UNIVERSITY OF EDUCATION, WINNEBA

EXPLORING THE ROLE OF HEADTEACHERS IN THE IMPLEMENTATION OF CAREER TECHNOLOGY CURRICULUM IN ACHIASE DISTRICT

RAYMOND MENSAH

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RAYMOND MENSAH
(8232090018)

A thesis 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)

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DECLARATION

Student's Declaration

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

Signature: ……..……

Date: …….

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines for thesis supervision laid down by the University of Education, Winneba

Prof. Samuel Asare Amoah PhD (**Principal Supervisor**)

Signature: .....

Date: .....

Dr. Simon Ntumi (**Co- Supervisor**)

Signature: .....

Date: .....

DEDICATION

This work is dedicated to my beloved sister Madam Jackline Mensah and my brother Walter Arhin all of blessed memories and not forgotten Mr. David Oti who was my special advisor.

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The development and completion of this work would have been impossible without the assistance of some important personalities. My first gratitude is extended to Almighty God for giving me life and strength and protecting me to complete this programme successfully.

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ABSTRACT

This study focused on the critical role that headteachers play in implementing the Career Technology Curriculum within the Achiase District of Ghana, particularly in efforts toward improving educational quality, school management, and integrating vocational and technical training into the Common Core Programme (CCP). Anchored in an interpretivist paradigm, this research adopted a qualitative multiple-case study approach where data was collected through semi-structured interviews that revealed significant findings. Data analysis involved thematic analysis, which allowed for identifying and interpreting repeated patterns, themes, and categories within the interview transcripts. Interviews with ten (10) public school headteachers revealed considerable challenges to effective curriculum implementation, mainly due to inadequate teaching materials and equipment. This inadequacy forces over-reliance on theoretical teaching, thus limiting opportunities for practical learning. Other challenges include time available for professional development and lack of interaction with the community, which work against the stated curriculum goal of equipping students with relevant skills for the workplace. However, headteachers showed resilience in terms of creating partnerships outside their schools and establishing cooperation in their schools, although the long-term viability of such efforts was always precarious. Based on the findings, there were calls for more resources to be allocated, professional development relevant to the local industry context to be enhanced, and involvement in the community to be strengthened. These measures were aimed at supporting stakeholders in realising more effective career technology education and preparing students for work readiness.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Implementing educational reforms has long been a focal point in the discourse surrounding enhancing national education systems (Fullan, 2015). In pursuing academic excellence and relevance, governments and educational authorities worldwide have introduced initiatives to foster innovation, critical thinking, and real-world application of knowledge (Stewart, 2012). One such initiative, the Common Core Programme, has emphasised standards-based education designed to prepare students for success in the modern global economy (So & Kim, 2013).

The Common Core Programme, originally developed in the United States, has been adopted by various countries to reform their educational systems (Senty, 2021). Ghana, in alignment with its commitment to improving the quality of education and aligning with global educational standards, has implemented the Common Core Programme in its schools(Addae-Kyeremeh & Boateng, 2024). This programme encompasses a set of rigorous educational standards that encourage higher-order thinking skills, interdisciplinary learning, and the integration of practical skills into the curriculum (Lyall et al., 2015).

Most countries have faced significant challenges in establishing a career-based curriculum with both vocational and technical education programmes. The major problems include inadequate funding, outdated infrastructure, limited access to qualified teaching staff, and a lack of connection between the curricular content and the industry's requirements (UNESCO, 2020). Additionally, policy framework differences, along with cultural attitudes towards vocational education, and the fast-

moving environment of technological changes add even more layers to the challenge of effectively carrying out CTE programmes (Alagaraja & Arthur-Mensah, 2013). Indeed, in developing countries, the inability of educators to obtain proper training, coupled with a lack of resources, has in many cases caused educational institutions to fall short of providing quality career-oriented learning experiences for learners (Webb, 2021). Notwithstanding these challenges, nations that have adeptly incorporated Career and Technical Education (CTE) programmes into their educational systems exemplify the capacity to effect societal transformation. For example, Germany's dual education system, which integrates classroom learning with practical apprenticeships, has received acclaim for cultivating a skilled and competitive workforce (Euler, 2013). In a comparable vein, Singapore's focus on technical and vocational education has played a substantial role in the country's economic advancement and the alleviation of youth unemployment (Tan, 2017).

The Common Core Programme (CCP) in Ghana is carefully designed for learners in JHS 1 to JHS 3 (Basic 7 to Basic 9) as part of a holistic learning experience that prepares them for post-secondary education, the world of work, or both (NaCCA, 2021). The rapid growth of technology and the dynamic nature of the labour market have altered how educational institutions around the world educate students for their future employment (Owusu-Ansah, 2024). In response to these changes, one learning area in the Common Core Programme (CCP) is Career Technology, which has emerged as an important component of current educational systems. This programme aim to prepare students with the skills, information, and competencies required to flourish in a fast-changing employment market (Kissi et al., 2020).

Similar to most countries, effective implementation of the Career Technology Curriculum in Ghana depends largely on support and guidance by educational institutions, especially focusing on the leadership role played by headteachers or school principals (Kitur, 2021). These leaders are responsible for guiding the teachers within their schools in a particular direction with the help of resources and leadership, which shapes the quality and effectiveness of education(Boateng, 2012).

The incorporation of career technology education, designed to equip students with the practical skills and vocational knowledge essential for readiness in the workforce, stands as a pivotal aspect of the Common Core Programme‘s implementation(Alagaraja & Arthur-Mensah, 2013). Career technology teachers are significant in delivering this specialised education, guiding students as they navigate the space between theoretical knowledge and its real-world applications. They are tasked with cultivating the abilities and competencies necessary for success across diverse career paths (Webb, 2021).

In Ghana, career technology often referred to as vocational or technical education in other nations encompasses a diverse array of courses and programmes designed to connect classroom learning with real-world applications (Afeti, 2018). It aims to prepare students for specialised careers or further education by equipping them with practical experience, industry-relevant skills, and a deep understanding of the workplace. The successful implementation of CT in schools hinges not only on curriculum and pedagogical approaches but also, to a large extent, on support and vision from educational leadership, especially headteachers(Takyi et al., 2021).

The aspiration of Career Technology resonates well with the objectives of the Education Strategic Plan (ESP) 2018–2030, which articulates Ghana‘s broad vision

and objectives for the Education Sector as it navigates towards the year 2030. To this end, ESP 2018–2030 provides a wide framework, illuminating the educational vision and aspirations of the Ministry of Education 2021 in clear terms and offering concrete strategies to realise these goals within the set period.

There is a real demand for Career Technology Education programmes in Ghana, just as in many other countries, to fully meet the needs desired by the labour market (Jackson, 2024). The country has recognised the role of Career Technology Education (CTE) programmes in ensuring its workforce is well-equipped with skills and knowledge that will enable them to compete in the globalised economy (Ministry of Education, 2019). In the educational landscape of Ghana, headteachers are located at a critical point in the educational environment and policy implementation at their respective schools(Donkoh et al., 2021).

However, it has not proven easy to bring career technology teachers together effectively and ensure that their teaching methods are in line with the overall goals of the Common Core Programme. These challenges include curriculum development, teacher training, resource provision, and understanding of the special needs that come with career technology education within the larger education system (Ghana Education Service, 2017). Therefore, an inquiry into what the headteacher does in putting the Career Technology Curriculum into action in Achiase District is essential to address these challenges and ensure that the Common Core Programme works effectively. These school leaders play a key role in creating the school environment, encouraging teamwork, and supporting career technology teachers (Abedi & Ametepey, 2024). A study of what head teachers do to implement career technology programmes would provide useful information on what helps or makes it difficult to

include technology in education. This, in turn, leads to better decision-making and improved methods for schools.

1.1 Theoretical Framework

The current study is based on three major theories: Bandura's social learning theory, proposed in 1977; the Organizational Learning Theory presented by Argyris and Schön in 1997; and Bass's transformational leadership theory, published in 2006.

Bass and Avolio formulated Transformative Leadership Theory back in 1994, which turned out to be a fashionable approach in leadership studies. In this approach, it focuses on inspiring and motivating followers to pursue a high level of performance. A headteacher is capable of using transformative leadership skills while applying a career technology curriculum in realizing a shared vision towards embracing career-oriented education into the cultures of the school (Bass & Avolio, 1993).

One critical aspect of transformational leadership is communicating an exciting organisational vision that motivates and inspires followers. Innovative headteachers influence to motivate teachers and students to become creative and try new approaches. The headteacher ensures that both teachers and students are well-resourced and guided in their respective aspirations through tailor-made support.

Embracing transformative leadership styles places headteachers in the forefront as key designers of successful curriculum implementation. This paradigm supports the creation of an enriching atmosphere where students feel motivated to explore their interests and reach their professional goals. Substantial research has found that transformational leadership is associated with improved student performance, teachers' job satisfaction, and increased overall organisational performance (Owusu, 2019).

In 1977, Bandura introduced the Social Learning Theory, asserting that individuals acquire new information through the observation, imitation, and modelling of behaviours exhibited by others (Bandura, 1977). Drawing on this theory ideas, on the other hand, headteachers can be role models for teachers and students, thus accelerating the acceptance of career technology education in the school system (Koutroubas & Galanakis, 2022).

Headteachers encourage all stakeholders, including teachers, students, and parents, to develop a career-oriented attitude by showing interest in how the curriculum is utilised and recalling the successful implementation of strategies in the past. In addition, the principle of social learning theory helps to promote and entrench the practice of continuous learning and development in the educational sector (Bandura & Hall, 2018). Headteachers create a conducive and nurturing environment by creating an interdependence of teachers, who are encouraged to learn from one another, thereby benefiting not only the teachers but also the students.

The Organisational Learning Theory, proposed by Argyris and Schön in 1997, describes how organisations acquire, comprehend, and use information to improve operational performance (Argyris & Schön, 1997). In the context of this study on career technology curriculum implementation in Achiase District, this theory appears to be a good tool for exploring how headteachers create institutional learning processes to strengthen curriculum implementation.

Headteachers who foster a culture of learning, experimentation, and reflection have the potential to dramatically improve their school‘s ability to adapt to changing conditions and successfully implement new educational initiatives. A thorough understanding of how organisational learning streams influence implementation

outcomes in the Achiase District may be gained by looking into factors such as leadership reinforcement, professional development opportunities, and feedback systems. The Organisational Learning Theory was also utilised in this study to investigate how the Achiase District's educational framework evolves and improves overall effectiveness. Analyses of how headteachers supervise organisational learning processes and build a culture of learning, experimentation, and reflection inside educational institutions would give information on the elements that influence the successful implementation of innovative curricula approaches.

In conclusion, using Bandura's Social Learning Theory (SLT) in conjunction with the theory from Argyris and Schön on Organisational Learning Theory (OLT) and Bass on Transformational Leadership Theory (TLT), one could understand the role played by headteachers in operationalising the career technology curriculum in Achiase District. Bandura's SLT strongly emphasises the importance of observational learning and modelling in shaping behaviour, which can be extrapolated to how headteachers model how teachers and students should adopt educational technologies. On the other hand, Argyris and Schön's OLT places great importance on the organisational structures that support continuous learning and adaptation, implying that schools should foster a culture of creativity and experimentation in the implementation of the career technology curricula.

Finally, Bass's TLT stresses the importance of transformational leadership in motivating followers to strive for improved performance. Indeed, it specifies that headteachers must possess visionary leadership qualities to realise career technology programme implementation. By rumination of these ideas, policymakers and educators can better envision how headteachers can lead career technology curricula

implementation in Achiase District schools by cultivating a culture of continuous learning, providing opportunities for observational learning, and fostering transformational leadership behaviours.".

1.2 Statement of the Problem

The Career Technology Curriculum (CTC) is an important part of education in preparing students for the dynamic job market (LaVorgna, 2020). Headteachers play a crucial role in the successful implementation of CTC programmes. However, there is a knowledge gap regarding the exact roles and challenges faced by headteachers in this process, particularly in the Achiase District of Ghana.

For the successful implementation of Career Technology (CT) in schools, teachers need fully supported structures, especially guidance and active participation of the headteachers (Chaudhary, 2015). However, the actual role of the headteacher was not clearly defined.

Career Technology is a practical subject centred on the acquisition of hands-on skills, as noted by the National Council for Curriculum and Assessment (NaCCA), Ministry of Education (2021). Nevertheless, numerous schools in the Achiase district, where Career Technology is offered, frequently find themselves devoid of the essential resources needed to support effective practical training in the subject.

Previous studies by Amedorme & Fiagbe, 2013, examined the issue of the implementation of vocational and technical education programmes in Ghana, while (Boateng, 2012) looked at the relationship between vocational and technical education and economic development. However, what is highly required is more studies on the

various challenges facing the meaningful integration of Career Technology (CT) in the Ghanaian education system.

Inadequate resources and training may hinder teachers from seamlessly integrating career technology into their practice (Hixon & Buckenmeyer, 2009). However, this research was conducted in Europe, and there is a need to examine it in the Ghanaian context.

In the Ghanaian setting, Career Technology is an amalgamation of two subjects, namely vocational and pre-technical skills and these were formerly taught by different teachers. In Achiase District, only one teacher is teaching the subject and most of them tend to favour one aspect of the subject, either technical or vocational, due to which some aspects are neglected in teaching the career technology curriculum. It is, therefore, necessary to explore how headteachers of various schools in the Achiase District, play their role in implementing the career technology curriculum.

Whereas researchers have contributed to the literature base in this area, there remains a gap in research and knowledge regarding the exact role headteachers played in assisting teachers in implementing Career Technology in the Common Core Curriculum. This study therefore sought to use a qualitative method to explore the role of headteachers in the implementation of the Career Technology Curriculum in the Achiase district of Ghana to add to knowledge in the literature.

1.3 Purpose of the Study

The primary goal of this study is to explore how headteachers contribute to the implementation of the Career Technology curriculum in schools within the Achiase District. By exploring the specific roles, challenges, and impact of headteachers in

integrating the Career Technology Curriculum effectively, this study aims to offer valuable insights to enhance the delivery of Career Technology education in schools across the district.

1.4Objectives of the Study

The study sought to:

1. Explore how headteachers implement the career technology curriculum in Achiase District.
2. Identify the support system put in place by headteachers to facilitate effective curriculum implementation in Achiase District.
3. Explain how the support systems help with addressing the career technology curriculum needs and issues.
4. Explore strategies that could be employed to enhance headteachers roles in effectively implementing career technology curriculum in Achiase District.

1.5 Guiding Questions

The following research questions guided the study

1. How do headteachers implement the career technology curriculum in Achiase District?
2. What support systems do headteachers put in place to ensure effective implementation of the career technology curriculum in Achiase District?
3. In what ways do the support systems put in place address the needs of career technology curriculum implementation in Achiase District?
4. How can the role of headteachers be enhanced to facilitate effective career technology implementation in schools within the Achiase District?

1.6 Significance of the Study

This exploration of the role played by headteachers in the implementation of the Career Technology curriculum within the Achiase District has important implications for enhancing quality education in Ghana.

The first aim of the study was to investigate how headteachers are putting the career technology curriculum into practice in the school setting. In so doing, it hopes to arm policymakers, educators, and curriculum developers with the insight needed to effectively introduce and integrate this curriculum into schools using the best strategies and methods. Through this process, the study is poised to uncover any gaps or challenges that must be addressed to guarantee successful implementation.

Secondly, it explores the various systems of support established by headteachers. This exploration enhances our understanding of the resources, structures, and networks that facilitate the effective execution of the curriculum. It is by acknowledging these mechanisms that the study seeks to inform future initiatives aimed at improving educational practices and, by extension, engendering improved outcomes for students. Additionally, the study tried to find out the challenge headteachers face in operationalising these support systems and proffer practicable solution suggestions for them.

Thirdly, a crucial element of the study involves assessing how effectively the support systems address the needs of implementing a career technology curriculum. By pinpointing both the strengths and weaknesses of these support mechanisms, this study aims to refine them to better accommodate the evolving requirements of a dynamic curriculum. Such an evaluation would enable headteachers to discern areas

for improvement and bolster the effectiveness of the support systems, ultimately benefiting all parties involved.

In addition, this study investigated how headteachers might develop their effectiveness in the implementation of career technology. It emphasized the important role of leadership in driving educational innovation and reform. The lessons learned from this study are of great importance to design professional development programmes, leadership training initiatives, and policy frameworks that would empower school leaders to advocate for educational change and raise the level of teaching practices. Also, it can help identify the leadership attributes that are needed to effectively implement the career technology curriculum.

The findings of the study are therefore helpful in guiding evidence-based decision-making and policy formulation, as well as educational practices aimed at improving career technology education not only in the Achiase District but also beyond. The study tried to provide a wide-based understanding of how the career technology curriculum plays out in practice and identifies areas that need improvement for successful implementation.

1.7 Delimitation of the Study

This study explored the implementation of the career technology curriculum at basic schools within the Achiase District. The study has specified some constraints to provide a focus and comprehensive inquiry. These boundaries helped to narrow the scope of the study, offering clarity and direction while also acknowledging realities.

To begin, the study only looked at schools in the Achiase District in the Eastern Region of Ghana. By limiting the geographic scope to this specific district, the study

delved deeper into the local context of career technology curriculum implementation. This technique allowed for a more detailed understanding of the issues and strategies unique to the Achiase District, while also keeping the study manageable in terms of data gathering and analysis.

Secondly, in terms of educational level, the study focused mostly on Junior High Schools. Junior High Schools are frequently a vital stage in which the career technology programme has been more widely introduced. In the context of this educational level, the study allowed for an in-depth investigation of the challenges as well as possibilities related to Career Technology implementation, resulting in a more detailed analysis within a manageable scope.

Thirdly, the study purposively sampled ten (10) Junior High Schools in the Achiase District and their respective headteachers. This selection process was deliberate and inclusive, considering a variety of situations and experiences within the district. The choice to limit the sample size to ten schools was purposeful, as it allowed for thorough investigations and detailed case studies of each school‘s implementation of the career technology programme. This approach allowed the study to acquire a more detailed knowledge of the challenges that schools experience while implementing the curriculum, as well as the support systems and the role of headteachers in the implementation process to ensure that data gathering and analysis remained feasible and accurate. By investigating these school‘s experiences, the study identified best practices and potential areas for improvement, which may then be utilised to inform policy and practice in career technology implementation.

Furthermore, the study was conducted in the English Language, the established medium of instruction in schools, while considering the cultural backdrop unique to

the Achiase District. Using English Language and taking cultural norms and practices into account, the study ensured that the findings were responsive to the Achiase District's specific environment. This technique increased the study's relevance and applicability in the local community, encouraging participants to engage and cooperate more.

3.8 Limitations of the Study

First and foremost, while this study provided lots of insight, it is highly imperative to note that there are still aspects it lacked, which future studies need to address. One of the main limitations is the small sample size from one district, which significantly impacts the generalisability of the findings. However, this is relatively overcome by making use of purposive sampling since participants can be selected based on their relevance to the research questions.

Another potential limitation was the issue of social desirability bias. This means that participants might express responses that are socially desirable rather than expressing their true opinions or experiences. In support, a combination of interviews is proposed in this study to reassure participants' responses openly and honestly.

Finally, the narrow focus of this study on headteachers' role in the implementation of career technology and limited data analysis may have been limiting. Besides, future studies might find usefulness in broadening their base to include other stakeholder groups, like students, parents, and teachers, in an extended research study to assess the full range of challenges relating to career technology. Since this study is an initiation on which studies in the future can be done, the investigators of such a study should be aware of these limitations and thus take the required steps to overcome them for better and more useful results.

1.9 Operational Definition of Terms

To aid in precision and conceptual clarity, the following key terms are defined:

Headteachers: In the context of this study, headteachers refer to the top-ranking academic administrators responsible for overseeing the implementation of educational policies, including the integration of career technology curriculum, within basic schools in the Achiase District.

Implementation: Implementation denotes the practical application and execution of the career technology curriculum by headteachers, encompassing actions taken to introduce, adapt, and integrate the curriculum into the educational processes and structures of schools in the Achiase District.

Career Technology Curriculum: Within the scope of this study, career technology refers to a comprehensive educational approach that combines theoretical knowledge, vocational skills, and experiential learning opportunities to prepare learners for specific careers or industries. It encompasses an integrated curriculum that equips students with relevant technical expertise, transferrable skills, and the ability to make informed career decisions within the Achiase District.

Common Core Programme (CCP): The Common Core Programme (CCP) is Ghana's standards-based educational framework for Junior High School (JHS) students, emphasizing interdisciplinary learning, higher-order thinking skills, and practical application of knowledge.

