASED CURRICULUM: EXPLORING TEACHERS' EXPERIENCES WITH DEVELOPING THE CORE COMPETENCIES OF PUPILS

SEYRAM SETORDZI

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SEYRAM SETORDZI
(202146507)

A thesis in the Department of Educational Foundations, Faculty of Educational Studies submitted to the School of Graduate Studies, in partial fulfilment of the requirements for the award of the degree of Master of philosophy (Curriculum and Pedagogic Studies) in the University of Education, Winneba

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DECLARATION

Student's Declaration

I, SEYRAM SETORDZI, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature: ……

Date: ……

Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis were supervised by me, in accordance with the guidelines and supervision of the thesis as laid down by the school of research and graduate studies. University of Education, Winneba, and recommended it for acceptance.

Dr. Richardson Addai-Mununkum (Supervisor)

Signature: ……

Date: ……

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DEDICATION

To my family.

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A research work of this nature could only be done with the assistance of many personalities. In undertaking this project, therefore, I had tremendous advice, guidance, encouragement, and suggestion from people to whom I owe a debt of gratitude. First and foremost, I wish to acknowledge the colossal contribution of my supervisor, Dr. Richardson Addai-Mununkum (Senior Lecturer, Curriculum and Pedagogy) for the friendly painstaking, and objective manner in which he supervised my work. Words cannot carry the weight of thanks I owe nevertheless to him I say a very big thank you.

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GLOSSARY/ABBREVIATIONS

CC	–	Core Competencies
EFA	–	Education for All
ERP	–	Education Reform Programme
ESA	–	Education Sector Analysis
ESP	–	Education Strategic Plan
GES	–	Ghana Education Service
GPRS	–	Ghana Poverty Reduction Strategy
MDGs	–	Millennium Development Goals
MOE	–	Ministry of Education
NaCCA	–	National Council for Curriculum and Assessment
NSAT	–	National Standard Assessment Test
OBC	–	Objective Based Curriculum
SDGs	–	Sustainable Development Goals

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ABSTRACT

Following the introduction of standards-based curriculum in Ghanaian Basic Schools, there is dearth of knowledge in the areas of teachers' experiences with the new curriculum and how they are implementing the change. The purpose of this qualitative research was to examine teachers' experiences with developing the core competencies in pupils. Descriptive Phenomenology was employed to interrogate this issue effectively. Nineteen participants were purposively sampled from four schools in a mid-Ghana peri-urban area. They participated through interviews and availed their classrooms for observation for a period of two months. With the aid of a qualitative data analysis software - Taguette, data generated was analysed using descriptive phenomenological analytical framework. Emerging findings suggested that teachers are developing core competencies of pupils through the adoption of emerging pedagogies. Despite challenges with teacher competence, teaching materials and time, few teachers are being innovative, but a further few are confused about the agenda of change and are stuck in their conservative ways. However, majority of the teachers were doing just enough of what they were expected, reverting to their old ways whenever they faced challenges. Notwithstanding, it was concluded the teachers had employed numerous pedagogical approaches and innovative strategies towards developing the competencies. Recommendations are made for motivation for innovative teachers, further training for all teachers, and effective supervision of laggard teachers in order to achieve the goal of developing core-competencies in learners.

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CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter sets the background to the study, theoretical framework, the purpose of the study, guiding questions, significance of the study, delimitations, and terms used.

1.1 Background to the study

Curriculum is a key component of education. Learning and teaching primarily center on the curriculum. The word "curriculum" comes from the Latin word, "currere". Its etymological meaning is "racecourse". The connection between curriculum and racecourse, according to Maxwel (2002), lies in the fact that students try to attain the desired educational goals (their destination) by taking the path laid out on the "racetrack". From this understanding, the curriculum has been conceptualized in diverse forms and, like most concepts in the social sciences, it defies a singularly accepted definition. Dewey (1902), Bobbit (1918), Tyler (1957), Tanner and Tanner (1980), Adentwi (2005), Stoll (2006), Indiana Department of Education (2010), Van den Akker, (2010) Saavedra and Steele (2012) and The Glossary of Education Reform (2015) have defined curriculum. Su (2012) categorised curriculum definition into five; objectives, courses of study, plans, documents and experiences. This study aligns with visualizing curriculum as an experience. According to Glatthorn et al., (2018), "the curriculum is the plan for guiding learning in the schools, usually represented in retrievable documents of several levels of generality, and the actualization of those plans in the classroom, as experienced by the learners and as recorded by an observer; those experiences take place in a learning environment that also influences what is learned (p. 5). The implementation of the Standards-Based Curriculum (SBC) has

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delineated teachers to develop competencies of pupils to facilitate living in the twenty-first century effectively. Hence, the SBC serves as a guide for learning through teachers' actualization of the curriculum plan into experiences for learners in the learning environment. The actualization of the plans includes teachers' adoption of techniques and strategies that aid the development of the featured core competencies (Ministry of Education, 2018).

Everything changes, nothing remains still. This is corroborated by the study conducted by Dyjur and Kalu (2018) who stated "curriculum is not static" (p.4). One of the cardinal reasons is that every functional curriculum is developed based on the needs of society. Given that the needs of society changes, the school curriculum also changes periodically in response (Addai-Mununkum, 2020). Tabogoc (2013) explains that a crucial feature of a curriculum encompasses its ability to evolve. Curriculum has evolved over the past decades and would continue to adapt to societies' modern and dynamic needs. This is essential to ensure the curriculum shapes and meets challenges and individual functionality in society. Curriculum also changes to keep up with all the concurrent changes to avoid conflict between educational and societal aims or objectives. (Lithuania & Tawil, 2001; Linde, 2021). This underpins the need for constant review or revision.

The subject of curriculum change is therefore an inevitable feature of the processes of curriculum development. If the educational system were to be stagnant while society changed, it would be perplexing if not completely disturbing. It is essential to ensure it continuously develops to respond appropriately to the needs of society and facilitate the attainment of national goals (Odili, Ebisine, & Ajuar, 2011, Fuseini & Abudu, 2014). Curriculum change is the alteration in curriculum schemes;

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design, goals, and content (Hancock, Dyk & Jones, 2012). Dziwa & Mpondi (2013) argue curriculum change is not a mere supply of applicable technical information, rather, it comprises altering attitudes, values, skills, and relationships. Curriculum change is a generic term encompassing an entire set of concepts. Thus, innovation, development, and renewal, are used in relation to curriculum (Hoyle, 1974). Hoyle (1974) precisely contends curriculum persistently changes to conform to the needs of changing society, changing knowledge and learners. Curriculum reforms or change refers to the attempts made to analyze or apprise content knowledge, including its selection and organisation, and issues linked to how pupils learn (Gilbert, 2010). Curricula is not reformed or changed just to ensure that scholars have the skills and attitudes appropriate for the twenty-first century, but also, to the prospective influence of the adoption of a particular curriculum on students' learning outcomes (Chingos, Russ & Whitehurst, 2012; Boser, Chingos & Straus, 2015; Steiner, 2017).

Fullan (2015) indicated curriculum reforms are demanding in terms of implementation. Highlighting the change in countless aspects may significantly contest current beliefs and subjective realities intensely encapsulated in both singular and structural contexts. That notwithstanding, a number of countries across the globe have reviewed their curriculum to ensure learners gain the needed skills and competencies to thrive in the twenty-first century. In England, the rationale for the national curriculum was established in 1987 and introduced to primary schools in 1989 (Roberts, 2021). In 1999, the Qualifications and Curriculum Authority (QCA) initiated a major review of England's national curriculum to slim down the content (Roberts, 2021). Also, in 2005 and 2007, there was a review of England's secondary and primary curricula respectively with findings published in April 2009 (Roberts, 2021). Again, England had a planned assessment of the entire national curriculum in

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November 2010 and the Department for Education (DfE) announced a review of the national curriculum in a press notice in January 2011 (Roberts, 2021). Macpherson and Miller (2019) further added that England's revised curriculum came to pass in 2014. Curriculum changes in France began in 1802 with recent changes in 2002, 2007, 2008, and 2015-2016 for primary school (Gueudet, Bueno-Ravel, Modeste, & Trouche, 2017). From 2014-2017, Finland revised its national core curriculum at all educational heights to balance the challenges of a rapidly changing and multiplex world (Halinen, 2018). In August 2020, Norway revised and introduced a new curriculum (Subject curriculum- NOR1-05) to replace the core curriculum from 1994. Furthermore, Mølstad and Karseth (2016) stated that in 2014, Norway introduced a new curriculum with distinct learning targets for particular subjects detailing prescribed competence. Italy recently called for reform known as "The Good School" in 2015 to improve education outcomes (Education Policy Outlook: Italy, 2017). Nigeria introduced Universal Basic Education (UBE) in September 1988. In 2018, the Nigerian Educational Research and Development Council (NERDC) developed and introduced the 9-year Basic Education Curriculum (BEC) (Igbokwe, 2015). In 2015, Côte d'Ivoire's education system, which was based on the French model, was reformed introducing a universal (but not free) basic education (Revised report- Côte D'Ivoire, 2018).

Expectedly, Ghana like other countries has made significant modifications and adjustments to some aspects of its educational systems. Kuyini (2016) recorded a number of ongoing educational and curriculum reforms in Ghana. In 1987, the Education Reform Programme (ERF) revised Ghana's school system to make education more relevant to the socioeconomic realities of the nation. Though the programme had a substantial effect on the educational process of the country, some

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challenges persisted. These included; poor supervision, teacher and pupil absenteeism, inappropriate pre-service training, and inadequate in-service training; poor motivation of teachers; burdensome curriculum; unattractive modes of teaching, such as rote learning and copying from the blackboard; and the language of instruction (World Data on Education, 2006). The Education Strategic Plan (2003-2015) was then designed to mitigate the challenges facing Ghana's education in the twenty-first century. This preparation was informed by the Ghana Poverty Reduction Strategy (GPRS), Education for All (EFA) goals, the Millennium Development Goals (MDGs), and other sectoral and national reports (ESP 2018-2030). These steered the development of the Objective-Based Curriculum. The programme focused on four main areas; quality of education; educational planning and management; science and technology, technical and vocational education and training. The old curriculum as its commonly referred to currently in the face of the new curriculum was cumbered with some challenges.

National reports by the Education Strategic Plan of 2018-2030 indicated that the old curriculum "targeted the acquisition of knowledge" (p.15-16). The old curriculum also lacked clearly defined educational goals and philosophy. Performance standards to guide the teaching, learning, assessment, and grading of learners were absent. The assessment system did not provide effective examination outcomes data for evaluating teaching and learning to improve the quality of pre-tertiary education. The objectives-based curriculum focused on knowledge**.** In 2015, the Ministry of Education (MOE) set up a sectoral task force that developed a reviewed ESP 2018-2030 to nullify all previous plans (ESP, 2015. p. 13). The MOE's fundamental validation for this revision was to align Ghana's education priorities with the changing global agenda for development, anchored in the Sustainable Development

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Goals (SDGs). “To deliver quality education service at all levels that will equip learners in educational institutions with the skills, competencies, and awareness that would make them functional citizens who can contribute to the attainment of the national goal” (ESP 2018-2030, p. 14) is the overall goal of the education sector.

According to international standards, curriculum is expected to be reviewed every five years but since the Objective-Based Curriculum in 2007, Ghana had not reviewed its curriculum and “had exceeded this expectation by twice as much time” (Addai-Mununkum, 2020, p.141). Assiduous to expedite the improvement of educational provisions with emphasis on quality education for all, the framework for the new national curriculum was projected to articulate the vision, philosophy, learning experiences, instructional resources, and assessment systems that will guide the development of the school curriculum. The curriculum was established around the socio-economic development of Ghana. The country is slated to have made steady progress in the economy since returning to civilian rule in 1992. Beaming with some achievements, there were still inequalities across regions and socioeconomic groups related to poverty incidence and depth of poverty. The inequalities as projected by National Council for Curriculum and Assessment (NaCCA, 2019) were due to the widened gap between the rich and the poor. The National Pre-Tertiary Education Curriculum Framework reports that “the 2016 National Education Assessment results indicate that only 37% of primary school class 4 (P4) pupils showed proficiency in literacy while 22% showed proficiency in numeracy” (p. 4). The results also show that “after six years of primary schooling, only 36% of our children met grade-level expectations in literacy while only 25% met grade-level expectations in numeracy. Learners in private schools continue to perform better than those in public schools” (NaCCA, 2019 p. 4). Learners from lower social backgrounds are underachievers and

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this continues to significantly influence their participation in education as lifelong learners and acts as a hindrance to the development of the human capital vital for citizens' socio-economically favourable outcomes. It was imperative to shift vehemently to improve learning for all learners. Ghana's adoption of a new national curriculum also spotlights the essence of standards; equipping learners to be "good problem solvers, have the ability to think creatively and have both the confidence and competence to participate fully in the Ghanaian society as responsible local and global citizens" (NaCCA, 2019). This new curriculum for Kindergarten through Basic six is referred to as the Standards-Based Curriculum (SBC). The new curriculum is also intended to improve the learning and teaching of French, focusing on a learner-centered pedagogy as well as improving the use of ICT as a teaching tool and a pedagogy that focuses on equity and inclusion (GhanaWeb, 2019).

In 2021, Vanderbilt University defined Standards-Based Curriculum (SBC) as the official or adopted curriculum that is enclosed in a state or nation's policy, highlighting a peculiar body of knowledge that learners are expected to acquire based on their participation in the school's learning experiences. The SBC in Ghana has seen a total overhaul. According to Aboagye and Yawson (2020) there has been a massive change in the content, some have paved way for others, more learner-centered approach to the learning process and the use of ICT as a pedagogical tool.

The Standards-Based Curriculum (SBC) has expounded expected performances to be exhibited by learners. It also aids teachers to correspond the taught curriculum to the specific standards stipulated in the curriculum. Thus, connecting the content standards and the learned curriculum (Vanderbilt University, 2021). Consequent to this understanding, a critical feature of the Standards-Based Curriculum is the development of six core competencies. Competencies are

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essentially viewed as a "combination of attitudes, skills, and knowledge that enhance learners' ability to draw upon and build on what they know, how they think, and what they think they can do in school, for lifelong learning, living, and working" (Ministry of Education, 2018, p. 27).

Upon graduating from basic schools, all learners are expected to exhibit the six competencies described hereafter.

Critical thinking and problem-solving which entails developing learners' cognitive and reasoning abilities enable them to analyse issues and situations, leading to the resolution of problems. It also requires that learners embrace the problem at hand, persevere, and take responsibility for their own learning. *Creativity and innovation* suggest promoting entrepreneurial skills through their ability to think of new ways of solving problems and developing technologies for addressing the problem at hand. It requires the ingenuity of ideas, arts, technology, and enterprise. *Communication and collaboration* entail promoting in learners the ability to make use of languages, symbols, and texts to exchange information about themselves and their lived experiences. Thus, learners actively participate in sharing their ideas and engage in dialogue with others by listening to and learning from others in ways that respect and value the multiple perspectives of all persons involved.

Cultural identity and global citizenship mean developing learners who put country and service foremost through an understanding of what it means to be active citizens, by inculcating in them a strong sense of environmental, social, and economic awareness. They build skills to critically analyse cultural trends, identify and contribute to the global world community. *Personal development and leadership* facilitate improving self-awareness, self-knowledge, skills, and health; building and renewing self-esteem; identifying and developing talents, fulfilling dreams and

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aspirations, and developing other people or meeting other people's needs. It involves recognizing the importance of values such as honesty and empathy; seeking the well-being of others; distinguishing between right and wrong; fostering perseverance, resilience, and self-confidence; exploring leadership, self-regulation, and responsibility, and developing a love for lifelong learning. *Digital literacy* develops learners to discover, acquire skills in, and communicate through ICT to support their learning and make use of digital media responsibly (Ministry of Education, 2018, p.27).

Globally, teachers are important as they contribute greatly to the success of educational reforms (Smith & Desimone, 2003; Spillane & Callahan, 2000). Scholars have stressed that teachers' characteristics such as attitude, knowledge, and pedagogical skills are superior expediters of curriculum implementation (Ndirangu, 2017; Ramnarain & Hlatswayo (2018; Saloviita, 2020). After three years of implementing the SBC, it is important to inquire how teachers are facilitating the development of the core competencies of pupils.

1.2 Theoretical framework

This research is hinged on Fullan's Educational Change theory. According to Fullan (2007) the theory of educational change emphasizes better plans and planners to facilitate effective implementation. The theory identified four comprehensive phases in the change process; initiation, implementation, continuation, and outcome. Noticeably, each broad phase also has factors affecting it. Initiation deals with processes that ensure implementation is carried out. Dynamics such as existence and quality of innovations; existence and quality of innovations, access to innovation; advocacy from central administration, teacher advocacy, external change agents,

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community pressure/support, new policy and problem-solving and bureaucratic orientations affect this phase.

Implementation entails putting new ideas and activities into practice that align with the proposed change. Factors affecting this phase encompass, characteristics of change; need, clarity, and quality; local factors such as district, community, principal and teacher; external factors including, government and other agencies. Fullan (2007) established that "the more factors supporting implementation, the more change in practice will be accomplished" (p. 86). Continuation hinges on ensuring the continuity of implemented initiatives. Fullan (2007) further recognizes that factors affecting continuation are similar to the ones that influence the implementation phase. However, it is emphasized that roles at the continuation phase are "more sharply defined" (p.101). Outcome suggests proposed initiatives that are successfully implemented and continues to yield desirable effects, developments, or consequences that equate to the achievement of educational goals.

In his book, *The New Meaning of Educational Change* (p.66), Fullan (2007) presented a simplified version of the change process illustrated in figure 1 below.

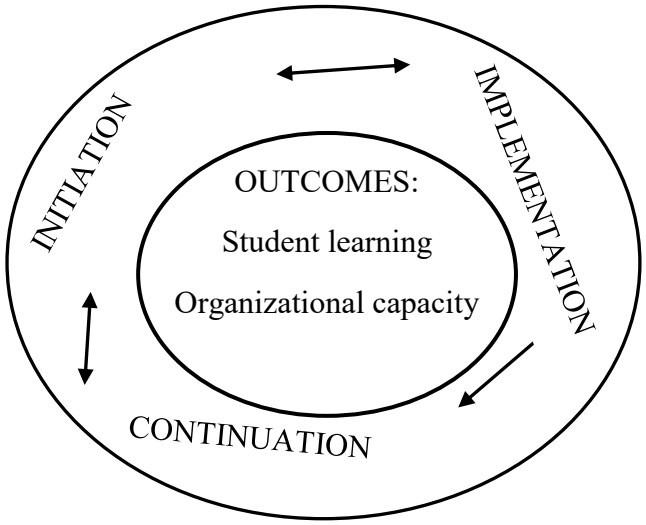

Figure 1.1 Fullan's Change Process

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The identified phases distinctly projected the undercurrents or dynamics essential to carry out curriculum implementation effectively. Detailing in-school and out-of-school support systems that aid effective implementation. These phases exposed factors connected to the change process that promoted its success or failure in the face of new curriculum development and implementation. Fullan (2007) further identified three components that sum up the phases. The three components were crucial elements that aided the identification, understanding and discussion of the participants' reality of the phenomenon. The characteristics of change, identified in the implementation phase of educational change was further used. These characteristics included, need, quality, complexity as well as quality and practicality of the program. Need identifies why the participants of this study subscribe to carrying out innovations throughout the change process. Clarity also encompassed teachers understanding of goals in relation to the implementation of the SBC. Complexity looked at the difficulty encountered as well as the length teachers were willing to go to avoid failure in the implementation of the SBC. Furthermore, quality detailed the availability of innovations or learning materials that supports the successful implementation of change. For maximum appreciation of the subjective reality of each participant, their verbatim responses were used which enhanced a comprehensive description of the phenomenon of the study.

1.3 Topic and research problem

According to Education Standards Authority (ESA), 2021), it is essential for our society to ensure quality learning and teaching in schools. Teachers are one of the agents that promote quality teaching and learning. Teachers can modify and improve upon their strategies and methodologies to align with curriculum goals to expedite the successful implementation of the curriculum. (Alsubaie, 2016). On the 5th October,

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2020, the Director of the Institute for Education Studies (IFEST), Peter Anti, told GhanaWeb that

> *Ghana has a difficult challenge. We have a difficult challenge because barely seven months into the implementation of the new curriculum for KG to Basic 6, we had to close down schools due to COVID-19. This means that both teachers and students were still at the familiarisation stage of the implementation process. In fact, most teachers we have interacted with have indicated that they would need some sort of training to be able to continue the implementation process faithfully*". (par. 3 & 4)

Thus, I believe that the sudden halt of learning and teaching processes due to the pandemic did not aid in adequate familiarization with the demands of the curriculum. The sentiments expressed by teachers stating a need for further training to facilitate effective implementation of the curriculum validate crucial efforts to examine the experiences of teachers in the face of developing the core competencies which are essential features of the SBC.

Teachers have also raised concerns about the deficiency of textbooks thwarting their efforts at providing quality education (Sottie, 2021). Though resource packs were produced at the training session, textbooks that are central to the processes of learning and teaching have not been supplied to schools yet.

Moreover, on the 13th August, 2021 (3news.com), the former director of the Ghana Education Service, Prof. Kwasi Opoku Amankwa stated,

> *"As teachers in the classroom without textbooks, now you have to refer to textbooks on the old curriculum to teach the new curriculum does not flow, teachers need to look at it and make adjustments before teaching and it brings a whole of burden on teaching process for teachers. It means whatever you taught the pupils with the new curriculum for the past seven months, you have to go and take the old one and restart teaching"* (par. 5 & 6).

According to Fullan (1972), changes in curriculum leads to modification in roles and role relationships. Thus, the teacher's role in implementing the SBC is different in comparison to the Objective-Based Curriculum. If teachers are directed to

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use textbooks of the old curriculum to implement and/or develop the SBC's featured competencies, it calls for attention to explore the actual experiences of teachers' toward the development of these competencies as they facilitate its development.

International best practices underscore the need to review curriculum every five years (Addai-Mununkum, 2020), It's been three years since Ghana's implementation of the SBC. This early study assists with in-depth understanding beforehand to focus on issues, weaknesses, and strengths that may outweigh its overall success.

Undeniably, this study is not the first to assess the implementation of the SBC in general. Agormedah et al.'s (2022) survey of 693 respondents revealed that teachers exhibited a moderate-to-high level of teaching efficacy in student engagement, instructional strategy, and classroom management in the implementation of the SBC. Relatedly, Ayebi-Arthur et al's (2020) also examined basic school teachers' attitude and confidence level in teaching the new standards-based curriculum. The study involved teachers from five regions of Ghana and found that most of the teachers have high confidence in handling the revised computing curriculum of the SBC. Apau (2021) also studied teachers' concerns about the implementation of the SBC and found age and experience as some of the predictors of teachers' concerns toward implementation. An investigation by Aboagye and Yawson (2020) on teachers' perception of the new educational curriculum in Ghana revealed that the teachers perceived the curriculum as essential to promote group work, aid the acquisition of lifelong learning skills and enhance the study of culture and society. Also, the enquiry into basic school teachers concerns about the implementation of the SBC by Mpuangnan and Adusei (2021) proved that most teachers were unconcerned

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about the implementation of the new curriculum. The study further revealed that the level of qualification of the basic school teachers had little influence over concerns.

From the above-mentioned, it is evident that research on the implementation of the SBC have focused generally on teachers' self-efficacy, concerns and perception. It is important to direct a study that specifically looks into the experiences of teachers with the new curriculum and the development of the competencies but it appears research has shifted away from this leaving a yawning gap in literature. It is deficient to focus on concerns and perceptions without teachers' experiences underlining the development of the competencies of pupils, and it is for this agenda that this study sought to pursue. Thus, this study shifted the discussion from concerns, perceptions, attitudes, and self-efficacy beliefs to the experiences of teachers as they develop the core competencies of pupils.

Additionally, methods used in investigating the implementation of the SBC have focused on the descriptive cross-sectional survey design, cross-sectional survey design, explanatory sequential design, exploratory sequential design, and survey design (Agormedah et. al, 2022; Mpuangnan & Adusei, 2021; Apau, 2021; Aboagye & Yawson, 2020; Ayebi-Arthur et. al, 2020;). These were predominantly employed to examine perceptions, concerns, attitudes, and confidence levels in teaching computing, as well as teachers' experiences and self-efficacy beliefs across gender (Aboagye & Yawson, 2020; Apau, 2021; Ayebi-Arthur et. al, 2020; Agormedah et. al, 2022). This study however initiates the focus away from quantitative and mixed method approach to a qualitative approach with particular emphasis on descriptive phenomenology.

