UNIVERSITY OF EDUCATION, WINNEBA

TEACHERS' KNOWLEDGE ABOUT THE USE OF INTEGRATED METHOD OF TEACHING PRESCHOOLERS: THE CASE OF KUMASI METROPOLIS OF GHANA

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MASTER OF EDUCATION

2022

UNIVERSITY OF EDUCATION, WINNEBA

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A dissertation in the Department of Early Childhood, Faculty of Educational Studies, submitted to the School of Graduate Studies in partial fulfilment of the requirements for the award of the degree of Master of Education in the University of Education, Winneba

DECEMBER, 2022

DECLARATION

Student's Declaration

I, **Mary Amankwah** hereby declare that this project work is my own effort with the exception of quotations and references contained in published works, international journals which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature: ……..

Date: ……

Supervisor's Declaration

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

Name: Dr. Michael Subbey

Signature: ……..

Date: ……

DEDICATION

This study is dedicated to Almighty God and my dearest mother, Madam Portia Amankwaah.

ACKNOWLEDGEMENTS

The successful completion of this study would not have been possible without the assistance and cooperation of these important people in my life. I would like to acknowledge and give my warmest thanks to my supervisor, Dr. Michael Subbey who made this work possible. His guidance and advice carried me through all the stages of writing this thesis.

I would also like to give thanks to my lovely husband Mr. John Osei Arhin, my adorable children Anthony Arhin Osei, Abigail Elly Dufie Osei, Adrianus Kees Asokwa Osei, Emmanuel Davis Siaw Osei and Benjamin Gyimah Osei; my sweet mother Agnes Gyaamah and my brother Enoch Adjei for their continuous support and understanding. Your prayer sustained me this far.

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ABSTRACT

The use of integration in teaching could be a daunting endeavor for teachers to conceptualize, whether trained or untrained during the pre-service and in-service, globally. This study sought to explore how preschool teachers in the Kumasi Educational Metropolis in Ghana conceive the integrated method as the recommended tool for the implementation of the standard-based curriculum. The study, therefore, employed a qualitative case study design within the pragmatic paradigm to investigate their perceptions about the construct. Four professionally trained preschool teachers within the educational Metropolis were selected purposively to participate in the study. Data were gathered through semi-structured interviews and were analysed thematically, which led to the emergence of five major themes. The findings suggest the teachers were not completely ignorant of the integrated method of teaching. Despite their self-perceived limited knowledge, they conceptualized integration as; the combination of different subjects or topics in diverse disciplines, without resorting to traditional subject-specific teaching. The use of the integration led to the acquisition of generic teaching skills in teachers, whilst holistic understanding and creativity were achieved among the children. Furthermore, children's and teachers' daily experiences, and the availability of teaching and learning resources are the major factors teachers consider when employing integration in teaching. The setbacks of integration are the teachers, resources, parental, and leadership challenges. The study concludes that the teachers have limitations and felt a need for adequate education in integration. Hence sufficient training is recommended for the in-service and practicing teachers to equip them with the requisite expertise to discharge their responsibilities efficiently. The implications for policy formulation, research, practice, and teacher pedagogical development were discussed.

Keywords: preschool, Integrated method of teaching, integration, implementation, standard base curriculum, perception, and conception.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This section provides an insight to the background to the study, research problem, research objectives, research questions, and the significance of the research.

1.1 Background

How a school's curriculum should be structured, constructed, and developed is a matter of ongoing debate. Curriculum design has been the subject of considerable debate, as reported by Lam, Alviar-Martin, Adler, and Sim (2012). Different pedagogical approaches, such as subject-based and interdisciplinary models, have divergent views on what students should learn. Curriculum and instruction should prepare students to make meaningful contributions to society (Lam et al.,2012).

Interdisciplinary learning may take many forms; one of them is the integrated method of teaching, in which seemingly unrelated topics are brought together to provide a unifying theme.. The use of these predetermined topics is an example of a multidisciplinary approach to education since it allows students to make connections between their studies and real-world experiences. Blending and connecting several subject areas, a theme-based approach has the potential to improve students' critical thinking, social skills, and academic performance (Lam et al., 2012). Teacher preparation for this kind of interdisciplinary learning may also be seen through the lens of overarching themes and emerging patterns. The best way to successfully arrange thematic aspects is via collaborative planning and instruction, which allows for seamless integration of previously taught topics (Tudor, 2014).

Kindergarten and other forms of early childhood education must approach children's growth as a whole, rather than in silos. Children benefit most from an approach to learning that is both interdisciplinary and multimodal, since studies have shown that a young child's brain does not function in discrete silos. Ghana's standard-based curriculum advises using an integrated/thematic approach to combine the different topics and experiences that will be delivered to these young children in order to minimise the segmented and fragmented presentation of children's learning throughout the early years (NaCCA, 2018).

A teacher's ability to achieve such a holistic human development depends on his or her content and most especially that of his or her pedagogical approaches often employed in the classrooms during the teaching and learning process (Darling-Hammond, Flook., Cook-Harvey, Barron, & Osher, (2020). Integrated curriculum is often used to structure instruction in pre-school and kindergarten, since they take into account the whole child and encourage growth in all areas. Although there are several ways to execute a kindergarten curriculum, one of the most common is to have the subjects taught together. Increasing numbers of educators are eager to adopt a more holistic approach to education. All the fun comes from seeing the students take a more hands-on approach to their education. Teachers that make an effort to use an integrated curriculum believe strongly in the need of giving students with an education that has real-world applications.

Ghana also joined a number of countries to reform its educational system in 2018 by incorporating the standard based curriculum, whilst encouraging to adapt the integrated approach in the teaching learning process at the kindergarten level. When it comes to the delivery of the early childhood curriculum, integrated approaches that

are choreographed with inquiry and discovery techniques of teaching the curriculum will be of the utmost importance (NaCCA, 2018).

Fast-growing kindergarten education programs may be found all across the globe, but mainly in developed nations (Boocock, 1991). As a result, there is a rising need and interest in ensuring that young children have access to high-quality early childhood education (Clinton, 1996; Curtis & Carter, 1996; Gardner 2000). Academic conversations among early childhood's educators worldwide centre on the curriculum in their quest of excellent early childhood education. It is generally accepted that the quality of childcare and kindergartens is strongly influenced by the planning and execution of their curricula (NAEYC, 2005). Extensive research has proven that great preschool programmes promote not just readiness to learn but also social skills that will aid children throughout their lives (O'Connell, 2006).

A common way to understand the value of interdisciplinary learning is to consider it a tool for fostering higher-level critical thinking (Heywood et al., 2012). Several studies have shown that students develop interdisciplinary abilities when they study via a uniting theme that is applied across academic lines. Cross-curricular learning, as defined by Heywood et al. (2012), "has also been used to describe the application of skills, knowledge, and attitudes of different disciplines to a single experience, theme, or idea" (Barnes, 2007, p.46).

The second objective of theme-based classes is to improve students' background information and capacity for making connections by means of shared topics. Cross-curricular competences and previous knowledge are sometimes used interchangeably, however there are important distinctions between these two notions when it comes to domain-specific and integrated pedagogy (Neuenhaus et al., 2013). Utilizing a theme-

based approach may improve student learning growth, as shown in recent research by Pop (2014) on the implementation and use of a theme-based lesson and interdisciplinary curriculum.

An interdisciplinary method also requires teachers to work together, which may be difficult. Before adopting this approach to curriculum development, schools should conduct an assessment of teachers' cross-curricular competences, including their cross-functional abilities, their degree of professional preparation, and their willingness to engage in a lifelong learning process (Safta, 2015). Before switching to a theme-based or interdisciplinary method of teaching, school districts need to ask themselves some important questions, such as: how knowledgeable or experienced are the preschool teachers who are implementing the integrated method of teaching in the classroom? What factors inform their practice and the associated challenges? Can teachers adjust to this new situation? If so, what would be a reason to do that? (Safta, 2015). Since a theme-based approach relies heavily on teachers developing interdisciplinary expertise, they play a pivotal role in its effective implementation. The goals of integrating different areas of study into a cohesive whole are admirable, and they may have beneficial results, but teachers need the right tools to implement this strategy effectively (p. 67).

This study intended to conceptualize teachers' knowledge and understanding regarding the use of the prescribed integrated method of teaching and how these contribute to the pursuit for excellent curricular practices for improving and developing the delivery of kindergarten education in Ghana. Specifically, this research aims to analyze how teachers are employing integrated method of teaching as

they are implementing the standard based curriculum in some selected preschool schools in the Kumasi Metropolis.

1.2 Statement of the Problem

The process of creating an integrated curriculum is complicated, like many other attempts to improve education. Successful implementation of curricular modifications is influenced by teachers' professional judgments (Fullan, 2007). Thus, the reform's concepts and the environments in which it will be implemented have an impact on teachers' choices (Gopinathan & Deng, 2006). Similar findings from throughout the world demonstrate that instructors whose pedagogical choices are informed by their understanding of the curriculum are essential to the effective delivery of integrated programmes. Although educators generally agree that integration is desirable, they disagree on what kinds of integration are most effective (Lam, Chan, & Zhang, 2006). The many definitions and claims made about the nature of curricular integration may help to explain the wide range of views held by educators (Beane, 1997; Drake & Burns, 2004; Jacobs,1991). Furthermore, research on teacher training has shown that direct involvement in implementing new curricular initiatives is more likely to result in a shift in beliefs and attitudes (Fullan, 2007).

Literature on early education indicates that young children learn better in an integrated and holistic manner (NaCCA, 2018). This is due in part to the revelation that the brain of young children is not compartmentalized (Cantor et al., 2019). Hence, to avoid compartmentalised and fragmented presentation of ideas, skills, and values to children, integrated or thematic approach has been employed to incorporate the many different things that these kids have been exposed to (Darling-Hammond et al., 2020).

Numerous studies have been undertaken on a global scale to determine the benefits of an integrated curriculum on student results, teacher pedagogy, and professional understanding (Bifuh-Ambe, 2013; Nowell, 2016; Koponen et al., 2016). Despite the fact that several studies have revealed that the theme-based approach to curriculum and instruction comes with specific difficulties that may limit student results and individual instructor pedagogy, this method may also bring advantages (Lam et al., 2012). There appears to be limited literature borne out of empirical studies in the Ghanaian context to track kindergarten teachers' perspectives about the integrated method of teaching.

Teachers' perceptions of the quality of their pre-school programmes have a direct impact on the development of their students (Rao, Ng, & Pearson, 2010). Teachers' outlooks and judgments are influenced, and their classroom practises are altered as a result. Therefore, it is crucial to get insight into instructors' viewpoints on their teaching methods in order to enhance the quality of instruction and student learning. Therefore, research is required in the Ghanaian context to explore current practises in a clear and coherent way so that empirical evidence may be acquired on particular integrated teaching and learning phenomena. Failure to understand the teachers' knowledge regarding their conceptions and practices with the use of the integrated method of teaching might hamper the smooth implementation of the curriculum and, thereby, negatively affecting the learning outcomes of the children in the schools.