Vocational and Technical Education: Educational programmes designed to provide students with practical, industry-relevant skills for certain jobs or further education. In this study, it refers to Career Technology.

Exploration: For this study, exploration signifies an in-depth investigation and examination of how headteachers engage with, support, and drive the implementation of career technology curriculum, shedding light on their roles, challenges, strategies, and impact within the educational context of the Achiase District.

Role: The term ―role," as applied in this study, signifies the complex set of functions, responsibilities, expectations, and influences that headteachers assume concerning the implementation of career technology. It encompasses their leadership, advocacy, support, allocation of resources, collaboration with stakeholders, and overall guidance in promoting a conducive environment for successful career technology integration within the Achiase District.

Support systems: This refers to the resources, policies, and practices that headteachers put in place to ensure successful career technology curriculum implementation in schools within the Achiase district. This includes resource allocation, teacher training, and policy formulation.

Challenges: This pertains to the difficulties that headteachers face in executing the career technology curriculum in their respective schools within the Achiase district. This includes the inadequacy of resources, lack of support, and inadequate infrastructure, amongst others.

Effectiveness: Refers to how headteachers' instructional leadership and support systems contribute to successful career technology curriculum implementation in their respective schools. This includes the level of student skill development, the relevance of the curriculum to the job market, and the student's ability to apply technical skills learned in the classroom to real-life situations.

Education Strategic Plan (ESP) 2018–2030: Ghana's long-term education development strategy that prioritizes quality, equity, and compatibility with global educational standards.

1.10 Organisation of the Study

The entire study was organised into five chapters as follows;

Chapter One gives a general introduction to the study. it presents the background, the problem statement, the objectives and research questions of the study, its significance and scope, and the structure of the whole thesis.

Chapter Two reviewed relevant literature on the subject matter under consideration. Consequently, it presented the conceptual framework adopted by the study. It also reviewed empirical studies carried out on educational leadership issues and curriculum implementation in different jurisdictions.

Chapter Three provided the research paradigm, design, and sources of data. It also outlines the sampling procedure, which captures the study population, sampling technique, sample size, and distribution. The chapter also discusses the instrumentation, thus the type of research instrument(s) used, why they were chosen, and how they were designed. The chapter further explains the data-gathering procedure and the mode and instruments for data analyses, and finally, it presents the ethical issues considered.

Chapter Four analyses and presents the data gathered from the field. It also discusses the findings in relation to existing literature and evaluates the research questions. As the final chapter, Chapter Five summarises the key findings, conclusions and recommendations and ends with suggestions for further studies.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

2.0 Introduction

Implementing career technology programmes into the educational curriculum is essential for adequately preparing students for their future occupations and ensuring their overall success. However, this integration can only be achieved through sufficient support and guidance provided to teachers by school leaders, especially headteachers. The role of the head teacher in supporting the implementation of career technology curricula is very instrumental in ensuring that teachers have the knowledge, skills, and resources to provide career education to students effectively. Headteachers need to play an active leadership and guidance role to support teachers in the process of implementing career technology curricula. This literature narrative review attempts to search and assess the role of headteachers in implementing the career technology curriculum in Ghana, especially in the Achiase District. This review scrutinised the existing literature intending to highlight the gaps in knowledge and stress the need for more research in this area.

The review provided valuable information on good practices and strategies that headteachers can use to support teachers in delivering effective career technology curricula for students. By improving the standard of career education provided in schools, the review is expected to improve the success and growth of students' future careers. In accordance with the objectives of the study, the literature was examined under various subheadings to facilitate referencing.

2.1 Theoretical Review

2.1.1 Bandura's Social Learning Theory

Albert Bandura launched the Social Learning Theory in 1977 because people learn through observation and imitation as well as behavioural modelling (Bandura, 1986). The theory dwells on social interactions as critical factors in learning because educational environments depend heavily on leaders and instructors who determine student learning experiences.

Social Learning Theory indicates that as role models headteachers direct both educational staff and student personality and practice shifts toward career technology education (Koutroubas & Galanakis, 2022). Headteachers demonstrate a combination of enthusiasm with effective teaching tactics and dedication which creates should environments for implementing Career Technology curricula within educational systems.

2.1.2 Key Tenet of Bandura's Social Learning Theory

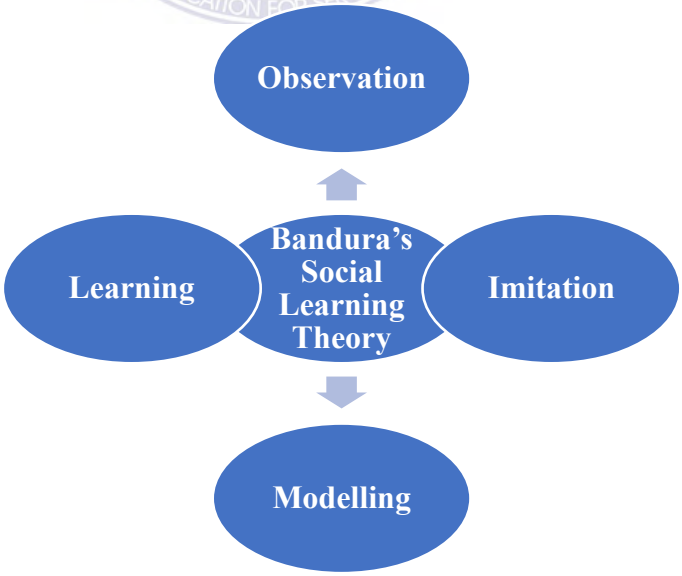

Figure 2.1: Key Tenets of Bandura's Social Learning Theory (Bandura, 1977)

2.1.1 Observation

In the first step of the learning process observation enables people to focus on behaviours that others demonstrate (Schunk & DiBenedetto, 2020). Members of the educational community monitor headteacher guidance methods as well as their curricular attitude toward career technology education. The level of active headteacher participation in career technology education either by taking part in classes, backing staff development initiatives or developing strategic educational plans determines how teachers and students value its importance.

2.1.2 Imitation

People conduct replication attempts of observed actions immediately after observation takes place. This process occurs in schools when teachers implement teaching methods which the headteacher demonstrated to them (Ormrod, 2016). Students learn different methods of problem-solving and hands-on techniques along with innovative solutions when they observe career technology lesson examples. The effectiveness of learners‘ ability to imitate depends on the extent these behaviours match their personal experiences and motivators while supporting the conditions of their learning environment.

2.1.3 Modelling

The practice of modelling exceeds simple imitation because students must take in new behaviours and use them automatically (Schunk & Zimmerman, 2012). Participatory headmaster support for career technology education functions as an exemplar of excellent curricular practice. Headteachers establish creative teaching methods by promoting teamwork which results in teacher motivation to adopt new teaching methods which creates an energetic learning environment for students.

2.1.4 Learning

Students reach their mastery level when they combine observation with imitation and modelling which results in improved educational experiences for teaching and learning (Bandura, 1997). Teachers practice their instructional strategies during this process to develop more engaging platforms for delivering career technology education. Students receive essential technical competencies from this process which makes them qualified for future technical careers. By employing Social Learning Theory principles strategically in their curriculum implementation headteachers ensure that career technology curricula become established successfully thereby making lasting improvements to education.

Through their application of Bandura's Social Learning Theory headteachers enable lasting improvements in both teaching methods and student involvement which leads to the successful adoption of career technology education in Achiase District. The theoretical framework when coupled with varying leadership and learning perspectives delivers complete knowledge about curriculum delivery alongside educational leadership.

2.2 Argyris and Schön's Organisational Learning Theory

Organisations gain operational effectiveness through knowledge acquisition, processing and application according to the Organisational Learning Theory created by Argyris and Schön (1997). The theory shows the ongoing learning patterns inside organisations while indicating their impact on decision-making and performance upgrades (Argyris, 1996). The Organisational Learning Theory gives important structure to this study which evaluates Achiase District's career technology curriculum

launch process through analysing headteachers' methods of developing institutional learning approaches for curriculum enhancement.

According to (Argyris, 1977), there are two basic types of organisational learning which include single-loop learning and double-loop learning. The concepts demonstrate how organizations handle their difficulties by modifying their tactics and incessantly improving (Fiol & Lyles, 1985)

2.2.1 Key Tenets of Organisational Learning Theory

Figure 2.2: Key Tenets of Organisational Learning Theory (Argyris & Schön (1997)

2.2.1.1 Single-loop Learning

Institutions practice single-loop learning through action and strategic adjustments to problems although they do not examine fundamental assumptions that drive those actions (Argyris, 1977). The learning process here aims to enhance operational performance but only addresses framework errors while leaving system structures unchanged (Levitt & March, 1988).

The educational practice of single-loop learning manifests during school changes to their instruction methods, assessment approaches and resource management without altering the fundamental structure of the curriculum. A headteacher responds to

student academic underperformance in specific subject areas by advising limited modifications such as updated teaching materials or plan changes. The changes implemented do not evaluate the core principles of the curriculum framework (A. Hargreaves & Fink, 2012).

2.2.1.2 Double-loop Learning

Double-loop learning facilitates profound reflection techniques which let institutions investigate their basic beliefs to drive transformational changes (Argyris & Schön, 1996). Educational institutions need to move forward from standard operational changes by evaluating their organizational policies together with educational philosophy frameworks (Senge, 1990).

Headteachers responsible for double-loop curriculum oversight assess what the current career technology curriculum provides students for their career advancement. Such contextual shifts produce substantial reforms by connecting emerging educational methods with advanced technologies and curriculum adjustments that comply with industry standards (Fullan, 2007). Double-loop learning requires the active involvement of teachers, parents and policymakers who collectively work to redefine education based on current student requirements (Leithwood, Jantzi, & Steinbach, 1999).

Argyris and Schön‘s Organisational Learning Theory serves as the basis for investigating Achiase District headteachers to identify their preferred learning approach for career technology curriculum implementation between single-loop and double-loop learning. The analysis of learning methods will show essential factors to achieve curriculum change success along with educational reforms.

2.3 Transformational Leadership Theory

Educational researchers and organisational studies have adopted the Transformational Leadership Theory which Bass and Avolio developed in 1994. Leaders inspire their followers after they empower and motivate them through high-performance goals aimed at building both individual and organisational development (Bass & Avolio, 1994). The essentials for creating an educational culture trained towards career-oriented learning which includes visionary leadership, motivation and innovation emerge as the core elements of transformational leadership. The transformational leadership practised by the school leader shows them to direct people collectively towards developing career technology education throughout school culture (Leithwood & Jantzi, 2000). Heads who administer these transformations make the curriculum more effective while assisting with the national push to give students applicable skills for modern-day workforces.

2.3.1 Key Tenets of Transformational Leadership Theory

Figure 2.3: Key Tenets of Transformational Leadership Theory (Bass & Avolio, 1994)

2.3.1.1 Visionary Leadership

The core competence of transformational leadership includes developing an effective vision that matches organisational targets as well as societal objectives (Bass, 1990). The educational role of visionary leadership requires headteachers to develop a direct path for career technology education which seamlessly integrates with school curricula and follows national educational guidelines (Ministry of Education, Ghana, 2018).

Such a strong vision unifies students and teaching staff to strive toward career preparedness by developing essential skills. Staff ownership grows through vision implementation which leads them to take an active part in curriculum execution. When teachers and students lack an established vision of career technology education they view it as an inferior subject to regular academic learning leading to insufficient implementation and student involvement (Hallinger, 2003).

2.3.1.2 Inspiration & Motivation

Through the practice of transformational leadership teams obtain inspiration and motivation through leadership that builds both self-assurance and enthusiasm for collectively reaching shared goals (Avolio & Bass, 2004). School headteachers need to create a stimulating learning space where teaching and student personnel can explore career technology education in a powerful environment.

Headteachers who extend their communication abilities with emotional competence and mentoring skills help develop teacher self-driven motivation toward innovative teaching methods, hands-on activities and student-focused educational practices (Leithwood et al., 1999). The involvement of motivated teachers creates better student

participation levels while increasing their engagement in career technology education subjects.

2.3.1.3 Innovation

Transformational leadership bases its fundamental principle on innovation through requirements for leaders to disrupt traditional practices and enhance creativity toward sustained institutional enhancement (Bass, 1985). Leaders who practice transformational leadership look beyond challenges to predict changes while supporting risk-taking practices and the creation of an organisation that embraces constant learning and adaptation according to Kotter (1996).

The career technology curriculum implementation requires particular attention to innovation because technology continues to evolve rapidly along with industry requirements and changing workforces (World Economic Forum, 2020). Through innovation, headteachers protect curriculum development from becoming obsolete by providing students with applicable skills needed for emerging labour market needs (World Economic Forum, 2020).

2.3.1.4 Educational Excellence

Transformational leadership seeks its final objective in accomplishing both exceptional educational results and student achievement according to Hallinger & Heck (1998). The implementation of career technology curriculum shows educational excellence through the successful curriculum-to-outcome framework which develops essential technical competencies and abilities.

By using visionary leadership techniques combined with motivational strategies and innovative methods headteachers can enact significant changes to improve curriculum standards and educational-employment linking. The technical and vocational

education sector of Ghana needs special focus because it serves as a vital key in tackling youth employment problems and training the workforce (World Bank, 2020).

2.4 Conceptual Review

2.4.1 The Common Core Programme (CCP)

The Common Core Programme (CCP) is an education programme that aims to have a uniform curriculum for all students in the country (Kanluoru et al., 2024). The programme was initiated with the goal of improving the quality of education and also to ensure that students acquire the necessary skills and knowledge that are required to be successful in the 21st century.

The Common Core Programme in Ghana has been noted as one of the prime influencers in the country's education sector. This is because, on behalf of the Ministry of Education, the National Council for Curriculum and Assessment (NaCCA) has been engaged in curriculum and assessment reforms to enhance the quality and relevance of learning experiences in pre-tertiary education institutions in Ghana. The Common Core Programme (CCP) is a culmination of the standards-based curriculum initiated in Kindergarten and Primary education since the 2019/2020 academic year. CCP is thus designed for learners at JHS 1 to JHS 3 (Basic 7 to Basic 9) and is tailored to provide holistic and quality learning that prepares them for later post-secondary education, work options, or both. A character-building and values curriculum ensures seamless progression for all JHS learners, creating clear pathways into academic and career-related programmes. This is corroborated by (Donkoh et al., 2021), who stated that the introduction of the Common Core Programme was to eliminate the differences in educational standards around the world. The authors highlighted that the programme was developed to have a more uniform and rigorous

curriculum that focuses on acquiring the 4Rs - Reading, wRiting, aRithmetic, and cReativity, as well as core competencies. This initiative will equip learners with the ability to apply their knowledge innovatively to solve everyday problems.

Figure 2.4 depicts the Common Core Programme's different features. These characteristics include learning and teaching methods such as core competencies, the 4Rs, and pedagogical techniques. The programme also includes the learning context, which consists of an engagement service and a project. Finally, the programme covers mathematics, science, computing, languages (English, Ghanaian, French, and Arabic), career technology, social studies, physical and health education, creative arts and design, and religious and moral education (Ministry of Education, 2020).

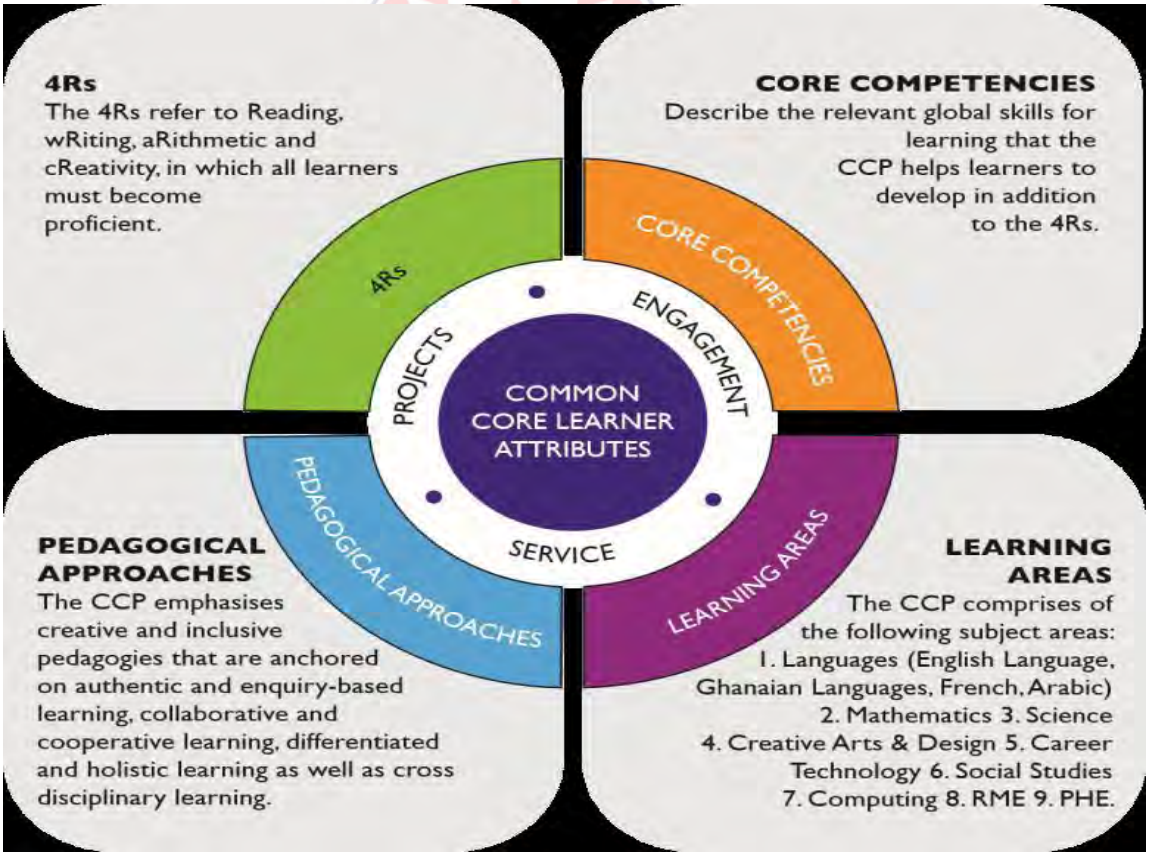

Figure 2.4: Common Core Programme's different features

Source- ©2020 National Council for Curriculum and Assessment (NaCCA). Career Technology Curriculum.

The Common Core Programme (CCP) focuses on the development of critical competencies in students beyond the basic 4Rs—Reading, wRiting, aRithmetic, and cReativity. These core competencies are intended to nurture a broad range of global skills crucial for functioning well in contemporary society, such as critical thinking, problem-solving in complex situations, innovation, effective communication, collaboration with others, digital literacy, and cultural and global awareness (Ministry of Education, 2021). Learners are encouraged to pursue lifelong learning with a strong focus on personal development, which will empower them to easily adjust to and succeed in an ever-changing world.

CCP pedagogical approaches underline the importance of creative and inclusive teaching approaches that embrace authentic and inquiry-based learning experiences(So, 2013). By emphasizing collaboration and cooperation in learning, differentiated instruction, holistic learning, and interdisciplinary connections, these approaches cater to all possible learning styles and cultivate in-depth knowledge of complex ideas.

At the heart of the Common Core Programme are the 4Rs: Reading, wRiting, aRithmetic, and cReativity, thereby providing the foundation for academic excellence and holistic development. Mastery of these basic skills is quite very essential for students since they build a strong academic foundation that fosters their cognitive development, creativity, and problem-solving skills in various fields.

The CCP, through the integration of global skills development, pedagogical methodologies, and concentrated emphasis on the 4Rs, will arm students with the indispensable tools necessary for academic and professional success within an increasingly dynamic global context. For a summary perspective, the literature throws

sufficient light on the critical importance of the Common Core Programme in Ghana's educational framework and its bearing on preparing students for careers in technology-related fields.

2.4.2 The Concept of Career Technology

The Career Technology Curriculum is designed to make technical and vocational subjects more appealing and focused on achievement for Ghanaian students (NaCCA, Ministry of Education, 2021). This programme ensures the proper and adequate delivery of all courses to fully equip students with the knowledge, attitudes, and skills necessary for teaching Career Technology lessons competently(McQueen, 2021).