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Moreover, the studies that have investigated the implementation of the SBC have focused on urban and/or rural communities without focusing on peri-urban communities. Agormedah et al. 's (2022) study was conducted in the northern, middle and southern zones of Ghana. Apau's (2021) investigation of teachers concerns about the SBC was geographically narrowed to the Effutu Municipality. Again, the research by Mpuangnan and Adusei (2021) was conducted in the Kumasi Metropolitan Assembly. Ayebi-Arthur's (2020) study on teachers' attitudes and confidence levels was conducted in the Central, Volta, Northern, Greater Accra, and Ashanti regions of Ghana.

Contextually, this study was geographically narrowed to Appaidu in the Oforikrom municipal assembly in the Ashanti region. Bosompam et. al's (2014) research identified Appaidu as a peri-urban community. Peri-urban communities are usually unplanned and indigenous, with urban-rural interaction at its peak (Afrane & Amoako, 2011; Johnson, 1974). Adomako (2013) also corroborated the definition of peri-urban communities when he simplified that these communities are predominantly variegated with urban and rural interactions and activities. Studies in the Appiadu and its sister areas have investigated health-related concerns; water quality and consumers' perception, effects, and coping mechanisms, rethinking urban poverty and inequality in post COVID-19 and the prevalence of schistosoma haematobium infection (Bosompem et. al., 2014; Adomako, 2013; Adamtey, 2020 and Tay et al., 2011).

Teachers are labeled as curriculum implementers as they facilitate the daily translation of the curriculum into experiences for learners. It is therefore essential to direct a study toward their experiences as they develop the competencies of pupils to

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facilitate their alignment with curriculum goals, enhance learning and experiences and provide evidence that guides decision-making (Dyjur et al., 2019). That is to reinforce or modify their teaching practices and estrategies to suit the philosophy of the SBC. It is for this agenda this research sought to pursue. Additionally, it is significant to divert from investigation in rural or urban centers to examine the experiences of teachers in a peri-urban community and also steer from health related studies that have swamped these communities. This study therefore focused attention on investigating education related issues in a peri-urban community.

1.4 Purpose of the study

The purpose of this qualitative study was to explore public basic school teachers' enactment of twenty-first century pedagogies, pedagogical approaches employed toward developing the competencies, challenges encountered as well as innovative strategies adopted toward developing the competencies of pupils.

1.5 Research objectives

1. To determine how basic school teachers are enacting twenty-first century pedagogies.
2. To identify and describe pedagogical approaches teachers use in developing the competencies.
3. To investigate the challenges teachers have encountered toward implementing the SBC.
4. To recognize and define innovative strategies teachers have adopted towards developing the competencies.

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1.6 Guiding questions

1. How are the basic school teachers in the Oforikrom municipality enacting twenty-first-century pedagogies?
2. What pedagogical approaches do teachers use in developing core competencies of pupils?
3. What challenges do the teachers face in developing the core competencies of pupils?
4. What are the innovative strategies the teachers have adopted towards implementing the SBC?

1.7 Significance of the study

The study will be a guide to teachers to reflect on their practices in improving strategies to develop the competencies of pupils. Again, it will guide policy makers, curriculum planners and other stake holders to prioritize the provision of learning resources while organizing workshops, seminars, and training toward pedagogical practices that will help teachers in developing the core competencies of pupils effectively. Thus, promoting the holistic development of the six competencies of the SBC projects. Findings from this study, focused on the Fullan's (2007) educational change theory and the qualitative approach to exploring teachers' experiences will complement the body of literature regarding available resources for developing the competencies and the implementation of the SBC.

1.8 Delimitation of the study

The study focused on basic school teachers' experiences in developing the core competencies of the Standards-Based Curriculum in pupils. It was geographically narrowed to only public basic school teachers in the Oforikrom

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municipality (in context). Oforikrom is a new municipality established in March 2018. Appiadu is among four of the circuits in this municipal assembly (OFKMA, 2019). Furthermore, the research was delimited to four schools in the circuit since she inadequate resources such as time; schools calendar, as well as financial constraints, delimited me from visiting the other schools in the circuit.

Additionally, it was also limited to teachers in the primary since the implementation of the SBC was at this level across the country.

1.9 Definition of terms

- Core competencies – combinations of attitudes, skills, and knowledge that enhance learners' ability to draw upon and build on what they know, how they know, and what they can do in school, for lifelong learning, living, and working (Ministry of Education, 2018).
- Curriculum – the planned interaction of pupils with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives (Indiana Dept. of Education, 2010).
- Standards-Based Curriculum – new pre-tertiary education curriculum developed by NaCCA to replace the Objective-Based Curriculum
- Teachers' experiences: this refers to the feelings; challenges teachers have about their capability to effectively teach students with special educational needs in mainstream schools.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature reviewed covered the following themes due to their relevance to the topic under study. The various subsections review concepts related to the study's agenda. The literature reviewed was gathered from abstracts, information wired online, journals, and books.

2.1. Theoretical reviews

This unveil theories relevant to explain the research problem. They have been broadly categorized into theoretical review and empirical data. These established the relationship that exists between concepts, theories, and scholarship that facilitated maximum understanding of the phenomenon understudy (Kennedy, 2007).

2.1.1 Educational Change

This study is hinged on educational change theory by Fullan (2007). This limited the scope of the pertinent data as it focused on specific concepts, that defined the specific viewpoint that I used to scrutinize and deduce the data to be gathered (Fleetwood & Hesketh, 2006).

According to Michael Fullan, educational change has an objective and subjective meaning. On the subjective side, the teacher is "uncertain about how to influence students, and even about whether that is having an influence; they experience students as individuals in specific circumstances who are being influenced by multiple and differing forces for which generalizations are not possible" (Fullan, 2007, p. 24). From the objective perspective, most people do not comprehend the nature or upshot of educational changes. They are immersed in change "voluntarily or

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involuntarily" with inconclusive thoughts on the "meaning, form or consequences" involved (Fullan, 2007, p. 29). I believe teachers who do not comprehended the nature of the SBC would visualize change from the objective perspective. To address the subjective meaning of educational change, Fullan (2007) suggests "repeating that changes in actual practice along the three dimensions – in materials, teaching approaches and beliefs, in what people do and think" (p. 37). These dimensions Fullan (2007) highlights as indispensable if the envisioned result can be accomplished. Also, objectively, Fullan (2007) recognizes there are new policies and programmes "out there" and they "may be more or less specific in terms of what they imply for changes in materials, teaching practices and beliefs" (p. 37). Fullan (2007) establishes change cannot be "accomplished overnight" (p. 40) The participants of this study who are going out of their way to ensure actual practice through adopting child centered approach to learning, using the limited resources and modifying their thinking towards developing the competencies effectively have a subjective perspective to the educational change process. Fullan (2007) establishes that there are two broad ways to visualize educational reform; an innovative-focused approach and capacity building focus. An individual's choice of a particular approach is dependent on whether an individual want to examine specific innovations and determine associated factors for success or how to "develop the innovative capacity of organizations and systems to engage in continuous improvement" (Fullan, 2007, p. 65). Hence, the best way to ensure an operative change in the educational system is through a concentrated focus on improving classroom practice.

This research is inclined to the first approach; the innovation-focused approach which envisages three broad phases to the change process.

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Phase 1 – diversely considered initiation, mobilization, or adoption. The phase entails decisions to adopt or proceed with a change.

Phase 2 – implementation, involves the first attempts of putting the knowledge or reform into practice.

Phase 3 – continuation or institutionalization, involves whether the change gets built in as an ongoing part of the system or disappears by way of a decision or through disintegration.

These completed phases relate to the outcome. That is, whether or not learning is enhanced and whether or not "experiences with change increase subsequent capacity to deal with future changes" (Fullan, 2007, p. 65). Moreover, each phase has distinct elements or factors affecting it.

2.1.1.1 Initiation

This process leads to and includes decisions to proceed with implementation. This decision ranges from a number of sources; "single authority to a broad-based mandate" (Fullan, 2007, p. 69). Generally, we might assume explicit educational changes are presented in accordance with certain educational values and match given requirements preferably than existing practices do (Fullan, 2007). There are numerous innovations existing in our current era. The decision to initiate innovations can be derived from many different sources and for different reasons. Thus, there are countless variables potentially influencing or affecting initiation; existence and quality of innovation, access to innovation, advocacy from central administration, teacher advocacy, external change agents, community pressure or support, new policy and funds, and problem-solving and bureaucratic orientations.

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2.1.1.1.1 Existence and quality of innovation

All classes of innovations exist today. Fullan (2007) stated that these diverse kinds of innovations are swiftly and continuously expanding due to the progressively sophisticated nature of our technological era. Questioning the available innovations existing rests on the quality of the new programme. CSR models were established for school adoption aimed at improving learner achievement in the United States (Fullan, 2007). The establishment of standards-based reform for literacy in Victoria and Australia was in line with the alteration made for change to operate effectively (Hill & Crévola, 1999). This model also encompassed a number of elements. According to Fullan, Hill, and Crévola (2006), this was fully developed after fetching astounding results in literacy. There are other innovations presented by Good and Kaminski (2002) as well as Tomlinson (1998). These distinguish that innovations exist but the stephead centers on its design and quality which have upgraded dramatically over the years (Fullan, 2007). Thus, this stage may present a dilemma such as, whether to "seek majority agreement before proceeding versus being assertive at the beginning" (Fullan, 2007, p. 81). Stringfield (2000) found that numerous studies established reform models were adopted without thinking critically about certain essentialities; aims, goals, culture, and learners. Political decisions also influenced "schools' adoption of external reform designs" without careful consideration (Stringfield, 2000, p. 191). The initiation process can be confusing or alienating but individuals should consider factors affecting their choice of innovations and how successful they can yield in their new programmes.

2.1.1.1.2 Access to innovation

Selectivity is a major element affecting the choice of innovations due to the variance in access to information (Fullan, 2007). Innovations have been partly

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developed due to the proliferation of networks, partnerships and the overwhelming nature of transformative infrastructural opportunities to "access and work interactively" (Fullan, 2007, p. 73). Access to innovations is rarely emphasized and is largely dependent on resources, geographical area, transportation, and others. School boards are directly responsible for this realm but they are also reliant on other central administrators (Fullan, 2007).

2.1.1.1.3 Advocacy from central administration and/or school administrators

Without the support of chief district administrators, their staff as well as the school board, initiating change infrequently occurs (Fullan, 2007). Several studies have recognized the significance of chief district administrators and central district staff in the advocacy, support, and initiation of new programmes (Berman & McLaughlin, 1977; Huberman & Miles, 1984; Elmore & Burney, 1999; Fullan, Bertani & Quinn, 2004 and Sharratt & Fullan, 2006). At various school levels, principals or heads are labeled "gatekeepers" of change, as they determine the fate of innovations leaping from outside or from teacher initiatives (Fullan, 2007, p. 74). Principals play a crucial source of initiation as expected leaders of change (Fullan, 2007).

2.1.1.1.4 Teacher advocacy

Teachers may have less opportunity to encounter new ideas and less time and energy to follow through yet, most teachers innovate (Fullan, 2007). According to Fullan (2007), "there is a strong body of evidence that indicates that teachers are often the preferred source of ideas for other teachers" (p. 75). Yet, they have limited time to interact with each other. Teachers initiated ideas spread when other teachers support them. PLCs are platforms that constantly ensure the search for new ways of

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improvement (Rosenholtz, 1989; Newmann & Wehlage, 1995 and McLaughlin & Talbert, 2006). Leithwood (2005) established that a vast majority of schools did not have a conducive atmosphere that sustained teacher innovations. Maharaj and Bascia (2021) identified national and local teacher unions as becoming strong advocates of reform. Teachers can adopt change in their individual classrooms when the right conditions are provided (Fullan, 1997; Fullan & Hargreaves, 1992 and Hargreaves & Fullan, 1998). Thus, ensuring innovation is clear and practical while interacting with school administrators, principals, teachers, advocacy unions as well as external or outside resources (Fullan, 2007). Additionally, teachers embark on innovations that are individualistic (small scale) due to inadequate information, access, and time which does not spread innovations on a larger scale (Fullan, 2007).

2.1.1.1.5 External change agents

These are change agents outside the school district, comprising, regional and state roles. These bodies also perform an integral role in the change process. At this level, the roles are formalized and usually charged "with the responsibility for stimulating and supporting change" (Fullan, 2007). Notwithstanding, strong internal school leadership is required to institutionalize an innovation as the absence of this would breed fragmentation, incoordination, and "flavour-to-the-month", something Hatch (2000) captured in his research "when multiple improvement initiatives collide" (Fullan, 2007, p. 76).

2.1.1.1.6 Community pressure or support/opposition/apathy

Schools differ in characteristics and vary in their utilization of innovations due to a number of factors. While some may pillar innovation, others block it, most are indifferent and even more are one of the above at a time (Fullan, 2007). Dependent on

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the circumstances, communities can pressurize district administrators, oppose certain potential adoptions or remain passively supportive or apathetic. Fullan (2007) believes the initial pressure for change generated by communities is due to population shifts. According to studies by Berman, McLaughlin, and associates (1979), this rapid growth in population leads to the "development of community efforts and demands for change" (Fullan, 2007, p. 77). Furthermore, Fullan (2007) recognizes that the role of communities in initiating change is not straightforward yet breaking them down into the following components makes it understandable;

1. "Major demographic changes create turbulence in the environment, which may lead to the initiation of change or irreconcilable conflict.
2. Most communities do not actively participate in change decisions about educational programs.
3. More highly educated communities seem to put general pressure on their schools to adopt high-quality, academic-oriented changes. They also can react strongly and effectively against proposed changes that they do not like
4. Less-well-educated communities are not as likely to initiate change or put effective pressure on educators to initiate changes on their behalf. They are also less likely to oppose changes because of lack of knowledge, but once activated, they too can become effective" (Fullan, 2007, p.77-78).

2.1.1.1.7 New policy and funds

Policies and governments are demanding new requirements, especially with standards-based reforms. "Special needs, desegregation, literacy and numeracy initiatives" as well as teacher education are reforms primarily generated by government policy and legislation (Fullan, 2007, p. 78). Currently, governments are

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relentlessly interested in the nature and answerability of educational change and have a positive strong bearing on its processes.

2.1.1.1.8 Problem-solving and bureaucratic orientations

Adoptive decisions of schools are characterized by bureaucratic orientation (Berman and McLaughlin (1977). Fullan (2007) identified that districts welcome extra funds to solve locally generated problems. Pincus (1974) also established that public schools are less motivated to adopt cost-reducing innovations when there are no funds to back purchase. Again, innovations that do not significantly change administrative management are more likely to be adopted.

Though the initiation process may not come easy, its overall success is dependent on the actions that take place during the implementation phase.

2.1.1.2 Implementation

A wide range of policies and decisions can be developed yet a crucial element lies in implementation. Implementation is the "process of putting into practice an idea, programmes, or set of activities and structures new to the people attempting or expected to change" (Fullan, 2007, p. 84). Such changes may be imposed from foreign sources or voluntarily sought; documented or detailed advance and adapted incrementally through use; though deliberately planned, its users can make modifications depending on needs or classroom situations (Fullan, 2007). When initiatives change, a critical element relates to the degree and quality of change that is actually practiced. Fullan (2007) further believes that the more factors supporting implementation, the more change in practice will be accomplished" (p.86). The factors affecting implementation include; the characteristics of change, local characteristics, and external factors.

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2.1.1.2.1 Characteristics of Change

Unpacking the characteristics of change projects need, clarity, complexity, and quality or practicality as distinct components.

2.1.1.2.2 Need

It has been recognized earlier that innovations are usually carried out without careful examination of their addressability to perceived or established needs (Fullan, 2007). Experimental Schools project by Rosenblum and Louis (1979) instituted that "the degree to which there was a formal recognition within the school system of unmet needs" was one of the four "readiness factors" associated with subsequent implementation (p. 12). The Rand Change Agent study (Berman & McLaughlin, 1977) identified problem solving/orientation; need identification was linked to the selection of a programme and strongly related to successful implementation. It is usually difficult to determine what is needed since schools face the challenge of overloaded improvement agendas. Thus, it can be difficult to define if a given need is significant. Also, at the commencement, precise needs are often indistinct. Individuals may become clearer about prioritized needs when practice or action takes place. Again, the need interacts with the other factors identified in educational change during the implementation process or phase (Fullan, 2007). The rationale for the development of the SBC is to create confident, literate learners who can also make critical decisions. Teachers are likely to enact twenty-first century pedagogies and use innovative strategies more if they are clear about the goals and expectations of the curriculum. The short period for training teachers on the new curriculum is likely to affect the identification of needs which can affect the implementation process (Kpedator, 2019)

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2.1.1.2.3 Clarity

Despite the fact that teachers want to improve the curriculum wholly or partly, adopted change may seem unclear to some especially pertaining to goals and means (Fullan, 2007). A number of teachers were unable to identify essential features of innovations (Gross et. al., 1971). Individuals may take clarity literally and often stuck per "false clarity" (Fullan, 2007, p. 89). False clarity is defined by Fullan (2007) as an interpretation of change in an overgeneralized manner; the planned change differs from the supposed change. Fullan (2007) further establishes that not every teacher may experience false clarity. However, anxiety and frustration are realized in individuals trying to implement uncertain changes. Fullan (2007) concludes it is paramount to ensure clarity throughout the implementation process.

2.1.1.2.4 Complexity

Fullan (2007) established complexity as the difficulty and the extent of change that individuals are responsibly required throughout the implementation process. Currently, more complex reforms are presented which requires a greater understanding of the whole and the part one has to play in it (Fullan, 2000). The probability to accomplish more is greater with complex changes exclusively given the variety of changes evolving these days, nonetheless, they also mandate more exertion, and there is an enormous catastrophe in the entire process when a failure occurs (Fullan, 2007).

2.1.1.2.5 Quality and Practicality of the Programme

Quality and practicality of the program are the elements directly linked to the characteristics of change in a new curriculum or policy (Fullan, 2007). According to Pfeffer and Sutton (2006), one cannot contend the significance of quality is self-

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evident. Fullan (2007) further maintains that insufficient quality and lack of learning materials and other educational resources result from adaptive decisions based on government or political necessity with a good amount of time for its appropriate development. Change requires greater attention to leading-edge quality if adapted innovations would be developed and ultimately sustained (Salvin & Madden, 1998; Kearns & Harvey, 2000 and Barber, 2000). Time is a prerequisite for sustaining good change; working insistently would extensively preserve reform or change (Fullan, 2007).

2.1.1.2.6 Local characteristics

According to Fullan (2007) local school systems represent one of the major avenues for effective change. These systemic orientations have factors; school districts, board and community characteristics, the principal and the role of teachers play an integral part in the change structure or process (Fullan, 2007).

2.1.1.2.7 School districts

We have already established that difficulties arise when decisions are not carefully put into effect. School systems and districts track the management of change introduced. These institutions therefore can make the incapacity of change as well as their capacity. Several studies of district success are seen in the work of Campbell and Fullan (2006); Fullan et. al., (2004) and Sharratt and Fullan (2006). When individual teachers and single schools initiate changes with support from central administrators, change at the district level will not materialize (Fullan, 2007). In sum, district administrators influence the extent of quality implementation and manage its processes.

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2.1.1.2.8 Board and community characteristics

According to Fullan (2007) school boards directly alter innovations that occur in the systems by engaging "reform-oriented superintendents" (p. 95). Fullan (2007) further identified that demographic changes put increasingly extensive pressure on schools in adopting new policies or changes. These prime conflicts debilitate districts in inducing actual changes. Dialogue between communities and school boards would enhance cooperation instead of contention incidents to ensure the effective implementation of innovations.

2.1.1.2.9 The head teacher of the school

Influences the likelihood of change that occurs in a school. A study by Berman and McLaughlin (1977) formed the conclusion that "projects having the active support of the head teacher were most likely to fare well" (p. 124). Fullan (2007) further initiated that the actions taken by principals legitimize the seriousness of the changes or innovations adopted or implemented. Berman, McLaughlin, and associates further grounded those principals who attended workshops or training sessions for the proposed changes served as best indicators for the implementation of all the various dimensions of change. The principal is the most probable individual to further the change agenda for its essential successes (Fullan, 2007). The subjective world of principals poses a challenge to their all-inclusive facilitation of change pertaining to what they specifically need to do in managing change. Yet, their psychological and sociological problems related to change is nowise compared to what the teacher experiences (Fullan, 2007).

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2.1.1.2.10 Role of teachers in the school

As reported by Fullan (2007), teacher characteristics as well as other coactive constituents play conditioning roles in implementation. Huberman (1988) hinged that at the individual level, a teacher's psychological state can affect his or her predisposition to consider or follow through with improvements. Fullan (2007) also notes that depending on a teacher's personality, influence from previous experiences as well as their stage in the profession creates a greater sense of self-actualization and efficacy. Reliant on the individuality and conditions of service, the psychological state of the teacher can be permanent or changeable (Fullan, 2007).

In agreement with Fullan (2007), it is emphasized that "change involves learning to do something new" (p. 97). Hence, "interaction is the primary basis for social learning" (Fullan, 2007. p. 97). "The quality of working relationships among teachers is strongly related to implementation. Collegiality, open communication, trust, support and help, learning on the job, getting results, and job satisfaction and morale are closely interrelated" (Fullan, 2007. P. 97). Teachers and administrators need to observe each other's teaching and provide constructive feedback to improve their teaching (Fullan, 2007). Collaboratively, teachers and administrators should "plan, design, research, and prepare teaching materials together" (Fullan, 2007, p. 98). This joint cooperative work would reduce the burden of implementation. According to Dufour et al. (2006), PLCs are rightly gaining more prominence and are distinctly defined. It is essential to reinforce supervision of these communities to ensure teachers acquire and modify practices to develop the competencies of pupils effectively.

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2.1.1.2.11 External factors influencing the quality and practicality of the programme

Concerns from legislation, new policies, and new programme initiatives arise in shaping the change in the educational system (Fullan, 2007). These "sources" pressurize local districts to modify or sustain innovations (Fullan, 2007. p. 99). Until recently, government agencies were preoccupied with policy and initiating programmes without focusing on the challenges and processes of implementation (Fullan, 2007). Difficulties these bodies poses are in relation to the "processual" relationship that exists (Fullan, 2007, p. 100). Thus, "submission of requests for money, intermittent progress reports on what is being done, external evaluations – paperwork, not people work" (Fullan, 2007. p. 100). These challenges are central to the problem and process of meaning. Usually, meaning is unattainable when two dissimilar worlds are restricted in interaction, nonetheless, misinterpretation, attribution of motives, feelings of being misunderstood, and disillusionment on both sides are nearly definite. However, the quality relationship existing between these bodies supports change efforts by reconciling problems when agreements are reached (Fullan, 2007). That is, combing the forces of "pressure and support" stimulates complete achievement in the implementation process (Fullan, 2007, p. 100).

2.1.1.3 Continuation

This phase represents another adoption decision. According to Berman and McLaughlin (1977), ineffectively implemented projects were discontinued. They also found that a minority of the well-implemented projects were continued. The motives for the lack of continuity were similar to the ones that influenced implementation (Fullan, 2007). Interest deficit or inability to finance "special projects" out of funds from districts and the total absence of money for professional development and staff

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support for continuity and novel teachers directed the end of numerous implementation programmes (Fullan, 2007. p.101). Principals play a crucial part in both implementation and continuation. Teachers found it tremendously difficult to pursue new projects or innovations without the clear support of principals (Berman & McLaughlin, 1977). Huberman and Miles (1984) accentuate the continuity of innovations is dependent on the possibilities that the change "(1) gets embedded or built into the structure (through policy, budget, timetable, etc.); (2) has, by the time of the institutionalization phase, generated a critical mass of administrators and teachers who are skilled in and committed to the change; and (3) has established procedures for continuing assistance (such as a trained cadre of assisters), especially relative to supporting new teachers and administrators" (Fullan, 2007. p. 102). The hindrances of continuity are persistent even today (Fullan, 2007). The instability of district and political leaders challenge the continuity or sustainability of the change process (Datnow & Stringfield, 2000). What begins this year, would be discontinued following the tenure of new leadership.

Though continuation was discussed as the third phase, it should be noted that the change process is not linear. It is therefore essential to seek all the phases at the commencement of the change process (Fullan, 2007).

Fullan (1982 & 1991) established that attention to the outcome phase, supported through positive perspectives such as ensuring active initiation and participation. That is promoting contact and evolvement of all initiatives through interactions with the proposed change and environment enhances its effectiveness. Also, pressure, support, and negotiations help to facilitate the promotion of initiatives.

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Modifying skills, thoughts, and committed actions would also facilitate its overall progress and sustain efforts that would be presented in the outcome phase.