The overriding task is to answer the question; what knowledge and understanding do the Kumasi Metropolis kindergarten teachers' have regarding the use of the integrated method of teaching, whilst implementing standard based curriculum in Ghana? The researcher sought to fill these voids in terms of contribution to literature,

methodology and in practice regarding preschool teachers' instructional practices with specific emphasis on integrated method of teaching in the metropolis.

1.3 Purpose of the Study

The purpose of this study was to explore the preschool teachers' knowledge and understanding of the integrated method of teaching preschoolers in the Kumasi Metropolis.

1.4 Objectives of the Study

The objectives of this study were to:

1. explore preschool teachers' views regarding the integrated method of teaching in the Kumasi Metropolis classroom.
2. ascertain the teachers' level of experience concerning the use of integrated method of teaching in the Kumasi Metropolis classroom.
3. identify the major challenges that are encountered by the teachers when implementing integrated approach in the Kumasi Metropolis classroom.

1.5 Research Questions

The following research questions were formulated to guide the study:

- How do the preschool teachers view the integrated method of teaching in the Kumasi Metropolis classrooms?
- How experienced are the teachers regarding the use of integrated method of teaching in the Kumasi Metropolis classroom?
- What are the common themes used by the teachers and their effects on the integrated method of teaching early grade level in the Kumasi Metroplis?

- What factors are considered by the teachers when implementing the integrated approach in the classroom and their related areas for improvement in the Kumasi Metropolis?

- What major challenges are encountered by kindergarten teachers when implementing integrated approach in the Kumasi Metropolis classroom?

1.6 Significance of the Studies

Specific aspects of kindergarten teachers' instructional approaches appear to be neglected within educational research in Ghana. In particular, an analysis of the views and perspectives of kindergarten teachers who employ integrated approach in the classroom has not yet been undertaken, since the implementation of the standard based curriculum in Ghana. Therefore, the findings from this study will support kindergarten teachers who seek to implement this integrated approach in their classroom.

Second, the research would provide light on the processes through which Ghanaian schools adopt and execute curricular reforms. Third, the instructors' reports may encourage the teachers and others, such as teacher educators, to reflect on their own classroom experiences and student observations, leading to new discoveries.

Fourth, policy makers and curriculum developers would benefit from the fine-grained detail to be revealed by this study. Expected outcomes from this study would help policy makers, curriculum developers and implementers to better understand issues related to the current integrated approach to lesson delivery in preschool classrooms and provide relevant support for teachers.

1.7 Limitations

Both the qualitative research findings and the possibility of researcher bias were identified as possible limitations of this study. Using a qualitative approach, the researcher may have grown invested in the interviews, which in turn could have influenced the participants' responses. It was crucial that I be objective during all interviews and research before beginning, so I took the time to reflect on my own beliefs on theme-based courses. The inclusion of a questionnaire as part of the qualitative procedure before the interviews also represents a drawback of this research. Questions on the questionnaire may have skewed responses and influenced participants' attitudes and opinions during the semi-structured interviews that followed. Participants were encouraged to ask clarifying questions throughout the questionnaire process to ensure that they had a thorough understanding of the topics being asked and that no potentially embarrassing material was disclosed. The method relies on participants' honesty and openness, which may not always be the case.

1.8 Delimitations

Preschool educators in the Kumasi Metropolitan Area were the only participants in this research. The researcher was aware that interviews might provide a limitation owing to data restrictions. In addition, since this study used a condensed form of an integrated curriculum in the classroom, the data were collected in a rather little time frame. In this research, "theme-based lessons" is defined as those that include content from several academic fields.

1.9 Definition of Terms

Theme-Based: teaching around a centralized theme across subjects and disciplines

Knowledge: the theoretical or practical understanding of a subject in an implicit or explicit manner.

Integrated method: the teaching of concepts in multiple topics or approaches.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

2.0 Overview

This chapter begins with the historical perspectives on integration approach to teaching. The study's theoretical framework on interdisciplinary teaching, student participation, and teacher pedagogy are also laid out in detail, providing a solid foundation for the investigation and future studies on the topic. This chapter further reviews significant literature on integrated method of teaching including empirical studies on teachers' perceptions, knowledge, challenges often associated with the use of integrated method of teaching as an educational practice.

2.1 Historical Context of Integrated Curriculum

John Dewey's writings provide a wealth of information for anyone interested in the progressive, integrated curriculum of the early 20th century. Dewey was a pivotal figure in the development of progressive education, the idea of an integrated curriculum, and other interdisciplinary pedagogical methods. Because of his view of human intellect as a tool for survival, many have compared Dewey's groundbreaking work in child-centered education to instrumentalism (Schreier, 2001).

In addition, Dewey's work laid the groundwork for social thinking; in particular, he advocated for the concept of dualism, the unification of moments via experience, and a more progressive method of education (Bower, 2014). Dewey, an advocate of "child-centered education" (Tzou, Yang & Wright, 2011), emphasised that schools should include several pedagogical tenets to better serve students in a wide range of

circumstances (Dewey, 1902). Success and correct interpretation in education depend on regular evaluation and course correction.

It was argued that Dewey's theories of child-centeredness, as well as the ideas of reconceptualists and poststructuralists, which form the basis of integrated curriculum and theme-based teaching, are compatible with one another, and that educational concepts should be taught as a whole and not separated (Tzou et al., 2011). Post-constructuralist perspectives advocate learning that is self-reflective and based on real-world experiences and connections, whereas reconceptualist perspectives emphasise a kind of learning supposed to have various meanings and connections that foster cross-cultural thinking. Both approaches concentrate on the kid and promote an inclusive and personalised method of education (Tzou et al., 2011; Davies, 2002).

Prawat (1995) argued that one of the most significant shifts in education happened with the advent of the constructivist learning theory, upon which much of Dewey's work rested. Progressive education is based on the ideas of developmentalism, which include John Dewey and Jean Piaget, and emphasises student autonomy, experiential learning, and group collaboration. According to developmentalists, students learn best when they are given opportunities to explore topics that pique their own interests (Prawat, 1995). Scholars may not completely comprehend the aim and meaning behind Dewey's progressive education reforms due to the several labels that have been applied to him over the years: idealist, rationalist, realist, foundationalist, and nonfoundationalist.

2.2 Integrated Curriculum

2.2.1 General concepts

In education, the term "integrated curriculum" refers to a variety of approaches that try to reduce the barriers between different fields of study and make them more interconnected for students (Lam et al., 2012). The practise of incorporating curricula across disciplines is well-known, but it has also generated significant debate and support. This discord in pedagogical approach makes it difficult to draw firm conclusions about its benefits or drawbacks. Different educational efforts have utilised and interpreted integrated curriculum in different ways because teachers use various pedagogical philosophies and approaches when making curriculum decisions (Vars, 1991).

Modern practises like cross-curricular education or curriculum integration aim to create relevant learning environments in which students may make connections between fundamental ideas from different disciplines. Most of these situations need some degree of abstract thinking and problem solving (Lake, 1994). It's important to note that terminology like "interdisciplinary," "multidisciplinary," "transdisciplinary," "blended," "cross-curricular," "cross-disciplinary," "thematic," and "topic-based" are all synonyms for "curriculum integration." Despite the ease with which these terms may be swapped, there is still debate about how much integration is best. Teachers and policymakers have yet to settle on a single model as the best since none has been offered in the literature or research.

Learning and teaching in an integrated curriculum span and draw from a variety of disciplines. The goal of an integrated curriculum is to create links between subjects that have a similar topic. The terms "multidisciplinary" and "transdisciplinary" are

sometimes used as shorthand for "curriculum integration" (Adamu, 2003). The multidisciplinary approach is one of the most popular paradigms since it allows for the transfer of knowledge and expertise across different fields. The goal of interdisciplinary work is to demolish artificial barriers across fields of study in order to find universal themes that may be used to develop higher-level cognitive abilities. In addition to removing artificial barriers across disciplines, transdisciplinary learning focuses on real-world situations or themes that may be applied to a variety of contexts and help students achieve higher-level learning goals (Adamu, 2003).

As Meeth (1978) points out, the word "interdisciplinary" refers to a broad notion, thus he narrowed it down by focusing on the views and connections between different areas of study. Cross-disciplinary, multi-disciplinary, pluri-disciplinary, and transdisciplinary frameworks have been developed to categorise these fields. Perspectives from different fields are used in cross-disciplinary research. Pluridisciplinary combines apparently unconnected fields of study into one cohesive learning experience, whereas multidisciplinary brings together many fields of study around a central subject or emphasis. Last but not least, transdisciplinary poses a challenge and makes it possible to combine information from many fields to foster linkages in education (Meeth).

2.3 Theoretical Considerations

2.3.1 The constructivist theory

Previous studies demonstrate the relevance of the constructivist theory in the pursuit of offering better explanation for classroom teaching and learning. The overarching tenet of the constructivist theory is that learners actively construct new knowledge based on their prior knowledge and experiences (Suhendi & Purwarno, 2018). Constructivism,

a postmodernist epistemology theory of learning explains what knowledge is and how people learn it (Abdal-Haqq, 1998). Originally, the theory focuses on the beliefs, skills, relevant experiences, values, dispositions, and knowledge students bring to the learning experience of which learning is student-centered based on guided discovery. In accordance with this, Gordon interpretated constructivism in the learning context as learners actively creating, interpreting and reorganizing knowledge individually based on their past experience. Thus, constructivism, through social and cultural context, regards students as scholarly participant in such teaching and learning processes as problem-based and inquiry learning.

Constructivist theorists like Dewey, Piaget, Montessori all proclaim that student's prior knowledge and relevant experiences form the basis of how real knowledge is constructed (Ultanir, 2012). For instance, Dewey (as cited in Ultanir) stressed that learners actively engage in meaning-making of newly constructed knowledge that interlinks with their previous knowledge, experience, ideas and beliefs. Thus, to constructivist theorists, the promotion of critical thinking through self-directed learning and the need for educator to facilitate learning environment and learners inborn tendencies and potentials are primal to knowledge acquisition. Existing knowledge is related significantly to Construction of new knowledge, learners social and cultural contents (Charlene, 2015).

Contemporary, for learners to acquire facts, principles, skills and knowledge, classrooms are shifting towards constructivist practices, focusing more on learner-centered approaches (Khoja et al., 2008). Today's students take the center stage and control the pace of their own learning as teachers act as facilitators, implying that students and teachers interact to achieve learning outcome. To Hubbard (2012), in

schools with constructivist cultures, students' knowledge is constructed through social interaction where students are given opportunities to collaborate and learn together. This social aspect of constructivist is referred to as social constructivism (Detel, 2015). Accordingly, Hubbard acknowledges that student's engagement and academic success in schools with constructivist cultures are dependent on the constructivist teaching principles that lay much emphasis on teacher pedagogical knowledge. In the light of the sound arguments in support of the constructivist theory as theoretical and philosophical underpinning of integrated curriculum model, this study adopted the theory to form the theoretical framework upon which the integrated teaching exploration in the Early Childhood Education (ECE) is premised.