The effective Curriculum implementation is based on the provision of necessary content. Its main features are Strands, Sub-strands, Content standards, Learning Indicators, and Exemplars. These terms and concepts are meant to provide a clear understanding of the Curriculum and to facilitate the teaching and learning of Career Technology in a changing manner (NaCCA, Ministry of Education, 2021). The Career Technology Curriculum seeks to enhance and unify the learning experience across diverse environments, including classrooms, workshops, worksites, laboratories, and communities. Its objective is to guarantee the successful acquisition of career skills(Kornblum et al., 2018).

The focus has been on establishing the basics of exploring and comprehending the world's scientific and technological aspects, which has paved the way for pursuing higher education in the field of Career Technology and technology-related studies. This has been emphasized by the Ghana Education Service in 2019. The curriculum also outlines how students should be motivated to use Career Technology courses to

interpret events, forecast behaviour, and investigate the reasons and origins of things as well as how our surroundings are made (Yangben & Seniwoliba, 2014)

The Career Technology Curriculum involves the expected outcomes of education as determined by NaCCA and the Ministry of Education in 2020 for easy progression to other higher levels of education among learners. The main purpose of Career Technology is to develop scientific and technological literacy in individuals so that they may attain the necessary development attitudes for sustainable development (Fontana & Siriwichai, 2022). Career Technology is a Technical and Vocational subject that has been carefully designed to provide learners with comprehensive and deep-seated knowledge in various technical and vocational career fields. It imparts a hands-on and minds-on training approach to motivate learners to adopt Career Technology as a way of life(E. Hargreaves & Rolls, 2021). The direction taken in this subject area is exposing the learner to practical and theoretical knowledge, which becomes very essential in the technical and vocational streams. Through Career Technology, learners can gain the skills and knowledge necessary for the pursuit of their career aspirations. This subject is very instrumental in prepping learners for the changing needs of employment and equipping them with the skills needed in the future. In light of the study‘s objectives, head teachers are crucial to the implementation of the career technology curriculum. They are the instructional leaders from planning to execution. According to research by (Ansaah et al., 2024), successful curriculum implementation is pegged on effective leadership. Suppose the headteachers of the Achiase District are to make sure that the career technology curriculum is smoothly integrated into the school‘s curriculum, they have to play their role in strong leadership capability, which includes collaborative work with teachers as well as stakeholder involvement.

The establishment of strong school support networks is quite vital for the headteachers to ensure that the career technology curricula are implemented successfully. According to (So & Kim, 2013), teachers require professional development opportunities that will help them improve their teaching. Headteachers can strengthen teachers' skills and knowledge through regular training sessions, workshops, and mentoring programmes to enable them to implement the career technology curriculum properly.

The support mechanisms designed by the headteacher should directly focus on the unique needs arising from career technology curricula implementation. This collaboration between industry partners and community members, as suggested by (Fullan, 2015), enables headteachers to align curriculum implementation with the market's current demands. In involving stakeholder input and forging partnerships, headteachers are assured that their curriculum is attuned to the dynamic changes in the workforce, preparing students relevantly with skills and knowledge that are fitting.

In the final analysis, the enhancement of the headteacher's role in the facilitation of effective career technology implementation is truly multifaceted. (Dinham, 2007) cited the need to create a culture of innovation within educational institutions to move with changing educational landscapes. Headteachers can enhance their role by encouraging a growth mindset, allowing exploration of new methodologies in teaching and technology, and starting a supportive atmosphere that enables change. Through proactive identification of emerging trends and encouraging continuous improvement, headteachers can adequately ensure that the career technology curriculum is successfully implemented in the Achiase District.

2.4.3 Career Technology Implementation

The Career Technology Curriculum is intended for one teacher to manage, although two or more teachers will initially be needed to handle the subject. This is because the teachers must receive training to manage both the curriculum's Home Economics and Pre-Technical Skills aspects. (NaCCA, Ministry of Education, 2021).

It is hoped that effective in-service training and pre-service training will be organised for teachers to be able to individually handle the subject effectively (NaCCA, Ministry of Education,2021).

It is recommended that Metropolitan/Municipal/District Directors of Education (MMDDE) ensure that each school has at least two teachers who are capable of effectively teaching the subject. This will be necessary until CT teachers are sufficiently trained to handle the subject efficiently and independently. (NaCCA, Ministry of Education,2021).

The current research on the implementation of career technology in diverse educational settings has highlighted various challenges faced by teachers. One major challenge identified in the existing literature is the lack of adequate resources and training, which can hinder educators from effectively integrating career technology into their teaching practices (Mahera Shoaib, Nimrah Ayaz, 2021). This challenge suggests that teachers may struggle to access the necessary tools and materials to teach career technology effectively. Moreover, inadequate training may limit teachers' knowledge and skills in utilising career technology tools and platforms.

To address these challenges, further research is needed to gain a deeper understanding of the specific resource and training needs of teachers implementing career technology in diverse educational settings. This research can help identify potential

solutions that enable educators to overcome these challenges and successfully integrate career technology into their classrooms. By exploring effective strategies for aligning career technology with existing curricula, researchers can provide insights into how educators can seamlessly incorporate career technology into their teaching practices (Yangben & Seniwoliba, 2014). Additionally, personalised learning approaches tailored to different student populations should be explored to ensure that career technology is effectively utilised by all students.

2.5 Empirical Review

2.5.1 Teacher support

The professional development and support of teachers in the implementation of career technology would be of great importance for the effective integration of technology into the classroom. Much more research is needed to fully understand the types and formats of support that are most effective (Abedi & Ametepey, 2024). Thus, this very imperative has been responded to by several research studies in an attempt to explore professional development and educator support‘s multi-dimensional aspects as applied in the performance of career technology. Several studies are invested in the identification of methodologies and strategies that will amplify teacher efficacy for the benefit of students. Among such are the importance of professional development and continued support for teachers who are implementing career technology(Abakah, 2023). The authors develop the argument that although such support is viewed as important, there lies a gap in in-depth research on the kinds and forms of support that would yield the most positive effects. The effectiveness of professional development programmes primarily depends on their relevance to the needs and preferences of teachers.

Research indicates that personalised professional development opportunities, which are specifically tailored to the individual skill levels and interests of teachers, have the potential to enhance their confidence in effectively utilising technology (Van Vugt & Smith, 2019). Furthermore, collaborative professional development models have demonstrated considerable promise in aiding teachers with the implementation of career technology(Doty, 2024). Collaborative approaches entail the establishment of communities of practice, whereby teachers can share experiences, exchange ideas, and collectively address challenges associated with technology integration (Ramaka, 2020). In addition, continued support is required to maintain the effects of professional development. The support can be in various forms, such as coaching, mentoring, or even just access to online resources. Research showed that the teachers, through continuing support, consolidated their learning and could apply new strategies in their classrooms(Ansong et al., 2017). While useful in establishing the critical nature of professional development and ongoing support for teachers in implementing career technology, much more research is needed to identify effective types and formats of support. Future research should investigate the impacts of various support structures, like mentoring or online community forums, on the confidence and competence of teachers and how that impacts classroom implementation(Doty, 2024).

Further research is also justified to find the influence of support given by instructional leaders, instructional coaches, and education technology specialists working collaboratively in facilitating career technology integration (Otchi, 2013).

2.5.2 Role of Headteachers

The role played by headteachers in facilitating the integration of career technology is very instrumental for effective implementation. The available literature recognises the headteacher's importance in this aspect, but further research is needed to unearth the exact leadership strategies that headteachers use to encourage successful implementation (Coffie et al., 2023). The present study discusses the roles played and activities implemented to support career technology integration by headteachers. The roles include communication, building a shared vision, provision for professional development, knowledge, and understanding of career technology(Khan & Markauskaite, 2018).

Effective communication is a basic ingredient of the headteacher's role in integrating career technology. Headteachers have to establish open lines of communication with teachers, students, parents, and all other partners involved in the implementation process. In so doing, clear expectations will be provided to the involved parties through guidance, feedback, and encouragement of collaboration among all of them. This would allow the headteachers to easily facilitate career technology integration into the curriculum(Kornblum et al., 2018)

Establishing a shared vision stands as another vital responsibility of headteachers. They have to articulate a clear vision of how career technology should be integrated into the school community. This effort encompasses aligning the goals and objectives of the school with the prospective benefits of career technology, such as increased student engagement, improvement in learning outcomes, and preparedness of students for entry into the world of work (Hallinger & Heck, 2011). They do this by creating a shared vision whereby the headteachers can motivate teachers and other staff members to participate in the implementation process.

It is therefore very important to put in place professional development opportunities tailored to address teachers‘ unique challenges in implementing career technology. The school leaders ought to support teachers with more training to enhance their knowledge of and skills related to career technology. Such professional development may be in the form of workshops, seminars, collaborative efforts with peers, or mentoring programmes focusing on effective technology integration in methodologies of teaching (Clapp-Smith et al., 2019).

The knowledge and understanding of career technology on the part of headteachers is also a critical determinant in their ability to support teachers. Headteachers who are informed about the latest developments, trends, and best practices in career technology can ‗guide‘ and ‗help‘ teachers in this regard. They can provide solutions to any problems or complications arising through the implementation processes, hence ensuring that teachers are well-resourced and supported in order to make them successful in integrating career technology into their classrooms (Adu-Agyem & Osei-Poku, 2012).

In summary under this heading, headteachers play a very important role in the support of career technology implementation. They should apply proper communication techniques, set a common vision, develop professional growth opportunities which are designed to meet specific challenges and have knowledge of expertise in career technology. Headteachers will be able to offer appropriate leadership and support for implementation by doing this.

2.5.3 Teacher-Headteacher Collaboration

Collaborative relationships between teachers and headteachers are generally recognised as a key prerequisite to effectively implementing career technology in

schools. However, there is a general lack of comprehensive research studies that investigate the particular elements and dynamics of effective collaboration in this setting (Kamaruzaman et al., 2020). Such a gap should be filled in further studies that attempt to give answers on how collaboration between teachers and headteachers could be fostered through mechanisms and strategies.

Another critical aspect of effective teamwork is joint planning. Teachers and headteachers can ensure that the incorporation of career technology into the curriculum is focused on educational goals and respondents to learners‘ needs through joint planning(Baker et al., 2006). In joint planning, the expectations, resources, and timelines are well understood, thereby leading to better implementation. Professional learning communities can be viewed as a keystone in fostering collaboration among educators and school leaders. These communities provide the avenue for teachers to come together, share experiences, and learn in a collaborative environment while developing common ground in understanding how to use career technology effectively within the classroom (Harris & Jones, 2019).

Similarly, professional learning communities will allow educators and school leaders to share ideas, discuss problems, and collaborate on the creation of solutions to strengthen career technology integration. Another important component of any effective collaboration is the feedback sessions themselves. Regular feedback from each other among educators and school leaders serves to constantly reflect and sharpen their approach to implementing career technology. Constructive feedback might be guidance on their practice and insight into how to improve educator‘s support for student's learning needs(Cheng et al., 2025). Future research should be carried out in order to investigate possible influences of collaborative decision-

making processes between teachers and headteachers on the sustainable implementation of career technology. When teachers are involved in decisions about the adoption and usage of career technology, it creates a sense of ownership and, in turn, increases their commitment to the successful implementation of such technology. Involving teachers in decision-making processes allows head teachers to tap into the teachers‘ knowledge, ensuring that career technology finds a place in the education environment.

In all, effective collaboration between educators and headteachers is a requirement for the successful implementation of career technology. The major strategies for creating a collaborative environment for classroom integration and sustaining it over time are joint planning, participation in professional learning communities, feedback sessions, and collaborative decision-making processes.

2.5.4 Impact on Student Outcomes

Integrating career technology into the educational framework has been seen to impact student outcomes positively. The literature shows this to be the case, although further research is required to identify specific skills and competencies gained by students in career-oriented learning experiences (Alldred et al., 2018). Longitudinal studies that show the long-term benefits of career technology integration in preparing students for post-education and success in the workforce are also needed (Sundari, 2024).

In career technology programmes, students get involved in activities that give them hands-on skills and knowledge about their future careers. The activities will enable students to develop technical expertise and problem-solving and critical-thinking skills (Miri et al., 2007). Many of these programmes are designed with internships or cooperative education experiences that provide students with the opportunity to gain

practical experience and build professional networking opportunities in their chosen careers. One of the great benefits of career technology integration is the ability to help students become more engaged and motivated. When students find the learning experiences relevant and meaningful, they are much more likely to become fully engaged in their education. Such developments can lead to improved attendance, increased classroom participation, and better academic performance.

Besides, career technology programmes can help students acquire essential employability skills. These include communication, teamwork, time management, and flexibility. By emphasising these competencies alongside technical knowledge, career technology really prepares students to become successful employees (Anane, 2013).

In addition to the immediate impact on student outcomes, career technology integration may also have long-term benefits. Students in career-focused programmes are generally better prepared for the transitions that occur when they leave school. They have clearer views of their career goals and paths, which may lead to smoother transitions into college or the workforce (Kendrick, 2024). Additionally, career technology programmes can help reduce the skills gap in industries that require specialised knowledge. Such programmes bridge the gap between educational attainment and industry needs by equipping students with the necessary technical skills.

In a nutshell, the incorporation of career technology in educational institutions impacts student outcomes positively. It enhances student engagement, develops practical skills and competencies, fosters employability skills, and prepares students well for transitions after school. However, further research is required to look into the

specific competencies developed from the career-oriented learning experience and the long-term benefits of infusing career technology.

2.5.5 Challenges Faced by Teachers:

Integrating career technology into the curriculum gives students huge benefits by arming them with crucial skills and knowledge relevant to thriving in the modern-day workforce. However, some teachers find it very challenging to execute due to various barriers that will be placed in their way. A qualitative article that was published in 2019 by Johnson and Smith investigates challenges faced by teachers while trying to integrate the use of career technology. The research showed that teachers, on a regular basis, face obstacles related to lack of resources, resistance to change, and training. These can significantly hamper a teacher's ability to appropriately integrate career technology into their teaching methodologies. Resources are also a key challenge to teachers since they need to have access to technology, software, and equipment in order to be able to deliver career technology education effectively (Venable, 2010). The resistance to change is also another challenge that the teachers face, especially because some students and parents will resist changing pedagogical methods. The transformation of policies in education has built up an institutional culture whereby teachers and administrators become change agents(Carse, 2015). He indicated that, if the teachers are to be change agents, then they have to adopt sustainable reform and get exposed to the sustainable concepts of career technology integration to achieve the reform goals.

Teachers must also exhibit confidence and motivation when applying new skills and strategies aimed at educating students about sustainability(Merritt et al., 2018). Educators who are receptive to change are particularly concerned with the methods of

implementation and the support provided. Fullan's (2007) model of change examines the actions and thought processes of teachers in their efforts to positively impact the lives of their students. Fullan (2007) expressed the need for teachers to accept change. Teachers who alter their teaching practices or curriculum materials need to have the ability to see what their students need and to seek the help and training needed to develop appropriate strategies for integrating career technology (Fullan, 2015). Fullan (1994) explained that in the process of implementing reform, both teachers and administrators have to see the possibility of a constructive change in their respective educational institutions. Administrators, as change agents, are stakeholders in the success of students and the school; further, a shared commitment to improving student learning between teachers and administrators enhances the likelihood of successful change (Fullan, 1994). In addition, lack of training is a common barrier that can prevent teachers from having confidence in their ability to use career technology in the classroom effectively.

It is important to address these issues for the successful incorporation of career technology into the education system. Teachers need resources and training to surmount these obstacles and integrate career technology into their pedagogical practice. Overcoming these, teachers will be able to equip students with competencies that are crucial for succeeding in today's workplace and prepare them for life.

2.5.6 Support Systems Provided by Headteachers for Effective Implementation

Leadership is a collective act which entails motivating, influencing, and guiding other individuals towards the achievement of organisational goals (Thamarasseri, 2015). The success or failure of any undertaking heavily relies on how effectively the leader works (M. Anderson, 2017). The area that feels the heavy need for leadership in the

educational sector is in implementing instructional change. School leaders play a critical role in helping teachers equip themselves with the necessary tools and resources for integrating career technologies (Puzio et al., 2015). It would also help if school leaders could get a sense of what the experiences were for CTE teachers in having to incorporate career technologies into their curriculum, building a comfortable and non-threatening environment where colleagues learn the necessary skills and strategies (Kollár et al., 2023). Career technology teachers are very important since they help the students to be career-ready by the time they finish Junior High School in Achiase District.

The multiple support systems of this career technology implementation include professional development opportunities and mentorship programmes, collaboration structures. Professional development can be one avenue through which teachers obtain the skills and knowledge to implement career technology (Garcia & Thompson, 2019). Mentorship programmes are an important element in the support process for teachers, where pairing them with experienced practitioners gives way to guidance and development of their profession. Collaborative frameworks, such as professional learning communities, give teachers a conduit for peer support, sharing of practices, and problem-solving activities done in a collaborative way. These support systems address the unique challenges associated with the implementation of career technology in promoting on-going learning, facilitating resource sharing, and easing teacher isolation (Smith & Johnson, 2016). In all, the implementation of career technology is a complex process involving building different support systems important for successful implementation.

2.5.7 Benefits Experienced by Teachers Due to Headteacher's Support

Teachers who feel strongly supported by headteachers while introducing career technology reap numerous benefits. Chief among these is a gain in confidence and job satisfaction, which increases teacher retention (Olsen & Huang, 2019). A study carried out by Frankfort-Nachmias, C., Leon-Guerrero, A., & Davis, G. (2019), shows that teachers who received quality support from their managers were highly satisfied with their jobs and were more likely to continue working at the same place for a longer period of time.

The support of headteachers affects teacher-student engagement positively since it creates various opportunities for real-life learning experiences and allows the integration of real-world applications into classroom activities (Mudavanhu, 2016). This will make the students more interested and motivated to learn, which later on yields better performance from them. A study conducted by Barr and Jason J. in 2016 found that when educators received this form of support, they were enabled to design more significant learning experiences for their students, which in turn led to greater levels of engagement and created a more positive learning climate.

Moreover, teachers who adopt career technology report that it advances their professional development because it enhances their skills, knowledge, and teaching methodologies. This follows the fact that for teachers to implement technology inside the classroom, there is a need to gain new competencies in areas such as adopting new teaching approaches and pedagogies. Hamilton and Boni (2022) found that teachers who received support in integrating career technology saw their confidence in their teaching abilities increase, which made them more likely to adopt new pedagogical approaches.

Ultimately, support by headteachers during the Career Technology implementation process leads to a positive effect on student's overall outcomes. Hughes, Deirdre, and Graeme Smith (2020) noted that this support helps students in better academic performance, preparation for careers, and transitions to post-secondary education(Hughes & Smith, 2020)Therefore, students using career technology in the classroom are well prepared when entering the workforce and are more often found in the pursuit of higher education. In general, the support provided by headteachers in implementing career technology has been helpful to both teachers and learners.

2.5.8 Challenges Faced by Headteachers in Supporting Teachers

Headteachers have a very important part to play in ensuring that teachers are properly equipped to incorporate career technology into their classrooms. However, this is no easy task, as there are many challenges that they have to face. One of the most outstanding challenges is the inadequacy of resources that are at their disposal to make these programmes successful(Chuene & Teane, 2024). For instance, lack of funds for equipment, technology, and training opportunities can be a big challenge. This situation may present barriers to providing teachers with the necessary resources and professional development needed to successfully integrate career technology. As a result, headteachers are compelled to think out of the box to become resourceful in overcoming these barriers and in supporting their teachers in this very important task (Hutchison & Woodward, 2018). Headteachers often face challenges in implementing career technology in their schools, mainly due to resistance shown by the teachers themselves, who might be sceptical about its benefits (Robinson, 2011).

For instance, headteachers have to establish motivation among teachers and seek their buy-in in order for the implementation to be successful. However, this can become

very challenging because it requires both time and dedication, which can be especially difficult for already overloaded headteachers, as noted (Adams, 2024). These challenges notwithstanding, they must be overcome to ensure the effectiveness of the support systems, enhancement of teacher motivation, and ultimately, the overall success of career technology integration in schools, as emphasised by García et al., 2022. Therefore, headteachers need to find ways to provide ongoing support to their teachers while at the same time ensuring that they remain motivated and keen on embracing new technologies in the classroom. Headteachers play a quintessential role in the implementation of career technology in a successful manner within educational facilities. However, they equally receive resistance from educators not willing to adapt to technologies. This means that in order for the headteacher to guarantee successful implementation, he needs to begin by motivating teachers and attaining buy-in, just as pointed out by Miller & Smith, 2017. However, providing the necessary ongoing support will require dedication and the setting aside of time, which may all be very challenging for already-overloaded headteachers. This barrier must be surmounted for support systems to continue in effectiveness, teacher motivation maintained at a high level, and for the overall integration success of career technology within a school, as observed by Adams & Johnson in 2018.