In sum, it should be noted that each of the phases identified is not oversimplified. Also, the right factors should be established to ensure effective processes through the development of appropriate solutions. Furthermore, implementation and continuation should not be represented as just technical terms. However, changes get initiated, they advance (or not) to some form of implementation and continuation, consequential to some intended and/or unintended outcomes. Hence, as emphasized by Oakes et. al., (1999), cooperatively, a "moral commitment to growth, empathy, and shared responsibility" duplicates the predominant school culture to change it (p. 825).

2.1.2 Twenty-First-Century pedagogies

The last 150 years and more have seen a set of pedagogies from the industrial area embedded in mass schooling. These pedagogies originated from teacher-controlled learning where deconstructed and reconstructed information was presented to same-age cohorts of students in standardised classroom settings. Globalisation has influenced many disciplines including education. The old pedagogies neglected the capacity of schools to take place in both virtual and physical learning spaces and are currently not relevant to our world. If new opportunities are to be embraced, we need a twenty-first century pedagogy; a paradigm that reflects on the bold and creative commitment to relevance and quality teaching and learning. Griffin et al., (2012) indicated that twenty-first-century learning contains twenty-first-century competencies, skills, or attributes which include ways of thinking, ways of working, and tools of working and living in the world. The rapid development of science and

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technology marks the twenty-first century. Cleovoulou (2021) explained that twenty-first-century skills are the core skills of twenty-first-century learning and occupations. These skills help people thrive as individuals, citizens, and workers in the twenty-first century (Cleovoulou, 2021). They highlighted that though every educated person should have an appreciation of fundamental skills in literacy and numeracy (3Rs of reading, writing, and arithmetic) to succeed in the twenty-first century, these individuals must also have skills that enable them to think logically and solve problems effectively and independently (Cleovoulou, 2021) Problem-solving, critical thinking, communications, collaboration and teamwork, leadership and responsibility, social and cross-cultural interaction, computing, information, and ICT and media literacy were essential skills for the twenty-first-century learner proposed by Trilling and Fadel (2009). These skills were also highlighted in the core competencies featured in the SBC. According to Berry (2010), development takes place in various sectors and requires humans to work with complex thinking and communication skills. Pertinent education for the twenty-first century hinges on two strands; humanizing and socializing. That is, enhancing learners' humanity by improving their own competence as managers of their lives, members of society (both local and global), effective participants in the workforce, and active contributors to a dynamically changing environment (Whitby, 2007). The overarching aim is the pursuit of wisdom. The socializing factor encompasses a boost in learners' communal and global consciousness and fosters accountable citizenship (Whitby, 2007). Critical thinking skills have become a very important demand in the twenty-first-century with a tendency to make conclusions and overcome challenges based on evidence (Eggen & Kauchak, 2012). Students with critical thinking skills provide logical reasons for understanding and connecting each thing. In addition, students have the ability to

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compile, analyse express and solve problems (Husamah & Setyaningrum, 2013). Saputri, et al, (2018) added that critical thinking skills accommodate activities that could improve high-level thinking skills. The pedagogy must be socio-critical to deepen awareness of the nature of society. Whitby (2007) also emphasized the creation of transformative and enabling learners who can make a difference in the lives of individuals, the community, and the dynamic world they live. Lifelong learning is fundamental in this context to prepare learners for the future's ongoing engagement in solving real problems and competently coping with the dynamics of life (Whitby, 2007). In his book, Whitby spotlights some skills that are essential for achieving outcomes in the dynamic world; collaborative teamwork, problem-solving, communicating, making connections, creating, and expressing oneself in a variety of ways. These skills are also projected in the core competencies of Ghana's Standards-Based Curriculum.

2.1.3 The web 2.0 world

The development of the world wide web is a healthier example of the rapid and dynamic variation of our universe and plays a vital role in the twenty-first century (Whitby, 2007). Afore, less than five years, we have realized the web morphed from a place to generally access information to a network of social interaction. "Web 2.0 has been dubbed the read/write web or social networking software" (Whitby, 2007, p.3). Sites in this software are pivoted around people and communities as well as content and publishing. They also encourage communication, collaboration, and connection in every aspect of life. Children born into the digital generation are as comfortable with being online as they are in the physical world. As stated by Prensky (2006), "today's students have mastered a large variety of tools that we will never master with the

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same level of skill. From computers to calculators to MP3 players to camera phones, these tools are like extensions of their brains" (p. 10).

Schools are currently going beyond the simplest change to thoroughly transform themselves to reflect both the social and technological context (Caldwell, 2006; Beare, Macvean & Sullivan, 2006; Elmore, 2004). New and relevant pedagogies for the twenty-first century are thereby taking shape. George Siemens, a Canadian theorist, for instance, affirms that learning is not solely through the traditional ways but connecting with one another and technology to construct meaning or knowledge. Siemens (2006) further observed that learning in the digital era occurs through forcing traditional or physical methods instead of adapting new pedagogies that align with the new knowledge or interaction. New circumstances and opportunities have to be probed if we want to develop the most appropriate pedagogies for the twenty-first century. We need an exhaustive understanding of how people learn to aid new pedagogies to thrive effectively. Hinging on principles such as quality relationships, respect for individual differences, focus on core processes of making meaning, active participation in relevant and authentic learning tasks, and the development of autonomy, among others. These principles also remain at the core of effective learning and teaching and the challenges rest on how to use these principles to support learning and teaching not only in the physical space but in the virtual space as well. Effective teaching will always be relational. Hence in our current digital or virtual spaces, teachers act as facilitators or guides to aid learners to connect or interact with resources, ideas, and people instead of relying on teachers as the golden ticket to provide all needed information (Richardson & Watt 2006). Hargreaves (2004) further recognizes that the dynamics of the teaching profession, therefore, call

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for teachers or people who can work collaboratively with learners and other teachers instead of expecting learners especially to be dependent on them.

Whitby (2007), presents five propositions to describe the appropriate range of pedagogies. In sum, the curriculum should be constructed collaboratively; shifting from the memorization era to employing skills that enhance interconnectedness and meaningful engagement in this dynamic world. Also, there should be a focus on transformative pedagogies developing and nurturing clear-thinking, discerning, flexible, and creative problem-solvers who can face world challenges and make the world a better place. As well as promoting creativity and adaptability.

In an attempt to determine which pedagogies are appropriate for the twenty-first century, Whitby (2007) supplies categories to direct teachers to explore approaches relevant to teachers themselves, their students, and the setting within which they work;

1. Pedagogies that personalise learning – teaching is getting to know the child (Peter, 2003). Recognizing individual differences in the backgrounds, abilities, interests, and learning styles of students. Facilitate learning by demonstrating, mentoring, and providing immediate feedback that helps students construct deeper meaning.
2. Pedagogies that enable the learner – encouraging curiosity, developing independence, fully functioning, contributing members of society.
3. Pedagogies that climax the interpersonal nature of learning - supportive context for peer-tutoring, group work, modeling, coaching, collaborative problem-solving, and constructive risk-taking.

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4. Pedagogies that contribute to building the learning community – facilitating learner teamwork, negotiation of learning tasks, and across-curriculum and across-grade learning and teaching initiatives beyond the school where knowledge, resources, and problem-solving initiatives are shared.

In 2005, the principal of Mabry Middle School, Dr. Tim Tyson, fashioned a blog featuring work from his staff and students (Whitby, 2007). This blog is now a leading example of innovative educational practice using Web 2.0. Dr. Tyson admits that technology is not a magic bullet but more of a 'tool that when appropriately leveraged, brings people together so that they can collaboratively create and share with unprecedented ease and facility'. Teachers in the twenty-first century need to recognize that they are co-learners and collaborators within the learning environment. In their role as learners, teachers learn a great deal about and from their students and from each other as well. Thus, learning together in collaborative groups leads to new ways of understanding and applying existing knowledge (Hough et al., 1997).

2.1.4 Child-centered pedagogies

Learning is a multifaceted process through which learners constantly change their understanding of the world whilst continuously creating and evolving new schemes to adjust and adapt to the ever-dynamic world around them. The development of competencies for learners to equip them with skills that make them functional in the world is accomplished through indulging and involving in the nature of learning (Tandon, 2017). Over the last 50 years or more, the entire educational system has experienced significant change. Traditional educational methods have been teacher-centered, with the teacher acting as the sole director of instruction with slight or no margin for student engagement opportunities in their own learning

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(McMillan, 2020). In 1977, the Dearing report emphasized the significance and need to introduce education that fosters reflective thinking and skills that enable students to become lifelong learners. This lies at the heart of constructivism. The constructivist approach to learning emphasizes the learning and the construction of their reality through interaction with the world (Burner, 1986). The constructivist approach centers on each student; treats them as unique with their own set of experiences, values, and cultures. The learner should also be taught in a natural setting along with diverse experiences and opportunities to explore, observe and discuss. The Glossary of Education Reform (2014) defines child-centered learning as a wide range of educational programmes, learning experiences, instructional approaches, and academic support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students. In the accomplishment of this objective, schools, teachers, guidance counselors, and other educational specialists can employ a variety of educational methods from modifying instructional strategies and assignments in class to redesigning the ways students are taught and grouped in school entirely (McMillan, 2020). The traditional classroom model has changed dramatically in its content delivery. Teachers currently use a myriad of student-centered strategies to equip and prepare students to excel after graduating from school (McMillan, 2020). One of the critical inputs that contribute to learning outcomes is the pedagogical processes (Sindhi and Shah, 2014). Some strategies include but are not limited to; choice boards, inquiry-based learning, project-based learning, stations/centers, flipped classrooms, games, and simulations.

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2.1.5 Teacher innovation

Times past in teaching is a history of teachers innovating. From Plato to Maria Montessori and other educators over the world; someone constantly questions the accepted methods of schooling or teaching. A great teacher never accepts the pervading system uncritically. The teacher generates their ideas around the system to balance the needs of their students (Cole, 2020). Dada (1999) promotes curriculum innovation, as he stated "when the curriculum is not achieving what is expected to achieve and when the conditions for which a curriculum was established have changed considerably, then achieving qualitative teaching outcome will be hindered" (pp. 105). Nessipbayeva (2012) maintains that “innovation alters the pedagogical system, improving the teaching process, and its results”. The author further suggests that increased motivation in teaching and educational activity, is among the aims of innovation; “the use of active teaching forms and new training technologies are regular spheres of innovation” (p. 151). Teachers should not consider innovation synonymously with technology but Nessipbayeva (2012) stresses that leveraging or supporting the learning and teaching process with Information and Communication Technologies (ICT) can fundamentally change the learning experiences of teachers. An innovator solves a problem or reveals new possibilities for a phenomenon. They are individuals who step out of their comfort zones to generate ideas to adjust, modify or change situations. Cole (2020) defines an innovative teacher as one who finds any way to reach all students. This means willingness and flexibility to adjust what you teach and how you teach. We have to keep our students engaged and excited to learn”. The author also suggests that innovation can be thought of as ‘creative risk-taking (and creativity is fundamental to the learning process). This is a shift in mindset to explore pathways to make learning a comfortable journey for all learners. Though

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digital technologies are an expansion of the innovative toolkit, the most powerful tool is the mind; which needs to be fed on inspiring resources. (Cole, 2020). Our world today shifts the focus from physical or face-to-face interactions. Innovation also harnesses relationships, attitudes, and equitability. These notions are essential to the traditional classroom but more acute when it comes to distance or hybrid learning.

Jandhyala (2017) postulates that teachers' can be innovative when they are good listeners. Thus, constantly interacting with learners, other teachers, and even parents help them understand them better and cater for their sensibilities. Thus, creating a personal connection or relationship with learners' aids in gauging innovative ways to teach content.

"Genuine innovations emerge from new knowledge of the processes of human development, providing new theoretical approaches and practical technologies for achieving optimal results. Pedagogical innovation demands the replacement of educational paradigms" (Nessipbayeva, 2012). Teachers can also reflect on the lessons taught. To consider what is working for learners or not. Thus, examining processes, strategies, and concepts with your learners' success and interest in mind. They can also research to identify comprehensive and new strategies and ideas to organize lessons to encourage learner participation and yield the mastery of featured curriculum competencies (Jandhyala, 2017).

2.1.6 Teacher competencies

Prior to addressing the issue of teacher competencies, there is a need to establish what competencies are. According to the ARZESH Competency Model, competency is a chain of knowledge, abilities, skills, experiences, and behaviors, which leads to the operative performance of individual's activities (Maaleki, 2018).

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Nessipbayeva (2012), hinges that "competency is more than just knowledge and skills; it involves the ability to meet complex demands by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. Competency is essential to an educator's pursuit of excellence" (p. 150). Competency is measurable and could be developed through training. It is also breakable into the smaller criteria" (p.18). Selvi (2010) maintained the improvement in knowledge and skills to enhance, improve, and explore their teaching practices is essential for teachers. The author further stressed that studies conducted on teachers' competencies focused on the teaching role of teachers instead of teachers' competencies. Due to reform studies in education, teachers' competencies have been broadening; developing teacher education, scientific results of educational science, and other fields (Selvi, 2010). Kress (2000) tips out that 'the previous era had required an education for stability, the coming era requires an education for instability' (p. 133). Kress' ideas explain why teachers' professional development should be redefined for sustainability. Depending on the demands of the era requiring capabilities, the aims of education change. These requirements for change directly affect the educational system. The responsibility of operating the educational system lies with the teachers and hence need strong and efficient professional competencies. Nessipbayeva (2012) stresses that teachers are central figures in the educational process. "Thus, the success of training and education depends on their preparation, erudition, and performance quality" (Nessipbayeva, 2012 p. 150). The review of teacher competencies should be redefined depending on the development of the whole life of humans and education (Kress, 2000).

Katane (2006) defines competencies as "the set of knowledge, skills, and experience necessary for future, which manifests in activities" (p. 44). Gupta (1999)

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also defines competencies as "knowledge, skills, attitudes, values, motivations, and beliefs people need in order to be successful in a job" (p. 4) Thus, dividing teachers' competencies into three main areas as field competencies, pedagogical competencies, and cultural competencies. Selvi (2010) overrule that teachers' professional competencies can be composed of different dimensions other than the three areas. A study conducted by Selvi (2007) regarding the professional competencies of English Language Teachers, indicated teachers' professional competencies were unfazed by four main subgroups; Curriculum Competencies, Lifelong Learning Competencies, Social-Cultural Competencies, and Emotional Competencies. The results emphasised the discussion of teachers' competencies from a different point of view. Analysis of teachers' competencies and the new competency areas constituted below were tried to redefine different dimensions of teachers' professional competencies (Selvi, 2010); field, research, curriculum, lifelong learning, social-cultural, emotional, communication, information, and communication technologies (ICT) and environmental competencies.

The competencies of teachers encompass both practical and theoretical aspects of the curriculum. It is essential to define teachers' competencies to contribute significantly to the quality of the educational system through the positive development of teacher training and curriculum studies. Changes in science and the educational system also affect teachers' competencies. This strong relationship projects the need to focus on teachers' competencies as the curriculum undergoes reform or review. Thus, change in the systems or science damage teachers' professional competencies unless they are developed (Carlgren, 1999). Teachers' competencies should be reviewed consistently in parallel with the changes and reforms in the educational system to deal with changes effectively. Avery (1980),

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believes the future will be different from the past and present in some aspects. Hence, teachers' competencies need to be redefined to cope with all the changes that may arise.

Nessipbayeva (2012), projects that there are twenty-first-century teaching competencies. These include teacher leadership, mastery over content, creating an environment that supports diverse learners, facilitating learning, and reflecting on practice.

2.1.7 Ways of developing competencies of pupils

Noting in the broad sense, the role of the teacher is to help students learn by imparting knowledge to them and by setting up a situation in which students can and will learn effectively. To accomplish this, the teacher prepares lessons, assesses learners and gives feedback, and manages the class and its materials effectively whilst aligning curriculum goals with daily objectives (Cox, 2020). Cox (2020) indicates that it is critical to shape the formative years of the learner to contribute tremendously to the learner's functional skills after graduating from school. Teachers can create avenues for learners to thrive when they;

1. create learning environments that reinforce the development of stipulated curriculum features. Abbott (2014) retained that the school environment is a crucial element in the learning and teaching process; no reasonable learning-teaching process can take place without its conduciveness. Kwa (2017), in the same vein, observed that creating a conducive educational environment is as important as what is taught and shared. Alexander (2018 & 2020) also attests to the fact that a conducive and healthy school environment shapes learners' attitudes toward the development of skills and competencies to promote learning and teaching. Each learner is unique; address their diverse needs

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whilst maintaining the attainment of skills and competencies highlighted in the curriculum. Consequently, such learning environments lead to an increased sense of self-efficacy that promotes academic achievement (Bandura, 1977).

2. seek out, discover, and praise any effort students make towards learning. Teachers can praise any part of the learning process, academic and/or behavioral, as well as encourage the child to give self-praise (Glerum, Loyens, Wijnia, & Rikers, 2020). That means correcting even wrong answers sensitively. This can be done by carefully praising the effort, as opposed to diminishing the answer given. These help learners appreciate their efforts; build confidence and lead them to speak out without fear of rejection (Glerum, Loyens, Wijnia, & Rikers, 2020).
3. encourage questioning especially when learners don't understand something or need further clarification. This also helps them think critically (Mahmud, et.al., 2021). Many students fear appearing less smart in front of their classmates and/or the teacher (Good & Shaw, 2022).

Assess the learning styles of their students; keeping in mind that being different is not inferior (Ismail, Maznah & Jamaluddin, 2010). It also helps design effective teaching and learning strategies and materials (Ismail, Maznah, & Jamaluddin, 2010). This information can be used to gradually incorporate learning strategies that will help the child develop the skills needed to succeed in school and the job market.

2.2 Empirical review of literature on curriculum implementation

There is evidence of curriculum implementation in numerous countries in the African sub-region. The University of Zimbabwe (1995) established that the process

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of curriculum implementation occurs as learners acquire the planned experiences, knowledge, skills, and attitudes.

Joskin's (2013) research in Papua, New Guinea also established the improvement in strategies of policy intentions to ensure it aligned with practices in classrooms as a means of sustaining the reform agenda. Though Joskin (2013) believes the curriculum change of the study was at the surface level of implementation (2009) after the official implementation in 2008, a framework (Kibung Implementation Framework) was established to sustain the alignment of teaching practices with policy expectations. An additional finding was teachers' beliefs and attitudes combined with inadequate established systems which she considers an impediment to enhancing the implementation sequence (Joskin, 2013).

Mandillah (2019) mentioned that Kenya had gone through curriculum reform from the 8-4-4 to the 2-6-6-3 system. Thus, incorporating early childhood into primary education as well as reforming secondary curricula and modernizing teacher training. Jonyo and Jonyo (2019) indicated that school management is directly involved in curriculum implementation and supervision. From their study of curriculum implementation and supervision in Kenya, it was further emphasized that the role of head teachers cannot be excluded when the discourse of curriculum implementation is debated (Jonyo & Jonyo, 2019). Though head teachers play a vibrant role in ensuring effective implementation, it was evident that the Kenyan government also relied on school supervision systems while monitoring and evaluating the quality of schools and essential components towards successful learner achievement.

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In Burkina Faso, research conducted by Dianda and Kouraogo (2008) also established that their current educational system would be enhanced when support and advocacies from stakeholders are sustained or continued. According to Namulondo (2018), Uganda rolled out its thematic curriculum in 2007 in response to the low levels of literacy acquisition in primary school learners. It was established that the thematic curriculum would be beneficial to lower primary school learners if it was facilitated effectively. Mabirizi (2018) investigated the challenges encountered in Uganda's thematic curriculum. The study revealed the success of the curriculum was dependent on teachers' perception of the curriculum. Lack of ownership on the part of implementers was also a challenge. In conclusion, the views of teachers should be sought and represented when a new curriculum is being developed (Mabirizi, 2018). Touray and Adesopo (2022) also indicate that Gambia underwent reforms to respond to the relevance and production of knowledgeable, competent and disciplined workforce; The Gambia Education Policy, 2004-2015 as well as the Gambia Tertiary and Higher Education Policy 2015-2022, the Education Sector Policy, 2016-2030.

In Cameroun, the national ICT policy for basic education was developed in 2007 (Ngajie & Ngo, 2016). This was to champion the significance of using ICT in learning and teaching (Ngajie & Ngo, 2016). The educational system in Tunisia underwent a comprehensive reform in 2002 which herald its enactment of the competency-based approach as a new pedagogical approach to learning and teaching. (Bouslama, et. al., 2020). A study by Taole (2015), in South Africa, advocated for pre-implementation training as well as concerted efforts from all stakeholders to ensure successful curriculum implementation. It was also projected by the Department of Education to ensure teachers get enough time to learn about the new concepts of

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new reforms and explore varied resources they may need to dispense their duties diligently (Taole, 2015).

According to Baghoussi and El Ouchdi (2019), Algeria embraced the Competency-Based Approach as well as the Project-Based learning approach in its educational system to aid learners to acquire prerequisite skills relevant for the twenty-first century. One of the findings recognized by Bellalem (2008) on teachers' beliefs concerning curriculum innovation indicated that teachers and curriculum innovators were unaware they played a part in the challenges reforms encountered (Bellalem, 2008). Both teachers and curriculum innovators (Ministry of Education) presumed the problems arising were external. Dialogue between these parties is critical for effective implementation (Bellalem, 2008).

Fofana and Fortune (2020) also documented the efforts made to advance the quality of education in Sierra Leone. It was further proven that curriculum implementation plays a major role in improving the quality of education (Fofana & Fortune, 2020). Though there were challenges associated with curriculum implementation; lack of guiding principles for curriculum implementation and the complexity of managing the curriculum coupled with inadequate training regarding curriculum implementation, it was established that the capacitation of teachers plays a substantial role in successful implementation since teachers are active promoters of quality education in the classroom (Fofana & Fortune, 2020).

According to Udofia (2021), Nigeria has undergone changes in policy in 1977, and 1981 which birthed the 6334 educational system. This Universal basic education reform came into existence in 1991 with the first batch of learners in 2000/2001. The Universal basic education along with the Millennium Development Goals created

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immense infrastructural changes which led to its review in 2008 (Udofia, 2021). The present curriculum was developed in response to facilitating "value orientation, poverty eradication, critical thinking, entrepreneurship, and lifelong skills, among the youth" (Igbokwe, 2015; Udofia, 2021, p. 2). Ezeh and Amaechina (2019) also identified that Nigeria has experienced a number of reforms. The 6-5-2-3 education reform in 1954 (6-year primary, 5-year secondary, 2-year higher school certificate, and 3-year university) was a change from the 8-6-2-3 system. In September 1969, there was a recommended 6-3-3-4 system. The Free Universal Primary Education (UPE) reform was also implemented in 1976. The 9-3-4 free and compulsory Universal Basic Education reform was also introduced. Maintain that, every Nigerian attains at least 9 years of formal education (Ezeh & Amaechina, 2019).

In Ghana, there has been scholarship recognizing curriculum implementation. Acquah (2012) stated that the government of Ghana laid out ICT in education policy following some specific objectives. The introduction of ICT at the basic school level was to recognize the tremendous impact of globalization and the relevance of this knowledge at the basic level to prepare learners for its efficient use. Kwarteng (2019) established that teachers concern about the accounting curriculum revolved around the awareness and informational stages. These teachers were therefore not very involved in the delivery of the accounting curriculum. According to Torto (2017), in 2012, the Ministry of Education in Ghana spelled out the rationale for a national syllabus for English Language. The study instituted that teachers were limited in ideas on the numerous approaches available for teaching the subject (Torto, 2017). It was also found that inadequate learning and teaching materials challenged the teacher's implementation of this curriculum (Torto, 2017). It was therefore concluded that implementation of the English curriculum was not implemented well. Hence, in-

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service training from GES and MOE was to help manage this challenge (Torto, 2017). According to Ayebi-Arthur, Abdulai, and Korsah (2020), the implementation of the Standards-based computing curriculum in Ghana was essential to create effective schools as well as advance ways to improve teaching. It was further concluded that the provision of ICT resources would facilitate the improvement of teachers' professional practice (Ayebi-Arthur, Abdulai & Korsah, 2020).

Apau (2021) established that the introduction of the Standards-based curriculum in 2019 was relevant to the Objective-based curriculum. The objective-based curriculum primarily focused on "preparing students for examination at the expense of the acquisition of essential skills for human capital development, content overload, and the inability of the assessment system to help improve teaching and learning" (Apau, 2021, p.203). The focus of this new curriculum was to strengthen the acquisition of the 4Rs – Reading, Writing, Arithmetic, and Creativity as vital skills for lifelong learning and national development (Kpedator, 2019). Addai-Mununkum (2020) corroborated the new curriculum's vision to stimulate the acquisition of 21st Century skills including critical thinking and problem-solving, creativity and innovation, communication and collaboration, cultural identity and global citizenship, personal development and leadership as well as digital literacy. Cobbold (2017) also examined some challenges confronting curriculum implementation; inadequate pre-implementation preparations and concluded that teachers' understanding and acceptance of reforms were essential for their effective implementation.