2.3.2 Constructivism and integrated teaching

Integrated teaching, a project-oriented pedagogic strategy is rooted in the constructivist theory of learning, in that the critical role of the teacher is to facilitate learning by providing a learning environment that prepares students for lifelong learning (Kantar, 2013). Constructivism emphasizes on learners' construction of new knowledge and meaning from reality through discovery approach. In the school context, learners play active role to create, develop and invent knowledge while the teacher serves as a facilitator by providing materials and information, organizing and coordinating activities to enable learners to discover new knowledge (Alesandrini & Larson, 2002).

In fact, within integrated curriculum, students with academic difficulties benefit from constructivist instructions tailored to address their learning needs (Akpan & Beard, 2016). For instance, a study conducted by Watkins and Kritsonis (2008) discovered that integrated curriculum ground in the philosophical basis of constructivist theory increase students' knowledge and cognitive ability by building their prior and adding

new knowledge to strengthen their academic learning and understanding. Hajhosseini et al., (2016) study corroborates this with findings that integrated curriculum model offers students with learning experiences that promote critical thinking and expression of ideas. This argument is in sync with the early findings of researchers like (Jervis & Jervis, 2005), whose work on the integrated curriculum stressed that, such integrated teaching and learning approaches as discovery learning, inquiry learning, and problem-based learning provide learners with real-life learning experiences to augment knowledge acquisition.

2.4 Conceptual Considerations

2.4.1 Integrated method of teaching

The use of an integrated approach to teaching topics in a course is widely recognized as a successful educational practice. Integrated teaching according to Hieu and Nam, 2019), is an educational reform perspective that involves a fundamental shift from a content-based teaching method to a competency-based approach in order to create dynamic and creative people capable of applying knowledge to real-world issues. According to Harden et al. (1984) integration is the organization of teaching material in order to interconnect or incorporate concepts that are typically taught in separate academic courses or departments.

The term "integrated approach" also refers to the teaching of concepts in multiple topic areas or approaches (Yimwilai, 2015). Teachers combine a variety of tactics, strategies, and technology gadgets in this approach, according to Adeyemi (2010). As a result Hieu and Nam (2019) defined integration as a teaching and learning approach based on a diversity of fields, sectors, and practices. It entails acquiring knowledge, skills, attitudes, and values within or outside of the topics in order to gain a better

comprehension of key concepts. Hieu and Nam go on to say that integration happens when students, teachers, and specialists integrate and relate curriculum components in meaningful ways. It is a way to assist pupils make connections, according to Langa and Yost (as cited in Adeyemi, 2010).

In order to ensure student learning via higher-order thinking processes and to foster the building of numerous relationships between oneself and the environment, an integrated approach seeks to better explicate ideas related to a subject, situation, or scenario (Wall & Leckie, 2017). Moreover, students who are exposed to an integrated approach are better able to see the relevance of what they learn in their day-to-day lives, are more likely to remain engaged in the learning process, are more likely to acquire new knowledge in a meaningful way, and are better able to contribute to their own education as educators (Bintz & Monobe, 2018). The primary emphasis of integrated curricula, as stated by Gürkan (2021), is on a teaching strategy that places the emphasis on the learner. In other words, the learning process is steered by chances for growth, and the interests, curiosity, abilities, and questions of students are paramount. In this approach, it is hoped that students would develop a sense of perspective.

2.4.2 Models and approaches of integrated teaching

Integration can be approached in three ways: multidisciplinary, interdisciplinary, and transdisciplinary (Drake & Burns, 2004). Multidisciplinary, interdisciplinary, and transdisciplinary terminologies have been used to describe initiatives involving multiple disciplines, and these terms will be discussed further.

2.4.3 Multidisciplinary integration approach

The disciplines themselves are the major target of attention in interdisciplinary methods. This strategy is used by educators to organise cross-curricular standards around a common topic (Drake & Burns, 2004). Multidisciplinary research, as described by Choi and Pak (2006), utilises knowledge from several areas of study while keeping focus on each discipline's unique strengths. As a result of their unique tenets, there is little overlap amongst academic fields. According to Drake and Burns (2004), one typical example is the merging of reading, writing, and speaking in the field of language arts. A teacher's teaching might include not just facts and knowledge but also a way of thinking. Some schools, for instance, include lessons on environmental responsibility into every area of the curriculum.

2.4.4 Interdisciplinary integration approach

In this method of integration, teachers plan lessons around topics that are relevant in several subject areas (Drake & Burns, 2004). Drake and Burns argued that instructors encourage the incorporation of skills and ideas by piecing together the common learnings implicit in the disciplines. According to Mansilla (2010), interdisciplinary learning occurs when students and instructors from different domains work together to get a deeper theoretical or applied grasp of a topic that transcends traditional academic boundaries. Students who study in an interdisciplinary fashion are able to produce things, explain phenomena, and solve problems in ways that a more narrowly focused education would not have permitted (Mansilla). This layout more effectively connects more than one academic field. The term "multidisciplinary" refers to the use of terms from several fields to express a single activity, idea, or set of skills (Choi & Pak, 2006).

2.4.5 Integrative teaching as a mode of instructional delivery in preschools

Integrative teaching works best in preschools. The preschool curriculum is treated in a holistic manner. Teachers employ an interactive, collaborative and innovative process of teaching.

2.4.6 Teaching models that lend easily to integrated teaching and learning in preschools

Many different types of classroom strategies have been shown to be useful in promoting integrated teaching in primary schools and preschools alike. Discovery learning, inquiry learning, problem-based learning, and collaborative learning have emerged as four of the most prominent examples.

2.4.7 Discovery learning

Work that requires the student to "find" the information they need is sometimes called "discovery learning" (Druckman & Ebner, 2018). It is the student who is at the core of the educational experience. According to Hanafi (2016), while using the discovery learning mode, students must actively participate in, and even play a large role in, making choices about what, how, and when they study. Instead of being spoon-fed information by the instructor, students are expected to actively seek out relevant instances and draw conclusions about the underlying ideas or concepts. In discovery learning, students are left to fend for themselves utilising only the resources at their disposal in order to acquire the necessary information and conceptual understanding. When instructing students using discovery-based strategies, teachers have the option of either providing close or distant monitoring (Alfieri et al., 2011). When students are given sufficient guidance and assistance, discovery learning has been demonstrated to help them become more motivated, create more adaptable

knowledge, and understand how information is produced in a particular field (Hmelo-Silver et al., 2007). Keys and Bryan (2001), reaffirmed the widespread belief that educators recognise discovery learning's promise and welcome the opportunity to include it into their pedagogical repertoire.

In order to facilitate productive discovery learning, Reiser (2018), recommended two forms of assistance: (1) problematizing student answers and (2) providing a framework for solving the problem. In the first place, students need direction in defining the issue they will attempt to solve. As a means to this end, it is helpful to break the issue down into manageable chunks for them (Reiser, 2018). By breaking down the issue into manageable chunks, students will be immersed in the challenge and feel more invested in finding a solution (Lijnse, 2004). Second, students need assistance in problematizing their solutions, or critically assessing and bettering the answers they generate (Reiser, 2018).

2.4.8 Inquiry learning

According to Crockett (2002), Dewey's 1933 view of inquiry as a process of progressive problem resolution and his belief that building reflective attitudes was a crucial component of improving teaching practise over time mark the origins of teacher inquiry. As a means of encouraging children to become curious about and engaged with the world around them, inquiry-based learning has been studied for its potential use in preschool and kindergarten settings (Gerde et al., 2013). Inquiry-based learning, as described by Demetrion (2012), starts with students experiencing confusion and uncertainty due to a novel and difficult situation that they do not yet completely understand. When things are out of whack, it prompts you to start asking

questions until you find an answer that satisfies you. Inquiry-based education places a premium on students actively engaging in the learning process.

In this method, students search and find solutions for themselves within the subject matter, while teachers serve as facilitators and mentors to help students along the way (Aziz et al., 2017). Thus, rather than just presenting existing information, inquiry learning begins with the presentation of questions or challenges, and the process is aided by a facilitator (Edwards et al., 1998). Inquiry learning is a set of learning activities aimed at emphasizing critical thinking and analytical processes in the search for and resolution of an issue. Inquiry learning is a constructivist technique in which students are encouraged to create meaning for themselves (Aziz et al., 2017). While teachers can help steer the inquiry to varying degrees (externally facilitated) and set considerations for a classroom inquiry, true inquiry is driven from inside.

Preschoolers were shown to be more involved in activities and to gain scientific process skills like hypothesising and questioning when teachers used an inquiry-based approach (Inan et al., 2010). Similar results were seen in the schools that Inan et al., visited (Ermeling, 2010). This research showed that students learned more effectively when teachers encouraged them to seek solutions on their own rather than giving them all the time. Based on a modified version of the scientific method, French (2004) broke down the inquiry process into four sections: (1) reflect and ask; (2) plan and forecast; (3) act and observe; and (4) report and reflect. With the help of multi-day projects, this method has been shown to encourage youngsters to engage in higher-order cognitive activities such as predicting and reflecting. Gerde et al. (2013) argued that children are inspired to investigate and question not just during scientific events, but also during other activities, such as group play and outdoor leisure.

Both students and teachers can benefit from inquiry learning since it encourages them to be more reflective and make interpretations of their learning (Ayodele et al., 2014). Inquiry learning, according to Kahn and Rourke (2005), allows students to reach a range of conclusions and build on past knowledge to construct new and deeper understandings. Inquiry based learning's ultimate goal is to promote classroom learning in order to better encourage and engage students in their scientific classes (Kahn & Rourke).

2.4.9 Problem-based learning

The concept of "problem-based learning" was developed in the context of medical education (Chin & Chia, 2004). Active learning, or problem-based learning, occurs when a teacher facilitates a small, student-driven group in the process of problem-solving (Salam et al., 2009). It's a cutting-edge teaching technique that allows students to examine challenges, learn content, and honestly articulate what they've learned (Hmelo-Silver, 2004). A difficulty serves as a catalyst for student action and learning (Boud & Felleti, 1997). This type of learning is purposeful since students learn while looking for solutions to issues and in the context in which knowledge will be applied (Chin & Chia). The problem-first method in problem-based learning, according to Chin and Chia) guarantees that students understand why they are learning what they are learning.

Clinical, community, or scientific, the challenge is presented to the students in a manner that puts their skills to the test (Smits et al., 2002). The basic idea is that each meaningful learning experience must begin with the learners posing a problem, question, or puzzle that they hope to eventually answer (Harden & Davis, 1998). Consensus on learning goals is essential, as is the use of independent study followed

by peer review of progress (Smits et al.,). Students benefit from problem-based learning in a number of ways, including (but not limited to) the following: (a) expanding their knowledge base; (b) becoming better problem solvers; (c) learning how to study successfully on their own; (d) working well with others; and (e) being more motivated (Hmelo-Silver, 2004). Rather than simply leading students via problem-solving strategies, a teacher who employs problem-based learning acts as a facilitator of the learning process, encouraging students to express themselves clearly while refraining from directly conveying information about the issue at hand (Savery, 2006).