Therefore, headteachers will invest time and effort in building an innovative culture and an environment for continuous learning within their schools. This could be achieved by providing teachers with more frequent training and professional development opportunities, alongside a supportive environment that will encourage experimentation and risk-taking. With such activities, the headteachers can help build a positive attitude towards career technology and keep the schools ahead in innovation in education.

2.6 Chapter Summary

Literature was reviewed in Chapter Two of the study to explain the crucial role played by headteachers in supporting teachers in implementing career technology programmes in schools within the Achiase District of Ghana. The review covers several subheadings, which include the Common Core Programme (CCP), the concept of career technology, career technology implementation, teacher support, headteacher's role, teacher-headteacher collaboration, impact on students, challenges faced by teachers, support systems put in place by headteachers, benefits accrued by teachers due to headteacher support, and challenges faced by headteachers in supporting teachers.

The review highlights the important role of headteachers in guiding and supporting teachers during the implementation process. Among the essential factors include communication, shared vision, opportunity for professional development, and expertise in career technology are mentioned, all of which are indispensable in ensuring success. The review further notes the various challenges that both teachers and headteachers face in implementing career technology, such as resource constraints, resistance to change, and inadequate training.

The literature suggests that supportive systems such as professional development programmes, mentorship opportunities, and collaborative structures may help to surmount the challenges in order to realize successful implementation. Moreover, positive integration of career technology has an impact on students' outcomes: increased engagement and motivation, academic achievement, employability skills, and career readiness.

In conclusion, the analysis indicates the headteacher's importance in addressing challenges associated with implementing career technology while being committed to the development of an innovative and continuous learning culture. Headteachers play a key role in the successful implementation of career technology programmes for the improvement of students' outcomes and employability through offering support to teachers.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter examines the methodological framework adopted in the qualitative research study that sought to explore headteachers‘ role in the implementation of the career technology curriculum in the Achiase district. Consequently, this chapter provided a detailed understanding of the underlying justification and assumptions on which the research was based. The research design is also presented, including the researcher‘s role within the study, which explains the approach adopted in the research. This chapter also identifies the selection criteria for the site and sample, justifying why the data-gathering techniques adopted were used. The interview guide, as well as the procedures for managing and recording data, is elaborated in detail. In addition, ethical considerations are fully debated in light of protecting those participating in the research.

The discussion about the trustworthiness, credibility, confirmability, and transferability of research is included in order to enhance the validity of the study. Finally, the end of the chapter presents the data analysis reviewed and an examination of the study‘s limitations. Also, a summary is included to give an overview of the key issues discussed in the chapter.

3.1 Research Paradigm

The term paradigm was initially coined by Thomas Kuhn, who referred to it as a set of concepts, variables, and problems, together with related methodological techniques and tools (Dash, 2005). Some writers describe it as a worldview (Creswell, 2009), as it represents the way they view their reality and the essential nature of their studies.

Some individuals perceive it as a framework of beliefs that assists researchers in comprehending and examining the world (Denzin & Lincoln, 2003). A clear definition states that it is ~~"a~~ basic set of beliefs that guides action" (Guba, 1990, p. 17, as cited in Creswell, 2009). A paradigm exemplifies how a researcher interprets the world, embodying their understanding of existence and goals in the pursuit of knowledge (Cohen et al., 2009). The beliefs held by researchers greatly impact and shape them in choosing specific approaches and methods.

This is particularly relevant to this thesis, as it forms the basis for achieving the objective of studying complex dynamics surrounding the leadership role played by headteachers. It would allow for an all-encompassing view into the lived experiences of the head teachers in relation to the implementation of the career technology curriculum.

This study applies the interpretive paradigm, where the world is understood through beliefs based on the experiences of humanity (Cohen et al., 2009). This would enable the researcher to seek experiences of headteachers and their interpretations of their duties in curriculum implementation. Researchers conducting studies within the paradigm strive through their work to enter the perceptions of individuals so as to ultimately understand an individual's perception. The objective is to understand how headteachers perceive their roles and challenges while implementing the changes so that the researcher can draw subjective meaning from the various experiences and perceptions of these school leaders (Creswell, 2009).

In the current study, the interpretive paradigm recognizes that headteachers' views and conceptualizations about the implementation of the career technology curriculum can be diverse based on their individual contexts and experiences. According to Denzin

and Lincoln (2003), interpretive paradigms allow researchers to formulate questions and build interpretations based on data collected while respecting the diversity of perspectives related to social realities (p. 245). In the light of the Achiase District, this study looked into how perceptions and beliefs held by headteachers affect their strategies in implementing the career technology curriculum. This inquiry will contribute to a deeper understanding of their vital role in shaping educational outcomes.

3.3 Research Design

A qualitative research approach was sufficient for an in-depth understanding of headteachers‘ roles in the implementation of career technology curricula in the Achiase District. According to Merriam, 2009, the kind of methods to be applied in conducting the study is dependent on the questions that form the basis for the research, while qualitative methodology suits qualitative research (Merriam & Tisdell, 2009).

According to (McKeown & Thomas, 2013), the research should start with the research question. The researcher ‗should be ‗the servant of the research question, not its master‘‘ (Thomas 2013, p 116). The method and design are appropriate with respect to the problem and research questions. According to Denzin and Lincoln (2013), a qualitative study is ‗an activity of the observer in the world and involves a set of interpretive, material practices that make the world visible.

Qualitative research helps the researcher to define the meaning that people have about their experiences. Qualitative researchers are concerned with the interpretation by participants of life experiences and the construction of their worlds. Qualitative researchers, therefore, study perceptions, behaviours, and behaviour change in human

beings. Studying complex human phenomena in a systematized manner helps researchers to stay focused. According to Anderson (2015), qualitative research is studied in its natural setting; it is also used more frequently than any other when conducting an educational study (K. T. Anderson & Holloway, 2020). These constituent interpretive material practices turn the world into the representations captured in the field notes and participant data. Other designs were considered before this qualitative design was chosen. According to Yin, 2014, the researcher should explore each type of research design to determine their appropriateness before choosing one of them to adopt (Hollweck, 2015).

The quantitative research design falls under a post-positivist and positivist paradigm. Quantitative researchers use methods linked with collecting, analysing, interpreting, and presenting numerical data. In this study, the quantitative research method has been discarded because the aim of this study is based on qualitative data. No numerical information was used. It combines both qualitative and quantitative traditions, in which, during this tradition, the researchers try to combine their data collection in various ways and integrate the results of both methods at the time of presentation of the findings. For this reason, the mixed-method design was eliminated since it represented adherence to the post-positivist and the positivist paradigms of quantitative methodology.

The study employed a qualitative approach to gain comprehensive insight into how headteachers contribute to the assistance of teachers in the implementation of the career technology curriculum in Achiase District. A qualitative approach was utilised in an attempt to find out the opinions, experiences, and challenges of both headteachers and teachers in their educational context.

To attain this objective, the study employed a multiple case study design, enabling a detailed exploration of the phenomenon in various schools in the district. By utilising multiple cases, the study captured the diversity in headteachers' support systems, the contextual factors that affected their roles, and the challenges they encountered in their schools. This enabled a broader perspective on how headteachers facilitated the effective implementation of career technology curricula.

The case study method was discovered to be particularly appropriate for this study because it enabled in-depth investigation of intricate social phenomena in their natural contexts (Hollweck, 2015). It permitted the investigation into how school facilities, the capacity of teachers, available resources, and school policies influenced the ability of headteachers to support teachers. Furthermore, this method enabled the recognition of patterns, similarities, and disparities in headteachers' support mechanisms in the selected cases.

To end with, through the utilisation of a qualitative research approach and multiple case study design, the study offered a deep insight into the headteacher's roles, thereby providing insights that can potentially inform policy and further the effective implementation of career technology in schools.

3.4 Researcher's Role

I collected, analysed and interpreted data as applicable to the qualitative research practice. In this case, I was the instrument. According to (Cresswell, 2013), during qualitative research, the researcher is the major instrument since he/she collects data personally, observes behaviours, and interviews participants. I made sure the design selected, instruments, and analytical framework could answer the aim of this study as suggested by (Dooly & Moore, 2017).

I was objective, unbiased, and respectful to research participants. In an attempt to minimize the potential occurrence of bias, bracketing was employed, and the selection of participants with whom I was unfamiliar. According to (Fischer, 2009), for the researcher not to influence the view of the data of the study, they would have to ~~–b~~racket" away from all interests, personal experiences, and assumptions. The experiences that I have had as a teacher were shelved away from my thinking about the data. As Merriam explained, to prevent one from returning to the core of the experience, the phenomenon will be isolated (p. 26).

My preconceived ideas and experiences may threaten the trustworthiness of the data and the information obtained from the data analysis (Chenail, 2011). Thematic analysis procedures were used for any personal biases displayed. (Sorsa, Kiikkala, & Åstedt-Kurki, 2015) explained that bracketing increased awareness among researchers and allowed researchers to put aside their personal experiences and biases and look at the phenomenon with an open mind. I bracketed before, during, and after interviewing participants to reduce any effect my biases could have. In this process of bracketing, measures for addressing the limitations identified involved inviting participants to review the findings of the study as a way of reducing misrepresentations or omissions. Therefore, I checked the results with participants in a procedure known as member checking to enhance the accuracy of the study (Creswell, 2012).

This study has adopted the active researcher role. The process of creating rapport was an important way of eliciting rich, insightful data from participants. I played a nonparticipant observer role while interviewing headteachers and teachers with regard to observing interaction and documenting experiences.

3.4 Site and Sample Selection

The study was conducted in the Achiase District of the Eastern Region of Ghana, a district that operates within the administrative and regulatory framework of the Ghana Education Service (GES) and implements the national Standards-Based Curriculum (SBC) at the basic school level. The selection of Achiase District was informed by its relevance to the implementation of the Career Technology Curriculum, a core component of Ghana's basic education curriculum aimed at equipping learners with practical, technological, creative, and entrepreneurial skills for lifelong learning and career development (National Council for Curriculum and Assessment [NaCCA], 2019).

Achiase District presents an appropriate site because its public basic schools reflect typical conditions under which curriculum reforms are implemented in many districts across Ghana, including limited instructional resources, varying levels of teacher preparedness, and infrastructural constraints that affect practical and technology-oriented subjects (GES, 2020). These contextual realities make the district suitable for examining how headteachers interpret and perform their leadership roles in facilitating curriculum implementation at the school level. Furthermore, as headteachers are the primary agents responsible for translating national curriculum policy into school-based practices, studying their roles within this district provides insight into how leadership influences curriculum enactment under real-world conditions (Bush & Glover, 2014).

The district was also selected because it is actively implementing the Career Technology Curriculum in accordance with national directives, thereby offering a natural setting for exploring leadership practices related to curriculum supervision,

teacher support, resource mobilization, and monitoring of instructional delivery (NaCCA, 2019). This makes Achiase District a contextually and empirically relevant site for the study.

The target population for the study comprised headteachers of public basic schools within the Achiase District. Headteachers were purposively selected as the study sample because they hold statutory responsibility for instructional leadership, curriculum supervision, and the overall management of teaching and learning processes in their schools (GES, 2020). Their strategic position enables them to influence how the Career Technology Curriculum is planned, supported, and implemented in classrooms, making them key informants for addressing the objectives of the study.

A purposive sampling technique was employed to select headteachers whose schools were actively implementing the Career Technology Curriculum. Purposive sampling is appropriate in qualitative and exploratory studies where participants are selected based on their direct involvement, experience, and knowledge of the phenomenon under investigation (Creswell & Poth, 2018). This approach ensured that participants possessed firsthand experience with curriculum implementation challenges and leadership practices specific to Career Technology education.

The sample size was determined based on the principle of information richness and saturation, rather than numerical representativeness. According to qualitative research standards, a sample is considered adequate when additional data no longer yield new insights relevant to the research questions (Guest et al., 2014). Consequently, headteachers who demonstrated sustained engagement with curriculum supervision,

teacher support, and school-based instructional leadership were included to provide in-depth and contextually grounded perspectives.

With a special focus on headteachers within a single district, the study was able to achieve depth of understanding while maintaining contextual coherence. This sampling approach aligns with interpretive educational research, which prioritizes meaning, experience, and leadership practice over broad generalization (Creswell & Poth, 2018).

3.5 Data Collection Techniques

In this regard, the methods of data collection that will be utilised should match or correspond with the stated objectives and purpose of the research to ensure that the collected data are relevant and reliable (Cresswell, 2013). Data collection in this study involved a set of interrelated activities involving information gathering that could help in answering the emerging research questions (Cresswell, 2013).

Semi-structured interviews were employed to gather significant information on headteachers‘ perceptions, experiences, and coping strategies in implementing the career technology curricula. In these interviews, elaboration and wide responses were allowed from the participants. The interviews were audio-recorded to ensure the validity of information collected, not just the words but also non-verbal cues and contextual observations. The interviewing also involved taking detailed field notes, which helped provide a comprehensive account of the context and the environment where the interview was conducted.

The semi-structured interview approach had the added advantage of both flexibility and consistency. It allowed, given a participant‘s responses, adjustments in

questioning to delve into various aspects regarding the implementation of career technology. While doing so, it provided consistency in the core topics discussed throughout the interviews.

In summary, Semi-structured interviews were used to gather comprehensive and detailed data to address the research questions effectively. The semi-structured interview was chosen with care to align with the purpose of the study and thus gave rich, relevant, and meaningful data collection.

3.6 Interview Guide

As Castillo-Montoya (2016) mentioned, the lives of the people are precious and their questions should be treated with politeness by the researcher. Since the participant‘s lives are so complex, at the development and estimation phase regarding the interview questions they will deploy, the researchers have to be really critical and collect the data accordingly(Castillo-Montoya, 2016). According to Merriam and Tisdell (2016), interviews are one method that the researcher can deploy to collect data. An interview protocol involves more than the questions being asked; it is a guide on how to conduct interviews themselves ((Ravitch & Carl, 2019). The interactions between interviewers and participants are influenced by the settings and situations in which the interviews take place (Oltmann, 2016).

Semi-structured interviews require an interview guide that allows the researcher to have an organised interview with the participants. These guides are indeed very crucial tools in helping to obtain detailed information relevant to the purpose of the study. Interview guides that frame questions in an open-ended manner will, in addition, allow participants to share their stories as deeply as they choose and ensure that data collection aligns with the study‘s purpose (Castillo-Montoya, 2016). An

interview guide consists of standard, specific questions; allows the researcher to ask follow-up questions for all participants, and assists participants in comprehending the questions asked during an interview so that they can respond knowledgeably to the interview questions (Ravitch & Carl, 2019)

The researcher prepared the interview guide for this study to determine the role of headteachers in implementing the career technology curriculum. A careful examination of relevant literature informed some of the key themes, including the common core programme, career technology, leadership styles, resource allocation, professional development, and collaborative approaches. Precise open-ended questions were crafted to ensure they tapped into these themes without compromising the participants' freedom to express their thoughts.

Reliability was ensured through critical review and modification of the interview guide by several consultations with experts in qualitative research and education. Such iterative processes guaranteed that the questions remained clear, were unbiased, and directly related to the objectives of this study. Finally, pilot interviews were conducted for further testing of the guide; feedback during these sessions was used to carry out further enhancements. This careful preparation made the interview guide both practical and effective in answering the research questions.

3.7 Data Collection Procedure

During my data management process, all interview recordings were transcribed verbatim to capture every nuance of the interaction. These transcripts, along with their field notes, were imported into a qualitative data analysis software called Taguette. Taguette was instrumental in enhancing such analysis, providing a structured and user-friendly platform to effectively organize, explore, and retrieve the collected data.

I coded this data using Taguette's capabilities and conducted a theme analysis to ensure that it produced useful data. This included systematic reading of the transcripts for any repeating patterns, themes, or concerns from the interviews. In this form of data analysis, I gained a deeper understanding of the experiences and viewpoints of my interviewees, which informed the study's findings.

3.8 Ethical Considerations

Any research involving human participants needs to be guided first and foremost by ethical considerations. Marshall and Rossman noted that anticipation and consideration in the planning of a study are required for every phase of the study (Marshall & Rossman, 2014). The current study was conducted in conformation with the ethical guidelines and requirements of the institutional review board or ethics committee (Serpico, 2024).

The research study was based on approvals provided by the ethics committee and followed all other ethical standards and regulations from both the institution and relevant governing bodies.

Informed consent was sought from all participants to make sure the ethical standards of research were upheld. The process of informed consent entailed explaining the voluntary nature of the participant's involvement in the study. I also protected the participants' privacy, confidentiality, and anonymity throughout the research process.

Furthermore, the participants were also allowed to ask questions and inquire about any issue that might not have been clear before giving their consent to participate in the research study. I was honest and open in disclosing the information to participants so that they were informed about the purposes of the study, procedures ranging in

procedures involved, and the risks and benefits likely to occur. Throughout the research study, I have adhered to the highest degree of ethical consideration to date so that at all times, the well-being and dignity of the participants in this research are protected.

3.8 Data Analysis

Data analysis is one of the most critical steps in any research process. It has a number of procedures: organizing and reading code for themes, identifying and organizing themes, and interpreting the data (Creswell, 2013). On the other hand, Yin (2016) identifies five procedures for analysis: the identification and matching of patterns; linking data to suggestions, explanation building and synthesis across interviews. The procedures help in analysing the data systematically and comprehensively.

For the analysis of interview transcripts, an inductive approach to logic was employed (Creswell, 2013; Merriam, 2009). Through this kind of analysis, researchers are in a position to formulate concepts from data and subsequently combine that information to form themes and categories. Employing this kind of analysis, Merriam (2009) identified that patterns and themes could be noted from the data.

This present study adopted the thematic analysis approach. Inductive data analysis was applied to gather thematic data regarding the studied phenomenon. The recurring themes and patterns from the transcripts were identified under careful analysis. Besides, coding was used, which involves the process of organizing, thinking about, and making sense of your data (Ravitch & Carl, 2016). According to Creswell, 2013, coding involves the process of data gathering into small categories or themes of information. Initial codes were, therefore, developed, categories organized and refined in the development of comprehensive themes that capture the role of headteachers in

implementing the career technology curriculum in Ghana and, more specifically, Achiase District. The analysis of data in this study is thus comprehensive and systematic, following established protocols to ensure the authenticity and reliability of the results.

3.9 Trustworthiness

Trustworthiness in qualitative studies is just as important as the issue of validity in quantitative research. Trustworthiness should, therefore, be a major focus from the development of the research design to the presentation of findings. It is important that the outcomes of the study actually reflect what participants experience, with accuracy and quality to ensure credence and reliability of the research.

The development of trustworthiness can be done through explanations that help validate findings in simple terms. At this point, the researcher is expected to have accurately validated their conclusion in relation to the data collected without the intrusion of personal opinions. According to Merriam and Tisdell, 2016 reliable qualitative research should be underpinned by thick descriptions of the research context. Such information entails elaboration on context relating to the research setting, participants, and methods adopted during the collection of data.

Additional steps undertaken in this research to enhance trustworthiness included member checking, where the findings were shared with participants to see reactions and comments regarding findings (Ravitch & Carl, 2016). This was necessary to ensure that participants‘ views were represented through this study. The other important strategy was that of peer debriefing, where the findings were shared with peer-experienced researchers for their views. The research also creates better

credibility for the studies in incorporating these strategies to ensure accuracy and reliability in their results, as suggested by Ravitch & Carl (2016).

3.9.1 Credibility

Credibility addresses the extent to which the findings are congruent with participants' actual experiences and social realities (Shenton, 2004). In the context of this study, credibility was particularly important because the research sought to understand how headteachers interpret and respond to systemic challenges, such as inadequate teaching materials, limited professional development time, and weak school–community engagement, in implementing the Career Technology Curriculum.

Several strategies were employed to ensure credibility. First, member checking was used as a primary validation technique. After preliminary data analysis and theme development, summaries of emerging findings were shared with the participating headteachers. Participants were invited to review, clarify, and comment on whether the interpretations accurately reflected their views and experiences. This process helped to correct potential misinterpretations, ensured that participants' voices were authentically represented, and strengthened confidence in the accuracy of the findings (Ravitch & Carl, 2016). Member checking was especially valuable in confirming sensitive interpretations related to leadership resilience, resource constraints, and community collaboration efforts.