"Curriculum is not an end in itself, but a means to foster quality learning" (UNESCO IBE 2011). Thus, ensuring that expected or intended goals match learning outcomes. Akkari, Lauwerier, and Shafei (2012) identify that the implementation of

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profound curriculum reforms is vital to its success. The implementation process, therefore, plays a vital role in facilitating the effective implementation of the curriculum. That is ensuring what is enacted in schools goes the way we intended. Reforms or change cannot occur without some form of challenge. The implementation process of every curriculum especially with the introduction of new reforms calls for critical consideration of what goes on in this phase to facilitate its overall success. Teachers' experiences in the SBC's demand for core competencies cannot be overlooked as they act as curriculum implementers (Torto, 2017).

According to Kennedy and Sundberg (2020) preparing students to handle the complexities of our modern society requires twenty-first century skills. These twenty-first century skills are fundamental principles that facilitate the transfer of knowledge to solve problems appropriately (OECD, 2018). Hence, it is essential to adopt twenty-first century pedagogies and innovative strategies vital to support the development of these principles or competencies to ensure learner usefulness to the society.

2.3 Empirical literature on the enactment of twenty-first century pedagogies and the effective use of innovative strategies

A study conducted by Cleovoulou (2021) on the enactment of twenty-first century pedagogies for the elementary school curriculum proved that teachers had specifically adopted to use inquiry-based learning and critical inquiry based learning. The study further highlighted on the significance of strategies such as questioning, discussion and communicating ideas to promote inquiry-based pedagogy. These strategies encouraged exploration, debating, collaborating with others while discovering and sharpening their abilities to live with others in the world (Cleovoulou, 2021). The dominant strategy for critical inquiry based learning centered on

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homework. This according to Cleovoulou (2021) promoted rethinking or self-reflection on perspectives to aid understanding and investments as learners' experience possibilities.

A study by Jacobson-Lundeberg (2016) emphasized the use of demonstration, discussion and questioning as methods to promote communication and collaboration. It was further observed that the use of these methods increased learners' confidence and self-efficacy (Jacobson-Lundeberg, 2016). According to Agormedah et al., (2019) findings from the research on instructional technology integration showed that teachers were implementing this curriculum by using ICT as a tool. This helped them improve on their professional practice to implement the ICT curriculum effectively. The use of twenty-first century pedagogies by teachers are crucial to empower learners to achieve greater success in the society since they would be able to live and function effectively in this dynamic globalized era.

A research conducted by Almazroa and Alotaibi (2023) noted the use of mathematics modelling as the right approach to develop communication and collaboration, critical thinking and creativity in learners. The study further proved that the effective use of mathematics modelling by teachers enhanced learners critical reasoning abilities and promoted enquiry. These skills contribute to orienting and empowering learners to navigate through twenty-first century journey accurately.

Kennedy (2016) in a study proved that active learning activities provided opportunities for learners to make connections between their learning and classroom instruction. It was further established that these activities helped learners reflect on their learning before translating them into meaningful elements to solve problems (Kennedy, 2016). Teachers therefore need to use time effectively to ensure enough

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opportunity to invested into the instructional time to coach learner to participate longer in activities (Kennedy, 2016). It is rational to state that the length of time allocated for instructional activity should be used appropriately. This would ensure utmost participation of learners on daily activities to gain expected skills required for every instructional period.

According to a research conducted in the Sekondi-Takoradi Metropolis by Swanzy-Impraim (2023) found that the use of innovative practices or strategies fostered creativity and greater collaboration in learners. Akyeampong (2003) identified that the use of learner-centered innovations including discussions, demonstrations and educational visits or field experiences facilitate the development of critical thinking and building self-confidence which promote quality education. Ameyaw et al., (2019) in a study on creating a responsive curriculum for postgraduates in Ghana found that the use of innovative strategies provided a transdisciplinary approach which built the capabilities of learners to ensure change in their environment.

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presents the plan and procedure adopted in conducting the study. It entails the design, the site, the sample and sampling procedure, data collection techniques, and the analysis of the collected data, among others.

3.1 Rationale and assumptions for qualitative design

The constituents of 'valid' research as well as the appropriate method for developing knowledge in a particular study are based on some underlying philosophical assumptions. It is therefore important in conducting and evaluating research to consider these assumptions. Adom, Yeboah, and Ankrah (2016) believe that the advancement of human thinking in diverse ways of explaining occurrences and implications has brought into existence numerous philosophical paradigms.

This study recognizes that all knowledge is constructed from human experience (Andrew, Pedersen & McEvoy, 2011). Hence, constructing meaning employs truth from the subjective reality of individuals (Hale-Haniff, 1999; Thompson, 2019; Trivedi, 2020). I believe subjective reality cannot be counted, calculated or quantified. A more descriptive base in words is therefore appropriate to gather in-depth insights into experiences, thoughts or concepts. According to Donkoh and Mensah (2022), idealism is the ontology of qualitative research. Idealism subscribes to the reality that the construction of knowledge or experiences is based on social processes, events and language relative to the individual experiencing it (Donkoh & Mensah, 2022). The epistemology of qualitative research lies with interpretivism (Donkoh & Mensah, 2022). According to the central idea of

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interpretivism, “knowledge is grounded on an individual’s particular experience, subjective and bound to natural situations” (Donkoh & Mensah, 2022, p. 6). From the interpretivism perspective, I reconstruct the inter-subjective meanings and interpret individual’s construction of knowledge and how they relate to the whole (Donkoh & Mensah, 2022). Thus, knowledge is constructed from two sources; the participants experiencing a phenomenon and myself (Donkoh & Mensah, 2022). I accepted “the world of human experience” as expressed by the individual facing the phenomenon (Cohen & Manion, 1994, p.36). That is, I believe that truth is relative to the knower and can be understood adequately from the point of view of the person directly involved or experiencing it (Trivedi, 2020). Hence, I settled on the “participants’ view” of experiences to provide a rich description of the phenomenon (Creswell, 2003, p.8). Thus, through interactions with the participants selected for this study, knowledge was co-constructed to gain an in-depth understanding of their experience with developing the core competencies of pupils.

According to Honebein (1996) individuals create their own understanding and knowledge of the world as they experience and reflect on those experiences. Thus, individuals construct meaning from what they experience (Cashman et. al., 2008). As an interpretivism researcher, I sought to understand the experience of the participants from their subjective truth. The co-construction of meaning between the participants of this study and I helped to understand their subjective truth or experience more explicitly. The interpretivism paradigm is often used synonymously with qualitative research approach (Nickerson, 2023). This is due to the fact that to understand the experience and gather comprehensive information on the phenomenon, I needed to co-construct meaning with the participants by gathering answers to the hows, whys and whats of their experiences. Therefore, I employed methods such as open-ended

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questions, to gather information from the participant's own lived experiences (Merriam, 2009; Dudovskiy, 2022). This is obligatory in order to provide a rich description of the phenomenon understudy (Thompson, 2019).

According to Kalender (2007) instrumentation in this paradigm is through visual data analysis, interview, document review and observation. I administered semi-structured interviews as a flexible way to probe into answers and find out the actual condition of the lived experiences as expressed by the participants (Adom, Yeboah & Ankrah,2016). The semi-structured observation employed was also to assist me in the construction of meaning in the participants own setting. Attitudes, mannerisms, and body language can hold answers to questions about respondents' first-hand experiences. Thus, enabling a greater sense of the reality experienced to describe and explain the subjectively constructed social world of teachers as they developed the core competencies of pupils (Adom, Yeboah & Ankrah, 2016). This facilitated me in obtaining comprehensive information on the participants lived experiences.

3.2 Type of design

This study employed descriptive phenomenology as its research design. "Phenomenology is a philosophical approach, initially articulated by Husserl, which aims to produce an account of lived experience in its own terms rather than one prescribed by pre-existing theoretical preconceptions" (Smith & Osborn, 2015, p. 41). The purpose of phenomenology is to give an account of a particular phenomenon, or the appearance of things, as lived experience (Speziale & Carpenter, 2007). Descriptive phenomenology describes the lived experiences of individuals as they encounter a phenomenon (Englander, 2016). Descriptive phenomenology therefore

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makes no interpretations but describes the phenomenon just the way it is lived. Giorgi (2009) further added that it allows me keep the "voice" of the participants in the research without detaching their viewpoint through analysis. Thus, the subjective-psychological perspective of the participant that aligns with the study is used in providing a vivid description of the phenomenon (Giorgi & Giorgi, 2003). The data does not only include the "reactions" and "behaviors", but then, the thoughts, impressions, feelings, interpretations, and understandings of the participants' experiences. I expended a great deal of time in the participant's natural context or setting to feel confident in capturing real facts of the phenomenon studied (Adom, Yeboah & Ankrah, 2016). The main objective of this paper was to find out teachers' experiences with developing the core competencies of pupils. Through observation and interviews, I was able to probe into the participant's experiences as I encouraged them to explain their unique subjective perspectives. Thus, I was able to describe extensively the true nature of lived experiences as expressed by teachers as they developed the competencies of pupils without making any assumptions or interpretations (Wills et al., 2016).

I analyzed the responses given by participants, divided them into meaning-laden statements, and gathered meanings that are essential to the construct of the phenomenon being studied. Thereupon, I was able to bring to a written description the structure of the phenomenon of interest. Descriptive phenomenology is used when little is known about a problem (Penner, 2008). The aim of the study was to make clear and understand teachers' experiences as they developed the competencies of pupils. Thus, the most essential meaning of the phenomenon of interest was from the perspective of the teachers directly involved in it (Giorgi, 1997). The description of the phenomenon from the teachers own perspective was to discover and clarify the

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actual meaning of their lived experiences without any explanation or interpretation (Penner, 2008). The descriptive phenomenological approach was therefore a necessity for this study to describe the phenomenon understudy and bracket preconceived opinions or biases (Dahlberg, Drew & Nystrom, 2008; Idczak, 2007).

3.3 Researcher's role

In researching lived experiences, I was curious but had an open mind in searching for meaning. Ergo, sincerity to the lifeworld and the focused spectacle were emphasized. I was interested in exploring the teachers' experiences toward developing the CC and adopted an open stance with sensitivity to the subjective meaning of the lived experiences currently under study. Recognizing subjective beliefs, theories and assumptions, I focused on generating a comprehensive description of the phenomenon and created an interview guide to attain this goal. I also ensured openness to each participant's discourse during the interview by being observant, attentive, and sensitive to the expression of experiences (Dahlberg et al (2008). Dahlberg and Dahlberg (2003) also affirmed that openness also includes questioning the understanding of data. Thus, I maintained an attitude that includes the assumption that hitherto I do not know the participant's experience and I wanted to understand the studied phenomenon in a newfangled light to make invisible aspects of the experience become visible. Hence, being contemplative and critical of the data. Questioning the data, I set aside experiences and assumptions and retained a critical stance that helped me reflect on understanding the data and phenomenon. This is similar to bracketing, a common term used in descriptive phenomenology based on Husserl. Questioning is closely linked to a reflective attitude. That is, I shifted from an ordinary natural understanding of everyday life to a more self-reflective and open stance toward the data (Dahlberg et al., 2008). I, therefore, reflected on the research

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questions along with why meanings occur, how they occur, and if they are grounded in the data. I intended to provide a holistic view of teachers' experiences and did not include expressions that were irrelevant to the proposed holistic description (Kalu, 2019). Also, the descriptive representation of the phenomenon of this study influenced me especially during the interview process to probe only into experiences that portrayed a comprehensive account of the study's phenomenon.

3.4 Site and sample selections

The study was conducted in the Oforikrom Municipality in the Ashanti Region. A letter was written to the municipal assembly to seek their approval before commencing the research at the various schools (see Appendix C & D). The municipality is made up of 4 circuits. The purposive sampling was employed to select teachers. This technique is a form of non-probability sampling in which decisions concerning individuals to be included in the sample were taken based on a criterion including; specialist knowledge of the SBC and teachers in the primary level of education (SBC had not been implemented at the junior high level) to participate in the research (Myneni, 2007).

The specific purposive sampling technique used was referrals. Heckathorn (2002) argued that referral sampling involved identifying individuals who meet inclusion criteria, gaining their cooperation, and then asking them to recruit additional respondents with the same conditions. Thus, the head teachers who had received and recognized the participation of their teachers in the schools were appropriate to consider. The overall governance and administration of the school lied heavily on the head teachers. They also had documentation on each staff to determine their fitness for this study. The heads went through the file of each teacher to identify teachers

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who had taught for a minimum of five years prior to the introduction of the SBC. The number of years prior to the introduction of the new curriculum was critical since these teachers had experienced both the old and new curricula to indicate the changes that have taken place. That is, with the introduction of the SBC in 2019, a teacher experiencing teaching that same year would not have maximum knowledge of the old and the changes of the new curriculum. Thus, I relied on referrals from heads to purposively select participants.

3.5 Data collection techniques

In social research, there are several techniques for collecting primary data. The techniques used for collecting this study's data were the semi-structured interview and semi-structured observation.

3.5.1 Semi-structured Interview

Semi-structured interviews are among the varied interview formats. According to Doyle (2022), a semi-structured interview does not strictly follow the formalized list of questions. Instead, open-ended questions were asked to probe further into the conversation when other comments were raised to ensure a comprehensive discussion. This helped to describe the phenomenon better without doubts of any uncertain responses. An interview schedule was prepared to guide questioning. I was able to conduct the interview with much competency as the interview questions were prepared in advance (Cohen & Crabtree, 2006, see Appendix C). Lindlof and Taylor (2011) affirmed that advanced preparation of interview questions can increase the credibility and dependability of the data gathered. Simultaneously, unstructured follow-up probes were asked during interviews to clarify and/or further expand certain issues as they arose during the interview (Bird, 2016). It was not a rigid

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structure; when participants answered questions without being asked, it was not explicitly repeated (Bird, 2016). Thus, the information gathered was ordered and more useful and relevant with the use of the interview guide (Bird, 2016). Cohen and Crabtree (2006) indicated that these can be recording-based. Thus, allowing me to transcribe the recording later.

In administering this, teachers whose instructional delivery had been observed earlier were considered. This was to ensure the provision of explanation or clarification to observed concepts to aid the adequate description of the phenomenon. I started with some warm-up questions to fundamentally make the participants comfortable; create an accommodative atmosphere for the interviewee to feel at ease, and build up to ask hard questions (Rushton, 2017). I then proceeded to the main questions; 'core discussion' for adding flesh to the interview (Welch, 1985). The main questions were three with sub-questions between three and nine. Some questions started with closed-ended ones (not conversation starters) to give a brief and definitive response and usher smoothly into the open-ended questions (White, 2022). The open-ended questions were to allow the participants to express issues in their own words and provide a more comprehensive and holistic look into their experiences as they were experiencing the phenomenon (Allen, 2017). Thus, the open-ended questions provided the framework for the descriptive process (Weller et al., 2018). Follow-up inquiries were probed only to get a more detailed and profound description (Robinson & Englander, 2007). Ending the interview sessions, I read through the transcripts to each of the participants to ensure the captured details matched whatever they intended to say (Guba & Lincoln, 33). This part according to Lincoln and Guba (1985) completed the member check by summarizing the participant's comments and validating their constructs made. The participants were also asked if there was

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anything else they wanted to add after hearing the transcripts and sharing further information (King and Horrocks, 2010; Brinkmann & Kvale, 2014). I also wrapped up the whole interview by thanking and acknowledging the participants for their contributions in helping describe the phenomenon better (Bausmbusch, 2010; Whiting, 2008). This also prevented it from ending abruptly and coming out as impolite (Falcoz, 2021). The interview sessions were usually between thirty to forty minutes. The semi-structured interview focused on twenty-first-century pedagogies, core competencies, challenges in developing CC in pupils, and teacher innovation.

3.5.2 Semi-structured Observation

Nel (2020) suggested that observation relies on seeing and hearing instead of relying on a participant's response to some questions asked; using our senses to observe things. Semi-structured observation involves some planning; even an agenda or a list of images are needed (Nel, 2020). The semi-structured observation was to ensure that collected images and videos were according to a plan; including the venue, time, and type of data (Nel, 2020). I entered the participant's setting (class) but did not partake in the activities. According to HKT Information Channel (HKT Consultant, 2021), though I had a list of questions, I was 'open' and did not predict what was to be found. Thus, it ensured that collected images and videos were not haphazard (Nel, 2020).

This type of observation was particularly suited for this research to identify practical problems such as the experience of teachers in developing the core competencies of pupils (HKT Consultant, 2021). This semi-structured observation utilized in this study had an agenda of issues; teacher competencies, twenty-first-century pedagogies, child-centered pedagogies, and teacher innovation were

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observed. The data gathered was to illuminate these issues in a far less systematized manner and answered the first guiding question (Nel, 2020). Robson (2002) argued that what people do may differ from what they say they do. Thus, I used this to determine the extent to which the participant enactment of twenty-first-century pedagogies was evident in their daily class routine. To prevent disruptions from I, iPhone X was used to take pictures and record the classroom setting. This phone was used to exclusively take videos and pictures and had no network selection.

Twenty-two teachers were observed in all. Instructional time was thirty-five minutes long. However, I stayed for the entire seventy minutes when the lessons were double periods. I observed teachers three to four times a week to ensure observation was not centered on a particular time of the day. The varied time period recognized and captured various lessons as the primary subjects were nine with three or more competencies expected to be developed during each instructional time. Thus, I observed each teacher six or eight times in two weeks to visualize the teachers' enactment of the twenty-first-century pedagogies across all the subjects.

3.6 Managing and recording data

Qualitative research provides rich data on a phenomenon. Researchers are to critically develop a plan for recording data as it may be a complicated process (Lin, 2009). Reflective processes to manage data can be used by me to systematize the data (Lin, 2009). This process encompasses interviews with concurrent note-taking, reflective journals, revising field notes, and listening to audiotapes (Lin, 2009). I used varied approaches including many computer tools to manage data (Lin, 2009).

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3.6.1 Recording

A voice memo from the iPhone 6s Plus was used during the interview. Since this is a gadget, it is advisable as supported by Drew, Hardman, and Hosp (2008) that I familiarized myself with the use of this tool before conducting the actual research to prevent any ignorant inconveniences. The interviews took 30-45 minutes per session. The sound quality of the recorder was good and aided adequate transcription. After each day's recording, I uploaded the file onto my computer and backed it on Google drive to prevent data loss during the analysis process. The laptop was password encrypted to prevent the data from getting into the hands of unauthorized users when they have the laptop (Anonyome Labs, 2020).

3.6.2 Field-notes

It is useful to write memos and notes as soon as you begin to collect data (Allen). The use of notes helped me stay focused and be alerted to significant points which may be coming from the data. Field-notes are mostly employed in ethnography (Allen, 2017). These were penned observations recorded during or immediately following participant observations in the field. Allen (2017) considers this process very analytical to understanding phenomena encountered in the field. These notes were recorded in a journal. This is one way of collecting data that can be combined with interviews and usually stand on its own as a text for analysis (Allen, 2017). The notes served as a collection of documents as I observed experience in the participant's specific setting. This written document and materials including pictures, and videos from the environment, were used to help I become immersed in the environment under observation (Allen, 2017).

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3.7 Methods for verification/trustworthiness

I conducted a pilot study on a set of ten volunteer students (6 females and five males) who shared similar characteristics with the target sample. According to Shakir and Rahman (2022) piloting plays a critical role in research. In this study, piloting was conducted on the interview guide and observation guide to pre-test the instrument to identify and resolve ethical and practical issues (Shakir & Rahman, 2022). I conducted a pilot study on a set of ten volunteer students (6 females and five males) who shared similar characteristics with the target sample. Using the interview guide, most of the volunteers expressed contentment on both guides and suggested more items for questions in the interview guide as well as minor language adjustments to make the questions simple and comprehensible (Cohenm Manion & Morrison, 2000).

Though positivists challenge trustworthiness in qualitative research as they believe their validity and reliability cannot be addressed in the same naturalistic work (Shenton, 2004). I employed constructs suggested by Guba (1981) which corresponded to the positivist criteria to ensure validity and reliability.

3.7.1 Credibility

According to Noble and Heale (2019) triangulation is a method used to ensure credibility of research. To ensure triangulation in this qualitative research, data triangulation was used. Noble and Heale (2019) stressed that data triangulation encompasses data from different times and from different teachers. It is used to explain the data gathered better (Noble & Heale, 2019). Thus, I interacted with teachers from different class levels at various times in the day and week. This strategy gave me confidence in the results to ensure a comprehensive description of the phenomenon.

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Merriam (1998) indicated that one of the qualitative researchers' addresses to concerns of trustworthiness focuses on credibility. One of the significant factors in ensuring trustworthiness is credibility (Lincoln & Guba, 1985). The question of credibility generally deals with its congruence to reality. I familiarized herself with the culture of the participant's organisations. I took letters and visited the institutions. I spent three months (prolonged engagement) in the schools (Lincoln & Guba, 1985). This was to establish a relationship of trust in each other; I and participants. This helped the participants feel safe to communicate openly with I.

Again, tactics were effected to ensure the honesty of informants; each person approached was given an opportunity to refuse to participate. This was to ensure a genuine willingness to offer data freely. They were also encouraged to be frank from the onset as the findings would help improve practice. They were also informed of the right to withdraw at any time and were not required to disclose the reasons for the redraw (Lincoln & Guba, 1985). Frequent debriefing was also employed. I discussed the vision of the study with her supervisor. These sessions helped test and probe I's ideas to recognize her biases and preferences to avoid their influence on the study (Lincoln & Guba,1985).

Another strategy used was iterative questioning. When the participant's response proved doubtful, I probed further to elicit detailed data and uncover deliberate lies. This was to ensure the final report was transparent and provided rich information about the phenomenon studied (Lincoln & Guba, 1985). To ensure authenticity (Guba & Lincoln, 1994), I selected information rich information from participants that provided rich and detailed descriptions that fairly and completely

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represented a range of different realities and realistically conveyed participants' lives (Polit & Beck, 2014).

Additionally, member checks were also in place. After each interview, the participant's read-through transcripts. This was to confirm and indicate if their words matched (Lincoln & Guba, 1985). There was an avenue for peer scrutiny of this investigative project. These opportunities were offered by I's department. These avenues brought on board fresh comments, explanations, and arguments to develop and strengthen I's study (Guba & Lincoln, 1985). To ensure trustworthiness, I also employed reflective commentary. Guba and Lincoln (1985) term this "progressive subjectivity". I recorded her thoughts and reactions to interviewee's responses. This was to ensure I's opinions did not interfere with the description of the phenomenon from the participant's account.

3.7.2 Dependability

Dependability in qualitative research can be paralleled to reliability in quantitative research. This suggests that repeating the study in the same context with the same methods and participants yields a similar result. To establish dependability, a researcher outside the study conducted an inquiry audit (Lincoln & Guba, 1985). This technique is also called an external audit. I's supervisor examined the processes of data collection, data analysis, and results of the study. This was to confirm the accuracy of the findings was supported by the data collected. All descriptions and conclusions were also examined to determine their alignment with the data (Lincoln & Guba, 1985). Again, I conducted an audit trail. The audit trail was a transparent description of the steps taken as the investigation started and ended (Carcary, 2020). It included field notes, audio recordings, research committee comments, and peer

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reviewers' suggestions. This scrutiny helped articulate the findings better and build a stronger case for the findings. In the discussion section, I provided literature support from the theory of educational change proposed by Fullan (2007).

3.7.3 Transferability

Merriam suggests that qualitative data can be considered valid if the findings of the study can be applied to other situations. Denscombe (2010) argue that though each case is unique, an example in giving a broader context (the results), the prospect of transferability should not be neglected. Bassey (1998) asserts that in similar situations, individuals may relate the findings to their stance. I ensured transferability by providing a "thick description" of the phenomenon under study (Lauer & Asher, 1988). This was to help readers have an adequate understanding and then compare instances of the phenomenon described in I's report to those that may or have emerged in their situations. Thus, conveying the boundaries of the study (Cole & Gardner (1979); Marchionini & Teague (1987; Pitts, 1994). The "thick description" included a description of the participants, the location, the number of participants, the length of the interview, I's role in the study, the methods used, data collection, analysis, and discussion. Also, each theme was supported by verbatim responses from the participants of the study.