In problem-based learning, the teacher is a "cognitive trainer," or "coach" (Golightly, 2016a), who encourages students to think critically (Das et al., 2002), who gives them the freedom to take charge of their own education (Groves et al., 2005), and who assumes increasingly active roles as students learn to recognise and address learning issues stemming from problems and establish realistic, attainable objectives (Golightly, 2016b). Open-ended questions, prompting for responses, restating, summarising, generating and assessing hypotheses, checking for agreement, facilitation, and constructive feedback are all examples of how a teacher might give effective scaffolding, as described by Moore and Kain (2011). A literature study reveals that the efficacy of problem-based learning has been studied in a wide variety of contexts. Academic performance (Aidoo et al., 2016; Awan et al., 2017), class attitude and motivation (Selçuk, 2010; Wijnia et al., 2015), creative thinking (Ulger, 2018), and problem-solving abilities (Wijnia et al.,) are only few of the areas that benefit from problem-based learning.

2.4.10 Cooperative learning

According to Okur-Akçay and Doymuş (2014), cooperative learning is an approach to education in which students of different backgrounds work together to learn about a topic in a classroom or other context. Cooperative learning is characterised by positive interdependence, personal responsibility, face-to-face encourage interaction, the successful application of collaborative skills, and group processing (Johnson et al., as cited in Erdem, 2009). Putting pupils in groups and encouraging them to collaborate does not lead to cooperative learning.

Cooperative learning is defined by activities in which students work together to achieve a common learning objective, in which they share in the responsibility for problem solving, in which all members of the group have an equal opportunity to contribute, and in which they make efficient use of their time together (Büyükkaragöz & IVI , 1997; Erdem, 2009). Kids get to practise a wide range of social skills when they participate in cooperative learning activities, such as giving and receiving help, sharing and listening to ideas, resolving conflicts, and expanding their own and others' understanding (Gillies, 2003). Cooperative learning, in other words, calls for group members to help one another out, share resources, exchange ideas, work toward a shared objective, and produce a final product that everyone can take pride in (Johnson et al., 2007).

Children in a cooperative learning environment share in the learning process and take ownership of their peers' and their own growth (Slavin, 1990). Teacher maintains order by providing resources, providing explanations, etc., when pupils need help. One possible explanation for cooperative learning's rising popularity is the research showing its beneficial impacts on students' academic performance, social interactions

with classmates, acceptance of students with disabilities, sense of self-worth, perspective, and anxiety (Tarim, 2009).

According to Slavin (1995), cooperative learning has been widely implemented in all imaginable subjects from kindergarten through college and in all sorts of schools across the globe. Also, Askew and Wiliam (referenced in Tarim, 2009) found that students of all ages, skill levels, and educational backgrounds benefited from cooperative learning exercises (state school, private school, central school, etc.). As Moyles et al. (2009) pointed out, cooperative play among toddlers may also promote their brain development (as cited in Tarim, 2009).

Student collaboration in the classroom has been shown to improve participation, as well as students' ability to solve mathematical, reading, and problem-solving problems. Through collaborative activities, kids are able to interact with their classmates and hone their interpersonal communication skills (Rogoff, 1998). Children's learning and development are aided by their interactions with one another in cooperative settings because they educate, lead, and support one another in problem-solving and activity execution (Slavin, 1995). To create, update, and integrate their ideas, young children are energetic, resourceful people who interact with the real environment and their peers and adults. They learn new things by drawing conclusions about the world based on what they already know. They acquire knowledge by talking about what they've done and why (Gillies, 2003). Tarim (2009) argued that in order to foster an atmosphere favourable to cooperative learning, teachers should encourage students to actively listen to one another, engage in positive dialogue, and take an active role in class discussions. These rules make it comfortable and safe for kids to work together and share their ideas in a group setting.

For example, Siew et al. (2017) used a sample of 216 six-year-olds from three randomly selected preschools and found that those taught using a cooperative learning approach significantly outperformed their peers who were either taught with hands-on or traditional teaching method in terms of fluency, originality, elaboration, abstract-ness of title, and resistance to premature closure.

2.4.11 Phases or stages of integrative teaching in preschools

The use of integrative teaching in preschools can be divided into three phases or stage, namely the pre-active phase (referred to as the planning stage of teaching and learning), the interactive phases (described as the conduct and management of learning activities), and the post-active phase (referred to as the follow-up and consolidation phase). The planning phase of the instructional process, as well as other activities that occur before the actual teaching, are referred to as the pre-active phase (Kansanen, 1999). As a result, teachers must be well-prepared with tools and equipment before entering the classroom. Teachers anticipate and construct the framework and environment in which students learn when they organize classes (Conway, 2001).

Crick (2008) argued that good school education is the result of careful preparation that incorporates a wide range of knowledge, expertise, understanding, values, attitudes, and motivation. According to Jensen (2001), lesson planning validates success in teaching and learning since all teaching and subject-matter components are incorporated in a plan and their execution allows students to learn. Ababio (2016) argued that deciding how to structure a lesson should be done well in advance. This is done primarily so that the lecturer may prepare adequately by reading widely on the subject, which is particularly important if the lecturer lacks a firm grasp of the

material. The second is to facilitate the amassing and development of non-commercially accessible alternatives to commercially offered teaching and learning materials.

During the interactive stage, the teacher provides various types of verbal stimulation to the students, makes explanations, asks questions, listens to the responses of the students, and provides assistance, among other things (Ryan, 2011). This step demands the teacher to put the decisions made during the planning stage into action, particularly those concerning teaching methods, strategies, and learning activities (Ababio, 2016). When the teacher interacts with the students, the implementation function takes place. Teaching abilities such as presenting, explaining, listening, introducing, demonstrating, eliciting responses, and reaching closure are anticipated throughout this phase. Lessons should be rationally ordered according to Good and Brophy (2008), and knowledge that with a clear, well-organized structure clarity is retained better than information presented less clearly. Burden and Boyd (2016) went on to say that clarity—the use of clear, concise, and well-organized language to explain concepts—is a continuous feature of effective lessons.

The post-active phase can be described as the completion of the teaching process, or in other words, the start of a new, improved, and modified teaching process for the same topic (Kindlinger, 2021). It starts the moment the instructional process is completed. This phase necessitates decisions concerning the lesson's objectives and the teaching strategies associated with them, as well as whether or not the pupils were able to accomplish what the teacher intended (Ababio, 2016). In other words, the teacher carefully reviews the teaching results to determine how successfully each

teaching phase was handled. Based on this feedback, a choice can be made on whether or not to establish new plans or try various implementation strategies.

2.5 Empirical Studies

2.5.1 Teachers' level of knowledge about integrated teaching

Contemporary, studies on teaching and learning call attention to the use of integrated teaching approach in preschool settings. Findings indicate that the use of integrated teaching approaches provides opportunities for young learners to participate in typical childhood experiences (Eley, 2006), gain confidence to pursue inclusion or participate fully in other social settings (Darling-Hammond et al., 2020).

Similarly, Alberta Teachers Association (ATA) approaches significantly improves young learners' academic performance (Eley, 2006). Consistent with this, for young learners to sail through their early education successfully, teachers need to be highly competent in using a particular or a combination of teaching and learning approach(es) that address the needs of all learners. Thus, teachers serve as primary agents in the education and development of young learners as their knowledge, attitude and application of teaching and learning approaches impact significantly on learning outcomes (Sheridan et al., 2009). Specifically, for teachers to deliver their instructions effectively, they need to demonstrate high level of knowledge and understanding of the instructional approaches found to be relevant for teaching young children in ECE context (Lipscomb et al., 2021). With the use of integrated teaching approach in basic classrooms, empirical studies have found that teachers lack knowledge and are incompetent. Specifically, with a sample (N = 86) from the basic school teaching staff in the North East of England and the use of descriptive statistics,, revealed that teachers have limited knowledge of and information on integrated teaching

approaches. Lipscomb et al. (2021) concluded that the lack of knowledge and understanding of ATA approaches served as crucial barriers toward the quality of teaching among these teachers.

In a more recent study, Xie et al., (2014), with a sample (N = 728) from the teaching staff in Zhengzhou, China, explored the level of knowledge of integrated teaching approaches among teachers in primary schools. Xie et al., reported that most of the teachers did not have sufficient knowledge and skills of integrated teaching approaches. Predominantly, studies that found low level of teacher knowledge of integrated teaching approaches make the case that both pre-service and in-service teacher training programs do not prepare teachers adequately in terms of the teaching and learning approaches for young learners. Notwithstanding, teacher's knowledge of integrated teaching approaches has been studied, particularly, in developed countries and in primary school settings. Studies on teacher knowledge of integrated teaching in preschool settings are limited, pointing to the need for the current study to be carried out.

2.5.2 Challenges of implementing integrated curriculum

Most challenges in integrating content areas originate in educators' views and methods of teaching. It has been concluded from a plethora of studies that teachers' negative attitudes about integrated curriculum are what make researchers and practitioners alike believe that it is too much work to implement. Savage (2012) showed how mandating a cross-curricular design might cause instructors to place less value on certain courses than others, despite the fact that they are still responsible for instructing in those areas. Because of this way of thinking, previous generations paid less attention to and cared less about certain issues. The Consortium of Institutions for

Development and Research in Education in Europe (CIDREE) conducted further studies and presented evidence of the theme approach's minimal influence on education throughout Europe. The success or failure of an interdisciplinary unit may be attributed to a number of variables. Teachers' lack of self-assurance in their material and pedagogical competence in teaching cross-curricular topics was a consistent feature identified by CIDREE in interviews across 27 nations.

A lack of management structures, limited time, and a lack of enthusiasm were all mentioned in "Moving Beyond Subject Boundaries: Four Case Studies of Cross-Curricular Pedagogy in Secondary Schools" as being prevalent problems with integrated curricula. Many problems have been identified in the implementation of cross-curricular models, although most of them stem from instructors' own biases and ignorance. Qualitative research techniques such as interviews and classroom observations are used in the published works to learn about teachers' perspectives on their own pedagogical practises (Savage, 2012).

2.5.3 Teacher perceptions

Curriculum change relies heavily on the contributions of educators. Curriculum aims and execution are shaped by instructors' perspectives on education, training, policies, procedures, and daily experiences. Those educators that place a premium on integrated programmes tend to have a more progressive pedagogical outlook, one that seeks to make students' educations more applicable to their real lives. Using and teaching within a subject-based curriculum, as claimed by Lam et al. (2013), may be seen as a hindrance to the implementation of integrated programmes by certain educators. As a result of this philosophical schism, discipline-based education has continued to be the standard in classrooms all around the globe. This is why many

programmes that prepare future educators have an emphasis on helping students gain deeper understanding of certain topics. In the United States, "highly qualified teachers" serve as a prime illustration of this trend in education. These highly skilled educators have extensive understanding in a certain field and thus focus on helping their pupils develop expertise in that field.

Multiple analyses of the integrated method were used to investigate teachers' perspectives on the benefits and drawbacks of implementing a more integrated curriculum, as well as the patterns of integration used by teachers. The study's design included multidisciplinary lessons taught by elementary school instructors. Strengths and drawbacks of implementing integrated activities in the classroom were identified via data analysis. Students filled out self-evaluation forms based on the Integrated Approach to Curricular Content Modifications for Primary Education to collect data for the study (Tudor, 2014). In interpreting the findings, we looked at how often certain themes were mentioned, such as the need for integrated curricular methods to improve classroom efficiency, the presence of barriers to implementing integrated activities, and the types of integration strategies used.