Second, peer debriefing was conducted through structured discussions with experienced qualitative researchers. These peers critically reviewed the interview protocol, coding decisions, thematic interpretations, and alignment between data and conclusions. Peer feedback helped to identify blind spots, challenge assumptions, and

refine the analytical process, thereby enhancing analytical rigor and credibility (Shenton, 2004).

Third, the researcher engaged in reflexivity throughout the study. Given the researcher‘s familiarity with the Ghanaian basic education system, reflexive practices were necessary to minimise the influence of prior assumptions about curriculum implementation and school leadership. Reflexivity was maintained through reflective journaling, where personal reactions, assumptions, and methodological decisions were documented and critically examined. This ongoing self-awareness reduced the likelihood that personal perspectives would overshadow participants‘ accounts (Merriam, 2009).

Finally, triangulation was employed to strengthen credibility. Although semi-structured interviews constituted the primary data source, triangulation occurred through the comparison of responses across multiple cases (ten headteachers from different public schools). Patterns and themes were only considered credible when they recurred across participants and contexts, thereby reinforcing the consistency and plausibility of the findings (Tobin & Begley, 2010).

Collectively, member checking, peer debriefing, reflexivity, and triangulation ensured that the study‘s findings faithfully represented the lived experiences of headteachers and accurately reflected the realities of Career Technology Curriculum implementation in the Achiase District.

3.9.2 Confirmability

Confirmability refers to the degree to which research findings are shaped by participants‘ experiences rather than researcher bias, motivation, or personal interest

(Merriam, 2009; Shenton, 2004). In this study, confirmability was achieved by ensuring transparency in data collection, analysis, and interpretation.

A key strategy for establishing confirmability was data triangulation. By examining convergences and divergences across interview accounts from multiple headteachers, the researcher was able to verify that identified themes, such as over-reliance on theoretical teaching due to lack of equipment, limited professional development opportunities, and fragile external partnerships, were grounded in shared experiences rather than isolated opinions (Ravitch & Carl, 2016).

In addition, an audit trail was maintained to document all stages of the research process. This included records of interview schedules, audio recordings, verbatim transcripts, coding frameworks, thematic development, and analytical memos. The availability of this documentation allows independent reviewers to trace how conclusions were reached, thereby reinforcing the objectivity and confirmability of the study.

Reflexive journaling further supported confirmability by explicitly acknowledging and monitoring the researcher‘s positionality and decision-making processes. This practice ensured that interpretations remained anchored in the data rather than subjective judgement.

3.9.3 Transferability

Transferability concerns the extent to which the findings of a study can be applied or related to other contexts by readers (Shenton, 2004). Unlike statistical generalisation, qualitative transferability relies on providing sufficiently detailed contextual information to allow readers to judge relevance to their own settings (Merriam, 2009).

In this study, transferability was addressed through the use of thick, rich descriptions of the research context, participants, and processes. Detailed accounts were provided regarding the Achiase District educational setting, the structure of the Common Core Programme, the nature of the Career Technology Curriculum, and the professional backgrounds of the participating headteachers. These descriptions enable readers—particularly policymakers, school leaders, and researchers in similar Ghanaian or sub-Saharan African contexts, to determine the applicability of the findings to their own circumstances (Ravitch & Carl, 2016; Yin, 2018).

3.9.5 Dependability

The dependability concept laid the basis for this study. The repetition of similar methods used for data collection and analysis could lead to the same research results in the future, according to Merriam, 2009; Shenton, 2004. In addition, dependability refers to obtaining dependable results after the repetition of research in the same context using similar methods and subjects (Shenton, 2004).

To ensure the study‘s dependability, it will be vital to establish an audit trail that details the research procedures from beginning to end. A thorough account of data collection, categorisation, and findings within an audit trail enhances the study‘s credibility for its readers (Carcary, 2009). Consequently, I kept a reflective research journal to document my thoughts and observations throughout the study, which included taking field notes during the interviews. This development allowed the data collection and analysis processes to be tracked in detail, thus allowing outside scrutiny and making it easier to seek advice from research colleagues.

To further ensure the reliability of this study, I used a semi-structured interview protocol. In doing so, I asked all participants similar interview questions in the same

order. This was followed by more spontaneous follow-up questions, based on the participant‘s answers. When interviewing, I first introduced the participants to an overview of the study and its purpose, obtained their consent, and then introduced them to the interview questions systematically. Having transcribed the data and carried out some preliminary analysis, I sought feedback from the participants, which was valuable in sharpening my interpretations and findings. This analysis was further validated through discussions with my peers (Carcary, 2009).

In short, I followed various measures to ensure the dependability of this study, such as keeping a research reflection journal, employing a semi-structured interview protocol, and setting up an audit trail. These efforts rendered my study both trustworthy and dependable.

3.10 Chapter Summary

The research methods adopted to explore the headteacher's role in implementing the career technology curriculum within the Achiase district have been fully described in this chapter. This chapter discussed the paradigm of the research study, the design of the study, site and sample selection, techniques or instruments for data collection, data collection procedure, ethics considered, trustworthiness, credibility, confirmability, and transferability.

Four research questions guided this study, and a basic qualitative study approach and multiple case study design was adopted. The nature of the sample adopted was criterion-based purposive sampling to ensure representativeness. Instruments for data collection included semi-structured interviews. Data were collected using triangulation to ensure dependability, while the actual data analysis was done

inductively using thematic analysis. The chapter provided a rich description of the interview guide and data analysis techniques applied in the study.

This chapter, therefore, gives a critical overview of the methodology used in the qualitative study: the research questions, study design, sample selection, methods of data collection, and data analysis. Beyond that, the chapter pinpoints some ethical considerations and limitations of the study that contribute to future research in the area.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Overview

This chapter delved into the data analysis and discussions on the role of headteachers in implementing the career technology curriculum in Achiase District. Ten participants were interviewed, and the audio recordings of these interviews were transcribed for analysis. The chapter presents the participants‘ background information and a detailed analysis of the research questions.

4.1 Demographics of Interviewees

The results showed that all case studies were professional teachers who had completed tertiary education, meaning all the headteachers studied in the context have formal qualifications obtained from higher education institutions, insinuating some level of expertise and training in the field.

Table 4.1: Gender of Participants

Gender group	Number	Percentage (%)
Male	7	70
Female	3	30
Total	**10**	**100**

Source: Field Data, 2024

Table 4.1 illustrates the gender distribution of the study participants. It shows that 70% of the participants were male, while 30% were female. This indicates a higher male participation rate in the study and may have critical implications for the validity, reliability and applicability of the study findings, as well as for future research directions.

Table 4.2: Years of Teaching Experience

Years of Teaching Experience	Number	Percentage (%)
5-10	4	40
11-15	4	40
16-20	2	20
Total	**10**	**100**

Source: Field Data, 2024

Table 4.2 shows the teaching experience of the participants. Four participants (40%) had between 5 and 10 years of teaching experience, another four (40%) had between 11 and 15 years, and two (20%) had between 16 and 20 years of experience. This distribution suggests that most of the participants had substantial teaching experience, which likely provided them with valuable insights into implementing the career technology curriculum.

Table 4.3: Qualifications of participants

Qualification	Number	Percentage (%)
Bachelor degree	9	90(%)
Master‘s Degree	1	10(%)
Total	**10**	**100**

Source: Field Data, 2024

Table 4.3 shows the academic qualifications of the participants. Nine (90%) held bachelor‘s degrees, while one (10%) had a master‘s degree. This high level of educational attainment suggests that the participants were well-equipped to provide informed perspectives on the curriculum‘s implementation.

4.2 Analysis of the Data

This section presents the analysis of the data derived from the research questions. The audio interviews were transcribed verbatim, organized, proofread and edited. The findings were categorized into themes as they emerged from the coded data. In this respect, participant names were represented by pseudonyms to ensure confidentiality and anonymity and also for clarity of reference and ease**: Participant 1, 2, 3, 4…10.**

4.2.1 How Do Headteachers Implement the Career Technology Curriculum in Achiase District?

This study focused on understanding how headteachers in the Achiase District are implementing the career technology curriculum. Four key themes emerged from the interviews: Teaching Methods, Resource Challenges, Teacher Support and Collaboration, and Community Awareness. Figure 4.1 provides a visual representation of these themes as identified by the participating headteachers in response to the research questions.

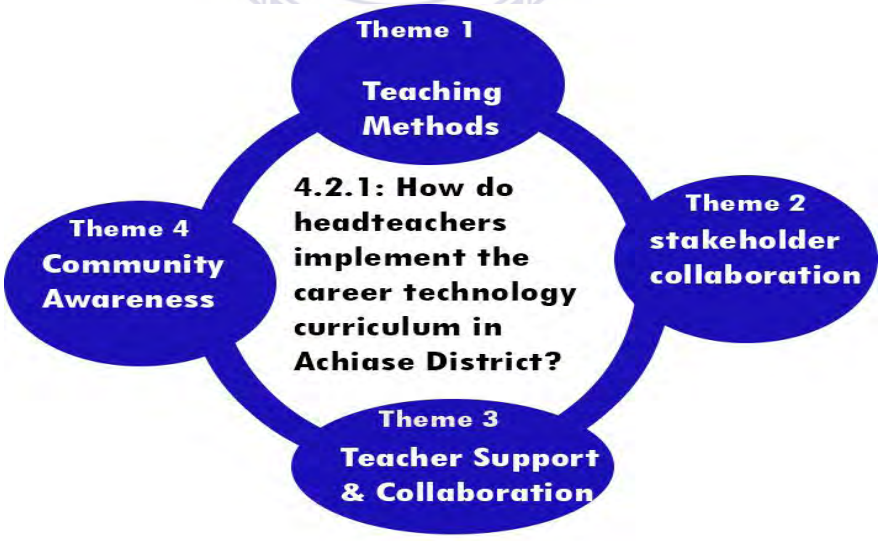

Figure 4.1: Representation of the themes surrounding how headteachers implement the career technology curriculum in the Achiase district.

Theme 1: Teaching Methods

During the interviews, one of the main themes was the teaching methods teachers use to implement career technology in schools within the Achiase District effectively. The headteachers emphasised the importance of using practical teaching methods but faced challenges.

Participant 2 emphasized this challenge, stating,"

> *—...I want my teachers to use hands-on activities, but too often they have to stick to theory because we don't have enough resources."*

Further emphasizing this point, Participant 4 noted:

> *—...Students really get involved during practical lessons, but it's frustrating when we can't do these activities regularly because we lack the materials."*

Participant 6 also expressed frustration with the situation, stating:

> *—Hmm for this, at times the resources needed are not available so the teacher just goes the theory way. But for those that we can afford, the teacher uses the practical method..."*

Adding to the sentiment, Participant 8 mentioned:

> *—...Although I emphasize hands-on learning, it often doesn't happen because teachers are forced to cover the theoretical parts without practical examples."*

The interviews show that inadequate resources are a big challenge in implementing practical teaching methods in the career technology curriculum. Despite head teachers realizing the importance of practical activities in engaging students and enhancing their learning, the absence of resources inhibits consistent application. This limitation forces many teachers to rely on theoretical instruction, even when practical methods are preferred. This frustration expressed by several participants suggests an adequate allocation of resources and support for the full realization of the practical aspects of

the curriculum. Addressing these challenges might further improve teaching quality and effectiveness, benefiting students understanding and skill acquisition.

Theme 2: Resource Challenges

The analysis showed major issues with resources needed for the implementation of career technology in the district. Most headteachers indicated a severe problem with the lack of indispensable teaching resources. As Participant 3 noted:

> *—...No textbooks, no teacher's guide, nothing. That's also a problem we are facing in the school..."*

Participant 5 further expanded on this concern:

> *—...For challenges, as I told you, where the teacher has less mastery, I employ the services of other experts to come in and help. There are no tools and equipment and at times I employ resource personnel to come in and help. At times too students are taking out of the school to carpentry shops in the community to help the students get in touch with the tools and materials which is a big challenge to us because it all comes with a cost."*

Adding to this, Participant 6 shared:

> *—...At times the resources needed are not available so the teacher just goes the theory way. But for those that we can afford, the teacher uses the practical method."*

Participant 9 also echoed similar sentiments, saying:

> *—...We want our students to learn skills that they can use in the future, but without the right tools, the intention behind the career technology curriculum by GES cannot be met..."*

From the above, it is evident that the resource challenges of implementing the Career Technology curriculum in the district are very deep and wide. The absence of important teaching materials, like textbooks and tools, not only hampers teachers' attempts to arrange practical hands-on learning but also affects the effectiveness of the curriculum as a whole. As a result, headteachers have resorted to hiring external

experts or taking students outside the school environment to access the needed resources, although at a cost and hence unsustainable. Without the needed support in terms of resources, including physical and material resources, the goal of the curriculum to provide students with practical skills for their future careers will remain elusive. These resource gaps need to be addressed for the district to successfully implement the career technology curriculum.

Theme 3: Teacher Support and Collaboration

Another prominent theme that emerged was the difficulty in supporting teachers in career technology implementation. Headteachers noted that while they try to support their teachers, more collaborative training is needed. Participant 6 emphasized this concern:

> *—...I try my best to provide materials and support, but my teacher still lacks confidence in delivering technical aspects without help. Because she is home economics inclined…"*

Participant 8 added:

> *—...Sometimes I have to bring in a colleague from another school, but it's not a permanent solution. We need ongoing support and training for our teachers…"*

Supporting these observations, Participant 9 shared:

> *—...I sometimes organize in-service training for them, but it's not enough. Teachers need ongoing support to adapt to the career technology curriculum comfortably."*

Participant 10 also highlighted the issue, saying:

> *—...At times there is a colleague teacher at the next school who is also good in the technical aspect whom I plead to come and help. And this is a problem because he doesn't always get the time to come"*

From the information above, there is a fair indication that there are challenges in teacher support and collaboration which are of primary essence to ensure that the career technology curriculum is in line with full implementation in the Achiase District. Some of the participants indeed stated that while headteachers try to do their best by providing facilities and arranging in-service training, these attempts often fall short, since the confidence of teachers remains low, especially in handling the technical areas of the curriculum. The reliance on support from other schools or colleagues will, therefore be temporary, and emphasizes the need for far more regular professional preparation. Thus, to effectively implement the career technology curriculum, there needs to be continuous training and support systems to enable the teachers to have the capability and confidence to deliver this curriculum relevantly.

Theme 3: Community Awareness

Excerpts of the interview also understand that more understanding and participation of parents and community is required regarding the implementation of the career technology curriculum. Though headteachers have passed the information to the parents about the subject and its importance, they still do not fully understand why they should get involved in this matter. Participant 10 reflected on this issue:

> *—...Parents know about career technology, but they don't really understand why it matters. I wish they would get more involved to support their children."*

To further illustrate this point, Participant 7 remarked:

> *—...Parents are aware that it is one of the subjects in the new curriculum. So, I always encourage them during PTA meetings and community durbars to help their wards in that area but most of them feel reluctant."* (Participant 7)

Adding to these concerns, Participant 1 shared:

> *—...We hold meetings to explain the benefits of career technology, but still, many parents don't see its value compared to the core subjects."* (Participant 1)

Participant 9 expressed similar frustrations, stating:

> *—...It would make a huge difference if local businesses participated more in our programmes. When parents and the community understand how important it is, they are more likely to support us."* (Participant 9)

There are various challenges that the career technology curriculum faces in the form of limited community awareness and parental involvement. Despite the effort from head teachers to inform and make parents aware of the importance of this curriculum, most of them do not understand its relevance, especially compared to core subjects. This results in low levels of engagement from both parents and the broader community. Participants also noted the need to share more effectively with parents the long-term value of career technology education for their children. It would also be useful to develop more partnerships with local businesses to enhance community involvement and provide experiential support to the curriculum. If the career technology curriculum is to be successfully implemented, stronger links must be built among schools, parents, and the community.

The data from the first research question shows that implementing the career technology curriculum within Achiase District is multifaceted, with several challenges. These are evident in the analysis of interviews with headteachers. Four major themes that explain complications arising from trying to implement this curriculum in the classroom include the following: Teaching Methods, Resource Challenges, Teacher Support and Collaboration, and Community Awareness. Headteachers are aware of the demand for practical teaching methods; however, the

insufficiency of resources has restricted them to mere theoretical teaching. The grim situation is worsened by a lack of essential teaching aids such as textbooks, equipment, and tools, that hamper the scope of practical involvement, an integral part of career technology implementation.

The other area of concern was the need for more teacher support and collaboration. The head teachers have also received in-service training and resources; however, continuous professional development, particularly in the technical subjects, remains lacking. All too often, it leans on assistance from outside the educational setting, which again highlights the need for continuous training to foster a culture of confidence and capacity among the teaching staff.

Other complications arise through community awareness and parental involvement. While attempts have been made to relay the need for the career technology curriculum, parents and the community remain unconcerned due to the emphasis placed on the core subjects as opposed to career and vocational education. Tightening ties with the community, especially business entities within it can lend the supporting structure and resources needed to further develop this curriculum effectively.

Overcoming these challenges is essential for the seamless implementation of the career technology curriculum, which encompasses the provision of superior resources and standardized teacher training, coupled with superior collaborations between schools, parents, and society. Only then will the district be in a position to ensure that students derive the maximum possible benefits from the provision of career technology education and become better prepared to meet the challenges of their future profession.

4.2.2 What support systems do headteachers put in place to ensure effective implementation of the career technology curriculum?

Data collection was done through interviews with headteachers regarding support systems for the effective implementation of the career technology curriculum. Four major themes were organized around the data collected, namely: Professional Development for Teachers, Parental Involvement, Funding and Resource Provision, and Equity and Access for Students. Verbatim quotes from different participants have been captured to ensure that the findings are reliable by providing a comprehensive understanding of the challenges and efforts which the headteachers had made to support teachers in implementing career technology in their various schools. Figure 4.2 gives a visual representation of these themes as identified by the participating headteachers concerning the posed research question.

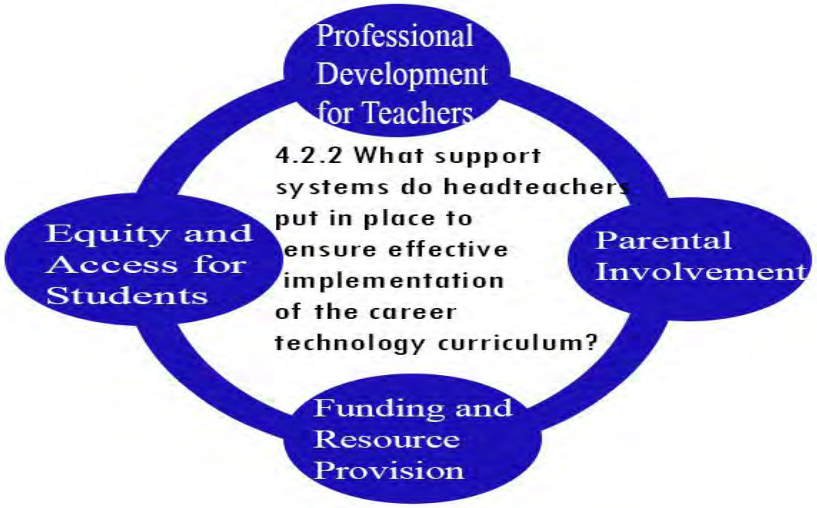

Figure 4.2: Representation of the themes surrounding the support system headteachers put in place to ensure effective implementation of the career technology curriculum in the Achiase district.

Theme 1: Professional Development for Teachers

This will help a great deal in equipping them with the necessary skills and knowledge for teaching career technology. Most headteachers feel that most of the training given is too general and does not point out the specific needs and contexts of their classrooms. There is indeed a need to consider local resources and the job market of an area through specialized training to enhance effectiveness in the career technology curriculum.

Excerpts from a headteacher is captured below;

> *—...I try my best to give my teacher the right training, but I think we need to make sure these trainings match the needs of local businesses. This way, teachers will be able to teach more effectively."* (Participant 3).

Another participant is of the view that more hands-on workshops equip teachers with practical skills that are applicable in the classroom:

> *—...I often advocate for more hands-on workshops that reflect real-world applications. My goal is to equip teachers with practical skills that are directly applicable in their classrooms"* (Participant 5)

A participant also added;

> *—...Continuous support after training is vital. I'm committed to ensuring that my teacher have regular follow-ups through lesson observations to help implement what they learn*" (Participant 8)

Basically, teachers need specialized training that will enable them to effectively teach career technology. Most headteachers feel that their training has not been comprehensive enough and cannot address specific needs within their classrooms and respective local job markets. If customized training, including hands-on workshops, is offered, teachers will be aware of immediately applicable practical skills in the classroom.