3.7.4 Confirmability

This is a key element that ensures trustworthiness that parallels the conventional quantitative assessment criteria of validity and reliability. I ensured this by linking the findings of the study to the original sources of data and demonstrated how discussions and conclusions were reached in line with the theory underpinning the study (Tobin & Begley, 2004). I also attached the participant's name from the

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various interviews (original source) to prove it was not I's own predisposition (Shenton, 2004). The audit trail generated also assisted I to check her processes as she progressed. Pointers such as the reasons for theoretical, methodological, and analytical choices throughout the entire study were provided to facilitate others understanding of how and why decisions were made (Koch, 1994). To reinforce subjectivity and avoid detaching the participant's voice from the data, I conducted member check that allowed the participants to confirm the accuracy of the findings.

3.7.5 Research ethics

I protected the research participants. Thus, develop trust in them; promote the research integrity; misconduct and impropriety that might reflect on organizations and institutions were guarded against; and challenging problems coped with (Israel & Hay, 2006) One founding principle is evinced in the adage "above all do no harm" (Walker, 2007) and three issues that aid in addressing this includes, consent, anonymity, and confidentiality (Wertz et al. 2011). These elements followed ethical principles laid out in the University of Education Winneba's (2018) research ethics policy. The details of these are elucidated below.

3.7.5.1 Consent

The International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (2016) indicated that informed consent should be granted to minimize the possibility of coercion or undue influence of I toward participants. The Ohio State University (2022) added that informed consent means openness and honest communication between I and participants and avoids I influencing participants. I directed a letter to the Oforikrom Municipal Assembly to seek their consent to conduct this research (see Appendix A). The Assembly replied

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with a letter which was handed to the various heads of the school (see Appendix B) and the purpose of the study was explained as well as the assurance of their privacy. After the consent from the heads, the participants who were involved signed a form to indicate their willingness to partake without coercion. They were informed of the aims and methods of this study. This included explicit information to omit any information which may likely identify the participants.

3.7.5.2 Confidentiality

This means that though the participants can be identified, their identities are not revealed to anyone outside of the study. Thus, I is in the know of the participants' identities but puts measures in place to ensure their identities are not revealed to anyone else. The management of their personally identifying information was linked to pseudonyms. Thus, the names of the participants were changed to guarantee confidentiality. Allen and Wiles (2016) suggested that pseudonyms are essential to consider in qualitative research given how confidentiality and anonymity are cardinal in the research work. Using personal names "conveys a sense of intimacy" the author reflects on the maiden book published in 1993 (Edwards, 2020). During the introduction to the interview, I also informed the participants of this study their actual names would not be used. Edwards (2020) further added that pseudonyms are core principles in research ethics. I, therefore, used babyhunt.com and irusa.org to generate pseudonyms for the participants. The first letter of their original names was maintained but the generated names were used instead. Confidentiality is also best ensured through proper data management and security. The data from the participants (audio and videos) were all saved on I's computer which was password encrypted to prevent unauthorised users from accessing the data in any case and instances when

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they have access to the laptop, they cannot access the data (University of Delaware, 2020).

3.8 Data analysis procedures

Issues such as funding, time, and access to participants may limit the sample size in a lot of qualitative studies (Ellis, 2016). Therefore, Ellis (2016) stated that in reality, a sample of between six to twenty individuals is sufficient.

Hennink and Kaiser (2019) suggested that one of the core principles of a qualitative study is saturation. Saturation helped me to determine adequate data had been gathered to develop a robust and valid understanding of the phenomenon (Hennink & Kaiser, 2019). I interviewed nineteen participants and realized the data identified began to repeat (Hennink & Kaiser, 2022). I interviewed the two other participants whose classes were observed earlier to determine if new themes may emerge. I realized all insights into the phenomenon had been exhausted with no new emerging theme and ceased data collection to begin analysing data on the phenomenon understudy (Hennink & Kaiser, 2022). I concluded comprehensive information on the phenomenon has been attained and further collection of data would have rendered it redundant (Hennink & Kaiser, 2022).

Qualitative data analysis projects the need for an interview summary form immediately after the interview (Bird, 2016). I completed this after each interview and attached it to the transcripts. It reminded me of the contact and was useful for analysis. This comprised practical details about the time and place, the participants, the length of the interview, and specifics about the content and emerging themes (Dawson, 2002). For a highly qualitative continuum, data analysis tends to be an ongoing process, taking place throughout the data collection process. I thought about

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and reflected upon the emerging themes and adapted to change methods if required (Dawson, 2002). I manually transcribed expressions of participants to avoid detaching from the context (Bokhove & Downey, 2018). Also, I did not want the accent of participants, language colloquial ties, and the quality of the audio recording tool to affect an automated transcription (Bokhove & Downey, 2018). Again, instances where the teacher participants made some expressions in Twi, I was guided by a certified Twi teacher to produce translations. The best-known descriptive approach is that of Amedeo Giorgi (1985), who is widely credited as the pioneer in initiating phenomenological thinking into psychology. But there exist other methods. This study employed Colaizzi's (1978) descriptive phenomenological analysis. Colaizzi's (1978) descriptive phenomenological analysis is uncommon but provides distinctive steps for rigorous analysis (Morrow, Rodriguez & King, 2015).

Smith (1995) described a procedure for semi-structured interviews. This involved an interview schedule; outlining the areas of interest to be discussed during the interview. During the interview, questions were adapted to the specific context and interesting issues that cropped up were probed into. The aim was to explore teachers' experiences as they develop the core competencies of pupils; telling the story from the subject's point and not interpreting the experiences. The descriptive phenomenological method described by Colaizzi (1978) was used to analyse the verbatim transcripts of the interview serving as the raw data. Participants were required to provide a specific instantiation of twenty-first-century pedagogies they have used; challenges they have faced in developing the core competencies as well as their innovation toward developing the core competencies.

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Descriptive phenomenology reveals the "essential structure" of any phenomenon being investigated. "Descriptive phenomenology is especially valuable in areas where there is little existing research, as was the case in the example we have given of the experience of recreational camping. Colaizzi's method offers a clear and systematic approach; its thematic nature may be more familiar and accessible than the "distilling" style offered by Giorgi". (Morrow, 2015). In 2014, Colaizzi's method was used in exploring lived experiences of camping, and its impact on relationships (Morrow, 2015). Colaizzi's (1978) descriptive method follows seven idiosyncratic steps for a diligent analysis. The analytic process is as follows;

Step 1: Familiarisation - I familiarized herself with the data by reading through all the participant descriptions without a break.

Step 2: Identifying significant statements (coding)- here, I identified all statements in the various descriptions that were directly relevant to the phenomenon under study.

Step 3: Formulating meanings – the demands of this step involved me identifying meanings relevant to the phenomenon after cautious consideration of significant statements that arose (from step 2). I then had to "bracket" reflexively her pre-suppositions to cohere with the phenomenon experienced (Colaizzi identifies that complete bracketing is never possible)

Step 4: Clustering themes – Again, I clustered meanings into tags with the use of Taguette (a qualitative analysis tool).

Step 5: Developing an exhaustive description: I wrote a complete and detailed account of the phenomenon whilst integrating all the identified tags produced from step 4.

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Step 6: Producing the fundamental structure – I summarized the exhaustive description (step 5) into a short account but encompassed all the essential components significant to describing the structure of the phenomenon.

Step 7: Seeking verification of the fundamental structure: I returned the fundamental structure (step 6) to the participants to ensure their actual experiences were captured. Colaizzi suggested that modifying some steps of this method may deem necessary in light of the feedback. Thus, the analysis was grounded on the themes that arose from the transcripts instead of my own predicted constructs.

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CHAPTER FOUR

RESULTS OR FINDINGS

4.0. Introduction

This chapter presents and discusses the findings of the results of this study. The purpose of this study was to explore teachers' experiences in developing the core competencies of pupils. Observations and interviews were employed as principal components for the data gathered. The results presented in this chapter were based on the following guiding questions.

1. How are the basic school teachers in the Oforikrom municipality enacting twenty-first-century pedagogies?
2. What pedagogical approaches do the teachers use in developing core competencies?
3. What challenges do the teachers face in developing the core competencies of pupils?
4. What are the innovative strategies the teachers have adopted towards implementing the SBC?

4.1 The Participants of the study

This study's data was generated from teachers in four schools named A-D. In school A, Adu-Boahen, Patience, Gregory, Laila, Eli, and Rebecca were the main participants. They had taught between 7-12 years. Adu-Boahen was a Twi teacher, handling classes 5 and 6. Patience taught Our World Our People (OWOP) for class 5 (three streams), and Gregory for class 6. Laila also handled class 1 and Rebecca was in charge of class 3 whilst class 4's English had Eli in charge.

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In School B, the teachers included; Vanessa (class 3), Phoebe (class 5), Evelyn (class 6), and Judith (class 2). These teachers had taught for between 6-10 years.

Clara (K.G. 2), Penelope (class 5), Gina (class 4), Pamela (class 6), and Leah (class 3). The teachers in school C had experienced teaching between 5-11 years. The participants in the last school (D) were; Gabriella (class 1), Sadat (class 4), Alice (class 6), Chantel (French for class 4-6), and Carolina (class 2). The number of years spent teaching was between 5-10 years.

4.1.1 Guiding question 1: How are the basic school teachers in the Oforikrom municipality enacting twenty-first Century pedagogies?

A key interest of this study was to learn firsthand, how teachers are enacting twenty-first Century pedagogies. According to Fullan (2001), the fundamental purpose of education is to make a positive "difference in the lives of students and to help produce citizens who can live and work productively in increasingly dynamically complex societies" (p. 4). Currently, the purpose of education in our twenty-first-century era is to equip learners with twenty-first-century skills that would make them functional in society. Kivunja (2015) affirmed that twenty-first-century skills included the Super 4Cs skills of the century; critical thinking and problem-solving, collaboration, creativity and innovation, and communication. Kampen (2019) defined twenty-first century skills as the wide-ranging competencies, imparted across all levels of education, that furnish learners with skills to navigate this dynamic workforce.

To achieve this, teachers are encouraged to adopt pedagogies that help students to thrive in today's dynamic world (Rich, 2010). Given that twenty-first Century pedagogy is a relatively new phenomenon and it is yet to be institutionalized, it was important for the study to assess how teachers were enacting it in their practice. I

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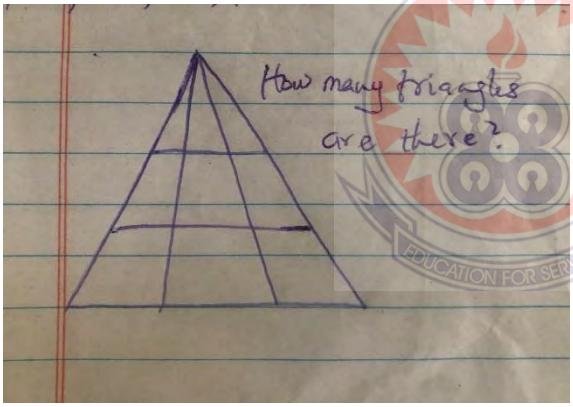
sought to identify opportunities created by teachers to enhance creativity, communication and collaboration, problem-solving or team-working experiences, digital literacy as well as civil responsibility through collaborative projects, teacher collaboration, extracurricular activities and inviting professionals into the classroom instead of memorizing facts and being passive in the learning environment (Rich, 2010; Kampen, 2019). Observation and interview data were the main sources utilised here. First, I provide an ethnographic narrative of class observations.

4.1.1.1 The use of starters

Gregory began his lesson with a Maths teaser. Figure 4.1. below is an excerpt from Gregory's class, where he uses a starter to commence his lesson.



Source: Fieldwork 2022

This created excitement as every learner wanted to give an answer to the number of triangles, they presumed were present. After a learner was called to answer, the usual chorus was "sir me, sir me" to cause the teacher to call them to the board to give evidence to back the various answer they mentioned. The learners came to the board individually to justify their answers to the teaser. Though the learners with all their justifiable responses could not answer correctly the number of triangles, the teacher came in to indicate the total number of triangles was 18. He illustrated on the board

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and the chorus was 'ah huuuuh' showing they agreed with the teacher's answer. After the math teaser, Gregory introduced Compound Sentences as the day's lesson.

Vanessa used a starter for her lessons. One of the starters included a musical-physical activity:

> *"Take your hands up, and put them sideways, and put them by your side take your hands forward (2 times). La la la la, laal aa laa la la, la la la la la, la la la la la".*

Some learners were seen pointing others in the right direction especially when they had to sing very fast. After this activity, the lesson in English centered on dialogue.

Clara also began with the starter;

"*Down together up, down together up. Down together, down together, down together up".* Phonics was written on the board with a couple of words on 'n'.

According to Aliyari et, al. (2021), brain teasers boost the functional ability of the prefrontal cortex, which plays a vital role in cognitive abilities; thinking, decision making, concentration, and problem-solving, improving concentration, stimulating creativity, enhancing the thinking process and improving memory and concentration. Yet, the use of the math teaser before starting the English lesson somehow created a disconnection. Gregory confirmed the math teaser he used had no connection with the subsequent subject when he noted: *"... I was going to teach English but I drew this triangle. It doesn't have any link with what I was going to teach, but I just used that to sustain their interest".* This ingenuity was obvious in the other classes observed. The right balance of incorporating an appropriate teaser for a lesson is encouraged; word puzzles or vocabulary riddles for English, math riddles or math story-problems for numeracy or mathematics (St. Peter's, 2022). Akporhor (2021) specified that teachers can achieve success in their lessons when the starter is related to the lessons.

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According to Akporhor 2021, deliberately employing starters is greatly beneficial to the learning experience. Through the use of starters, twenty-first century skills are unlocked while beginning the lesson through problem-solving, participation, connecting previous lesson content with the current (critical thinking), and ultimately, learner readiness. I believe before learners can acquire the competencies projected in the SBC, their attention or readiness cannot be overlooked. The use of the starters, therefore, ensures they are challenged for the lesson ahead and gradually eased into the development of the stipulated competencies effectively.

4.1.1.2 Providing leadership roles

After the math teaser, Gregory introduced Compound Sentences as the day's lesson and encouraged the learners to give examples using the coordinating conjunctions; yet, but, when, and whilst. He also gave examples for learners to join such as; "You will come. We will go". Learners thought critically to join the sentences.

Learner 1: *"You will come but we will go".*

Learner 2: *"When you come, we will go".* He drew the learner's attention to omitting a word. Gregory stated that conjunction can be added but the words in each of the sentences should remain the same. He further added that whilst can be used to read the sentence as, "Whilst you will come, we will go". Thus, maintaining all the words in the two sentences.

He also utilized group presentations; these groups had names of some of the television stations in Ghana; TV3, Adom, Atinka, GHOne, Power, and Onua. A learner presented on behalf of the group. They defined compound sentences and gave examples. Each group was to have a leader, a secretary, and a spokesperson. Some examples generated included;

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The TV3 presenter: "*My mother bought me a book. My friend stole it"*.

"*My mother bought me a book but my friend stole it*".

The Adom presenter: "*We were going home. My mother told me to go and buy medicine"*.

"*As we were going home, my mother told me to go and buy medicine*".

The lesson was interesting. All the learners were excited and participated in the lesson by giving their own examples. The presentations by the various groups also aroused learners' interest as members in each group were working diligently to generate their sentences for the group to be applauded by the class. The creation of groups by some of the teachers exposed learners to taking up roles to equip them with leadership skills.

Gabriella gave learners mathematics assignments in groups. Boys and girls were the bigger sets with smaller units of 5 or 6 for presentations. The names of the groups were; Princess, Violet, Natasha, Alfred, Eric, and Sam (pseudonyms applied). After the group work, Gabriella discussed the entire work with the class. In solving the mathematics questions, each group selected a member who worked out the answer on the board, and the whole class determined if it was the right answer. Below is Figure 2: an excerpt from Gabriella's class.

Another instance was cited by Penelope. She divulged that in her absence, the pupils chose a topic and discussed it with the entire class. She alluded:

> *Everybody here is a teacher when I'm not here. Everybody here is a class captain when I'm not here, right? Somebody can take a book and especially, the boy that I called, Gideon and this girl. They take a book and try discussing it with their friends. And he's bold or she's bold that he's not deviating from the normal. That one is a better attempt and through that, they're building their confidence level*. (Penelope)

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Vermette and Kline (2017) indicated cooperative learning is one of the outcomes that improve twenty-first century skills. Cooperative learning involves learners working in small groups to find solutions to problems, create projects as well as analyze situations and the appropriate measures to go about them (Vermette & Kline, 2017). Through these groups, each learner develops respect for one another (personal development), vocabulary acquisition (communication skills), creativity on tasks (innovation), understanding individual diversity (cultural identity), as well as interdependence which are crucial elements to determining functionality in today's workforce.

4.1.1.3 Participating in PLC

It became apparent that teachers' adoption of emerging pedagogies was hinged on their participation in Professional Learning Communities (PLCs). Inquiring from Gregory how he learnt the techniques he employed, he mentioned PLCs as something that helps him to improve his practice. He said:

> *PLC seeks to develop proper practices. Like these things we are handling today, if you find something difficult, within every PLC time, we can sit down, we all develop those things, we think about it, and find proper or appropriate practices to use or help develop those things.*

In another interview, Rebecca corroborated Gregory's claim of PLC benefits. She said: "At *PLC, teachers learn to teach. The PLC workshop and GALLOP workshop are like in-service training".* It appears PLC in school A is impacting the teachers greatly because the use of starters was common to almost all the teachers I observed.

The teachers in schools A, B, and C engaged in Professional Learning Community (PLC) on Wednesdays, whilst school D met every Friday. These were

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interactive times for the teachers; re-echoing the demands of the new curriculum and voicing out challenges with hopes of finding solutions to them. The Anneberg Institute (2003) identified some prominent benefits of PLC;

1. these interactive times provide collaborative teams and partnerships to carry out school activities effectively.
2. These engagement periods ensure consistency in learning objectives.
3. teachers are able to address challenges pertaining to learning experiences or opportunities for more supportive avenues.
4. The collective efforts of these communities improve teaching practice and learning. Though these communities are relevant to teachers, they are able to translate it into effectively improving learning outcomes and the development of competencies (Brady & McColl, 2010). Fullan (2006) indicated PLCs also help improve learning conditions and learner outcomes.

Interestingly, school's A to D had these community meetings at the close of work when teachers were already exhausted from class activities. From my observation, PLCs were not being effectively implemented in these schools. Jones, Stall, and Yarbrough (2013) advocate for effective professional development during working hours when teachers are energetic.

4.1.1.4 Experiential learning

Vanessa in a Science lesson on Materials took the learners outside the class to identify and mentions some items they see and examine the type of material used in making the particular object or item. She also gathered the learners around a car. she asked learners to identify the materials used in making it. After this, she indicated that

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some objects can be made up of more than two materials. Clara matched learners out of the class after teaching them a song about Ghana.

6th of March, (pause) 1957. Gha….na Independence Day.

She explained that during independence, people across the various regions match to commemorate the day but on a bigger field with a lot of dignitaries.

Kolb's (1984 & 2015) experiential learning means creating knowledge through a transformative experience. According to Temurnikar (2019), experiential learning helps learners practice concepts through direct engagement rather than the abstract conceptualization of ideas. This boosts their problem-solving skills, and aids the development of life skills such as teamwork and communication through interaction with other students in the learning environment. These practical activities also enhance learners' innovative abilities. Fullan (2001) suggests equipping learners with twenty-first century skills helps them become productive citizens. Before the teacher can offer learners skills relevant to the twenty-first century, they need to have their own expertise and experience (Palmer, 2015). According to Cox (2019), twenty-first-century teachers are adaptive and do not always rely on textbooks and the chalkboard; they ensure there is effective collaboration between the teacher and learners and stay up-to-date with current educational trends and technology. Amidst the opposing view, I observed teachers enacting twenty-first century pedagogies through the creation of avenues for collaboration, teamwork, creativity, innovation, critical thinking, problem-solving, ICT literacy, personal development, leadership, and communication (The Glossary of Education Reform, 2016; Oliver, 2022; Stauffer, 2022).

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4.1.1.5 Divergent disposition

Though the participants had adopted some strategies toward enacting twenty-first century pedagogies above, a conflicting view of a participant is recorded below;

> *the NaCCa is not helping because everything is child-centered and the Ghanaian child, how can you leave the person alone? You see (pause); with the teacher-centered method, the teacher is in control but that of the child-centered, the child does everything. But we live in Ghana where the children at times, lack proper parental care that makes them happy. You should take charge of the class so that when you teach, they'd be able to get it. Rather than the child-centered where the child does whatever he or she likes. (Leah)*

Leah's opposing view toward the enactment of twenty-first-century pedagogies was hinged on the belief that the learner in such a setting would have greater responsibility which she considers unhelpful. She confidently states the teacher should be the sole authority, controlling class affairs.

4.1.2 Guiding question 2: What pedagogical approaches do teachers use in developing the core competencies?

Kapur (2020) indicated pedagogical approach enables the creation of teaching strategies. Elliot et. al., (2009) defined pedagogical approaches as the broad principles and methods of education employed in teaching practice. Pedagogical approaches are open-ended instruction, integrated learning, inquiry, differentiated instruction, experiential learning, assessment of student learning, peer teaching, behaviourism approach, constructivist approach, liberationist approach, reflective approach, and student-centered instructional strategies (Kapur, 2020). The pedagogical approaches employed by the participants are clustered into five themes;

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4.1.2.1 Inquiry-based Learning

This approach situates the learner at the center of the learning and teaching process by seeking explanations (Gholam, 2019). Learners, therefore, are expected to take charge of their learning by posing, investigating and answering questions (Caswell & LaBrie, 2017).

Carolina attested to using this strategy. This is what she had this to say:

> *Discussion methods, you can even use brainstorming; when you ask a question, the child is supposed to think and bring out the answer. In the discussion method, what do you think we should do to this to get this? So, they'd think and bring out the answer. (*Carolina*,* School *A).*

Carolina appears to rely on learners' contributions in discussion to facilitate their communication and collaboration competencies. Eli corroborated the use of this approach and further highlighted its significance in promoting critical thinking and problem-solving. He disclosed:

"Questioning or inquiry to make them think. That's asking to know why they said something".

In Phoebe's class, during a history lesson, this is what ensued:

Learner: *Madam, Is Indonesia the same as India?*

Phoebe: *Why do you ask?*

Learner: *It's like it has the same pronunciation (the class is stirred with murmuring)*

Phoebe: **(as she turns to the whole class)** *what is the murmuring about?* ***(Turning to the learner)*** *No, it's not the same; they are on different continents. But spell both countries and see if it's the same as you said.*

Learner: ***(looks upwards with the index finger on the chin,)*** *ah ha, no madam.*

Phoebe: *Are you sure?*

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> Learner: *Yes madam.* ***(Phoebe: why?)*** *because the pronunciation is not the same.* ***(Another learner quickly interjects and says:*** *the spelling is not even the same****).***
>
> Phoebe: *okay, that was just by the way. Let's continue our lesson.*

In this interactive moment, though the teacher quickly answered the question, there was room for the learner to investigate. The learner was in charge of analyzing the sounds of both words to confirm the conclusion made was appropriate.

The use of inquiry-based or questioning was prevalent among teachers toward the development of critical thinking and problem-solving. Their adoption of this pedagogy is beneficial to support in-depth thinking of concepts and enhance problem solving skills.

4.1.2.2 Assessment of Student Learning

This approach seeks to determine whether learners have gained an efficient understanding of concepts in the lesson (Kapur, 2020). Some common strategies in this approach include; homework, quizzes, tests, and others.

It emerged from the data that homework was seen as a predominant strategy. Leah confirmed; *"and sometimes you give them homework, that's the feedback, right? and exercises to know whether they understood what you taught; exercises and responses".*

Similarly, Rebecca shared this thought;

> *The children will come out with their own ideas. Because most of them go to the internet. So, when you give them the assignment, they go to do all the research and bring it. As I mark, you see that they didn't even show it to their parents.*

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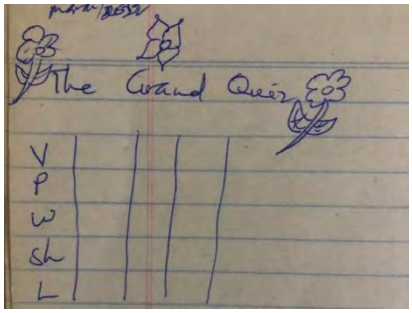
In spite of this, Carolina had a different strategy. During an English lesson, she randomly called learners in their designated groups to pick a card and pronounce it before the entire class. Figure 4.2, illustrated the grouping.



Source: *Fieldwork 2022*

Similarly, Carmen had engaged them through a French class test. Her response is illustrated as:

> *what we're doing right now* ***(learners are seen working; some with heads down/stirring upward quickly as they write, some with the bottom of their pens in their mouth as they think)****. They have a picture in front of them. they have to describe the person. We have learned some of the adjectives, so they're using the adjective to describe the picture in front of them. So, if the picture of the person is fat, I'm expecting them to be able to write fat in French. Describing physically to identify if the person has green eyes or red hair. They have to think and write what they see in the picture in front of them.*

Teachers largely ensured the development of critical thinking and problem-solving through this strategy. They believe that learners were to demonstrate understanding of concepts understood by solving problems on them through exercises, quizzes, and homework.