Teachers reported feeling less prepared to create and implement interdisciplinary material, despite quantitative evidence suggesting that doing so would improve students' sociability and engagement in school. While many educators say they want to employ interdisciplinary learning circumstances as part of an integrated curriculum, few actually combine subjects in this way (Tudor, 2014). These sorts of events were more common in early elementary classes than they were later on. Conclusions from Tudor's research indicated that effective curricular integration techniques need a well-defined goal and strategy before being put into action. Since teachers aren't always on

the same page when it comes to lesson preparation, it's important that integrated learning scenarios be carefully crafted to guarantee an efficient, hands-on approach. Also, Tudor (2014) concludes that a flexible curricular approach is necessary for shaping an integrated teaching methodology, which is essential for the success of interdisciplinary planning and practise.

2.6 Summary

There is nothing novel about teaching using a theme, integrated, or cross-curricular approach. Many schools in the United States, Europe, and Asia use lessons centred on a central theme, and research has shown both good and negative benefits of this strategy on student achievement. Much of what has been offered suggests that an integrated approach to education may be challenging to execute successfully owing to differences in teaching pedagogy, the inability to communicate effectively, and a lack of adequate training based on a common subject.

CHAPTER THREE

METHODOLOGY

3.0 Overview

This chapter discusses the research paradigm, methodology, design, population and sampling technique likewise the data analysis procedures and as it ends with a conclusion.

3.1 Research Paradigm

Fundamentally, research topic and question determine to a larger extent the research methods for data collection and analysis (Hughes, 2001). According to Campbell, McNamara, and Gilroy (2004), the positivist and interpretative research paradigms provide the best lens through which to see and comprehend human behaviour and its place in the larger world. Interpretivists contend that reality is a socially created phenomena, in contrast to positivists who believe that the universe is logical and follows rational scientific rules like cause and effect (Merriam, 1998). As a result, interpretations reside not "out there" in the social world, but rather "in here" or "in us" (MacNaughton, Rolfe, & Siraj-Blatchford, 2001, p. 35). The research strategy used in this study is known as the qualitative interpretive paradigm. To interpretivists, meaning is of paramount importance, and they consider individuals not as passive observers of society but rather as active participants who provide their own unique interpretations of events and their motivations for doing certain acts (Hesse-Biber & Leavy, 2011). Because of this, new knowledge and truth are generated rather than found (Schwandt, 2003).

Ontology, epistemology, and technique are all intertwined in interpretivism's

underlying beliefs. For starters, ontology is the study of reality itself (Creswell, 2013). Reality, according to interpretivists, is a cultural construction (Schwandt, 2000). It has been noted by Schwandt that "there is no way to experience real relations of a society outside of its cultural and ideological categories" (p. 198). Meanings are, therefore, shared amongst a society's members, and "these subjective meanings are negotiated socially and historically" (Creswell, 2013, p. 25). As a result, the culture of Kumasi Metropolis shapes and influences both instructors' pedagogical techniques and students' learning behaviours in the classroom.

Teacher beliefs and practises on early childhood education, including those related to lesson design, classroom organisation, and assessment of student growth, are examined in this research. All students will have unique personalities and life experiences to share with their classmates. They respond and engage with instructors and classmates through individualised modes of communication and negotiate methods of learning transfer (Schwandt, 2000; Creswell, 2013).

Second, epistemology addresses the topic of knowledge acquisition and the bond between researchers and their subjects (Creswell, 2013). Dialogs and interactions, as social and cultural activities, are assumed to be the means by which new knowledge is generated in epistemology. The purpose of our research is to shed light on the nuanced dynamics between students and educators, thus it's important that we find a technique to decipher these interactions. Appropriate methods include observing classes and conducting interviews with educators to get insight into how the participants' interpretations are used in the classroom setting (Pring, 2000). The researcher is also a part of society; she brings her own set of values, beliefs, and worldviews to the study, which informs her approach to designing the research and carrying it out in terms of

data collection, interpretation, and analysis.

The methodology of a study is its blueprint, its methods, and its overall procedure (Creswell, 2013). The approach used should be consistent with the underlying ontological and epistemological assumptions that form the basis of the social creation of meaning and reality. In this research, the researcher looks at the challenges that two different pedagogical stances provide in the regular classroom setting. In view of this, the qualitative research approach was employed in this study, in order to understand the participants in-depth perspectives on the subject matter being explored. Cases seen in their native habitats may give illuminating and nuanced accounts (Creswell, 2013).

3.2 Research Design

One definition of a case study is a "exhaustive description and analysis of a bounded system" (Merriam, 2009, p. 43). Defining and describing the boundaries of a "entity" and the case's central focus provide context and clarity (Merriam,). Stake (2005) said elsewhere that case studies are both the process and the outcome of research. As he elaborated, "case study is not a methodological choice but a choice of what is to be studied" (p. 443). An "analytical or holistic, entirely by repeated measures or hermeneutic, organic or cultural, and mixed methods" investigation of the selected case is required (p. 443). Understanding, extracting, and interpreting phenomena are more important to case study researchers than assumptions and tests (Merriam).

This research makes use of a cluster of case studies. The data was collected from a variety of instances with unique and shared characteristics. When looking at a phenomena, it is common to employ a group of case studies to describe all the possible factors at play (Stake, 2005). The purpose of this research was to investigate

and comprehend how the preschools educators see their own curriculum and instructional methods. Research that highlights the uniqueness of a social phenomena as a result of the interpretations participants ascribe to the event is well-suited to the case study design (Pring, 2000). To "illustrate the issue" (Creswell, 2013, p. 99) and further our understanding of this topic, we decided to use a collective case study approach. This was necessary because there appears to be a lack of local empirical research about the integrated approach, and because the factors that shape these curriculum and pedagogical practises are not readily apparent.

3.3 Population

The study's target population comprised all the preschool teachers in the Kumasi Metropolis with the staff strength of 1500. However, assessable population involved all the teachers in the selected educational circuits with a teacher strength of 400. .

3.4 Sample and Sampling Techniques

In this study, the researcher used a technique called "purposive sampling" (Stake, 2005). Researchers often use the method of "purposive sampling" to pick places and/or people deliberately, keeping in mind certain characteristics and features that will help answer the study questions (Merriam, 2009). Since the criteria specified for purposeful sampling clearly "reflect the purpose of the study and guide in the identification of information-rich cases," Merriam argued that researchers must identify what selection variables are critical in picking the persons or places to be researched (p. 77). In addition, they need to determine a list of "essential attributes" for the research and look for a "matching list" (Patton, 2002, p. 70). Since the project was planed to take an interpretative tack, it echoes Mertens' (2005) suggestion that places and participants be chosen to provide plentiful data. In other words, when the

researcher's goal is to get a more in-depth comprehension of a phenomena, then purposive sampling is acceptable since participants are chosen from those from whom the researcher may gain the greatest insight (Merriam, 2009). To investigate a phenomenon thoroughly, researchers often use a technique called "purposiev sampling" (Gall, Gall, & Borg, 2003; Mertens, 2005; Patton, 2002; Wiersma & Jurs, 2005). There is a higher probability of understanding the correlations between variables when utilising purposive sampling to answer research questions that include comparisons (Hesse-Biber, & Leavy, 2011). To that purpose, this research deliberately included just four (4) kindergarten teachers from four (4) different preschools in the Kumasi Metropolitan Area, since this number is suggested as optimal for this case study design in the existing literature (Patton, 2002; Hesse-Biber & Leavy).

3.5 Data Collection Methods

Semi-structured interviewswas used for the data collection or gathering process. The semi-structured interviews were used to explore the four kindergarten teachers' views on integrated method of teaching in preschool classrooms.

3.6 Data analysis

The data was analysed using a thematic approach in this research. To "identify, analyse, and report patterns (themes) within data," thematic analysis is a technique (Braun & Clarke, 2006, p. 79; Braun et al, 2019). Boyatzis (1998) argued that thematic analysis is "not another qualitative method but a process that can be used with most, if not all, qualitative methods," (p.56), whereas Howitt (2010) considered it to be a qualitative data analysis technique . Furthermore, Braun and Clarke suggested that thematic analysis has a number of benefits, including the following: a)

it is simple and user friendly for students and novice researchers; b) it can accommodate rich and comprehensive data because it is applicable to different theoretical and epistemological approaches; and c) research findings are relatively easy to understand by the general public and policy makers (Howitt, 2010). On the other hand, theme analysis is not without its drawbacks. Many theme analyses, according to Braun and Clarke (2006), expose a "lack of transparency," and hazy rules suggest a "anything goes critique of qualitative research" (p.78). A reader's faith in the analysis's accuracy might be shaken by such a remark.

Howitt (2010) said that researchers need to "know their data like the back of their hand" (p.164). To reach this goal, the researcher went through all the steps of collecting, transcribing, reading, and re-reading the data. Braun and Clarke (2006) also say that transcription is a key part of the data analysis process in interpretative qualitative methodology. The transcription step is important because it could affect how data is understood and interpreted, and it also looks at how meanings are made.

Thematic analysis was used in this study because of all of the above. There are a lot of different ways to look at qualitative data. Dawson (2002) posited that a person's choice of method for analysing qualitative data may depend on a number of factors, such as personal preferences, time, equipment, and money. Creswell (2007) said that analysing data should be seen as "a chronology of unfolding events and turning points or epiphanies" (p. 155).

Thematic analysis is a way to look at data based on a theme. This kind of analysis is very inductive, which means that the themes come out of the data and aren't put there by the researcher. It is used to find out how much the teachers know about education laws and how well they understand their responsibilities as professionals. It lets us

compare and contrast data from four different respondents who were each interviewed separately. Braun and Clarke (2006,; Braun et al., 2019), who gave a step-by-step guide for thematic analysis, used the same method for their study.

First, the researcher read and reread the transcribed data to get a feel for the interviews, as Braun and Clarke (2006) suggested. This was done so that the transcripts could be checked against the original audio recording to make sure they were accurate and true. Also, the close attention needed to transcribe data requires skills in close reading and figuring out what it all means (Lapadat & Lindsay, 1999).

Second, once you know enough about the data to be able to make the initial coding, such as "technical and soft skills" for research question one, you'll need to look for patterns. So, I looked at the raw data and found the common patterns of words and phrases. Using the computer programme Microsoft Word, text was coded by tagging and naming sections of text that appeared often or were important in each file. This kind of coding is part of analysis (Miles & Huberman, 1994), because it involves an analyst putting the data into groups that make sense (Tuckett, 2005). At this stage, codes were made for things like "challenges, skills, knowledge, age, maturity, engagements, and limitations'' (p.44).

The third step was to "look for themes," which was a deeper level of analysis than what had come before. Thematic mapping, which Braun and Wilkinson (2003), suggested, was used to come up with main themes and sub-themes within them. Because of this, some of the initial codes turned into sub- and main-themes, while others were ignored, maybe because they came up too rarely or were too far away. This led to subthemes like "what children and teachers do every day," "limited resources," "general skills," and "holistic understanding" (p.44).