Equally important is follow-up support after the training is completed. Professional development should not be considered as an event but rather a journey that is continuous. Investment in these areas will bring about quality teaching and learning at the teacher's workplace for the creation of a better experience for their students; this is an effort which will make them more prepared to enter the workforce.

Theme 2: Parental Involvement

The engagement of parents in career technology education is essential, but most headteachers find that their efforts are hindered by challenges. While they are very much willing to enlighten the parents on the benefits accruing from these programmes, there is still a gap in terms of understanding and support from the larger community. An excerpt from a headteacher is captured below;

> *—...We try hard to involve parents through PTA meetings, but I often find that attendance is low. It's frustrating because I know how crucial their understanding is for their children's education"* (Participant 1).

Most parents worry about core subjects like science, mathematics, English, and social studies and do not see how skills training can lead to good jobs.

> *—...Our parents worry about the core subjects like science and math but don't see how skills training can lead to good jobs. Changing parents' perceptions about career technology will take time and effort. Even though I present success stories, it feels like we're not making enough impact"* (Participant 10).

A participant added;

> *—...I think hands-on projects that involve parents are great, but it's hard to organize them. We want to make it happen, but without more help from parents, it feels like we're lost and don't know what to do."* (Participant 3)

Another participant also added;

> *—..I regularly tell parents about the job opportunities available through skills training, but it's still hard to get them on board. Their support is critical for our success."* (Participant 6).

In general, parental involvement in the implementation of career technology is very crucial to the success of the student, but most headteachers find themselves between a rock and a hard place in trying to make it happen. They try very hard to make parents realize how important these programmes are, but most focus on core subjects such as Science, Mathematics, English, and social studies. This can blind them from seeing the great opportunities that skill training can offer.

They have spoken of the frustration of low turn-out at PTA meetings geared toward bringing parents in. Low attendance makes it hard to build the understanding and support necessary for students. While tales of successes point out the benefits of skills training, many parents remain unconvinced as to its importance. This lack of support is one of the greatest barriers to the success of this programme.

It is hard to organize hands-on projects that involve parents. Headteachers are willing to a great extent to provide more opportunities for parents to get involved, but it seems they try to find their way in the dark without cooperation. Progress will require that schools find new and effective ways to communicate to parents the worth of career technology. One of the ways in which this perception can be changed is by showing parents the real-world applications of these programmes.

Theme 3: Funding and Resource Provision

One of the first underlying themes that arose from the data pertains to issues of securing adequate funding and resources, which have a direct implication for the

delivery of the Career Technology curriculum of the Common Core Programme in Achiase District. The headteachers always complained of not being able to secure enough funds to support this very vital learning area in order to provide students with skills in technical and vocational education. This is captured in the following excerpts:

> *—...With the limited funding we receive, it's challenging to provide the necessary tools for Career Technology classes. We often rely on support from the SMC and NGOs, but it's never enough to meet the student's needs."* (Participant 6)

A participant added**;**

> *—...The limited budget means we can't always provide the latest tools that would greatly benefit our students in Career Technology. We often have to do with old equipment which puts our students at a disadvantage."* (Participant 3)

Another headteacher noted that due to budget constraints, funds must be allocated across various curriculum areas, often leaving Career Technology underfunded:

> *—...Due to financial constraints, we have to consider other areas of the curriculum, resulting in Career Technology receiving less attention and fewer resources than it should."* (Participant 8).

A participant added;

> *—...Our financial constraints often hinder our ability to provide the necessary resources for Career Technology implementation. While I remain committed to advocating for better funding, the process is very challenging."* (Participant 10).

This represents a significant gap between what is considered an ideal setup for teacher support and what actually occurs. Teachers often feel unsupported, in particular, when it comes to the integration of new technologies and practical skills into their teaching. What is even more concerning is that this is especially problematic in the

implementation of Career Technology during a period in time when updating skills as related to the latest technological trends and industry is required. The findings would support that support systems need to be more robust, with more finances devoted to professional development and headteachers having less heavy workloads to support teachers effectively in delivering the Career Technology curriculum.

Theme 4: Equity and Access for Students

One of the major concerns for headteachers was that every student should have equal opportunities and access to Career Technology education irrespective of his or her background. Although the schools try to give equal opportunities, there still remains a difference in various aspects, which makes a big difference for students from poorer backgrounds with regard to enjoying and benefiting from the Career Technology curriculum under the Common Core Programme. One participant noted:

> *—...I want every student to have the same chance to succeed, but I've noticed that some students are still struggling because they don't have enough access to technology at home and the same level of support from their parents."* (Participant 1)

Another participant added;

> *—...I do my best to help by giving extra support and resources at school, but there's only so much I can do. It's hard to fix the problems students face outside of school, like not having enough technology or help from their parents."* (Participant 9)

Another participant is of the view that parents are not willing to give their mobile phones to children to do research when they are given homework.

> *—...Some parents are reluctant to let their children use their mobile phones for research, especially when they have homework. They believe the phones could distract or lead to misuse, so they hesitate to provide access."* (Participant 3)

This theme suggests that equity remains a problem in the delivery of Career Technology. Children with less favourable socio-economic circumstances often don't have access to the technology and backup outside of school and therefore cannot take full part or benefit as much from the curriculum. Such discrepancies in experience are of more concern with a subject so practically oriented and dependent on technology as Career Technology. Other targeted interventions include access to technology while in school, after-school support programmes, and community resources that could support students in their learning. These efforts are critical in making certain that all students can take advantage of the opportunities provided to them through the Career Technology curriculum.

In other words, the data shows there are major problems with regard to funding and resource allocation, equity of access for students, involvement of the community and parents, and professional development for teachers within the implementation of the Career Technology curriculum under the Common Core Programme.

It is supportive of the headteacher's commitments to the improvement of Career Technology but does indicate that systemic issues such as budget constraints and disparities in resource access must be clarified so that each and every student can benefit from this important aspect of their education. These findings highlight increased investment, effective stakeholder engagement, and a focus on equity to overcome the aforementioned challenges in realizing effective Career Technology implementation within the Common Core Programme in Achiase District.

4.2.3 How do the support systems provided by headteachers effectively address the needs of career technology curriculum implementation?

The headteachers' interviews were quite varied in strategy and challenges faced by them in supporting the implementation of the career technology curriculum. Five key themes that emerged were: Personalized Support for Students, Stakeholder Involvement and Feedback, Anticipating and Solving Problems, Accommodating Team Learning, and Industry Trend Awareness. Verbatim quotes from participants, including rival views on each theme, help to further explain these themes. Figure 4.3 below shows a schema on these themes as identified by the participating headteachers in response to the research question.

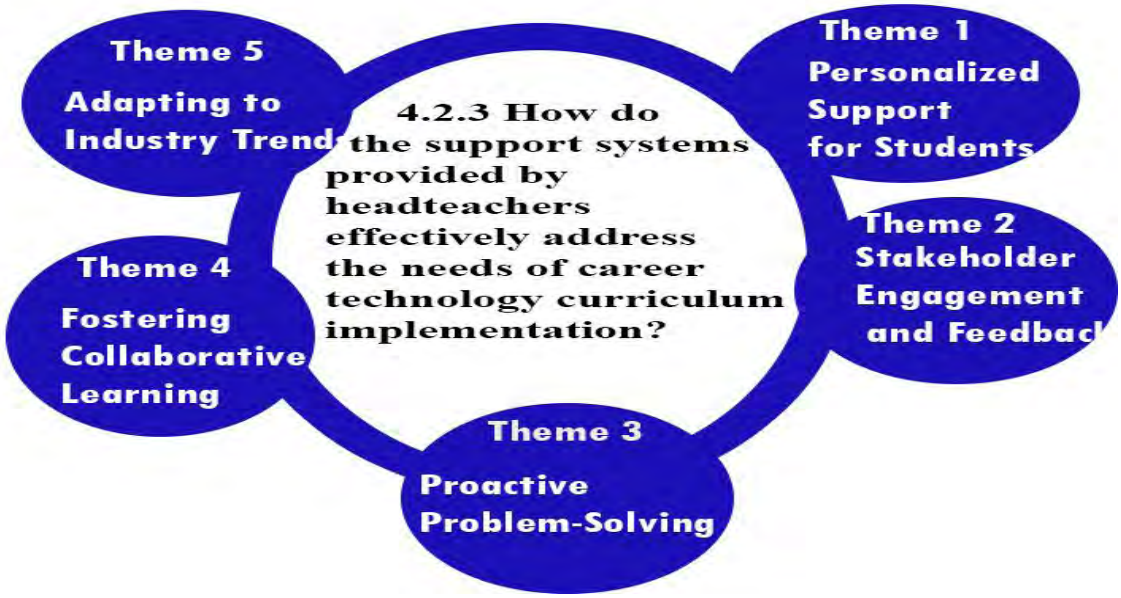

Figure 4.3: Representation of the themes surrounding how the support system provided by headteachers effectively addresses the needs of career technology curriculum implementation in the Achiase district.

Theme 1: Personalized Support for Students

Headteachers reported that this was challenging because resources were limited and classes were large. However, some are able to provide more individualized support through strategies of peer learning or one-to-one discussions. One headteacher said,

> *—...The support system I provide is not personalized to individuals. It is general, so I can't say it meets each student's needs"* (Participant 1).

Another headteacher offered a different perspective:

> *—...I often meet with students individually to discuss their interests in career technology. This way, we can modify lessons to suit them"* (Participant 5).

However, the challenges of personalizing support were echoed by others:

> *—...It's hard to personalize the curriculum when we have large class sizes and limited staff. I try to support students, but it's not always feasible to cater to individual needs"* (Participant 8).

Still, one headteacher found a creative solution:

> *—...I often pair students who are stronger in career technology with those who need extra help. That way, they learn from each other, and I can focus on other areas that need attention"* (Participant 4).

The headteachers generally reported that providing individual support was challenging due to resource limitations and large class sizes. Some headteachers, such as Participant 1, admitted only giving general support, although others, such as Participant 5, focused more on how important the individual meeting was in terms of adapting lessons more closely to student interests. For instance, peer learning and individual discussions became useful practices. Participant 4 mentioned that she paired the stronger students with those students who needed extra help. The bigger

challenge, however, is the complete individualization of support, which demands more staff and time.

Theme 2: Stakeholder Engagement and Feedback

In particular, feedback mechanisms involving students and teachers are very important for measuring how well the support systems have succeeded. Headteachers usually consult lesson observations, assessments, and meetings with stakeholders to obtain feedback.

One headteacher noted,

> *—...I gather feedback through lesson observations, class exercises, and exams. It helps me understand what is working and where we need to make improvements"* (Participant 2).

Another headteacher added,

> *—...I conduct regular meetings with both students and parents to gather feedback on how the career technology curriculum is being implemented. It helps me adjust our approach based on their concerns..."* (Participant 3).

However, some headteachers felt that current feedback mechanisms were not always sufficient:

> *—...Sometimes, the feedback we receive from students isn't detailed enough, so I ask teachers to follow up individually to get a clearer picture of what's working and what's not"* (Participant 8).

This sentiment was shared by another headteacher who said,

> *—...I encourage teachers to share their experiences and challenges with me. We also look at exam results to evaluate student progress..."* (Participant 10).

Headteachers reported that feedback from students and teachers was an integral part of assessing and refining curriculum implementation. Strategies for delivering feedback include peer lesson observations, assessments, and parent and student

meetings. The next practices were singled out by Participants 2 and 3 as especially helpful. Still, other participants, like Participant 8, reported that certain systems for delivering feedback are absent. A need for more comprehensive and detailed feedback emerged as a key finding in order, it is suggested, for available mechanisms to be enhanced for a more accurate understanding of how well the curriculum is working.

Theme 3: Proactive Problem-Solving

Many headteachers emphasized the importance of addressing challenges promptly, though they acknowledged that resource limitations often hinder their ability to fully resolve issues.

One headteacher explained,

> *—...There are so many issues involved in the implementation of the curriculum, especially with career technology. So I try my best to do what I can and refer the rest to our SISO"* (Participant 9).

Another headteacher shared their approach,

> *—...Whenever an issue arises, I make sure to involve all stakeholders, including parents and the education office, to find a quick solution"* (Participant 4).

However, others pointed out the limitations of relying on external support:

> *—...Even when I refer issues to the SISO, there's little they can do without more funding or resources from the district. We often have to make do with what we have"* (Participant 6).

Despite these challenges, a headteacher remains proactive in solving problems at the school level:

> *—...We face problems almost every term whether it's a lack of materials or issues with the curriculum, but I always try to fix what I can locally before escalating it to the district office..."* (Participant 8).

Despite facing significant resource limitations, headteachers demonstrated a proactive approach to solving issues related to curriculum implementation. Participant 9, for instance, stressed the importance of addressing problems promptly and referring unresolved issues to higher authorities such as the School Improvement Support Officer (SISO). While some headteachers managed to resolve issues locally, others, like Participant 6, expressed frustration over the limited external support due to district resource constraints. This theme highlights the dedication of headteachers to problem-solving while emphasizing the need for increased funding and district-level assistance.

Theme 4: Fostering Collaborative Learning

Collaboration is seen as a key element of enhancing student engagement in career technology. Headteachers use group projects and peer learning to foster teamwork among students.

One headteacher remarked,

> *—We encourage group projects because collaboration fosters a sense of community and enhances problem-solving skills among students…"* (Participant 3).

Another headteacher added,

> *—…Career technology is all about practical skills, so I encourage students to collaborate during hands-on projects. This helps them share ideas and learn more effectively"* (Participant 1).

However, fostering collaboration can be challenging when the subject is under-resourced:

> *—…Only one teacher is teaching the subject in my school. The rest of the teachers also concentrate on their subjects. It's hard to foster collaboration when there's little support from other staff"* (Participant 5).

Yet, other headteachers find creative ways to build collaboration:

> *—...I make sure to assign tasks that require students to work together. This way, they learn to rely on each other and develop teamwork skills that are crucial in career technology"* (Participant 8).

Collaborative learning emerged as a key strategy in enhancing student engagement and fostering practical skills in career technology. Headteachers like Participant 3 encouraged group projects and teamwork to build a sense of community among students. However, challenges arose due to understaffing, as mentioned by Participant 5, who pointed out that collaboration is difficult when there's insufficient support from other staff members. Despite these hurdles, creative solutions, such as assigning tasks that require teamwork, were employed by headteachers like Participant 8 to promote collaboration, even in resource-constrained environments.

Theme 5: Adapting to Industry Trends

It is crucial to maintain curriculum alignment with current industry trends to guarantee that students acquire skills that are applicable in the workplace. But headteachers find it hard to keep up with the latest developments due to a lack of training opportunities.

One headteacher noted,

> *—...We regularly update our curriculum to include emerging technologies and trends in the industry. It keeps our lessons relevant and engaging for students"* (Participant 4).

Another shared a similar view,

> *—...I make sure to keep an eye on changes in the industry so that our curriculum reflects what students will need in the real world"* (Participant 6).

Yet, many headteachers face challenges in staying current due to a lack of ongoing training:

> —...*Since the first training on how to implement this curriculum, there have not been any workshops for us again, so we are just sticking to what we were asked to do during the training"* (Participant 8).

Others take a more self-directed approach:

> —...*Even though we don't always get updates from the district, I encourage teachers to do their own research online to stay current with technological changes in the field"* (Participant 10).

Headteachers face challenges in doing so because of a lack of continuous training to keep the curriculum in line with prevailing trends in the industry, which is important for preparing students for employment. Some participants, such as Participant 4, said that they actively revised the curriculum to accommodate an evolving technology in their subject areas. Participant 8 asserts that no workshops have been conducted since their initial training. Significantly, at least the suggestion of Participant 10 to have the teachers themselves conduct their own research online presents an autonomous manner of making up for the formal professional development lacking in their setup. This theme speaks significantly to the demand for ongoing training and support to ensure that the curriculum remains relevant and responsive to industry changes.

In summary, headteachers make an effort to try and overcome the enormous challenges that face them in implementing the career technology curriculum. Due to limited resources, few members of staff, and non-continuous training, the headteachers adopt various strategies aimed at trying to solve these problems. Proactive problem-solving, stakeholder engagement, and creative approaches for collaboration and personalization suggest a commitment to developing more effective

career technology implementation. Conversely, findings emphasize a need for greater resources, support, and staff professional development throughout the district if the curriculum is to be implemented more adequately.

4.2.4 How can the role of headteachers be enhanced to facilitate effective career technology implementation in schools?

This section explores how headteachers can develop their role to better support the successful implementation of career technology curricula in schools. By examining their practices, challenges, and leadership styles, four major themes were revealed: resources and professional development, cooperation of stakeholders, leadership skills concerning curriculum implementation, and a caring educational learning environment. However, divergent views by some respondents provide alternative perspectives on the best ways. Figure 4.4: A thematic map picturing the themes identified by the headteachers participating in this research in response to the research question.

Figure 4.4. Representation of the themes surrounding how the role of headteachers can be enhanced to facilitate effective career technology curriculum implementation in the Achiase district.

Theme 1: Need for Resources and Training

Providing adequate resources and comprehensive training is a critical factor for successfully implementing career technology in schools. One headteacher stressed the need for workshops, saying:

> *—Headteachers must be given insight into career technology... I wish at least a workshop on career technology would be organized for head teachers, so when they supervise classes, they can know if the teacher is doing the right thing."* (Participant 1).

Another participant emphasized the issue of insufficient materials:

> *—The issue comes down to materials. Sometimes, if I need to get information from the internet, I have to use my phone... these are some of the challenges we face."* (Participant 3).

Similarly, one headteacher noted the urgency of providing textbooks:

> *—First of all, we don't have textbooks, so I hope by the time school resumes, textbooks will be available for teachers."* (Participant 5).

However, a contrasting view was provided by another participant who argued that resources alone will not solve the issue:

> *—Even if you give us all the materials, without proper planning and motivation for the teachers, implementation will still be difficult. The challenge is bigger than just resources."* (Participant 9).

Headteachers emphasized the critical need for adequate resources and comprehensive training. The lack of materials, such as textbooks, and the desire for workshops to provide headteachers with a better understanding of career technology were recurring concerns. Some participants saw resources as the primary challenge. For example, one headteacher pointed out the need for workshops to help them supervise classes effectively, while another lamented the lack of textbooks. However, a contrasting perspective was offered, arguing that resources alone are insufficient. Strategic

planning and teacher motivation are equally important. This suggests a tension between the need for immediate support and more long-term solutions.

Theme 2: Role of Stakeholder Collaboration

> Collaboration with stakeholders is seen as a vital element in advancing career technology education. One headteacher highlighted the importance of involving the community: *—During one of our open days, we invited the community to observe what we are doing, and they realized that, yes, we are making progress."* (Participant 2).

Another headteacher spoke about the inclusivity of stakeholders:

> *—The learners, teachers, parents, chiefs... they are all part of the stakeholders."* (Participant 4).

A third participant emphasized the importance of engaging district leaders:

> *—We raised this issue during our COHBS meeting, highlighting the need for expertise to manage the subject."* (Participant 8).

Yet, a rival perspective emerged from another headteacher, who questioned the value of such collaborations:

> *—Sometimes, we put too much emphasis on involving too many stakeholders, but at the end of the day, the teachers and headteachers are the ones in the classrooms. Too many voices can delay decision-making."* (Participant 6).

Stakeholder involvement was recognized as crucial. Many headteachers advocated for community partnerships among members, parents, and district leaders. Inviting stakeholders to witness progress on their own was said to be an act of developing support. According to one headteacher, such a diverse representation of stakeholders, which includes community leaders and parents, is part of the _good practice.' Another opposing view was raised regarding fears that the involvement of too many stakeholders may lead to cumbersome decision-making processes that would delay

implementation. This is where the balance of inclusivity and efficiency in carrying out Career Technology programmes comes in.

Theme 3: Leadership Skills in Curriculum Implementation

Many participants stressed the importance of leadership skills in the successful implementation of career technology curriculum. One participant noted:

> *"If teachers are doing something remarkable, the headteacher should commend and encourage them to do even more."* (Participant 6).

Another headteacher emphasized the significance of leadership training:

> *"...if the headteacher receives training, they'll be better equipped to guide teachers during their lessons."* (Participant 9).

In addition, a participant highlighted the need for technical and communication skills:

> *"We need leadership, communication, and technical skills to manage the implementation process."* (Participant 7).

Despite these views, one participant challenged the focus on leadership skills. One headteacher argued:

> *"Leadership training is important, but it's not enough. The reality is, many headteachers are already overwhelmed with administrative duties. We need more support staff, not just more training."* (Participant 10).