4.1.2.3 Experiential learning

This pedagogical approach implies learning through experience. It involves hands-on learning in the learning environment (Kapur, 2020). According to Penelope, tasks gave learners an exploratory experience. She said;

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> *During the creative arts or whatever, they will be doing creativity. I give them tasks. (pause) I always give them tasks. Now, they doing, air fresher decoration. What I taught them; some are doing it even nicer than mine right? Meaning they have something unique in them that they can explore.*

The use of tasks or projects was tailored toward the development of creativity and innovation.

The use of experiential learning could have been employed to develop a sense of patriotism in learners (cultural identity and global citizenship). Through the in-school or in-class organization of stories about our independence, how to respect our national symbols, how to participate in patriotic activities such as parades and flag hoisting as well as visits to monuments of historic importance (Kong, 2021). The only record of the development of cultural identity and global citizenship was during the week of Ghana's independence. Most of the teachers taught patriotic songs and marched the learners out of the class. But after the celebration, no conscious effort was made to develop this competency. However, there were attempts to shift the blame. Carolina indicated the pandemic has restricted learners' first-hand discovery of some activities. The view she held was:

> *Should I shift the blame on COVID something something? Formerly, there were cultural activities among schools, but here is the case this new curriculum came to meet this COVID so it just closed down every activity. So, whatever the child is learning, whether it is a video that the child learns from, is based on cultural activities. But the normal routine of having cultural activities where the children are exposed, it's no longer there. It's just this 6th March that I think it was organised and our school took part. (Researcher enquires if some activities are done in the class) in the class, it is part of our lessons, so we do them. they learn it but for them being exposed it is not there.*

The development of this competency was not entirely effective as teachers were not deliberate in their attempt to enhance its development.

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4.1.2.4 Cooperative Learning Approach

Laal and Laal (2010) defined this approach as putting learners in groups to solve a problem or complete a project.

Laila appeared to use groups besides adding the great advantage it has on communication and collaboration. Her response was:

> *Through activities and group work. When there is group work and the child is able to participate, then there has been a collaboration" (**Researcher; what if the child doesn't participate?**) oh, they do. I tell them the group's marks are recorded for all the group members.*

Notwithstanding the difficulty due to the class spatial distribution, George was accustomed to groups. He testified;

> *... yeah, but currently, there are some hindrances as the spacing does not allow to do this purely child-centered learning to take place but gradually, we're managing. as you come to this classroom, you'd see children arranged in groups* **(pointing to I the arrangement in the class).** *What we do in the new curriculum is to explain the concept and give a few examples. Then, the learners also give more examples to support it. They go into the groups, understand the concept very well, and learn from themselves. We have realized that when learners learn from themselves, it's better than the teacher always sticking to what we call the lecture method, which does not benefit the children in anyway. By learning from themselves, they can explain new concepts to themselves. So, that's how come we have arranged them this way so they can do things in groups and learn from each other.*

4.1.2.5 Peer teaching and assistance

This is one of the strategies under the collaborative approach. Learners in a class do not have the same intellectual capabilities; some are sharp while others have challenges. Thus, the teacher paired them up to assist each other. This was relevant to improve their personal relationships and self-confidence, strengthening their self-image as well as learning to take the initiative to support one another when they encountered difficulties. This strategy, therefore, facilitated personal development and leadership.

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In a language class, Pamela reshuffled the class by pairing them up for reading. This decision was informed when the entire class was instructed to read aloud. Walking through as they read, she realized some of the learners fumbled with some words. She directed the learners who were 'good' at reading to assist others; she singularly picked out learners to pair with others.

Peer assistance through assigning roles such as "*class prefects",* as stated by the participants, enhanced the leadership competency as learners were responsible for overseeing class affairs.

4.1.2.6 Integrated approach

Peyser, Gerard & Roegiers (2006) suggested the aim of this approach is to ensure learners master concepts in the learning environment to make connections within their personal life or across curricula. This approach also boosted the development of critical thinking. Phoebe confirmed some learners make connections from their lives to class concepts when she said;

> *for example, when you're beginning a lesson and ask them to maybe we're talking about Mixtures in Science, so you ask them, what mixtures have you seen or heard before? Some people can say maybe, the masons concrete they mix, our gari, but some people when you say mixtures, they can't apply to know what we're talking about this or that. But the majority of them can apply their home knowledge to the classroom.*

Carolina noted that classroom responsibilities can help learners integrate a sense of stewardship in their private lives. She disclosed:

> *"assigning duties to pupils in the class. some of them being, cupboard monitors, some of them taking charge of exercise books, others taking charge of textbooks, bringing out the spirit of responsibility and then taking good care of things".*

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4.1.2.7 ICT Supported Learning

This approach uses information and communication technology devices to aid learning in various subject disciplines. A few admitted to supporting learning with ICT devices. The inability to use this pedagogy extensively rested on limited resources which poses a challenge to the overall development of digital literacy.

Evelyn referenced the use of some devices to support learning when she said:

> *alright, sometimes they can be given some exercises to go and use their mother's or daddy's phone to read and search for information. that is what we have been doing. Sometimes I give them exercises without giving them any options; I will ask them to go and search for it and bring the answer.* **(Researcher: what do you do in the class?).** *In class, I have been using this (shows phone) to search for information sometimes. since we don't have the projector and the laptops.*

Teachers have employed various strategies across the identified pedagogical approaches to ensure pupils are developing the CC featured in the SBC; an essential component to enhance functionality in the society and twenty-first century world. A summary of pedagogical approaches by teachers is illustrated in the table below.

Table 1: Pedagogical Approach for Developing the Competencies.

Pedagogical approach	Competency
Inquiry-based learning (questioning - Gholam, 2019).	Communication and collaboration Critical thinking and problem-solving
Assessment of student learning (homework, quizzes and exercises - Kapur, 2020).	Critical thinking and problem-solving
Experiential learning (tasks and/or projects – Kapur, 2020.)	Creativity and innovation (could have also developed cultural identity and global citizenship).
Collaborative approach (groups)	Communication and collaboration
Peer teaching and assistance	Personal development and leadership
Integrated approach (Peyser, Gerard & Roegiers, 2006)	Critical thinking and problem-solving
ICT supported learning	Digital literacy

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4.1.3 Guiding question 3: What challenges do the teachers face in developing the core competencies of pupils?

It is expected that change will not come easy and implementing the new curriculum will not be all rosy. As Fullan (1993) suggested, education reforms are "hard to conceive and even harder to put into practice" (p. 46) He explains that, even the simplest innovation in the learning environment is difficult (Fullan, 2007). Cobbold (2017) identifies that challenges or difficulties are likely to prevail when new programmes or curricula is implemented. Ani-Bio (2009) also emphasized in a study on teachers concerns about the 2007 educational reform that teachers experienced inadequacies in knowledge as well as lack of material resources. The difficulties may be due to lack of knowledge and skills required, negative feelings toward the new programme as well as unavailability of resources (Cobbold, 2017). Fullan (1993) further argues that the change process is irrepressibly multifaceted or has dynamic complexities. This proves that it is basically impractical to assume that the introduction of curriculum innovations would be effectively implemented without any challenges (Fullan, 1993). It was therefore important to explore how challenging it has been for teachers to implement the SBC's demand for the development of core competencies. The challenges identified by the participants were categorized under three sub-themes; teacher, resources, and learning method.

4.1.3.1 The teacher

One challenge I observed was the teacher factor. Teachers I interviewed complained about their inability to do things the way they wanted because of work overload and lack of planning. For Gregory, developing CC requires thoughtful planning and it doesn't happen by chance:

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sometimes you need to plan very well. In order to develop some of the core competencies other than that, you may teach a certain lesson and at the end of the day, you will not even develop one core competency. Do you understand? ah huh, but the reason why I'm saying it's fairly is that you need to plan very well. And ask yourself this lesson, what core competencies am I going to even develop? If it is communication and collaboration, then how am I going to go about it.? yes. So, it's fairly. If you don't plan, sometimes, you will deliver a lesson and not even a single or let's say one which is too small to develop in a lesson".

Phoebe believes she has no knowledge of creativity. This has predisposed her to the inability to develop some competencies. She distinctly expressed:

Creativity… In fact, I did not study anything about visual art, (pause) creative (pause) so, in fact, creative arts I'm not teaching. What I've been doing is, I'd just be picking the history in it but when it comes to the sculpture and those things dɛ, Me, I don't know anything about it. so, I don't venture. That is me (laughs) but with the History (pause) History about er Af_african artisans and those people dɛ, we teach them. But yɛ use creativity no dɛ (using creativity), I don't know anything about it. (Researcher: Okay so, it means because you don't have knowledge in creative arts; is that why you're not developing creativity and innovation?) yes! I don't have knowledge of creative arts. Me knowledge ne sɛ (my knowledge of it is), I don't have any knowledge in it. The only knowledge no yɛ (is) history. ɛtalki (talking) about when we're teaching creative arts and the histories are in, we can teach them but when it comes to the creativity (pause 3 seconds) oh! mea koraa mennyɛ creative (oh! I'm not creative myself).

For Leah, teachers can easily lose focus because classroom management can take the better part of them. She says:

developing the personality of these children is not easy. Have you seen it? (Learners chasing each other in the classroom) Is not all that easy but they say we shouldn't beat them. You the teacher, you have to encourage yourself and encourage them as well.

Patience also noted that the teacher holds the major task to ensure quality information is acquired across various viewpoints to summarize learners' suggestions on the concept or theme discussed. She said*: "not easy because you have to do a very good research to be able to conclude what you want to let them know".*

Knowledge is power. A teacher displaying no knowledge of the core competencies poses a crucial challenge to the development of the core competencies

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featured in the SBC. To implement the SBC's demand for the development of the CC, the teacher should be equipped with a knowledge of what the CC is and its demands. Yet, Christiana seemed to be at sea. She expressed:

> *Medeɛ mennim o – laughs (I don't know) pause 10seconds mennim core competencies biaa (I don't know any core competencies) (Researcher: please, did you attend the training for the new curriculum?) aane but man*kɔ *KG. ya change syllabus ɛna textbooks (Researcher: so please o the syllabus that has changed what - cuts in) first no syllabus no er na ye wɔ topic but new one no instead of topic yeayɛ strand (in the first syllabus, we had topic but the new one has strand for topic instead). ɛna yɛ wɔ substrand ɛno yɛ subtopic (and sub strand for subtopic).*

A teacher is a person who helps others to learn (Keengwe, 2020). Thus, one who facilitates learning. The participants stated there is a lot of responsibility on teachers that challenge the development of the core competencies.

4.1.3.2 Resources

Another factor challenging teachers' development of CC in pupils was related to the various resources or materials that support learning and teaching in the learning environment. According to Evelyn, the unavailability of resources is hindering the smooth development of the CC as she pointed out:

> *It is not easy at all(repeats). Because if I'm teaching and I say go to this side and everything is in front of you, it won't be difficult but here's the case the teacher will be holding the thing, without allowing the children to see. Maybe going around and time will be wasted. It wastes time. (Evelyn)*

Carolina also shared a similar thought when she reiterated: "*It is not easy. Some lessons require you to teach a song. Imagine teaching these children a song; before you realize it, the whole period has passed, eating into the next lesson. Before you start that lesson, it's the first break and you haven't even done much. So, it's not easy o*".

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Initially, Penelope appeared to be in a dilemma but her stance was clarified when she indicated the development of the CC can be achieved when resources are readily available. She explained:

> *It's not easy, but it's easy. especially with Creative Arts, it's not easy. Helping them to develop their creative skills, there's no material. I even force them to pay something and the parents were not coping. So, I think what we bought, the cost was around, 70cedis. They paid 32cedis. I added something to it before we were able to buy the items we needed. For creative skills, it's not a problem but the resources are. Aside from the resources, we don't have the books (pause); textbooks that we're using. So, it's me that I will go to the net to check and find something for them. Are you getting it? And after finding something for them, I have to write the thing on the board which is time-wasting. It delays. If the resources are there and the books, we can quickly do something and go away but we're not getting it like that". (*Penelope*).*

Alice also affirmed the unavailability of resources challenges practical learning. Her response reads: *"On my part, it's not easy because materials are not available and most things are taught in abstract".*

Gabriella also indicated learning should be ICT supported but operationally, this factor is missing in the classroom. She answered:

> *not easy in the sense that, the materials to assist us. (pause) the new curriculum is based on digital activities, and research but in government schools, especially, not all the children have access to a phone or computer and the school doesn't have some.* (Gabriella)

Chantel corroborated ICT-supported learning and further believes the language barrier poses a challenge to the successful development of the CC. Her response reads:

> *Not been easy 'cause the French language is new to them. When I use it, I'm able to catch their attention. When you use the technology aspect of it, you get their attention but we don't have it.*

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Phoebe's view was related to the functionality of the computers in her school. She expressed bitterly:

> *is not helping. In fact, most people don't have phones in their homes, and in the school kraa (in particular) the ICT, we don't have internet. Pause* ***(Researcher: there's no internet but you have the computers?)*** *Hmm (pause) it's not working. (pause for 6 seconds). The computers in the school are not functioning. They're like the 2nd or 3rd generation. Wo boot ah (booting) takes a lot of time and only two is working.* (Phoebe)

Alice further endorsed Phoebe's statement. Her agreement reads:

> *not doing it well 'cause no big lab so taught abstract. They're not able to feel the machines we use to teach. So, if we're supposed to watch a video, I just ask them in abstract form with the exception of maths and reading but for others, you need ICT tools which aren't available so sometimes, I use my phone. (Shows researcher a sketch pad) In Creative Arts you have to show them artwork of international artists by going around but it consumes a lot of time. Today they had to do a painting of Palm Sunday so I had to show them some cartoons on my phone to have a clear understanding of what I wanted them to do".* (Alice)

Ineffective use of time and inadequate material or educational resources for teachers have created problems that are affecting the successful development of CC in pupils. The teachers spent between 30-45 minutes more before starting a lesson after the first and second breaks. When I asked, Eli was quick to justify, stating that: *"I couldn't eat during the break so I'm now going to get food to eat".*

In another attempt to justify why lessons did not commence right after the first and second break, Gina cried:

> *see all the books I have here* ***(pointing I to the books on her desk)*** *I have to mark them. If I don't, I'd go and teach and there will be more books.*

Educational resources play a significant role in the learning and teaching process. Its proper management and availability should not be disregarded.

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4.1.3.3 Teaching Learning method

Cerghit (2006) defined methods as the processes or modes involved in the learning process which are essential to achieve proposed objectives. The SBC highlights the child at the center of learning and teaching. Though Eli believes this learning mode is easy for teachers as a major responsibility lies on the learners to express their ideas on concepts, he says it is time consuming. This is how he rightly puts it:

> *not easy compared to the former lecture method because its time consuming but the delivery on the teacher's part is easy since we don't do much now* (Eli).

Gina declared the learners can be a little difficult to handle when it comes to group formation. She explained:

> *Not so easy because of the different backgrounds and ideas. Some of them don't want to be in certain groups with others so I speak and pamper them before they agree to.*

Sadat also shared Gina's thoughts as he believes learners can be difficult to handle. He further added: *"not really because we have slow learners and fast learners and you need to let all of them understand before you move forward and that wastes time.*

The participants indicated the shift from the lecture or teacher-centered method of instruction to the learner-centered method comes with varied strategies and causes difficulties in developing CC in pupils.

4.1.4.4 Subject related

Some participants hinted the development of some competencies was dependent on some subjects. Sadat clearly expounded this in his response which reads:

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creativity. In the new curriculum, Creative Arts is divided into two sessions; visual arts and (pause, interviewee flips through the Creative Arts book_7seconds) the performing arts" (Researcher: is the development of creativity and innovation peculiar to creative arts?) Yes!

Sadat opined the development of creativity and innovation is a singular effort of the subject, Creative Arts. Laila also validates this when she said: *"that's why we have Creative Arts. They're able to bring out new ideas in drawing, colouring. (**Researcher: are the core competencies aligned to a particular subject?**) Yes!*

Quite compelling is another view by Anna. She bitterly expressed there was no provision for it on the timetable (the schedule of activities for each day). She specified in her response to the question:

(pause 2 seconds) okay, that one, (pause 6 seconds), I will say, we_ we're not doing it (repeats); because as I was saying, some schools have this on their timetable like, activi- (stops) some career days. Or let's say some erm (mannerism) groups like maybe erm (mannerism) music groups erm (mannerism) drama groups, we don't have such here and the timetable is so choked that, you can't even add it to your own lesson as a teacher when the headmaster has not approved. Even if you wish to, you will not get that time. So, if we had that on our timetable dea (mannerism), then I think, we will be able to like, help them acquire that creativity thing. So, it's like the timetable is just about (pause 2 seconds) what they need to know and leave the school, what they need to know and pass their exams and leave the school. But I think some other schools have that. Maybe social clubs like the (Researcher: mmm) musical clubs, cadet. So, even if someone wants to be a soldier, immigration officer, or firefighter officer, they can just learn it from that end. But we don't have such here so it makes it difficult for us to develop their creativity. (Anna)

Again, Judith mentioned some subjects catered specifically for personal development and leadership. Her response was; *"History, OWOP, and Creative Arts (researcher; are some CC aligned to specific subjects). Depends on the topic to be taught. But these topics develop that".*

Leah corroborated the peculiarity involved with developing competencies along subject lines. Just like Judith, she believes some subject areas effectively

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develop some competencies. She stated: *"that one (pause), OWOP deals with that".*

(**Researcher: are the core competencies aligned to a particular subject?)** *"Yes!".*

Gabriella also attests to some subjects enhancing cultural identity and global citizenship. She declared:

> *cultural identity, last week, we were doing festivals, these kids don't really know their ethnic group but we did a lot of dancing from other ethnic groups to create awareness of the culture, the food they eat and others of the groups and we're still on it. (Researcher: does a particular subject cater for a competency) it cuts across.*

Pamela confirms Gabriella's declaration as she announced:

> *well in the class, there are certain aspects in their course that talk more of that. For example, citizenship education builds their relationships. Even Creative Arts has cultural aspects and also covers that. Also, RME; the festivals, people in our communities, those topics, we use that as an opportunity to enlighten them.*

Martha vehemently stressed IT is no longer part of subjects at the lower primary level and currently hinders the development of digital literacy. Her response was:

> *they are saying that from Kg to class 3, they don't have to learn IT. So, IT is not in the syllabus. (**Researcher: so, no use of computers to support learning?)** sometimes, I use a phone or a tablet".*

Sadat was confident the major responsibility rests on ICT to ensure the development of some competencies. He said:

> *can you explain? **(Researcher: supporting learning with ICT)** when it is ICT time, you definitely go to the lab. **(Researcher: aside from ICT time is there any other avenue).** No! **(Researcher: does the development of the competencies align directly with a subject).** Yes, it does. **(Researcher: why is that?)** well, some subjects help bring it out more than others. So, ICT would be for digital literacy.*

This stance some participants hold springs from the idea that some subjects effectively develop some competencies in contrast to others.

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Though some participants expressed difficulties relating to the development of the CC, some participants apprehended that when learners are taught well or know what is expected of them, the CC can be developed successfully.

Rebecca appears to know how to manage her learners to stay focused. She says:

> *is not all that easy. but when the child is well taught and understands what we are teaching, with that, he can build something on it. So, the teacher has to be on top but we don't have the books to help us".*

Pamela provides some explanation of what "be[ing] on top" means:

> *before you even start the (pause) you let them know what you want them to develop so that, they'd be more focused on that. That is how you get their attention. So, they know the goal and work towards achieving it.*

In conclusion, the featured components in the SBC are relevant toward enhancing skills in learners to live in this twenty-first century era but it is self-evident to contend that teachers tasked with developing the CC of pupils face severe challenges threatening its successful development.

4.1.5 Guiding question 4: What are the innovative strategies the teachers have adopted towards implementing the SBC?

Teacher autonomy is crucial for meaningful innovation in teaching and learning (Tamez, 2022). Thus, aside from the training teachers were taken through, sufficient resources, good working conditions, and support help to develop teacher autonomy which improves student learning and well-being (Tamez, 2022). Thompson (2021) identified innovative teaching as the responsive process of introducing new teaching strategies and methods into the classroom. The primary purpose of introducing these innovative strategies is geared toward improving academic outcomes and addressing real problems that promote equitable learning (Thompson, 2021). Trapitsin (2018) stated that the innovative activities of teachers are based on

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their attitude, readiness, and ability to create new educational products and educational technologies. In inquiring about how innovative teachers have been in the development of CC, I relied on interview data. The following illustrates innovative strategies employed by teachers;

4.1.5.1 Active learning

This method requires learners' active involvement through discussion, questioning, creating, investigating as well as problem-solving and thinking critically (Thompson, 2021). Thus, learners are expected to be active in the instructional setting. Vanessa mentioned the child-centered way of teaching requires giving learners topic(s) to research or investigate before learning and teaching take place. Her affirmation is noted below;

> *you know, at first, it wasn't child-centered but now, ah haa. That is the new thing. (Researcher: what are some of the new concepts of this child-centered…) by asking them to do research before the lesson.*

Gregory disclosed using this strategy as well.

> *"… Tomorrow, let's say this is the topic I'm going to teach, I'd give the topic to my kids today uh huh, so if you go get your phones and search for this information and bring it tomorrow. So, by the time they come, they have a fair knowledge of what you're going to do. Which also facilitates learning. So, it's also a new way of doing things."* He remarked.

4.1.5.2 Ask Open-Ended Questions

According to Thompson (2021), communication and collaboration are skills learners need to acquire. Teachers can ensure this by asking open-ended questions. This helps create a vibrant in-class discussion, piece different information together as well as express ideas from their own perspective. Rebecca has employed this strategy in her class and testified:

> *using questioning. Child-centered mostly not teacher-centered. The children will come out with their own ideas. Because most of them go to the internet. So, when you give them the assignment, they'd go and do all the research and*

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*bring it. As I mark (**show I some of the learners' work**), you see that they didn't even show it to their parents. The work is written in their own words.*

4.1.5.3 Flip the Classroom

In this strategy, learners can complete coursework or classwork at home. Again, learners are engaged with one another through group projects, debates, and practice (Thompson, 2021). Eli distinguished this strategy as "effective to promote learning". His statement reads: *"starters (pause), group formation, group exercises"*.

Chantel also believes practice makes perfect. She explained language is best learnt when the speaker is involved through practice. She stated:

I have been involving them. At first, it was just teaching. Now when I teach them what I want them to know, I also invite them to practice it. I remember in class 5, they could do it 'cause, during the lesson, I was involving them.

Martha also acknowledged the use of demonstration. Demonstration communicates ideas with the use of visual aids ensuring learners are active in the learning environment and learning becomes permanent. Martha further added it made *"learning interesting for the children"*. She noted: "*after the introduction of the new curriculum? pause mm oh sometimes, demonstration and using songs to introduce the lessons"*.

Penelope agreed to the adoption of strategies that help learners practice what they learn. Her response is quoted as:

I have adopted (pause) it wasn't new but our method of teaching was just lecturing. But now we have role play in it. Dramatization in it. The lecturing has become less. Mine, there's little lecturing and they do more tasks. It's not new, we weren't doing them 'cause it's easy to lecture and we preferred that. You see how I was going about the Maths, instead of one hour, they took one-hour 30 minutes.

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4.1.5.4 Blended Learning

This strategy combines both physical and online experiences. It enhances the traditional classroom experience. A key component of blended learning is technology (Thompson, 2021). Learners can watch online lectures at home and engage in collaborative group activities. Gregory hinted this strategy sustains learners' interest in the classroom. He revealed:

> *even ICT is a new strategy in the classroom right now. We don't have a subject called ICT anymore but we use ICT as a tool, so sometimes you want to teach something and demand that children bring an iPad. It's not wrong when they bring phones into the classroom. Then you go through with them. Maybe seven groups, then you say get seven phones and bring them to the class. And then again, one strategy assessment as learning, you always let the children be ahead of us.*

Evelyn attested to supporting learning with technology. She pointed out this aids retention compared to the abstract way of learning and teaching. She clearly specified:

> *what I will say, is since they said it should use be visual, (pause_2 seconds) it should be activity-based, sometimes I use my phone. If they need to watch something, I'd use the phone and I'd be going around to show the things to the children. no internet in the school, so I have to buy data and google the things for the children to see. I sometimes use this small phone (shows I her phone).*

4.1.5.5 Peer Teaching

Learners exhibit mastery when they explain or teach others. This strategy involves learners choosing an area of interest. It is distinguished to improve independent study, presentation skills, and confidence (Thompson, 2021).