Fourth, all the main ideas that came up were looked at again. They were put together with the sub-themes to make a full picture of what the participants had in common. The analysis was then turned into a map of the main ideas. Following the method of Braun and Clark (2006), this was done to get a pretty clear picture of the different themes, how they fit together, and the overall story they tell about the teachers' knowledge of educational law and their professional responsibilities .

The fifth step was to define and name the themes that had come up so far. This was done by revising the thematic map and figuring out the details of each theme and sub-theme. Through this process, the big picture of the analysis became clear. For example, "generic skills and understanding" was changed to "generic skills and holistic understanding that leads to creativity." For example, separate sub-themes were put together to create the teachers' idea of integrated teaching as a "combination of different subjects or topics in different disciplines without using the traditional subject-specific teaching" (p. 45).

Sixth, a report was made to back up the analysis by showing how the data told a complicated story. At this point, though, it is said that the writing needs to do more than just give the facts (Braun & Clark, 2006). Such a detailed report is shown in table 4.1, and chapter four of this study has a detailed write-up of it that gives more information and explanation.

3.7 Ethical Consideration/Issues

Ethical considerations are guiding set of principles that helps the researcher in carrying out research studies. The following ethical principles guided the conduct of this research:

3.7.1 Confidentiality

It often has to do with the handling of the information concerning the respondents in a confidential manner. This aspect includes the principle of trust in which the researcher would assure the participants that their trust would not be exploited for personal gains. In line with the international best practices, the information gathered from the preschool teachers in Ghana was treated with the ultimate confidentiality and as such the identities of the respondents was not disclosed in writing. The data, therefore, were reported in the aggregate form. To ensure confidentiality, Teacher A, B, C, and D were used on the form instead of their real names. To further ensure confidentiality and privacy, only codes (pseudonyms) was used on interview transcripts and to identify respondents. All these were done by the researcher to enhance confidentiality.

3.7.2 Credibility

Internal validity in quantitative research is analogous to the credibility in a qualitative investigation. Both Guba and Lincoln (1985) and Miles Huberman and Saldana (1994) noted that studies might be categorised according to three main concerns: Do the results make sense? Do the findings fairly represent the opinions of the people who participated in the study? (c) How accurately do the findings portray the phenomena being studied? The legitimacy of this research was bolstered by participant verification. To add weight to the study's results, researchers planned to have participants verify them during a final interview.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS OF THE STUDY

4.0 Overview

This chapter presents the findings that emerged in the qualitative research data from the interviews conducted. The findings were organized after a thorough thematic analysis in line with the five research questions raised in the study.

The following research questions guided the study:

- How do the preschool teachers view the integrated method of teaching in classrooms?
- How experienced are the teachers regarding the use of integrated method of teaching in classroom?
- What are the common themes used by the teachers and their effects on the integrated method of teaching early grade level?
- What factors are considered by the teachers when implementing the integrated approach in the classroom?
- What major challenges are encountered by kindergarten teachers when implementing integrated approach in the classroom?

Table 4.1: Themes, Codes and Sub-themes of preschool Teachers' Perceptions of their Pedagogical and technical knowledge, Skills and Practices relating to integrated approach to teaching

What teaching technical and knowledge or skills do you possess, that are beneficial to teaching and learning?

Themes	Sub-themes	Codes
Requisite knowledge and skills in general teaching	*Knowledge, duties, practices, skills*	• Technical and soft skills

Base on your experience, what pedagogical knowledge or skills have you acquired or possessed?

Themes	Sub-themes	Codes
Play-way and transfer of learning	*Learning through play* *Prior knowledge activation*	• Promotion of teaching and child development • Teachers understanding and experience • Right methodology

In your opinion, are you familiar with the integrated teaching methodology?

Themes	Sub-themes	Codes
Limited knowledge regarding integrated curriculum.	*Pre-service, in-service and CPD*	• University • College • School-based

How would you define integrated teaching methodology?

Themes	Sub-themes	Codes
Combination of different subjects or topics in diverse discipline, without resorting to traditional subject specific teaching	*Cross-curriculum*	• Definition of integrated curriculum

As a teacher how experienced are you regarding integrated method of teaching?

Themes	Sub-themes	Codes
Not all that experienced and willing to accept more training	*Not totally ignorant*	• Knowledge • Experience • Training • Understanding • skills

What has been some of the effects of common themes in integrated method of teaching?

Themes	Sub-themes	Codes
Generic skills and holistic understanding leading to creativity	*Collaboration* *Active engagement*	• cross-curriculum • family • domestic animals • important places

During your class, what are some of the factors you consider when using integrated method of teaching?

Themes	Sub-themes	Codes
Children, teachers daily experiences Availability of teaching teaching and learning resources	Age Maturation Timing	• factors • implementation

What challenges are you faced with during the implementation of the integrated teaching approach?

Themes	Sub-themes	Codes
Teachers' challenges Resource challenge Parental challenge Leadership challenge	Limitations Timing Leadership Resources	Implementation challenges

Which area of integrated teaching methodology do you want to see improvement and why?

Themes	Sub-themes	Codes
Overall concepts relating to integrated approach	*Interdisciplinary* *Transdisciplinary*	• area for improvement

4.1 Requisite Knowledge and Skills in General Teaching and Pedagogy

When asked about the technical knowledge or skills that they possess, which are beneficial to teaching and learning, the above themes emanated out from their responses. The numerous responses indicated that the they do possess the required knowledge and skills relating to the tradition approach of teaching specific school time table subjects. Out of the many responses, the themes that emerged included teachers viewing their roles and responsibilities as leaders, caregiver/educator and facilitators with the needed ability to plan and execute developmentally appropriate teaching practices, which resolve around play, having selected the required resources and materials. For example, (Teacher A) was quoted as saying:

> *I have firm idea regarding how children grow, develop and mature. This guides me in choosing the right methods, resources, including*

how to structure and organize the appropriate learning environment to facilitate learning in my children in the classroom (Teacher C).

I am well informed about the value of play in early childhood teaching and learning process. I often rely on children previous knowledge by choosing the right play material and educational technologies to promote learning outcomes in my classroom (Teacher D).

Most of the teachers also viewed their responsibilities as caregivers and educators as their job goes beyond the daily routine in teaching. Such teachers rather identified their additional roles as surrogate parents, who offer the children the needed protection in safe environment, whilst offering nursing services including dispensing of medication to children with prescription with the right dosage and time intervals.

Similarly, others understood their roles as facilitators, as the main theme that was developed during the analysis. As facilitators, they promote students learning through classroom assessment, mentoring and monitoring classroom instructions. For example;

I am a facilitator and scaffold the link between parents, the community, and the children in my classroom by providing sound leadership traits for the children to learn for life (Teacher B).

Play-way and transfer of learning

When asked to indicate the kind of pedagogical knowledge or skills that the teachers have acquired, the above themes emanated out from their responses. The numerous responses indicated that the they do not only see themselves as the promoters of play way approach to teaching, but also assist children to transfer

learning outcomes positively. Out of the many responses, the themes that emerged included teachers using play approach, whilst relying on the prior experiences of the children within their community or immediate environment. Almost all of them said they try to engage the children meaningfully through hands-on-practical activities in a developmentally appropriate way. Having in-depth subject matter mastery and ability to transfer knowledge from home to the home or vice versa also emerged. Some of the teachers interviewed had these to say:

> *I am capable of relying on children's prior experiences to arouse, gain and sustain children's attention and learning outcomes, while relying on my in-depth knowledge in the subject matter knowledge (Teacher C).*

> *I have what it takes to help children transfer learning and knowledge from school to home or from home to the school environment (Teacher D).*

This implies that the teachers were in a position to build on the children prior experiences to engage them by arousing and sustaining their interest and attention in a play way during indoor and outdoor activities.

4.2 Limited Knowledge and Experience regarding the Concept Integrated Method of Teaching

When inquired the teachers' familiarity with the integrated method of teaching, all of them indicated that they have limited information in that regard. Mostly, they learnt about it as part of the general curriculum studies during their pre-service teacher education programmes at the universities and the colleges. Some also indicated that they were hearing it for the first time during the introduction of the standard based curriculum training sessions. Others also learnt about it from U-

tube and other internet sources, as they needed to educate themselves as the implementers of such a curriculum. Below are some of the extracts of what the teachers were quoted as saying during the interview:

> *Well, it was taught and learnt as one of the methods of teaching at the early childhood or preschool level at the college. However, the actual practicality wasn't really taught at the university, whilst in training (Teacher A).*

> *It really became evident to me, when the new standard based curriculum was instituted in schools in 2018 and we were required to employ integration as the main tool in the classroom teaching. I, therefore, had to embark on a number of self-tutorial activities to be able to somehow use it (Teacher C).*

> *I haven't received any formal training regarding the use of this teaching method. I, therefore, follow the guidelines in the curriculum and the lesson notes format to deliver. I have also taken time to watch a number of videos on U-tube to be able to teach using integrated approach (Teacher D).*

The indications are that majority of the teachers were not well informed about the concept integrated approach to teaching, however, they were not totally ignorant. They were, therefore, willing to learn a lot about it through various modes and medium.

4.3 Combination of different Subjects or Topics in Diverse Disciplines, without resorting to the Traditional Subject Specific teaching

When they were required to define the concept integration, the above theme emerged. These were the views they expressed in an attempt to define the concept integrated method of teaching:

> *In my view, integration is all about combining different subjects or topics in different disciplines together in a single lesson, without treating them as separate disciplines in a traditional lesson delivery (Teacher A).*

> *It's usually a concept that is based on cross-curricular approach. In other words, it involves the fusion of two or more uncommon or even common subject areas together in a single lesson (Teacher B).*

The teachers, therefore, were able to conceptualise integrated method of teaching in spite of their seemingly limited knowledge about the concept.

4.4 Generic Skills and Holistic Understanding leading to Creativity

Regarding the effects, common themes and areas for improvement in integrated method of teaching, the above theme emerged after a thorough analysis of the data. Similarly, collaboration and active engagement emerged as sub-themes. These interactions ensued during the interview sessions with the teachers:

> *Mostly the common themes are based on existing knowledge, they, therefore, lead to holistic understanding on the concepts understudy among the children (Teacher A)*

> *The common themes used help the children to acquired requisite generic skills and thereby foster close collaboration and active engagement of the children throughout the teaching and learning process (Teacher D)*

The teachers appear to engage the children actively and creatively through collaboration leading to general skills which are transferable to all other real and daily life experiences.

4.5 Children and Teachers' Daily Experiences, availability of Teaching and Learning Resources

The discussion of the factors that influence their daily work and areas for improvement in the integrated approach to teaching led to the above theme. These excerpts were curled from the interview session with the teachers to support the emergence of the above theme:

> *The availability or otherwise of the teaching and learning materials and resources are usually considered when using integrated method of teaching, having related them to the lesson objectives (Teacher C).*

> *My own experiences regarding how children learn, the age appropriateness, home experiences, level of maturation, timing and season often guide my usage of the integration method (Teacher D).*

This indicates that the teachers considered a number of factors notably include the teachers' own experiences, that of the children, and availability or otherwise of the teaching and learning resources.