Leadership was seen as one of the key ingredients and headteachers emphasized the role of leadership, communication, and technical skills. The motivation of teachers, showing the way themselves and inspiring teachers were mentioned as important leadership features. Leadership training was emphasized, although a few participants pointed out that already many headteachers have to bear an administrative burden. This suggests that while leadership training may have positive effects, there is still a

need for additional support staff to handle administrative work to free the headteachers to focus on the delivery of the curriculum.

Theme 4: Fostering a Supportive School Culture

The development of a supportive school culture emerged as another key theme. Many participants interviewed mentioned ways of fostering an enabling environment that supports career technology teaching within schools. One participant suggested rewarding the efforts of headteachers:

> *—...SISOs can come during PTA meetings to acknowledge the headteachers' efforts to parents."* (Participant 3).

Another headteacher discussed the establishment of extracurricular programmes:

> *—...I've introduced clubs, including one focused on career technology, and assigned a teacher to lead it... I always brief the teacher, and now they're gaining more interest in the subject."* (Participant 5).

A further suggestion was made for headteachers to be recognized during school events:

> *—...Headteachers can be rewarded during Speech and Prize-giving Day at PTA meetings."* (Participant 2).

However, a different view was expressed by a participant who questioned the emphasis on recognition and rewards:

> *—...Rewarding headteachers is good, but what about the teachers who are doing the groundwork? If we focus too much on headteachers, we risk demotivating the staff who are directly teaching the students."* (Participant 9).

It was also significant to establish a school culture that would support career technology education. Several headteachers proposed that there should be recognition and publicity of contribution to, and involvement in career technology through clubs

among other extracurricular groups. Nevertheless, feelings were mixed regarding how to accord this kind of recognition. Some cited that overemphasizing giving an award to headteachers dampens the enthusiasm of teachers who actually educate the students. This means a debate on the appropriateness of focusing recognition activities on headteachers versus apportioning them more evenly to involve the teaching staff as well.

In summary for this guiding question, the role of the headteacher in effecting the implementation of career technology is very complex. While many headteachers emphasized the requirement of resources and training, some pointed out issues of motivation and strategic planning. Similarly, while the majority agreed upon collaboration and leadership training, some questioned the complexity of decision-making and an overwhelming administrative workload. There was widespread agreement on promoting a supportive school culture, but less so in matters of recognition.

These results prove that headteachers can enhance career technology implementation only through a balanced approach combining resources, leadership, collaboration, and strategic planning. Competing views underline the importance of not only providing more resources but also addressing teacher motivation, planning, and administrative support. Only such a holistic framework will be able to prepare students for this technological world.

4.3 Discussion of Findings

This section presents the main findings obtained from the analysis regarding how headteachers implement the Career Technology Curriculum in the Achiase District.

The discussion of findings is organized around the key themes which emerged from the research questions.

How Headteachers Implement the Career Technology Curriculum in Achiase District

This study explored how headteachers in the Achiase District are implementing the Career Technology Curriculum. One dominant theme that emerged was the challenges resulting from inadequate resources. In this regard, headteachers expressed their great concerns over the unavailability of teaching materials and equipment to render practical lessons. Participant 2 observed, ―I want my teachers to use hands-on activities, but too often they have to stick to theory because we don't have enough resources." This sentiment echoes the Career Technology Curriculum's objective, which underscores the significance of developing practical skills (NaCCA, Ministry of Education, 2021). Yet, in the absence of adequate resources, teachers find themselves compelled to depend on theoretical instruction, thereby restricting students' capacity to gain practical skills. The literature similarly underscores the significance of resource availability in ensuring the successful implementation of the curriculum (McCaslin & Parks, 2002; Hahm, 2012).

Apart from the resource constraints, time constraints emerged as a major issue, above all in terms of providing support and collaboration from and between teachers. The headteachers valued the principle of continuing professional development; however, they reported that heavy workloads often prevented teachers from undergoing any useful type of training. Participant 6 reflected, ―I try my best to provide materials and support, but my teacher is still not confident about delivering the technical aspects without any help." This observation points toward what existing literature has said

regarding professional development and collaboration at the heart of successful technical and vocational curriculum implementation. (Latchem, 2017). Even though headteachers try to offer support through in-service training, the lack of continuous programmes limits the extent to which teachers can understand the technical aspects of the curriculum.

The analysis also revealed challenges in student engagement due to limited community awareness and involvement. The headteachers explained that parents and people in the community do not often understand the importance of the Career Technology Curriculum. Participant 10 observed, ―Parents know about career technology, but they don't really understand why it matters. I wish they would get more involved to support their children." As has been noted in the literature, school community involvement can help assure student engagement and relevance of course curriculum (Cohen & Darnell, 2012). Without the support and involvement of parents and local businesses, the full potential of the curriculum, particularly its focus on practical, real-world applications, remains underutilized. Strengthening ties with the community and fostering collaboration with local industries could provide the necessary support to overcome these challenges and ensure that students benefit from hands-on learning experiences (Hargreaves & Fullan, 2012).

Another important finding was the periodic development of external partnerships. Although some headteachers have tried reaching out to form partnerships with local businesses and specialists to support career technology education, this often tends to be intermittent and short-lived. Participant 5 highlighted this issue by noting, ―Sometimes I hire resource people to come in and assist, but of course that all has a cost as well." This comment highlights the broader challenges in developing secure

partnerships, which are necessary for providing students with experiential learning opportunities that meet the goals of the curriculum (Zhao et al., 2022). The literature emphasizes the crucial need for establishing lasting partnerships between schools and external entities, which can significantly enhance the relevance and effectiveness of career and technical education (NaCCA, Ministry of Education, 2021). Nevertheless, the study reveals that these collaborations lack sufficient support from the district, thereby constraining their long-term impact.

The findings indicate the efforts of headteachers in the Achiase District to implement the Career Technology Curriculum despite facing significant challenges. These challenges include inadequate resources, limited time for collaboration among teachers, low levels of engagement in the community, and the difficulty of initiating sustained partnerships with external organizations. Overcoming these barriers will call for an investment in resources, professional development, and stronger community and business partnerships by educational authorities. It is from these that addressing the issues will be very significant in ensuring that Career Technology Curriculum in schools brings out the best effects on students and equips them with practical skills that will be helpful in their near future careers. With perfect teamwork, headteachers, teachers, parents, and the entire community will ensure that this curriculum runs well. This will even improve the whole educational landscape in the Achiase District.

Support Systems Headteachers Implement for Effective Career Technology Curriculum

This objective sought to explore the support systems headteachers have implemented to ensure the effective integration of the Career Technology curriculum in Ghana. The study revealed that headteachers provide essential support through tailored

professional development, parental involvement initiatives, resource allocation, and efforts to promote equity and access. These initiatives demonstrate how headteachers create a conducive environment that fosters both teacher and student success in the Career Technology curriculum.

The Common Core Programme (CCP) has specific goals that seek to achieve similar outcomes. This educational programme has been designed in such a way that children across Ghana will be able to face the challenges of the 21st century (Henderson, 2014). The Junior High School example of active learning also referred to as the common core programme, is geared towards attaining practical skills such as the Career Technology competency, which aims to bridge students with the technical and vocational world (NaCCA, Ministry of Education, 2021).

In response to disparities in educational attainment, the Common Core Programme Policy was given out to reinforce the focus on the basic skills and competencies, including creation, synthesis, and analysis (Donkoh et al., 2021). It is unquestionable that the headteachers as the instructional leaders provide guidance in adhering to these principles in the process of integrating the Career Technology curriculum. Their leadership is such that almost all teachers get trained to be marketable based on the specific skills required locally because it is extremely important to contextualise the delivery as reflected in the participant‘s quotes.

This also stresses the headteachers‘ attempts to link any such education to the individual context depicted in the description of the Common Core Programme which covers issues of relevance and practice in education. Moreover, the professional development strategy encouraged by headteachers is in line with the CCP‘s faith in constant support for teachers and the effectiveness of the curriculum.

This promotes the idea that professional development should be an ongoing process rather than a one-time event (Chauraya & Brodie, 2018), which aligns with the Common Core Programme's philosophy of continuous learning and improvement.

Parental participation, another important support system, connects home and school, resulting in effective student learning. One participant noted that headteachers encounter difficulty in engaging parents. This obstacle is associated with Bandura's Social Learning Theory (1977), which emphasizes the need to model and communicate to parents the significance of education, including Career Technology. Within the context of the CCP, parental participation promotes the development of basic competencies necessary for students' success in both academic and occupational pathways.

Financial constraints appeared to be a significant obstacle during the study, affecting the implementation of the Career Technology programme, as one headteacher observed.

This indicates broader problems within the Common Core Programme in terms of resource limitations and the requirement for schools to advocate through their budgets to become more adequately resourced to meet the aspirations of the curriculum. (Argyris & Schön, 1978) state that, the emphasis which has been given to the delivery of complete learning experiences in technical and vocational education through the CCP further reinforces the imperatives of proper funding and resources if it is to be successfully executed.

Furthermore, Equity and Access challenges also emerged, especially concerning disparities in the opportunities for students to benefit from the curriculum. This pressingly emphasizes that the equal provision of educational resources is an

essential feature characterizing the Common Core Programme in preparation for post-secondary and the world of work, according to NaCCA, Ministry of Education 2020. With such disparities, the headteachers must start addressing them through targeted interventions to make sure that all students benefit fully from the Career Technology curriculum.

In brief, headteachers‘ practice of support systems for the Career Technology curriculum closely complements the ideals of the Common Core Programme. Customized professional preparation, involvement of parents, proper allocation of resources, and a pledge for equity are just some of the components needed to build an enabling environment where teachers and students can thrive. These defining characteristics further suggest that Career Technology in the larger context of the curriculum framework of CCP is essential in preparing students to pursue technical or vocational careers; hence, it is essential for the overall success of Ghana‘s education system.

How Headteachers’ Support Systems Address the Needs of Career Technology Curriculum Implementation

The interview with headteachers revealed several strategies and challenges they have been adopting to implement the Career Technology Curriculum, now part of Ghana‘s Common Core Programme, a platform designed to harmonize learning and provide students with the critical capacity needed in today‘s workplace. From these discussions, five over-arching themes on the support systems employed by these headteachers emerged: Personalised Support for Students; Stakeholder Engagement and Feedback; Proactive Problem-Solving; Fostering Collaborative Learning; and

Adaptation to Industry Trends. Diverse perspectives among headteachers enriched these themes and developed a better understanding of the support systems in place.

First, many headteachers pointed out the difficulties in providing personalized support due to limited resources and large class sizes. Some acknowledged that their support systems were often broad and not tailored to individual students. One headteacher explained, "The support system I offer isn't personalized. It's general, so I can't say it meets every student's needs" (Participant 1). On the other hand, Participant 5 emphasized the importance of personal attention, saying, "I often meet students individually to discuss their interests in career technology."

Several headteachers noted these challenges, including Participant 8, who said, "It's hard to personalize the curriculum with large classes and limited staff." Despite these obstacles, some headteachers found creative ways to offer support, such as pairing stronger students with those who needed extra help. As Participant 4 shared, "I often pair students who are stronger in career technology with those who need extra assistance." While headteachers face significant barriers to individualized support, these strategies demonstrate how they strive to enhance personalization, in line with the CCP's focus on differentiated instruction (Donkoh et al., 2021).

Secondly, engaging students, teachers, and other stakeholders through feedback mechanisms is crucial for assessing the success of CCP implementation. Headteachers typically collect feedback through lesson observations, assessments, and stakeholder meetings. Participant 2 shared, "I gather feedback from lesson observations, exercises, and exams. It helps me see what's working and where we need to improve." Participant 3 stressed the importance of involving parents, noting, "I hold regular

meetings with students and parents to gather feedback on how the career technology curriculum is going."

However, some headteachers felt that the current feedback methods were insufficient. As Participant 8 observed, "Sometimes, the feedback we get from students isn't detailed enough." This suggests a need for more robust feedback systems that provide clearer insights into curriculum effectiveness, aligning with the CCP's goals of creating a relevant and responsive learning environment (Ministry of Education, 2020).

Thirdly, headteachers consistently emphasized the importance of addressing challenges quickly, though they acknowledged that limited resources often made this difficult. Participant 9 remarked, "There are many issues in implementing the curriculum, especially in career technology." Some headteachers highlighted the need to involve various stakeholders in problem-solving. As Participant 4 explained, "When issues arise, I make sure to involve all stakeholders, including parents and the education office."

However, external support is sometimes lacking. Participant 6 mentioned, "Even when I report issues to the SISO, there's not much they can do without more funding or resources from the district." Despite these challenges, headteachers remain committed to solving problems locally. As Participant 8 stated, "We face challenges almost every term, but I always try to resolve what I can locally before escalating to the district office." This determination underscores the need for increased funding and support to ensure successful curriculum implementation (Hahm, 2012; NaCCA, Ministry of Education, 2021).

Furthermore, collaboration plays a vital role in enhancing student engagement and learning in career technology, aligning with the CCP's emphasis on teamwork. Headteachers often promote group projects and peer learning to encourage cooperation. Participant 3 noted, "We encourage group projects because collaboration fosters a sense of community and strengthens problem-solving skills." However, some schools face staff shortages that make this challenging, as Participant 5 shared: "Only one teacher is available to teach the subject in my school."

Despite these limitations, some headteachers devise novel strategies to foster teamwork. Participant 8 explained, "I assign tasks that require students to work together." This emphasis on teamwork aligns with the CCP's goals of promoting cooperative and inquiry-based learning experiences that fit various learning styles (Lee & Lee, 2020).

Finally, keeping the curriculum current with industry changes is critical for ensuring that students get applicable professional skills. Headteachers discussed their attempts to update the curriculum with new technologies. The fourth participant stated: "We regularly update our curriculum to include emerging technologies and industry trends." However, many headteachers voiced worry about the scarcity of continued training opportunities. According to Participant 8, "Since the first training on how to implement this curriculum, there haven't been any more workshops."

This gap emphasizes the importance of ongoing professional development in aligning the curriculum with the changing demands of the job market (Johnson & Hayes, 2018; Fontana & Siriwichai, 2022).

In summary, headteachers are committed to addressing the challenges encountered while implementing the career technology curriculum. Their efforts demonstrate a strong understanding of the curriculum‘s goals, which aim to prepare students for careers in technology-related fields. Although obstacles such as limited resources and inadequate training remain, headteachers use various strategies to engage stakeholders, tackle problems proactively, promote collaboration, and adapt to industry trends.

Additional resources, ongoing professional development, and improved feedback mechanisms are needed to strengthen these support systems. By fostering a culture of innovation and continuous improvement, headteachers can enhance the successful implementation of the career technology curriculum and better equip students with the skills they need for their future (Smith, 2019; Hargreaves & Fullan, 2012).

Enhancing Headteacher’s Roles to Facilitate Effective Career Technology Implementation in Schools

This section discusses how headteachers can strengthen their role to help schools deliver the Career Technology Curriculum effectively and efficiently and at standards the NaCCA has set for school-awarded qualifications. Stemming from the manner of analysis of the major strategies, challenges, and approaches in leadership, four emergent themes emerge forthwith: the need for resources and training; collaboration with stakeholders; leadership skills in the implementation of curriculum; and supportive culture in school. These findings represent the view expressed by participants but are also related to current literature in the field that is associated with the implementation of Career Technology.

For this reason, firstly, one of the emerging congruent themes between the present study and current literature is that there is a strong belief in the importance of both resources and training in the successful implementation of the Career Technology Curriculum. According to NaCCA, while the curriculum is designed to be handled by one teacher, this contrasts in practice, as two or more teachers are needed to handle Home Economics and Pre-Technical Skills in both integrated subjects. However, this immediately presents some challenges because the training might not suffice to equip a single teacher to be able to handle both independent subject areas. This is echoed by several participants. One headteacher called for workshops to equip headteachers with knowledge about the curriculum. These concerns align with research done by Shoaib and Ayaz (2021), who ascertained that a lack of appropriate resources and training was a major obstacle to the integration of career technology in the educational system. The same emphasis NaCCA gave on in-service and pre-service training of teachers so that they may handle the curriculum without any dependence on others resonated strongly with participants in this study.

One divergent opinion was that resources cannot overcome this problem alone. A participant contributed that planning and motivation among the teachers is also called for. This perspective is a reflection of the call by the broader literature for a holistic approach to the implementation of Career Technology, beyond material resources. In this respect, Snyder et al. (2018) develop arguments on how personalized training and strategic planning on the part of teachers are of the essence if challenges related to integration in the classroom are to be overcome.

Stakeholder collaboration also emerged as an important factor in the implementation of Career Technology. NaCCA emphasizes the need for collaboration with local

educational authorities so that schools are properly resourced with trained teachers. Participants often referenced the value of involving the community, such as open days, to share progress, which supports Bandura‘s Social Learning Theory that individual learning can occur through the community in shared learning. However, some participants warned that district and stakeholder involvement can sometimes over-complicate decision-making a worry of the literature on leadership such as Leithwood & Jantzi (2005) in the tension between inclusiveness and efficiency in decision-making. Nevertheless, stakeholder collaboration is required at all levels since NaCCA emphasizes district and community support for successful curriculum delivery.

Another critical factor identified for the successful implementation of Career Technology was leadership competencies. The study highlighted that leadership skills training specifically in the areas of communication, motivating, and technical areas would further assist headteachers to support teachers in addressing the complexities of the curriculum. This agrees with Bass‘s Transformational Leadership Theory, which postulates that leaders should be inspirational and motivational to their followers (Bass & Avolio, 1994). However, other participants noted that leadership training alone is not enough due to administrative burdens placed on headteachers. This is in line with the Organizational Learning Theory by Argyris and Schön, which highlights the need for supporting structures so as to free leaders and let them focus on instructional support. Increasing support staff to reduce administrative workload may therefore be necessary to strengthen headteachers‘ involvement in Career Technology.

Finally, fostering a supportive school culture is another critical aspect of implementing the Career Technology Curriculum. Several headteachers highlighted

efforts to engage students and teachers through extracurricular activities, such as career technology clubs, and public recognition of their efforts. These initiatives align with Bandura's Social Learning Theory, which emphasizes creating environments that encourage participation and engagement (Bandura, 1977).

However, concerns were raised about overemphasizing recognition for headteachers, with one participant arguing that teachers also need to be acknowledged for their role in implementation. This reflects the literature's discussion on the need for a balanced approach to recognition, where both leaders and staff feel valued for their contributions. Argyris and Schön (1978) suggest that a supportive culture fostering collective learning and recognition is essential for sustaining effective curriculum implementation.

The findings in this section highlight that headteachers play a vital role in facilitating the implementation of Career Technology, yet their effectiveness depends on a balanced approach that incorporates resources, training, stakeholder collaboration, and strong leadership skills. The perspectives shared by headteachers align closely with existing literature on Career Technology implementation, particularly NaCCA's recommendations for teacher training, resource provision, and stakeholder involvement. While resources are critical, participants and literature alike suggest that motivation, planning, and administrative support are equally important. This multifaceted approach will enable headteachers to effectively manage Career Technology programmes, preparing students for success in a technology-driven world.

4.4 Connections to Previous Theories

This study links to previous research and theoretical frameworks that assist curriculum adoption and educational leadership. It focuses on the role of headteachers in implementing the Career Technology Curriculum in the Achiase District. In particular, the results have a close relationship with Bass's Transformational Leadership Theory (TLT), Argyris and Schön's Organisational Learning Theory (OLT), and Bandura's Social Learning Theory (SLT). The study highlights headteachers' crucial responsibilities in promoting educational change through effective leadership, community engagement, and collaborative learning by firmly establishing the analysis of these ideas.

Bandura's Social Learning Theory

These findings are consistent with Bandura's Social Learning Theory, 1977, showing how social rewards, imitation, and modelling contribute towards learning. SLT assumes that people learn by observing and imitating other people's attitudes, behaviours, and feelings, especially teachers or important figures. Headteachers in the Achiase District show interest in the Career Technology Curriculum. They are very strong role models both for teachers and students. From the interviews, headteachers are placed in a position where they can strongly influence what teachers and parents think about the curriculum. They can also help create a positive environment for career-focused education by publicly supporting it, expressing enthusiasm for it, sharing its successes, and explaining its benefits.

Headteachers portray qualities like enthusiasm and dedication. This is in line with studies that show how role models play a critical part in learning (Bandura, 1986; Hattie 2009). Their actions elevate community involvement and help teachers to

implement the curriculum. Headteachers create a culture of continuous learning by promoting shared purpose and positive attitudes that increase stakeholder participation. This finding is in line with the research conducted by Cohen & Darnell (2012). They outline how crucial community support is in achieving educational objectives. It clearly indicates that the success rate of students increases when community members become involved actively.