Pamela had learners paired during a Ghanaian language lesson. She hand-picked learners to seat beside those that could read fluently. This was to help them assist others with their reading difficulty in a comfortable zone as these peers were their own age mates and individuals they interacted with daily in instructional activities as well as during break times.

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These are no-cost innovative strategies or techniques teachers have employed toward developing the core competencies; critical elements to the twenty-first-century living.

4.2 Discussion of findings

The general aim of this study was to explore teachers' experiences in developing the core competencies of pupils. The change in the curriculum from the old (Objective-Based) to the new (Standards-Based) situates the teacher at the center of effecting, acting, or carrying out its demands. According to Fullan (2006) "if teachers are going to help students to develop the skills and competencies of knowledge-creation, teachers need experience themselves in building professional knowledge" (p. 4). The teacher adapts varied methods for learning and teaching to support learners' personal characteristics as well as integrate the curriculum in interdisciplinary forms (Amanchukwu & Daminabo, 2014).

Besides teacher readiness for implementation and the government supplying the needed resources for the implementation of curriculum, Fullan (2007) argues the characteristics of change as one of the factors that could define the success of curriculum implementation. From the study of teachers and their classrooms, data was assessed against these characteristics of change, namely: need, clarity, complexity, and quality. Fullan (2007) clustered characteristics of change as one of the sets of "interactive" factors influencing implementation (p. 87).

4.2.1 Need for change

Except for Christiana who appeared to be at sea, all the teacher participants appreciated the need for change. While admitting it was uncomfortable for them; "*not easy compared to the former lecture method",* as summated in Eli's response, they

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did not see the old curriculum as very relevant for the 21st century; *"lecturing and putting fear in them method was not helping",* hence their attempt at implementing the SBC despite the teething challenges.

As described earlier, teachers like Gregory, Carolina, Vanessa, and others show commitment to implementing pedagogies such as brain teasers, cooperative, inquiry-based and experiential pedagogies that they needed to be used to doing. To these teachers, it was the way to go as they individually shared through interviews.

It was quite obvious from the faces of some pupils how cumbered with life changes they seem to encounter though they are young. Gregory, therefore, ignites their urge to learn by driving and focusing their attention on the classroom setting to sustain their interest. He rightly stated;

> *So that, their interest will be sustained before the lesson. Sometimes some of the kids come to the classroom bored so as soon as you start the lesson just like that with them, they may not get the concept. So, you get something that will energize them. To be ready for the lesson you have. So you, I was going to teach English but I drew this triangle. It doesn't have any link with what I was going to teach, but I just used that to sustain their interest.* (Gregory).

Chantel establishes that to ensure the learners become speakers or fluent in French to aid their communication and collaboration among French natives or speakers, activities should promote its use. She illustrated;

> *they told us that with the French, they want the kids to speak it, at first…(pause) 'cause of the BECE, they were just learning to write exams but now, they need to speak it so if you don't involve them, they can't speak.* (Chantel).

Alice believes we need a generation of thinkers. The techniques she employed were essential to "*make them understand more and make them attentive and also thinkers".*

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Adu-Boahen identifies that the techniques facilitate learner autonomy. He said;

> *even at home when problems arise, in the absence of the teacher, they'd look for ways to solve it* (Adu-Boahen).

Fullan argues that educational change requires a mindset change, arguing that "without such a sift of mind the insurmountable basic problem is the juxtaposition of a continuous change theme with a continuous conservative system" (Fullan, 2011, p. 14). Teachers' admission and appreciation for the need for change; "*the curriculum has changed so we have to change the way we teach"* is an important first step which in estimation can be checked off the list.

4.2.2 Clarity about goals and needs

Another critical indicator worth discussing is clarity about goals and needs. For curriculum change to happen, teachers need to be clear about the purposes of the reforms and the part they ought to play to make it happen. Scholarship is replete with evidence that teachers' beliefs influence how they teach (Wilson & Cooney, 2003; Kauchak & Burbank, 2003; Corbett & Wilson, 2002; Ross, 1994; Shaiegy & Abdelrahman, 2021; Smith, 1993; Goodman, 1988). Fullan (2011) stated that it is extremely problematic for teachers to modify their beliefs as their basic educational values are concealed under assumptions about new principles of the changed curriculum. A study by Adentwi and Sarfo (2011) found that educational innovations is dependent on the willingness to embrace and implement innovations in the classroom. Hence, teachers willing to adopt pedagogical approaches would facilitate the development of the competencies.

Fullan and Stegelbauer (1991) described teachers' beliefs as rigid as they act as guardians for every new information projected in the new curriculum. Leah was

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vehemently guarding the demands of the old curriculum which hinders her view of the goals and needs of the new curriculum. Nonetheless, Rebecca had also taught for more than nine years but was not resistant to change. She believes the philosophy of the new curriculum was essential to help the children" *think and come out with their own ideas; the children also do more research".*

Teachers did not merely distinguish the fact that "*curriculum has changed*". They were acquainted with the philosophy of the new curriculum. Rebecca established the philosophy of the new curriculum as *"child-centered most not teacher-centered".* Vanessa also corroborated this when she also mentioned *"teaching should be child-centered".* Penelope clearly revealed, "*at first, we were using the lecturing method too but in 2019 there about, it has been child-centered".* Finally, Eli identified *"learner is doing most of the work".*

Other interactions with them also became obvious that they appreciated the goals of the curriculum reform. Some of these statements are instructive here:

> *right now the basic strategy is to make the teaching learner-centered. So, all activities that will make the learner inclusive in the process, that is what we're adopting. Grouping the learners in carrying out certain tasks. It also involves giving them more research work*. (Pamela)

> "[Teaching now] *involves more of the kids than talking and talking. So, you could see, I was asking questions throughout the lesson* (Alice).

> *focuses on how a child constructs his own learning. This has become child-centered where the teacher only serves as a facilitator.* (Gregory)

In the class observations, "groupings", "questions", "presentations", role play", "pairing or paired dialogue" and "research" or project work" were common strategies used by teachers to enhance the philosophy of the curriculum and cater for its needs. However, the beliefs and attitudes of teachers also simplified or taint how they perceive and carry out instructional goals. "*More efficient to promote learning"*

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and *"it helps grasp their attention during the lesson"* were the principles held by Eli and Sadat respectively. Additionally, Laila's outlook of positivity that supported continuity was essentially due to the fact that learners paid "*more attention",* to "*take part in the lesson"* and were active participants in the classroom. Adu-Boahen had taught for more than nine years. Yet he indicated the goals of the curriculum can be successfully achieved if all learner-centered techniques are employed. He rightly explained that learners "*think in depth if all these methods are used*". Thus, this drives his urge to continue pursuing techniques for developing the competencies.

Teachers were proceeding with the child-centered approach to ensure the harmonious development of the physical, mental and spiritual capabilities of the learner toward the National Curriculum (NaCCA, 2019, p. 19). That is teachers were largely open to the child-centered due to evidence of its success. It appears that the participants I interacted with were clear about the goals and needs of the curriculum.

4.3 Complexity: the extent of change required by those responsible for the implementation

On the matter of complexity as a characteristic of change, I observed a huge gap. Previous quantitative studies on teachers' implementation of the SBC (Agormedah et al., 2022; Ayebi-Arthur, Abdulai & Korsah 2020) have found them to exhibit high confidence and teaching efficacy. This was not observed with the teachers in this study. As described in the teacher-related challenges, the teachers did not feel very confident in themselves and expressed doubts about what they did, even though I was amazed by some of their pedagogies.

Gregory distinctly identified careful planning on the teacher's part as a crucial challenge. According to him, a teacher can *"deliver a lesson and not even a single or*

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let's say one which is too small to develop in a lesson". Phoebe supported his assertion as she noted, she needs "*a very good research to be able to conclude"* whatever is discussed during an activity or lesson. This projects a teacher's mastery of content to steer content discussed in contexts that benefits and supports the learner's holistic development. Phoebe vehemently expressed "*I don't have knowledge of creative arts".* This element, she believes, hinders the development of creativity and innovation in her pupils. Learners are different in needs and way of life. They transfer these attitudes and thoughts into the classroom. Leah illustrated in her response, "*developing the personality of these children is not easy".* This diversity creates a complex atmosphere and makes classroom management a daunting task. Thus, Leah stated, as a teacher, you need to "*encourage yourself and encourage them as well".*

I also realized from their expression during the interviews how they feel the lack of self-efficacy was due to the inadequate time spent training them on the new curriculum. Phoebe disclosed

> *the training we went to was just about one week so it was left for us to study the syllabus and how to implement or go about it. But, in my idea, we did not get much details when we went to the training*.

Evelyn frankly indicated the time for training was short and further "*training is needed since after the training there was COVID*" as she elucidated reasons for deviating sometimes in pedagogical approaches (learner-centered to teacher-centered). Their inadequacy toward employing strictly the learner-centered approach is largely due to short time training them. The lack of efficacy of the teacher creates the unlikeness to embrace changes in the profession (Hart, 2009). This assertion is validated by Phoebe's label, "*just about one week*" of training on the new curriculum which further mandates personal efforts by the teacher on how to "*study the syllabus and how to implement or go about it*". This claim, therefore, implies the limited

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duration created no provision for maximum deliberations and significance of the learner-centered approach projected in the SBC. Scholarship replete evidence of the effect of the short training duration on teachers' attitudes and beliefs toward their practice (Madden, 1997). In the case of Ghana, teachers' training on the new curriculum was marred by short duration and teacher protestations over poor treatment (Ghanaweb, 2020). It appears the net effect of the ineffective training is beginning to tell on implementation. Though there is no provision for precise training for teachers when new curricula are introduced, there is a proposition for training teachers to cope with content and teaching methods in dual ways. Educating teachers to handle teaching resources or materials per their inclinations, and training teachers in appropriate selection and adaptation in accordance with a set of rules (Sabar & Shafriri, 1981).

Besides, the limited availability of resources also adds to the complexity of expectations. Leah stated, "*no textbooks, nothing, we are forcing in teaching, so we're finding it difficult*". Textbooks provide a reliable point of reference for learning content. Teachers also blame the state for the late supply of textbooks and other educational resources (Abiable, 2019; Sottie, 2021). In their quest to make teaching easy, teachers are on the lookout for materials, whose quality may be questionable as the state has not approved any textbooks yet. Any modification in educational approach or curriculum reform imposes designing new textbooks (Button, 2021). Alice indicated, "*we're lacking textbooks and we're buying different authors who have different views on a particular subject or topic. So now there's difficulty more than in the previous years*".

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The complexity of the nature of change is evident in the state expecting a total transformation in the teaching approaches of teachers whereas teachers also expect the state to supply the needed resources and invest more in their training to make this happen. This conundrum is yet to be fixed.

4.4 Quality and practicality of the program

Fullan (1991) further mentioned the successful achievement of change is hinged on embedding or building it into the structure; the timetable. A study conducted by Issifu (2019) in Ghana on the effective use of instructional time established that effective strategies including monitoring and supervision can improve the use of instructional time. Thus, the established procedures essential to ensure continuation in implementing the SBC requires skills and commitment that facilitate its successful implementation. Oden and Kankam (2013) stressed that innovations are more probable to be implemented when innovations are introduced into teacher education programmes. That is, teachers would gain information on the use of no-cost and low-cost innovative strategies to facilitate the development of the competencies effectively. On this score, time and its management as well as the provision of learning materials are important issues worth discussing. From the various lessons observed, teachers always spent thirty minutes more than the expected times allotted on the timetable. Attempts to explain such delay are noted below;

> *I couldn't eat during the break so I'm now going to get food to eat*
>
> (Eli).

Another effort at throwing light on the issue was:

> *see all the books I have here* ***(pointing I to the books on her desk)*** *I have to mark them. If I don't, I'd go and teach and there will be more books* (Gina).

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Carolina stated some lessons require a lot of activities which may "*eat into"* another period. Before a lesson commences, *"it's break and you haven't even done much"*.

Though instructional time can be difficult to measure, maintaining order, checking home assignments, and arranging lessons consume instructional time available to the teacher (Baker et al., 2004). Leah's remark about class management suggests the overworking atmosphere of the classroom life which drains a huge amount of their instructional time. Alice's frustration was with time for co-curricular activities:

> *the timetable is chocked so you can't even add some activities like social clubs to your lessons when the headmaster hasn't approved and even if he does, we don't have time. One subject can have a whole lot of things for you to teach within that one hour*. (Alice)

Penelope observed during English lessons, she does not have enough time left to engage the learners. She said, "*with reading, I'll do the model reading. The moment I finish; I will not call anybody 'cause I'd say time factor. Because I want time to get plenty of exercises"*. "Shortage of time" as an aspect of teacher overwork affects the positive curriculum change atmosphere in our schools (Hargreaves & Fink, 2006, p. 148). The "shortage of time" overworking the positive curriculum change atmosphere was assessed by Cecilia, "*before you realize I've used more than one hour*". This reflects the compounding restriction of time in delivering content in a particular lesson. From the perspectives of teachers, implementing the curriculum to the highest quality standards is not happening because there appears to be limited time. Overcrowded classrooms and over-working teachers are a bad combination for the quality of curriculum implementation. In effect, teachers are adopting a strategy

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suggested by Phoebe: "*rushing through some concepts or leaving some activities undone*" to take care of this challenge of inadequate time.

Teachers are already "tired" from the huge task leveled on them from the demands of the curriculum standards yet, knowledge of effective time management appears to be a deficiency in their professional competence (Hart, 2009). I am predominantly troubled that if teachers do not know how to facilitate content and activities effectively within the specified time periods, the quality of the curriculum implementation suffers. Cotton (1981) distinguished time into four categories; allocated time, engaged time, academic learning time, and dead time. From the observations, it was realized these times cannot be segregated as they are holistically used as instructional time. Adequate planning to use time effectively by teachers is therefore a great prerequisite.

Furthermore, Fullan (2007) states that resources as a component that affects the quality and practicality of curriculum innovations or programmes. The provision of adequate material resources affects the quality and practicality of the implementation of the SBC. According to Acquah's (2012) study on teachers concerns on the ICT curriculum revealed inadequate facilities affected the learning and teaching processes and did not help to compliment complex changes such as the use of ICT as a learning tool effectively. Therefore, teachers felt training workshops were ideal to gain in-depth knowledge and skills to implement the ICT curriculum effectively (Acquah, 2012). To understand the complexities of developing the competencies, teachers need to understand the goals for implementing the curriculum. One of the cost-effective ways of improving classroom practice encompasses the use of textbooks (Lubben et. al., 2003; Asmal, 2002; Verspoor, 1991). The demands of

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educational change set enormous volumes of energy on the teacher especially when resources as Martha puts it, "*our learning materials and textbooks and others is not around*" (Hart, 2009). Textbooks provide a reliable point of reference for learning content. Teachers interpret the curriculum document daily in class. The availability of resources such as textbooks serves as a reference point to stay on track while implementing the demands of the curriculum effectively. Hence, any modification in educational approach or curriculum reform imposes designing new textbooks (Button, 2021). Leah is "*forcing to teach"* due to the lack of resources. She has deviated from the child-centered to the teacher-centered because; *"everything is child-centered and the Ghanaian child, how can you leave the person alone? The child should do this, the child should do that, you the teacher is only a facilitator. Me, I use my teacher-centered method a lot"*. Martha was emphatic when she stated that *"if we have textbooks and it explains to us, we won't have any difficulty in teaching"*.

The phrase "forcing to teach" therefore establishes that teachers are going haywire in the quest to develop the competencies as the expected fundamentals (strategies) to govern and steer their management and delivery of content are missing. Fullan (1993) indicates that innovation can be learnt while interacting with others; learners and resources. The availability of resources essential to ensure teachers' interaction and translation of curriculum standards into daily instruction would also enhance their innovative skills. Fullan (2015) confirms that these can be used "as catalysts to reexamine what they are doing" (p.24). The absence of these reference points, therefore, threatens the effective implementation of the SBC and its demands for the development of the competencies.

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4.5 Summary of chapter 4

This study has explored the experiences of teachers with developing the competencies of pupils. This chapter focused on the findings obtained from both semi-structured interview and observation. I discussed the findings based on four factors affecting the implementation phase of Fullan's educational change theory.

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CHAPTER FIVE

SUMMARY OF FINDINGS

5.0 Overview

This study explored teachers' experiences with developing the core competencies of pupils. I approached this study from the qualitative lens and focused on descriptive phenomenology design to generate a comprehensive account of teachers' experiences. The study conducted was guided by the following questions;

1. How are the basic school teachers in the Oforikrom municipality enacting twenty-first-century pedagogies?
2. What pedagogical approaches do the teachers use in developing the core competencies?
3. What challenges do the teachers face in developing the core competencies of the pupils?
4. What innovative strategies have the teachers adopted towards implementing the SBC?

5.1 Summary of findings

The major findings of this research work are summated below.

The findings arising out the first research question revealed that twenty-first century pedagogies enacted toward developing the competencies included the use of starters, provision of leadership roles, PLC participation, and experiential learning. The use of starters promoted learner readiness and sustained interest and attention toward instructional delivery or lessons. The provision of leadership roles and experiential learning also contributed to personal development, communication and collaboration, creativity, cultural identity and critical thinking which are essential attributes that promotes useful living in our current era. However, it was also revealed

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that the child-centered philosophy projected by the SBC was not appreciated by all teachers. Thus, they sensed it restricted the teacher from having absolute knowledge repository rights as well as managing the classroom atmosphere.

The findings directed by the second research question; investigating the pedagogical approaches teachers use in developing CC, further revealed that teachers had employed varied pedagogical approaches including inquiry-based learning, assessment of student learning, experimental learning, collaborative approach, integrated approach, and ICT-supported learning. Though some teachers felt the pandemic had restricted the use of some pedagogical approach, some indicated otherwise. Strategies embedded in the various approach used by these teachers consisted of; discussion, brainstorming, questioning, home assignments, research, quizzes, tasks/projects, group work, peer teaching, assigning duties and the use of some technological tools. The use of these pedagogies contributed to the development of the competencies.

It was also discovered from the third guiding question connected to the challenges in developing the CC that teachers faced a number of challenges in their attempt to develop the competencies. The identified challenges were categorized into; the teacher, resources, teaching-learning method as well as the alignment of the CC to some particular subjects. Generally, teachers indicated the new curriculum was a little overbearing as it required thorough planning or research to assist in developing the competencies appropriately. Some teachers were not very confident in their ability or professional practice to identify strategies directed toward the development of the competencies effectually. Additionally, they held the belief that the child centered mode of learning created a somewhat chaotic atmosphere which made classroom management a difficult task. Also, the method of teaching which placed the learner at

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the center of the learning and teaching processes was not appreciated by the teacher. It was revealed they were not contented with facilitating learning. Another challenge related to clustering the development of competencies to specific subjects. Unlike communication and collaboration, critical thinking and problem solving, teachers were particular about the development of cultural identity and global citizenship, digital literacy, creativity and innovation to subjects such as OWOP, History, ICT and Creative Arts.

The final question sought to find the adaption of innovative strategies for developing the CC. Asking open-ended questions, flipping the classroom, blended learning, and peer teaching were the innovative strategies the participants employed to facilitate the development of the CC. The findings broadly revealed teachers gave out topics before class. This was to ensure they researched into these concepts to aid an elaborate discussion during the lesson delivery. The use of open-ended questions helped learners express their views using their own perspective and vocabulary. Also the hands-on or practice activities and demonstration facilitated the retention of knowledge. Also, the use of some technological devices to support learning and teaching boosted and sustained interest during the learning process. Again, the findings revealed the use of learning in pairs made it easier for learners to understand topics as their peers expressed their knowledge from their own vocabulary without feeling intimidated.

5.2 Connections to previous research and theories

This study revealed teachers' enactment of various twenty-first century pedagogies through the use of starters, assigning roles, participating in PLCs and experiential learning. Scholarship is replete on the enactment of twenty-first

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pedagogies to enhance greater functionality in our current era. According to Jacobson-Lundeberg (2016) the use of pedagogies such as demonstration, discussion, questioning, project-based learning, cooperative learning and others projected high level of success. This was largely due to the fact that it enhanced the communication and collaboration skills which are essential abilities that ensured individuals thrived in their careers as well as personal lives. Peer teaching was a pedagogical approach employed by participants toward developing the competencies. This pedagogy proved significant toward developing the competencies as it facilitated maximum acquisition of learning since learners were in a somewhat comfortable zone and learned with much easy from one another. Studies by Priharjo and Hoy (2011) validate the use of peer teaching. The findings found peer teaching was helpful to nursing students with their future roles or real-life connectivity. The use of inquiry-based learning approach specifically questioning by the participants of this study indicated a boost to critical thinking as well as the ability to communicate ideas in learner's acquired vocabulary.

Studies by Mensah-Wonkyi and Adu (2016) corroborate the use of inquiry-based learning. According to Mensah-Wonkyi and Adu (2016) the findings showed that learners attained better results through the use of inquiry-based learning. Additionally, the use of discussion by the participants of this study proved beneficial to facilitate the development of the competencies as it promoted critical thinking, collaboration and personal development. An investigation by Moate and Cox (2015) on learner-centered pedagogy, also proved that "rich discussion" granted learners preparatory grounds for multifaceted work (p. 386). Research by Iyamuremye, Ndayambaje and Muwonge (2021) also found the use of manipulatives in Mathematics yielded significant effects on pedagogical approach and learner outcomes. However, the participants of this study could not boast of its impact as they

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had little or no learning materials to support learning. Bremner, Sakata, and Cameron (2022) found a positive impact associated with learner-centered pedagogies. According to the participants of this study, the use of pedagogies generally facilitated learning effectively.

Attitudes, beliefs, and experiences that influenced the choice of pedagogical approaches also influence their professional practice and performance. Scholarship is replete in exploring the significance, relationship, or differences in teachers' attitudes and performance (Nadeem et al., 2011; Duatepe and Oylum, 2004).

Armah (2021) highlighted resource materials are essential to encourage creative and learner-centered pedagogies. However, the participants of this study struggled to support effective learning due to the unavailability of resources. According to Palló (2006), the textbook is an imperative educational tool that serves as an intermediator of knowledge to new generations. In the manner of Hadar (2017), her research (investigating the interaction between textbooks and teachers) established that the quality of textbooks represented the basis for a quality lesson. Additionally, further studies have also established that using well-designed textbooks positively influences teachers' beliefs and practices as well as aiding curriculum implementation effectively (Davis, 2009; Newton & Newton, 2006; Davis, 2003; Iszak & Sherin, 2003 and Mckenney, 2001). A study by Ham and Heinze (2018) recognized topics omitted in textbooks were seldom discussed in class, since teachers generally used them as a guiding tool for instruction. That notwithstanding, textbooks should not be employed for the entire collection of subject content (Turk Škraba, 2005). Thus, teachers developing the competencies particularly care also oncerned with the absence of textbooks. They are encouraged to look for other sources of

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knowledge to support the holistic development of the competencies. In 2014, research conducted by Herlinda indicated teachers considered the textbook as an elementary tool in the teaching process. Hung Lau et al. (2018) also recognized the textbook as a crucial tool that should motivate students to learn. Çavir (2009) in a study also established curriculum developers and textbook authors should ensure the reconceptualization of Turkish and modern experiences. Yet, teachers developing the competencies of pupils indicated they did not have this tool to mediate between knowledge and the appropriate pedagogies to facilitate learning.

The adaption of innovative strategies is evident in a study conducted in Nigeria. According to Oyelekan, Igbokwe, and Olorundare (2017), innovative strategies employed by science teachers showed improvement in learner performance. Teachers developing the competencies of pupils had employed active learning, open-ended questions, flip the classroom, blended learning and peer teaching as innovative strategies. These have proved advantageous since it sustained learners interest, promoted hands-on experiences and boosted communication. A study by Eduafo (2014) initiated the use of the problem-solving approach as an innovative strategy this strategy is also commended this study's as they highlighted it caused learners to think in depth before expressing their thoughts on concepts. Ampadu (2012) concluded his study by instituting the need to promote group work in learners as an effective learning tool. This approach from the perspective of this study fundamentally promotes communication and collaboration. Analysis of innovative practice by Rahmat, Leng, and Mashudi (2021) recognized that the approach (scaffolding method) enhanced attentiveness and boosted learners' confidence, grooming and professional etiquette. Naz and Murad (2017) also established innovative strategies were a solution to cater for the diverse needs of learners. Obanya (1995) stated some

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of the curriculum innovations introduced in West Africa since the early 1960s; promoting national languages in schools, environmental studies, and employing educational television facilitated learning. Pintó (2004) examined curriculum innovations in science; which led to the construction of appropriate teacher training materials to be used when innovations were introduced. Although curriculum innovation is not an easy task, some goals targeted national identity and unity; socio-cultural, moral, and ethical development; cognitive development, and globalization and psycho-social skills in Kenya (Bunyi, 2013). Teachers developing the competencies of pupils were going out of their way to adapt innovative strategies in light of ensuring success in implementing the SBC.