4.6 Overall Concepts relating to Integrated Approach

Regarding their perception on the areas for improvement, the above theme emerged. The teachers were of the opinion that they require more training and education in all areas and aspects relating to the smooth implementation of the integrated curriculum. These including planning, implementation, teaching, management and assessment components. Below are some of the excepts recorded during the interview:

> *The overall concepts of integrated approach to teaching and the related types (Teacher A)*

> *The interdisciplinary and transdisciplinary nature of curriculum integration (Teacher B*
>
> *Teachers' overall competency and perception regarding the use of integrated method of teaching. This is because without competent and well-perceived and oriented teacher the implementation of the integrated curriculum will be ineffective (Teacher C).*

Much as the teachers indicated that they were not totally ignorant, more training programs were equally needed to make them competent enough.

4.7 Teachers, Resources, Parental and Leadership Challenges

The issues relating to the challenges that they face when, implementing the integrated approach resulted in the above theme. Included in these were limitations, timing, assessment, accountability and materials constraints emerged as the sub-themes. The teachers, therefore, quoted as saying these to support their conceptions about the integrated teaching approach:

> *Limited timing, resource constraints, large class size and high parental and assessment demands (Teacher C).*
>
> *The challenges had always been that of my own perception and limitations, parents' excess expectations, accountability issues for children to meet certain standards, local resources availability, timing, leadership demands, class size and classroom assessment requirements (Teacher D).*

Therefore, the teacher may encounter a number of challenges, which impede the smooth implementation of the integrated approach to the curriculum implementation.

4.8 Discussion

4.8.1 Limited knowledge and experience regarding the concept integrated curriculum

When research question one inquired about the teachers' familiarity with the concept integrated method of teaching, their responses led to the emergence of the above theme of having limited knowledge and experience regarding the integrated curriculum, detailing out their seemingly limitation relating to this pedagogical approach in line with the implementation of the standard based curriculum. This finding in the study is thus, in line with other results from similar but global studies such as Savage (2012), Nowell (2016), Kleve and Penne (2012). Similarly, in a thesis conducted by Penna-Baskinger (2018) in USA concluded that the teachers were slightly open to the use of integrated approach but felt the need to learn more to be able to function effectively and efficiently in the classroom. Again, Tudor (2014) also found out elementary teachers were least experienced with the use of integrated method of teaching in the USA as opposed to their counter parts in the upper classes. In China, Xie et al (2014) also found that elementary school teachers did not have adequate knowledge and experience in the integrated teaching approaches. Furthermore, a study by Penna-Baskinger indicated that the use of integrated method of teaching could be an unpleasant task for teachers all over the world, even involving those who have received sufficient training at the pre-service and in-service. The implication then could be that the teachers in this study could not have been exceptionally knowledgeable and experienced in the integration approach than their other counter parts on the global stage. The possible explanation could be that, most teachers the world-over are often trained with the traditional subject based teaching in that philosophical underpinning. The teachers

will, therefore, have the challenge when shifting from their comfort zone to a seemingly new and uncharted path in a form of an integrated method of teaching.

Again, the standard based curriculum, which advocates for the integration teaching approach was only instituted in Ghana's educational system in 2018 as against the traditional subject specific curriculum orientation that the teachers had been exposed to since the pre-colonial days until 2018. It could, therefore, be understandable and characteristic that in every curriculum change process, would produce teachers, who might be slow to change and adapt. Or by extension there could be some level of teacher perturbation in every new curriculum or pedagogical change. It is, however, heart-warming that the teachers in this study were not completely oblivious of the integration teaching approach. This suggests that there ought to be consistent and well-planned interventions, tailored to help the teachers update and upgrade their level of knowledge and competence. Regarding the standard base curriculum implementation.

4.8.2 Combination of different subjects or topics in diverse discipline without resorting to the traditional subject specific teaching

In spite of the teachers' limitation regarding the integrated method of teaching, they were able to define integration as emerged and captured above. This definition and conceptualization of integrated method of teaching echoes and spans the spectrum of conceptions that have been long established in literature already. For example, Lam et al. (2012) defined integrated method of teaching as the program aimed towards making subject matter more relevant and meaningful to students by delineating domain-specific-boundaries around various types of learning. With this conceptualization, the preschool teacher in this study appears to have an

understanding of the contemporary practice that builds connections or webbings between central concepts in a meaningful learning context. Most of such learning context might include higher reasoning and problem-solving skills in a non-recuring manner across curricular domains (Lake, 1994). Even though the definition of integrated method of teaching is often context bounded and oriented. For example, Lake, Reid and Kolohon (2014), contended that its definition is often quite confusing, since it varies from one context to the other. It is, therefore, of significant academic relevance to have been able to conceptualise integrated teaching method from the perspective of the Ghanaian preschool teacher.

4.8.3 Generic skills and holistic understanding that foster creativity

Regarding the teachers' conceptions about the effects of integrated methods of teaching, their responses produced the above theme. Many international research studies such as those of Lake (1994) and Lam et al. (2013) from Europe, Americas and Asia on integration indicate the transmission of worthwhile values needed in the 21st century life skills experiences (Hammond, 2020). The finding in this study corroborates this already established facts such collaboration, emotional intelligence and problem-solving skills in literature. For example, Fullan (2013) and Holmes (2014) hinted that integrated teaching seems to be the best antidotes for the development of 21st century essentials capabilities such as collaboration, communication, creativity, critical thinking, emotional intelligence, and citizenship education.

It is, however, not that surprising that this finding affirms the established international literature orientation, since the 2018 standard based curriculum being implemented in preschools in Ghana equally is premised on the philosophical orientation of building a

Ghanaian child, who would be a good citizen and globally competitive with all the hard and soft skills needed for the 21st century.

4.8.4 Overall concepts relating to integrated approach

The teachers in this study felt the need to be exposed to all the relevant concepts in line with the integrated teaching approach as it emerged as the final theme. Penna-Baskinger (2018) agreed with this finding in Ghana by indicating that teachers will always require more training at all times, since the pre-service teacher education will never be sufficient enough to equip teachers to competently execute all instructional practices. This means that practising teachers will require continuing professional development programmes. It is, therefore, not out of place for the preschool teachers in in this study to equally asked for further training relative to the implementation of the integrated curriculum.

The instructional strategy known as "theme-based learning" is predicated on observing and studying real-world phenomena. Instead of teaching courses in isolation, like language and arithmetic, a holistic approach to education integrates them by having students do research on a unifying theme that is present in their everyday lives, like the changing of the seasons or any other natural or cultural phenomena (Silander, 2015). An item or phenomena is explored by the instructor and the students to encourage student participation in the learning process. Reggio Emilia techniques (Hewett, 2001) provide a thorough description of theme-based learning, which has been a part of the Finnish curriculum since 2016. (Symeonidis and Schwarz, 2016). It has been shown via research that this method increases students' enthusiasm for learning and their engagement with course material (Valanne et al., 2017).

4.8.5 Teachers, resources, parental and leadership challenges

The above themed emerged from the interview data collected and analysed in this study**.** Teachers, parents, leadership, and children are pivotal in the implementation of every educational reform. It is through their beliefs about education, training, policies, procedures and day-to-day experiences that determine the curriculum goal and the exact implementation strategies (Savage, 2012). Lam et al (2012) on the other hand, suggested that trained teachers in a subject specific curriculum stand the chance of resisting the successful implementation of the integrated teaching approach by citing excuses relating to limitation resources, assessment accountability and inflexible school leadership.

Similarly, Tudor (2014) indicated that parents demand for teacher accountability relative to their children's classroom academic performance in a test score also serves as an obstacle in using integrated method of teaching. The finding in this study, therefore, confirms many other similar results from other global studies. The possible explanation to this confirmation or affirmation could be that teachers in this study are often trained as subject specific experts, just like their counter parts in the Asian, America and Europe. The parents in those preschools too might also be privy to the traditional form of assessment practices and hence their possible hinderance towards to the successful implantation of the integrated curriculum. The government on the other hand, as usual might not have provided the needed resources and materials required for the efficiently implantation of the curriculum.

4.9 Summary

This study sought to explore how preschool teachers in the Kumasi Metropolitan city in Ghana conceive the integrated method of teaching as the main tool for the implementation of the new standard-based curriculum. The study, therefore, employed a qualitative case study design within the pragmatic paradigm to investigate their perceptions about the construct. A thoroughly thematic analysis led to the emergence of five major themes. It emerged that the teachers have the requisite knowledge and skills in general teaching and pedagogy, as they often rely on play-way and transfer of learning approaches. They, however, have limited knowledge and experience regarding the concept integrated teaching method.

Nonetheless, they were able to define integrated method of teaching, as the ‘‘combination of different subjects or topics in diverse disciplines, without resorting to the traditional subject specific teaching’’. The use of the integrated approach had led to the acquisition of generic teaching skills, which intend promotes holistic understanding and creativity among the children. Furthermore, children and teachers’ daily experiences and availability of teaching and learning resources or otherwise are the major factors that are often considered by the teachers, when using the integration method of teaching. The major setbacks associated with the implementation of the integrated approach to teaching has been the teachers, resources, parental, and leadership challenges. The teachers, therefore, conceived the urgent need to be given adequate and sufficient training on overall concepts relating to the integrated approach to teaching and learning in the preschools.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.0 Overview

This chapter discusses the findings in line with the research questions, which guided this study. The discussion is supported with relevant and related literature materials. Five overarching themes that answered the research questions were discussed**:** limited knowledge and experience, combination of different subjects or topics in diverse discipline without resorting to traditional subject specific teaching, generic skills and holistic understanding that foster to creativity, teachers, resources, parental and leadership challenges, and overall concepts relating to integrated approach.

5.1 Summary

This study sought to explore how preschool teachers in the Kumasi Metropolitan City in Ghana conceive (beliefs and knowledge relative to their own practices and experiences) the integrated method of teaching as the main tool for the implementation of the new standard-based curriculum. Five research questions guided this study. The study employed a qualitative case study design within the pragmatic paradigm to investigate their perceptions about the construct. A thoroughly thematic analysis led to the emergence of five major themes. It emerged that the teachers have the requisite knowledge and skills in general teaching and pedagogy, as they often rely on play-way and transfer of learning approaches. They, however, have limited knowledge and experience regarding the concept integrated teaching method.

Nonetheless, they were able to define integrated method of teaching, as ‘‘the combination of different subjects or topics in diverse disciplines, without resorting to

the traditional subject specific teaching'' (Teacher, A). They use of the integrated approach had led to the acquisition of generic teaching skills, which intend leads to the holistic understanding and promotion of creativity among the children. Furthermore, children and teachers' daily experiences and availability of teaching and learning resources or otherwise are the major factors that are often considered by the teachers, when using the integration method of teaching. The major setbacks associated with the implementation of the integrated approach to teaching has been the teachers, resources, parental and leadership challenges. The teachers, therefore, conceived the urgent need to be given adequate training on overall concepts relating to the integrated approach to teaching and learning in the preschools.

In sum, the themes that emerged from this study were limited knowledge and experience regarding the concept integrated curriculum, combination of different subjects or topics in diverse discipline without resorting to the traditional subject specific teaching, generic skills and holistic understanding that foster to creativity, setbacks associated with the implementation of the integrated approach to teaching has been the teachers, resources, parental and leadership challenges and overall concepts relating to integrated approach.