Organizational Learning Theory

These findings also align with Argyris and Schön's Organizational Learning Theory, which establishes that organizations can be more effective as entities through systemic learning processes. "OLT argues that organizational improvement is the function of mechanisms such as reflection, feedback, and social learning experiences." This study established that headteachers support encourage an experiment, professional reflection, and feedback culture that allows the teachers to interact and sharpen their teaching skills for better implementation of the Career Technology Curriculum.

Despite such challenges as resource constraints and the need for sustained professional development, headteachers try to develop a learning-oriented environment. These practices are congruent with the literature on organizational learning in educational contexts, which emphasizes continuous, adaptive learning in the face of constantly changing educational objectives (Senge, 2006). These findings are consistent with the observations by Gordon & Lindgren (2019) that successful curriculum implementation requires organizational learning practices such as free flow of communication and shared goals in learning. In the Achiase District, the headteachers show their commitment to professional development, which underlines the necessity for systematic support in sustaining improvements in education.

Transformational Leadership Theory

Another theoretical basis on which to understand the headteachers' influence in curriculum implementation is Bass's Transformational Leadership Theory (TLT). Transformational leaders are inspirational and motivational with their teams, developing and holding a shared vision and providing individualized support. In this regard, headteachers in this study have demonstrated these qualities: setting a vision for career-focused education, rallying teachers to adopt the curriculum, and offering personalized guidance to enhance teacher engagement and satisfaction.

The headteachers' behaviours exemplify TLT's principles as evidenced by their 'active involvement in professional growth and the capability to 'communicate a compelling vision' relating to curricular objectives. These results are in line with Leithwood & Jantzi's (2005) research linking transformational leadership with higher performance and greater loyalty to an organization. According to Harris (2004), since visionary leadership is emphasized as playing a major role in driving educational reform, leadership practices by headteachers become significant in guiding and aligning educators toward common goals and boosting their motivation.

In conclusion, the results reveal significant associations with the Social Learning Theory by Bandura, the Organizational Learning Theory by Argyris and Schön, and the Transformational Leadership Theory by Bass. These theories offer broad frameworks that explain the multifaceted role of head teachers and therefore are very important in understanding practices that outline effective educational leadership. They emphasize the importance of modelling, stakeholder engagement, collaborative learning, and visionary leadership in securing successful curriculum implementation. The study suggests that a holistic approach to leadership including integrating

community involvement, professional learning, and strategic support plays a crucial role in preparing students for workforce demands through a relevant and meaningful educational experience.

This therefore places the study into the ongoing discussions on educational leadership, particularly for vocational training and within technology-focused curricula. These theoretical connections also depict actionable strategies for headteachers and policymakers, thereby showing that effective leadership practices rooted in established theories could provide an educational environment that fosters student success and coincides with the moving needs of the workforce.

4.4 Chapter Summary

The chapter analyses the role played by headteachers in implementing the career technology curriculum in the Achiase District. It presents a thematic analysis based on the research questions after conducting interviews with ten headteachers. The respondents are mostly male (70%) and hold bachelor's degrees (90%), with most having between 5 and 15 years of teaching experience, which provides a solid base for curriculum implementation.

The analysis identifies key themes in the headteachers' curriculum implementation approaches. A primary focus is on practical teaching methods, though resource constraints often impede hands-on activities, leading to a heavier reliance on theoretical instruction. The shortage of essential resources, such as textbooks and equipment, is another pressing issue, prompting headteachers to seek external support and arrange off-campus activities to enhance students' practical learning.

Teacher support and collaboration also emerged as vital components in the curriculum‘s implementation. While headteachers attempt to support their teachers with in-service training, a lack of ongoing professional development limits these efforts, highlighting the need for regular training programmes to build teachers‘ confidence and effectiveness. Limited parental and community involvement is another factor, since most parents emphasize traditional academic subjects over vocational education, limiting their support of the career technology curriculum.

To address these challenges, headteachers have implemented various support systems, including professional development initiatives for teachers, engaging parents to emphasize the curriculum‘s importance, addressing funding limitations, and striving to provide equitable access to resources for all students, especially those from disadvantaged backgrounds. These efforts are assessed through student support systems, stakeholder feedback, problem-solving strategies, collaborative learning opportunities, and alignment with industry trends.

It also contains how to reinforce the headteachers‘ role in curriculum implementation: sufficient resources, periodic training, collaboration among stakeholders, and leadership skills development, besides fostering a facilitative school culture that values teachers‘ and headteachers‘ contributions.

This chapter underscores that while headteachers are committed to implementing the career technology curriculum, challenges such as resource shortages, professional development gaps, and limited community engagement hinder progress. Systematic support from educational bodies, communities, and stakeholders is essential to ensure the curriculum‘s success and effectively prepare students for future careers.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Overview

This chapter is a detailed summary of the important findings from the study ―Exploring the Role of Headteachers in the Implementation of the Career Technology Curriculum in the Achiase District.‖ It provides a comprehensive study of the issues faced by headteachers, techniques used to overcome these challenges, and the larger implications of these results within the framework of educational leadership and curriculum implementation. Furthermore, this chapter clarifies the findings within current theoretical frameworks and relevant literature, emphasizing the study‘s practical and theoretical value. The chapter finishes with recommendations meant to improve the implementation of the Career Technology Curriculum, especially targeting important stakeholders such as policymakers, educational administrators, and teachers. The ideas seek to maximize curriculum delivery within the context of Ghana‘s Common Core Curriculum, thereby helping to improve vocational and technical education throughout the district.

5.2 Summary of the Study

This study explores the pivotal role of headteachers in implementing the Career Technology curriculum within schools in the Achiase District of Ghana. It specifically aimed to explore the responsibilities, challenges, and efforts of headteachers in promoting effective curriculum implementation to offer insights on how to implement the Career Technology Curriculum throughout the district.

A qualitative research approach was employed to attain an inclusive understanding of the contributions headteachers make towards curriculum implementation. This

methodological approach underscores the subjective interpretation of participant's experiences, hence an in-depth exploration of their perceptions, behaviours, and strategies. A multiple case study design was utilised to address the complexity and context-specific factors that influence the support provided by headteachers to teachers in the district.

Achiase District was selected as the locale for this research because of the diverse educational setting it is and the particular challenges associated with implementing the Career Technology curriculum there. The district has 48 junior high schools with 42 public and 6 private schools. Several difficulties, such as resource constraints, poor teacher training, and irregular support from headteachers, have in combination considerably jeopardized the effective implementation of the curriculum.

Participants were selected through criterion-based purposive sampling, specifically targeting seasoned headteachers who have mastery of Career Technology programmes. The sample was chosen deliberately to include knowledgeable informants whose responses enriched the analysis and helped in achieving the subtleties of the research focus. The sample size was determined based on the principle of data saturation and included ten public school headteachers.

Data were collected using semi-structured interviews, which allowed participants to express their perceptions and experiences in detail. The interviews were complemented with audio recordings and field notes to ensure that the data collected was rich and relevant. This approach provided the flexibility needed to explore emerging themes while maintaining consistency in addressing the research objectives.

Thus, the chosen approach to data analysis was inductive in nature for the thematic analysis. Patterns, themes, and categories within the data were identified systematically through the use of coding to organize and interpret findings. Hence, the study has generated a wide understanding of the headteachers' roles and their influence on the successful implementation of the Career Technology curriculum.

5.3 Key Findings

The study revealed several significant findings related to the role of headteachers in the implementation of the Career Technology Curriculum. These findings illustrate the multifaceted nature of curriculum leadership, highlighting the challenges associated with managing resource allocation, promoting teacher development, and fostering community engagement. The key findings have been summarized based on the research questions and under the themes.

5.3.1. How Do Headteachers Implement the Career Technology Curriculum in Achiase District?

Teaching Methods: Practical, hands-on methods of instruction are generally accepted as being critical to curriculum delivery, but a lack of resources compels most teachers to resort to theoretical instruction.

Resource Constraints: There is a general insufficient supply of teaching materials, such as textbooks and equipment. While some headteachers solicit help from outside the school or from the community, such arrangements are usually not sustainable.

Teacher Support and Collaboration: Limited professional development opportunities hinder teachers‘ confidence in teaching technical aspects of the curriculum. Collaboration, though present, remains insufficient.

Community Awareness: Low community engagement and parental apathy highlight the need for increased awareness of the importance of career technology education.

5.3.2. What support systems do headteachers put in place to ensure effective implementation of the career technology curriculum?

Professional Development for Teachers: Existing programmes are often too generic. Tailored workshops focusing on the curriculum's unique demands are needed.

Parental Involvement: Efforts to engage parents face challenges, including low participation in informational sessions, underscoring the need for more inclusive engagement strategies**.**

Funding and Resource Provision: Headteachers largely depend on limited support from School Management Committees (SMCs) and NGOs, which is inadequate for sustained curriculum delivery.

Equity and Access for Students: Socio-economic disparities hinder equitable access to curriculum benefits, especially for students from low-income families.

5.3.3. How do the support systems provided by headteachers effectively address the needs of career technology curriculum implementation?

Personalized Student Support: Large class sizes and limited resources make individualized support challenging. Peer-assisted learning is employed but remains insufficient.

Stakeholder Engagement and Feedback: Feedback mechanisms are underdeveloped, limiting their effectiveness in informing curriculum adjustments.

Proactive Problem-Solving: Collaborative approaches are emphasized but constrained by resource limitations.

Collaborative Learning Initiatives: Group projects and collaborative activities are used but are not regular due to understaffing.

Industry Trends Knowledge: Without regular training to keep pace with industry trends, the relevance and effectiveness of the curriculum become outmoded.

5.3.4. How do the support systems provided by headteachers effectively address the needs of career technology curriculum implementation?

Resource and Training Requirements: Headteachers agree that there needs to be more resources and that training needs to be targeted with a focus on career technology. It would enhance support for headteachers helping teachers to work effectively, to deliver high-quality curriculum.

Stakeholder Collaboration: Making support for the Career Technology Curriculum as strong as possible is viewed as a key strategy to engage diverse stakeholders. However, headteachers admit there is a possibility that an excess of stakeholder involvement takes its toll in terms of inefficiency in decision-making and would like to have a balanced approach.

Leadership Skills for Curriculum Implementation: Headteachers are recognised as being ideally suited to be strong leaders and good communicators who can get teachers to work effectively. Administrative tasks are seen as reducing headteachers‘ ability to focus on curriculum implementation, but it is believed that ongoing leadership training is essential.

Cultivating a Supportive School Culture: Essentially, it highlights the need to build a school culture that values both student and teacher contributions to career technology education. Headteachers argue that teachers' efforts need to be recognised as much as their own to maintain morale and motivation.

These findings indicate that headteachers display a dedicated commitment to implementing career technology curricula despite considerable challenges they face in areas such as resource availability, professional training, community engagement, and stakeholder collaboration. Addressing these challenges will make support systems already in place more effective.

5.4 Conclusions

The study findings highlight the pivotal role of headteachers in implementing the Career Technology Curriculum in the Achiase District. Despite their dedication and strategic intervention, constraints persist in the form of an inadequate resource base, limited professional development, and low community involvement. Headteachers employ various strategies, including experiential teaching, stakeholder involvement, and problem-solving proactiveness, but systemic challenges still limit such interventions.

To further improve the delivery of the curriculum, targeted teacher training must be prioritized, sustainable resource provision ensured, and partnerships among schools, parents, and industry partners strengthened. In addition, leadership programmes for headteachers would prepare them well to deal with administrative tasks while focusing on efficient curriculum delivery. Building a positive school culture that values the efforts of teachers and students alike will be critical in achieving long-term success.

Addressing these issues holistically would not only improve the effectiveness of the Career Technology Curriculum but also provide students with the competencies for future career advancement, and consequently, the overall educational and economic landscape in the Achiase District.

5.5 Recommendations

Based on the findings of the study, the following recommendations are proffered to enhance the implementation of the Career Technology Curriculum in the Achiase District.

It is recommended that the Ghana Education Service (GES) and the Ministry of Education strengthen instructional leadership expectations for headteachers. Headteachers should be supported to provide clear direction on curriculum planning, classroom supervision, and lesson monitoring specific to Career Technology. Regular school-based supervision, collaborative lesson planning, and structured monitoring of practical activities should be institutionalised to ensure that curriculum objectives are consistently translated into classroom practice.

With regard to the objective 2, it is recommended that headteachers strengthen and formalise school-based support structures. These should include the provision and management of teaching and learning resources, the organisation of peer support systems among teachers, and collaboration with parents and community members. Headteachers should also be supported to mobilise both internal and external resources to sustain practical and technology-oriented teaching activities essential to the Career Technology Curriculum.

In response to the third objective, which examined how support systems help address curriculum needs and challenges, it is recommended that schools establish systematic evaluation and feedback mechanisms to assess the effectiveness of existing support systems. Regular feedback from teachers and learners should be analysed to determine whether resources, professional support, and instructional guidance adequately meet curriculum demands. Findings from such evaluations should inform

adjustments to support strategies to address challenges such as inadequate materials, limited teacher competence, and difficulties in delivering practical lessons.

To achieve the fourth objective, which explored strategies for enhancing headteachers' roles, it is recommended that continuous professional development and leadership training be prioritised for headteachers. Training programmes should focus on curriculum leadership, innovative instructional supervision, resource mobilisation, and stakeholder engagement. In addition, partnerships with local artisans, industries, and technical experts should be encouraged to enhance experiential learning opportunities for learners. These strategies would strengthen headteachers' capacity to lead effective curriculum implementation and promote sustainable career technology education in the district.

5.6 Suggestions for Further Studies

Research findings about headteachers' contributions during the implementation of career technology curriculum in Achiase District raise essential areas worthy of future investigation. The research bases its proposed areas on data collected through interviews and observations which provides comprehensive insights into career technology education challenges and opportunities.

1. Future research should investigate the long-term effect of the strategies that headteachers adopt to implement the career technology curriculum. It will be very important to find out how continued resourcing plays out in terms of student outcomes and teacher confidence over time, especially in surmounting resource constraints (Participant 2).
2. Comparing the Achiase District with other regions of varying resource levels and community engagement would illuminate contextual factors impacting

curriculum effectiveness. Addressing severe resource shortages (Participant 6) in different settings will help identify adaptable strategies for success.

3. Investigating strategies to enhance parental and community involvement in the curriculum is of paramount importance. Participants observed that parents frequently possess insufficient knowledge regarding its significance (Participant 10), which constrains their level of support. Research focused on effective communication and engagement initiatives has the potential to address this disparity.
4. Research should focus on how schools can optimize existing resources to deliver the career technology curriculum effectively. Given the constraints of insufficient funding (Participant 6), studies could identify best practices for resource allocation to maximize educational impact.
5. Target research on professional development models must be tailored for educators who implement the curriculum. Although in-service training is available, it frequently falls short of addressing particular needs (Participant 9). An examination of the effects of mentorship, peer observation, and continuous training programmes could enhance teacher preparedness and confidence.
6. Investigations into the significance of stakeholder engagement in curricula effectiveness are crucial. Insufficient parental involvement, as noted by Participant 1, has emerged as a constraining factor. Studies focused on effective engagement strategies may yield practical insights conducive to enhanced educational outcomes.
7. It is important to investigate the role of gender in leadership practices within curriculum implementation. With 70% of the participants being males, the

research could explore whether gender influences leadership style, resource acquisition, and community engagement, hence providing insights into inclusive leadership practices.

8. Research should look into how technology can support teaching and learning in the curriculum. Participants mentioned depending on theoretical instruction because of a lack of resources (Participant 2). There is a need to investigate how technology can support practical skills in resource-poor settings.

These areas of inquiry build on the study's findings and provide a foundation for enhancing the career technology curriculum. Addressing these complex challenges will go a long way toward ensuring meaningful education reform in Ghana, where students will be much better prepared for future career pathways.

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APPENDICES

APPENDIX A

INFORMED CONSENT

UNIVERSITY OF EDUCATION, WINNEBA

SCHOOL OF EDUCATION AND LIFE-LONG LEARNING

DEPARTMENT OF EDUCATIONAL FOUNDATION

Dear Participant,

You are selected to participate in research on –**Exploring the Role of Headteachers in the Implementation of Career Technology Curriculum in Achiase District**". I will be grateful if you accept to be part of this study, by making time to participate in this interview. You are please assured that all information and disclosures provided by you will be kept confidential and will be used for academic purposes only.

APPENDIX B

INTERVIEW GUIDE

Demographic

Questions ‗1' to ‗4' in this section request personal information. Please either tick the appropriate boxes or enter a statement where requested.

1. To which of the following age groups do you belong?
   a. Below 30 years [ ]
   b. 30-39 years [ ]
   c. 40-49 years [ ]
   d. 50-59 years [ ]
2. What is your current professional and academic qualification?
   a. Degree [ ]
   b. Masters [ ]
   c. Doctorate [ ]
3. How long have you been working as a teacher?
4. What is your rank in the teaching profession?
5. Could you please describe yourself?
6. What is your level of qualification? Diploma, Bachelor's Degree, Master's Degree
7. How long have you been a headteacher?
8. How long have you been at this school?
9. How long have you been involved in the educational field, particularly in the context of career technology implementation?

Guiding Question 1: How do headteachers implement the career technology curriculum in Achiase District?

1. How do you implement career technology into school lessons?
2. What methods do you use to ensure that career technology lessons are successful?
3. How do you work with teachers to teach career technology effectively?
4. How do you address the challenges faced during career technology implementation?
5. How do you check whether career technology lessons work well in your school?
6. What do you need to improve career technology lessons in the district?
7. How do you ensure that students engage in and benefit from career technology lessons?
8. Can you share success stories of effective career technology implementation by any headteacher in the district?
9. How do you promote awareness of career technology education among students, parents, and the community?
10. How do you improve your skills in teaching career technology?

Guiding Question 2: What support systems do headteachers put in place to ensure effective implementation of the career technology curriculum?

1. What help do you give to improve career technology lessons in your school?
2. How do you involve parents to support career technology education in your school?

3. How do you create a supportive environment for teachers to teach career technology well?
4. How do you effectively guide and mentor teachers to teach career technology?
5. How do you provide money and resources to help career technology education in your school?
6. How do collaborations with stakeholders assist heads improve career technology education in schools?
7. How do you help teachers to use technology to improve career technology lessons in your school?
8. How do you check if the help you give for career technology education is working?
9. How do you ensure that all students, regardless of background, can benefit from career technology education support?
10. Can you explain how headteachers and stakeholders have worked together to improve school career technology education?

Guiding Question 3: How do the support systems effectively address the needs of career technology curriculum implementation?

1. How do the support systems from headteachers meet each student‘s needs in career technology education?
2. How do you ensure that everyone gets aid with career technology education?
3. How do you gather feedback from students and teachers to determine if your support is effective?
4. How do you address any issues to improve career technology in schools?
5. How do you adjust career technology lessons to each student‘s specific needs?

6. How do you promote teamwork to make career technology lessons more successful?
7. How do you create a good environment that makes students excited to learn career technology?
8. How do you make changes to keep up with current developments in the career technology curriculum?
9. Can you share stories of students who have excelled in career technology as a result of the assistance provided by headteachers?
10. How would you determine whether the support system by headteachers is improving career technology in their schools?

Guiding Question 4: How can the role of headteachers be enhanced to facilitate effective career technology implementation in schools?

1. How can we make the roles of headteachers better to help career technology implementation in schools?
2. How can headteachers request additional resources or new policies to strengthen career technology education?
3. How do you collaborate with stakeholders to promote career technology within schools?
4. What can headteachers do to play a larger role in teaching career technology in schools?
5. How do you, as headteacher, communicate with leaders to make decisions that benefit career technology education in the district?
6. How do you help other teachers become leaders in career technology education?

7. How can we reward and encourage headteachers who excel in leading career technology implementation in schools?
8. How can you create a school culture that promotes career technology implementation?
9. What skills do headteachers need to lead career technology education well in schools?
10. How can headteachers collaborate with others to create a strong system that promotes career technology implementation in the district?

APPENDIX C

CONFIRMATION AGREEMENT SHEET

I have fully read and understood the transcription and the interpretation of the interview conducted on exploring the role of headteachers in the implementation of career technology curriculum in Achiase District.

I wish to state that I agree that the story is mine and I have given my full approval for the researcher to use for his thesis. I do not have any doubt about its credibility for use.

…….. ……

Name of Participant Signature