Accordingly, several studies have been ubiquitously challenged in the implementation stage of the curriculum. During a standards-based reform, Pak et al., (2020) found teachers encountered challenges in aligning their instruction to the set standards. Mokhele (2012) also found that challenges persisted with curriculum implementation relative to curriculum change and further stated that, it helps develop creative alternatives to address the shortfalls. In Nigeria, Ogar and Aniefiok (2012) in their studies also found that challenges persisted in the curriculum implementation in teacher education. Additionally, Mkandawire (2010) also indicated that, at the implementation stage, teachers encountered numerous challenges including inadequate teaching and learning materials, lack of funding as well as inadequate school facilities. It is therefore not perplexing that teachers tasked with developing the competencies also faced a number of challenges including the availability of resources, teaching learning method and subject relatedness. Obilo and Sangoleye (2010) highlighted that curriculum implementation basically requires the teacher to translate the curriculum document into action in the learning environment which

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poses an onerous obligation on the teacher. From the study, it was obvious some teachers were not confident in their abilities or practice to aid the development of the competencies. Carl 1995 as cited by Mandukwini (2016) identified teachers' uncertainty about what the curriculum change implies, ambiguity or the lack of understanding of the nature and extent of the envisaged change, and security of the existing practices. This descriptive phenomenology study highlighted a divergent disposition of teachers who expressed lack of knowledge of the tenets of the competencies.

According to Fryer (2014); Cortes and Goodman (2014), current data on increased instruction time along with other interventions such as effective teachers and improved pedagogy showed positive effects. Participants of this study also highlighted time insufficiency to fully dissect concepts holistically toward developing the competencies. Their thoughts indicated increase in instructional time. However, Allen (2010) established that increased instruction time leads to behavioural difficulties including fatigue and boredom. The complaints about the duration of the time allocated for training with probable increase in instructional time is likely to cause some of the behavioural difficulties proven by Allen (2010).

5.3 Limitations

Interviews provide less anonymity, which is a big concern for many participants. This was influenced by the reaction of my physical appearance or age (Bailey, 1994). Anytime a teacher saw me taking pictures during an observation or taking notes during the interview, they felt a little intimidated. This limited the free flow of teachers' expression of views on questions asked. Some participants after observation did not permit interviews with me. Whilst the interviews were ongoing,

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some also opted out especially when asked to explain themselves more clearly. This I believe did not help me completely describe their phenomenon from all angles.

The study was confined to only four schools in the Oforikrom municipal assembly due to the limited amount of time required to complete this study.

5.4 Conclusions

This descriptive phenomenological research provided an in-depth understanding of the experiences of teachers toward developing the competencies in pupils. Following weeks of interaction with teachers, it was evident teachers had adopted starters, assigning roles to pupils, participating in PLCs and experiential learning toward enacting twenty-first century pedagogies. In our current twenty-first century era, the use of traditional pedagogies which largely emphasizes memorization would not advance learners critical thinking skills. It was therefore prudent to recognize twenty-first century pedagogies that enhanced and developed skills relevant to ensure learner autonomy and participation beyond the classroom walls. Thus, these pedagogies transform the lives, skills and abilities of learners to thrive personally and interpersonally.

This research has nourished knowledge on pedagogical approaches employed toward developing the competencies. The study found inquiry-based learning, assessment of student learning, experiential learning, cooperative learning, peer teaching and assistance, integrated approach and ICT supported learning as significant elements that helped the advancement of the competencies. Competencies are basically the application of skills and knowledge crucial to successfully navigate learning, living and greater output in the workforce. Hence, teachers using varied techniques across pedagogical approaches were helping learners build on what they

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know to identify, recognize, assess, apply and respond appropriately to the ever dynamic circumstances we encounter daily.

Even more challenging, there are teachers who appear to have limited knowledge and care less about innovations occasioned by the new curriculum. Like in Clasquin-Johnson's (2011) study, these teachers are reluctantly complying by mainly resisting, and/or adapting the curriculum. I classified them as laggards (Rogers, 1995). For teachers like Phoebe and Christiana, their reference point is always in the past because they want to maintain the status quo. They were very suspicious of change and isolate themselves from innovators. The expectation is that the institution of professional learning communities (PLC) would have supported these teachers. Unfortunately, implementation of PLC in the schools have not yielded the right impact owing to a number of factors (Dampson, 2021). Fullan was right when he stated that: "structure does make a difference, but it is not the main point in achieving success (Fullan, 2007, pp. 44–45)." Instead, reculturing – a process of changing the way things are done appears to be the way to go (Fullan, 2007). In the implementation of the SBC, the state has put in place structures for implementation (albeit deficient as it may). Teachers were implementing the curriculum in their own ways trying to meet expectations because "change is what teachers do and think. It's as simple and as complex as that" (Fullan, 1982, p. 107). Perhaps a lot more attention needs to be placed on reculturing – a process that activates and deepens moral purpose of teaching that focuses on what learners require and not what teachers desire (Fullan, 2007). This will require strong leadership at the managerial levels of both the schools and the districts levels.

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It can also be concluded that the difference between the three groups of teachers lies in their personal motivation (Jenkins, 2020, p. 167). The innovative teachers are self-motivated, whereas the laggards were demotivated. The early majority can be swayed both ways as circumstances in their schools and classroom change. It is important that a lot more research attention is devoted to investigating why people choose teaching and factors that motivate them to adopt change.

Notwithstanding the challenges teachers were facing towards developing the competencies of pupils, they were currently doing their best to foster the utmost development of the CC through the utilization of a number of techniques. Adapting Roger's Diffusion of Innovation Theory (1995), three category of teachers were observed – innovators, early majority and laggards. It was observed that some teachers were showing commitment to the philosophy of the new curriculum and had also changed their teaching approaches to adopt 21st Century pedagogies. Teachers like Gregory and Gabriella are venturesome and are motivated by their idea of being change agents (Rogers, 1995). Teachers such as these are the torch-bearers of the curriculum change. Their continuous presence is very crucial and they need to be motivated to stay in the profession. They complained less and mostly focused on solutions instead of the problems. Unfortunately, they are in the minority. Out of the 21 teachers only two belong to this category. Instead, majority of the teachers belong to the early majority category. Such teachers like Clara, Gabriella, Laila, Penelope, Carolina did not like complexity and attempted to avoid risk most of the time. They were comfortable with proven pedagogies and would only act when they see their colleagues moving a particular direction. Expectedly, they are struggling with change.

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The extent of change required is more than they have been prepared to undertake. Clearly, there is the need for more training and a lot more professional development in areas of pedagogical techniques and instructional time management. The state cannot renege on its responsibility of providing the needed resources and reducing class-sizes to appreciable levels. These interventions will be needed to sustain their enthusiasm for the work.

5.5 Recommendations

This research has provided insights into the phenomenon of experiences of teachers in developing the core competencies of pupils. These findings have an implication for the implementation of the SBC and its demands for the development of the competencies. Based on the findings of this study, I have also suggested the following recommendations for consideration.

5.5.1 Recommendations for practice

Analysis and discussion of the findings of this research established the following prominent educational recommendations;

1. According to the SBC, the core competencies are essential to living comfortably in our ever-changing world. Teachers enacting twenty-first century pedagogies is a requirement to effectively develop the core competencies which are esteemed as relevant for twenty-first century living. The Ghana Education Service (GES) in partnership with the head teachers should encourage all teachers to continue using varied techniques embedded in twenty-first century pedagogies. This would prevent marginalization; some teachers committed to enhance the development of the competencies while others are not. Thus boosting the holistic development of the core

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competencies of all pupils efficiently to achieve the overall objective for which the SBC was developed and implemented. The SBC highlights the philosophy of a child-centered mode. Twenty-first century teaching practices facilitate child-centered techniques as well as the utmost development of the core competencies. It is prudent therefore to ensure up-to-date education and training of teachers to equip them with twenty-first century teaching practices. This element would ensure teachers are in tune with practices that support the effective development of the core competencies to ensure harmony between the curriculum goals and societal needs to help learners navigate through life smoothly in this ever-dynamic world.

2. Head teachers should encourage teachers to adopt innovative strategies into their daily instructional delivery of educational content. This would promote an interactive and warm atmosphere for learning and teaching whiles developing essential skills to ensure usability in this twenty-first century era.

   Some teachers feel some competencies are aligned with particular subjects. The Ghana Education Service should ensure further education of teachers on the competencies. This would promote the holistic development of the competencies of all learning areas for functionality in the twenty-first century world.

3. The district directorate should provide constant retraining through supervised PLC to practicing teachers. The professional learning communities would serve as a constant reminder for teachers on the use of twenty-first century practices to facilitate the acquisition of twenty-fist century skills. Additionally, frequent seminars, workshops, and in-service training should be organized to

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ensure teachers stay in tune with the rudiments of the SBC with a significant focus on developing the competencies. These avenues would aid teacher empowerment toward exposure to varied innovative strategies to adapt in balancing the dynamic needs of their daily learning settings.

4. Teachers have encountered a number of difficulties in developing the competencies. GES should ensure the production and distribution of quality learning and teaching resources to all schools. The provision of adequate resources (textbooks and manipulatives) would serve as a guide to keep teachers updated with relevant information on topics. It would also be a source of learning experience for learners as they interact with them. That is, using resources would effectively help learners build knowledge, values, skills and attitudes that would lay a solid foundation for lifelong learning in our twenty-first century times.

5.5.2 Recommendations for further studies

Based on the findings, I have suggested the following for consideration when designing further studies;

1. At the time this study was conducted, the SBC had been implemented in the primary level of education. I recommend studies on experiences of teachers in the junior high schools should be considered. This is significant to weigh the similarities or differences that are likely to be experienced by teachers at the various levels of education.
2. I also suggest a different approach or design aside this study's descriptive phenomenology. This would enable investigators to analytically and conceptually gain an all encircling perspective of the research problem.

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3. I also propose theoretical research to establish components for measuring the six core competencies of the SBC. This measure is essential to identify, modify or eliminate strategies and techniques for the effective management of initiatives while ensuring consistency and fairness in assessing the development of competencies.

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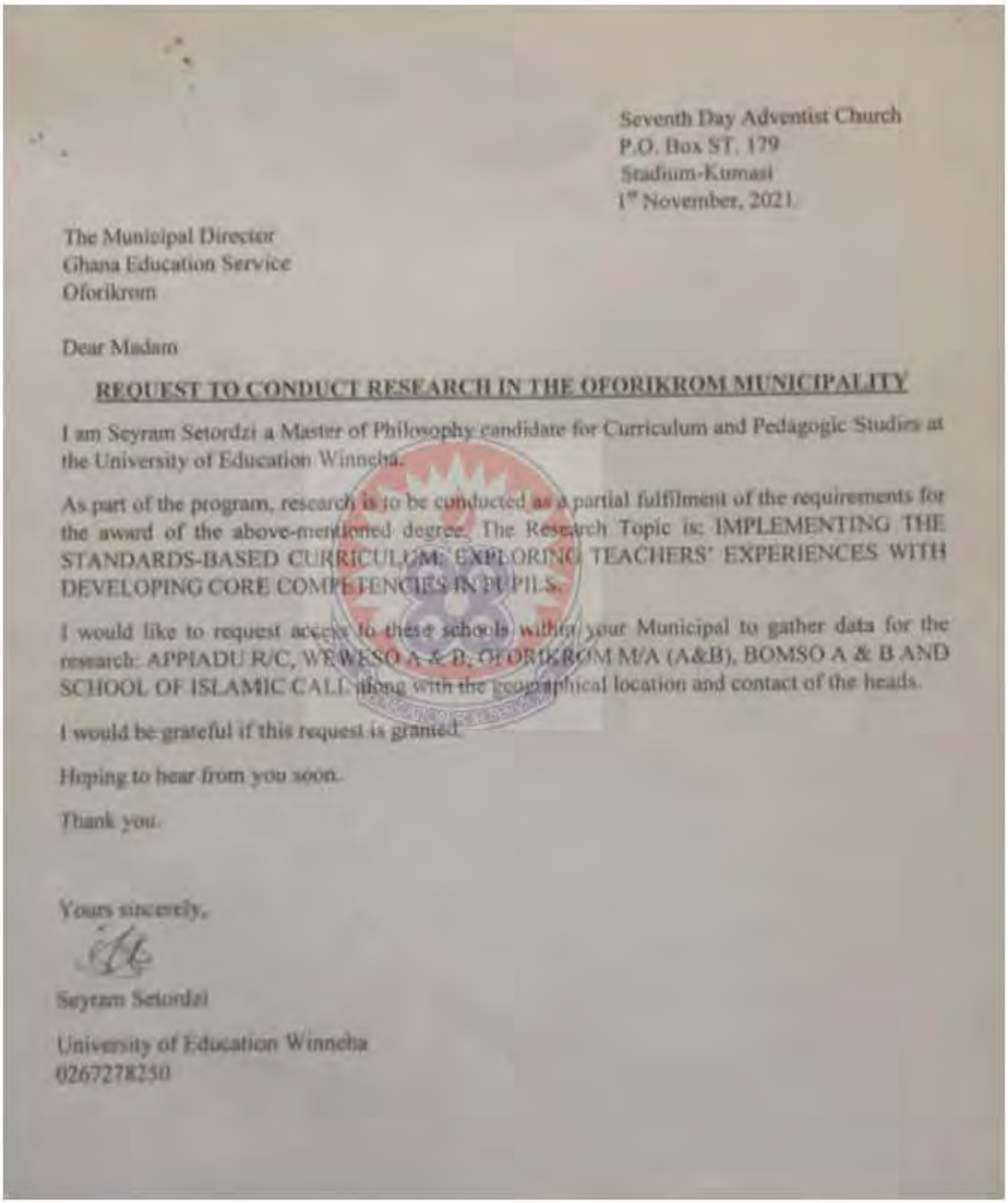
APPENDICES

APPENDIX A

Letter to Oforikrom Municipal Assembly



Seventh Day Adventist Church
P.O. Box ST. 179
Stadium-Kumasi
1st November, 2021.

The Municipal Director
Ghana Education Service
Oforikrom

Dear Madam

REQUEST TO CONDUCT RESEARCH IN THE OFORIKROM MUNICIPALITY

I am Seyram Setordzi a Master of Philosophy candidate for Curriculum and Pedagogic Studies at the University of Education Winneba.

As part of the program, research is to be conducted as a partial fulfilment of the requirements for the award of the above-mentioned degree. The Research Topic is: IMPLEMENTING THE STANDARDS-BASED CURRICULUM: EXPLORING TEACHERS' EXPERIENCES WITH DEVELOPING CORE COMPETENCIES IN PUPILS.

I would like to request access to these schools within your Municipal to gather data for the research: APPIADU R/C, WEWESO A & B, OFORIKROM M/A (A&B), BOMSO A & B AND SCHOOL OF ISLAMIC CALL along with the geographical location and contact of the heads.

I would be grateful if this request is granted.

Hoping to hear from you soon.

Thank you.

Yours sincerely,

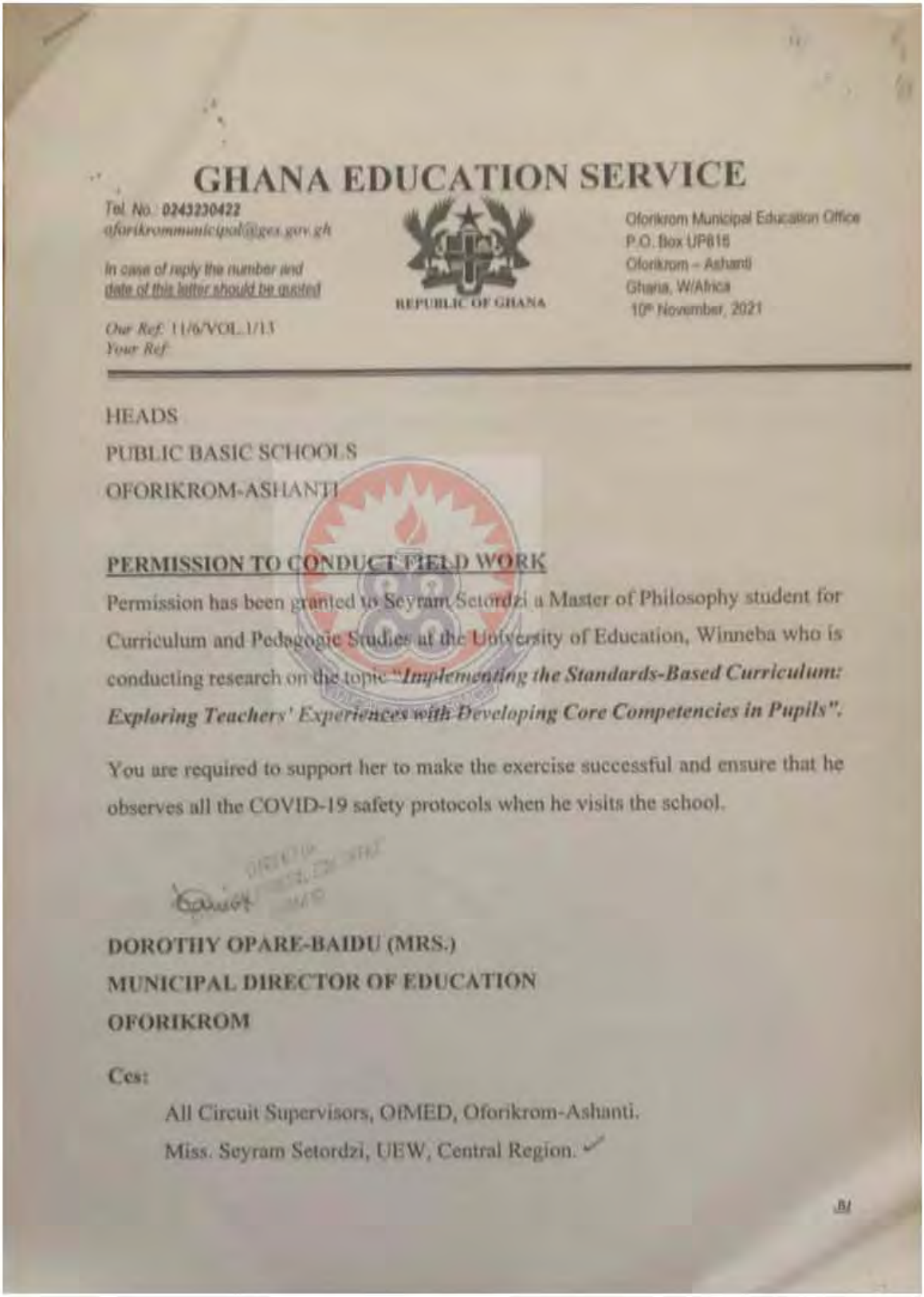
Seyram Setordzi

University of Education Winneba
0267278250

University of Education,Winneba http://ir.uew.edu.gh

APPENDIX B

Letter received from Oforikrom Municipal Assembly



GHANA EDUCATION SERVICE

Tel. No.: 0243230422
oforikrommunicipal@ges.gov.gh

In case of reply the number and date of this letter should be quoted

Our Ref: 11/6/VOL.1/13
Your Ref:

REPUBLIC OF GHANA

Oforikrom Municipal Education Office
P.O. Box UP815
Oforikrom – Ashanti
Ghana, W/Africa
10th November, 2021

HEADS
PUBLIC BASIC SCHOOLS
OFORIKROM-ASHANTI

PERMISSION TO CONDUCT FIELD WORK

Permission has been granted to Seyram Setordzi a Master of Philosophy student for Curriculum and Pedagogic Studies at the University of Education, Winneba who is conducting research on the topic ***"Implementing the Standards-Based Curriculum: Exploring Teachers' Experiences with Developing Core Competencies in Pupils".***

You are required to support her to make the exercise successful and ensure that he observes all the COVID-19 safety protocols when he visits the school.

DOROTHY OPARE-BAIDU (MRS.)
MUNICIPAL DIRECTOR OF EDUCATION
OFORIKROM

Ces:

All Circuit Supervisors, OfMED, Oforikrom-Ashanti.
Miss. Seyram Setordzi, UEW, Central Region.

University of Education,Winneba http://ir.uew.edu.gh

APPENDIX C

Interview Protocol Guide

Title of research: Implementing the Standards-Based Curriculum: Exploring Teachers' Experiences with Developing Core Competencies of Pupils.

Time of interview: _____

Date: _____

Place: _____

Name of interviewer: _____

Name of interviewee: _____

Introduction

- Introduce yourself
- Explain the purpose of the study
- Get the signature of the informed participant
- Describe the interview structure (audio recording, taking notes, etc)
- Ask if the participant has questions
- Define any necessary terms

Guiding question 2

What pedagogical approaches do teachers use in developing CC?

1. How has teaching changed since 2019?

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2. What is your knowledge about the core competencies as stipulated in the SBC?
3. What techniques or strategies are you utilizing to develop them?
    a. Are these new or old techniques and strategies?

Guiding question 3

How challenging has it been for teachers to develop CC in learners?

1. What factors indicate pupils have developed the CC?
2. In developing CC (collaboration and communication), what structures do you put in place to ensure this feature is achieved compendiously?

a. How about Critical thinking and problem solving?

b. Digital literacy? c. Creativity and Innovation? d. Personal development and leadership? e. Cultural identity and global citizenship?

3. How easy has it been for you in attempt to develop the CC?

Guiding question 4

How innovative has teachers been in implementing the SBC?

1. During the training section, what new concepts were you introduced to?
2. How does these new concepts facilitate the development of the CC?
3. What new strategies and techniques have you introduced in your teaching since then?
    a. How did you come to adopt these techniques and strategies?

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APPENDIX D

Coding Framework

Themes	Categories	Examples
New curriculum	Personal belief/perspective	It's because of the change of the new curriculum; it's the introduction of the new curriculum; The new curriculum has made the learners more creative.
Digitized	Pedagogical approach	Things are going digital and the things we teachers are doing are digitized; it was because of the new curriculum because now it's digital, get your phones and search for this information
TLMs	Instructional aids	You need to have TLMs, teaching-learning materials, (paused for 6seconds), some are recorded, flashcards; Using TLMs; for effective teaching; we use teaching learning materials.
Questioning	Pedagogical approach	few questions and exercises and things like that are given; I ask the questions in such a way that, they're not direct;

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Structures	Instructional aids	Also questions; Assigning roles like class prefects; that's under the creative arts; creative work and then groups
Curriculum demand	Personal belief/perspective	I'm going by the curriculum; I also have to change; They told us at the workshop
CC	Personal belief/perspective	basic things the learners should develop; expected goals or experiences that learners are to demonstrate after each lesson
Child-centered	Pedagogical approach	the learners are now teaching us; make the learner inclusive in the process; focuses on how a child constructs his own learning
PLC	Personal belief/perspective	PLC seeks to develop proper practices; teachers learn to teach

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APPENDIX E

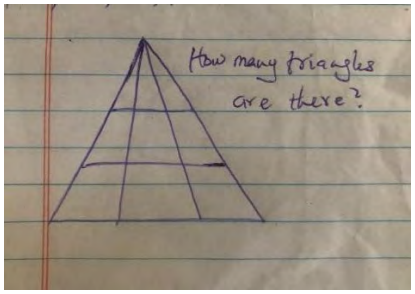

Figure 4.1, Source: Fieldwork 2022.

APPENDIX F

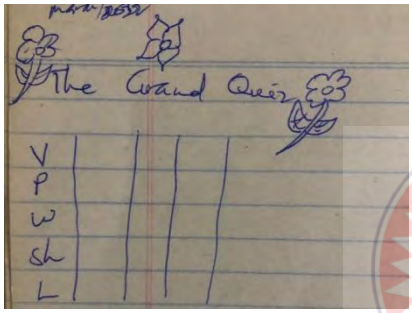

Figure 4.2, Source: Fieldwork 2022.

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APPENDIX G

Table 1: Pedagogical Approach for Developing the Competencies.

Pedagogical approach	Competency
Inquiry-based learning (questioning - Gholam, 2019).	Communication and collaboration Critical thinking and problem-solving
Assessment of student learning (homework, quizzes and exercises - Kapur, 2020).	Critical thinking and problem-solving
Experiential learning (tasks and/or projects – Kapur, 2020.)	Creativity and innovation (could have also developed cultural identity and global citizenship).
Collaborative approach (groups)	Communication and collaboration
Peer teaching and assistance	Personal development and leadership
Integrated approach (Peyser, Gerard & Roegiers, 2006)	Critical thinking and problem-solving
ICT supported learning	Digital literacy