5.2 Conclusions

A number of conclusions were arrived at from this study that contribute to the body of knowledge on integrated method of teaching relative to the standard based curriculum implementation in the basic schools in Ghana and specifically the Kumasi Metropolis. Essentially, the study adds to the very little existing evidence about the integrated method of teaching in the preschools in the context of Ghana. Four main conclusions

are made in line with the various answers in response to the formulated research questions, as well as the findings and the theoretical support.

5.2.1 Combination of different subjects or topics in diverse discipline without resorting to the traditional subject specific teaching

The first question related to how do the teachers view integrated method of teaching which resulted in the above theme. From the finding out of the datasets, the study concluded that even though the teachers have limited experience in the integration approach, yet they were able to conceptualise integrated method of teaching from the Ghanaian context as the ‘‘combination of different subjects or topics in diverse discipline without resorting to the traditional subject specific teaching’’. As such, the preschool teachers in Ghana can conceptualise and contextualise integrated method of teaching to serve their unique needs and purpose.

5.2.2 Limited knowledge and experience regarding the concept integrated curriculum emerged as the theme for the second research question.

The qualitative finding relating to these research question relating to, the teacher’s level of knowledge and experience with the use of the integrated method of teaching, indicated that much as they accepted their numerous roles and responsibilities as being competent in the general pedagogy of traditional subject specific curriculum. They however, accepted to have limited knowledge and experience. The conclusion drawn would be that the teachers in this study were not totally ignorant in the integrated method of teaching. The teachers, however, require more training and education to update their knowledge regarding these required skillsets in the integrated method of teaching owing to their limited knowledge in the area.

5.2.3 Generic skills and holistic understanding that foster to creativity

The third research question sought to find out the common themes used by the teachers and the related effects on the integrated method of teaching. The answer to this question led to the above theme. It can be concluded that the teachers in this study rate the integrated method of teaching as being highly efficient as it promotes generic teaching skills in the teachers, while developing holistic understanding and creativity among the children in the classrooms.

5.2.4 Overall concepts relating to integrated approach

What factors are considered by the teachers when implementing the integrated approach in the classroom and with its related areas for improvement was the fourth research question. The responses resulted in the above theme, which implies that teachers required further information and education in the overall concept on curriculum integration. The teachers further identified children's and teachers' daily experiences, and the availability of teaching and learning resources are the major factors teachers consider when employing integration in teaching. The study concludes that the teachers have limitations and felt a need for adequate education in integration.

5.2.5 Teachers, resources, parental, and leadership challenges

The final research question sought to discover the challenges that the teachers face as the implementers of the integration approach to teaching, and the themes that emerged were teachers, resources, parental and leadership challenges. The conclusion is that the teachers in this study encounter a number of challenges in the implementation of the integrated curriculum. It also implies that it takes effective teacher leadership initiative to promote effective and efficient learning outcomes through integrated

method of teaching in schools in a collaborative manner, while reducing the numerous associated barriers, such as lack of capacity, resources, and parents or teachers' resistance to change.

5.3 Implications and Suggestions for Further Research

This section presents the implications of the study, which has been organized in three parts, thus for theory, policy and research practice.

5.3.1 Implication for theory

The review of related literature preschool teachers use of integrated method of teaching in Ghana was contextualised and conceptualised on social constructivism and discovery learning. The theories were relevant to this study as they provide a context from which the preschool teachers can socially interact and collaborate whilst distributing leadership horizontally. The theories also helped to understand how preschool teachers will use scaffolding, social interaction and zone of proximal development in leading, teaching and collaboratively assessing their teaching practices.

5.3.2 Implication for policy

The study identified several fundamental challenges associated with the teachers' pedagogical practices in an integrated approach. It is argued that the fundamental challenges found among the preschool teachers in the study run across all the selected four ECE preschools in Ghana. Given the widespread problems such as lack of capacity, low self-image, and negative school culture affecting pedagogical practices, policy-makers and other relevant stakeholders in the field of early education ought to put up policy interventions to address the challenges relating to the implementation of the integrated curriculum.

Educational stakeholders such as the Ministry of Education (MoE), Ghana Education Service (GES), UNICEF, Colleges of Education and the various teacher education universities in Ghana and the National Teaching Council (NTC) should team up to fashion out pedagogical training programs for all early childhood teachers in the country on the integrated method of teaching. The capacity building programme should cover the pre-service, induction, and continuing professional development (CPD) to update their knowledge and skills in the gap area identified. Policy intervention and mass education are highly recommended to reduce society's negative perceptions about the integrated teaching approach.

5.3.3 Implication for research and practice

Since there is a vast difference between gauging teachers' perceptions and actual practice on the field, there is the need to use action research in experimental design to establish the preschool teachers' actual teaching practices and skills in an integrated approach. This will help the nation explore the teachers' actual integrated pedagogical performance against these self-reported practices and skills in classroom.

5.3.4 Contribution to the knowledge

The overriding purpose of this study was to answer the question: what are the perceptions of the preschool teachers about the use of the integrated method of teaching as an implementation strategy relative to the standard base basic school's curriculum in Ghana? The social constructivism theory undergirded the study, whilst using qualitative method in a case study design added to knowledge in methodology and research domains.

The methodological approach adopted in this study gathered an in-depth view from different participants in the ECE setting. The contribution made by stakeholders

helped to map out strategies to possibly reduce the various barriers that the teachers identified as hindrances against their pedagogical approach, when using the integrated method of teaching.

Again, the novel finding of the study led to its conceptualisation of integrated method of teaching, which will be added to the literature on the global stage, with Ghana as a reference point. Given this, the preschool teachers in Ghana define integrated method of teaching as ‘‘combination of different subjects or topics in diverse discipline without resorting to the traditional subject specific teaching’’.

It also led to identifying and establishing the various factors influencing teachers' pedagogical practices in an integrated curriculum implementation, likewise the related challenges they faced in line with their duty as pedagogical leaders in the Ghanaian context.

5.4 Recommendations

This section of chapter five presents recommendations based on the findings of the study.

Recommendation 1: Aggressive teacher education and training programs should be implemented for the teachers in the Kumasi Metrololis at pre-service, induction and continuing professional development levels on integrated method of teaching.

Recommendation 2: Professional community opportunities should be provided to assist teachers in developing more profound and advanced knowledge and understanding to effectively function of integrated approach to teaching as pedagogical leaders with an emphasis on the need to integrated assessment and active children engagement during lessons.

Recommendation 3: There should be adaptation and application of social constructivism theory in the early preschools in the Kumasi Metropolis through professional learning community sessions.

5.5 Limitations of the Study

Limitations constrain the study from being completed as scheduled (Creswell & Creswell, 2018). Some limitations were, therefore, evident with this qualitative study. First, there were methodological limitations regarding the sample size selection for this qualitative study and the actual study location. The study used only four preschools from private and public centres but was only selected from one metropolitan city in Ghana. Due to this, the findings and results cannot be safely generalised to all preschools in the city. However, the due diligence employed with the data collection tool could guarantee some limited generalization or contextualisation and credibility of the findings in the study.

Further, the seeming lack of relevant and related literature on integrated method of teaching, especially in Ghana and the entire African continent, meant that the literature used was mainly from the foreign context and could be viewed as a limitation. However, consented efforts were made to gather some closely related but few local literature materials whilst juxtaposing them with the international sources to give the needed blend for a proper literature review to be carried out. Despite these possible limitations, it could be concluded that the right choice was made by employing the case study design within the qualitative approach. It appropriately addressed the relevant research questions in a contextualized manner, whilst exploring preschool teachers' practices and skills in the integrated method of teaching in Ghana.

5.6 Suggestions for Further Research

The researcher believes that using action research in the form of experimental design to establish the preschool teachers' actual practices and skills in the integrated method of teaching will be an ideal suggestion. Such experimental research should involve control, and experimental groups whilst attempts are made to control the possible confounding variables. This will help the nation explore the teachers' actual performance in the integrated method of teaching against these self-reported practices and skills explored in this current study.

REFERENCES

Ababio, B. (2016). Nature of teaching : what teachers need to know and do . Teaching. *International Journal for Innovation Education and Research*, *1*(02), 37–48.

Abdal-Haqq, I. (1998). Constructivism in teacher education : considerations for those who would link practice to theory. In *ERIC Digest* (Vol. 12). www.eric.ed.gov

Adamu, A. U. (2003). The concept of curriculum integration: Its meaning, scope and modalities. Retrieved from *https://auadamu.com/phocadownload/Conference_Presentations/Education_Presentations/2003%20Curriculum%20Integration.pdf*

Adeyemi, D. A. (2010). Justification of a multidisciplinary approach to teaching language in Botswana Junior Secondary Schools. *Journal of Language, Technology & Entrepreneurship in Africa*, *2*(1), 8–20. https://doi.org/10.4314/jolte.v2i1.51987

Aidoo, B., Boateng, S. K., Kissi, P. S., & Ofori, I. (2016). Effect of problem-based learning on students' schievement in chemistry. *Journal of Education and Practice*, *7*(33), 103–108.

Akpan, J. P., & Beard, L. A. (2016). Using constructivist teaching strategies to enhance academic outcomes of students with special needs. *Universal Journal of Educational Research*, *4*(2), 392–398. https://doi.org/10.13189/ujer.2016.040211

Alesandrini, K., & Larson, L. (2002). Teachers Bridge to constructivism. *Journal of Educational Strategies, Issues and Ideas*, *75*(3), 118–121. https://doi.org/10.1080/00098650209599249

Alfieri, L., Brooks, P. J., Aldrich, N. J., & Tenenbaum, H. R. (2011). Does discovery-based instruction enhance learning? *Journal of Educational Psychology*, *103*(1), 1–18. https://doi.org/10.1037/a0021017

Atkins, L., Francis, J., Islam, R., O'Connor, D., Patey, A., Ivers, N., et al. (2017). A guide to using the theoretical domains framework of behaviour change to investigate implementation problems. *Implement. Sci., 12*, 77.

Awan, R. un N., Hussain, H., & Anwar, N. (2017). Effects of problem based learning on students' critical thinking skills, attitudes towards learning and achievement. *The Journal of Educational Research*, *20*(2), 28.

Ayodele, M. O., Olatunbosun, S. M., & Daramola, M. A. (2014). Inquiry-based learning approaches:the best practice for basic science teachers. *International Journal of Current Research and Review*, *6*(15), 15–19.

Aziz, A., Budiyono, B., & Subanti, S. (2017). The effect of inquiry learning and discovery learning on student learning achievement viewed from spatial intelligence. *Southeast Asian Mathematics Education Journal*, *7*(2), 59–70. https://doi.org/10.46517/seamej.v7i2.54

Barnes, J. (2015). *Cross-curricular learning* (pp. 3–14). London: Sage

Beane, J. A. (1997). *Curriculum integration: Designing the core of democratic education*. New York, NY: Teachers College Press.

Bifuh-Ambe, E. (2013). Developing successful writing teachers: Outcomes of professional development exploring teachers' perceptions of themselves as writers and writing teachers and their students' attitudes and abilities to write across the curriculum. *English Teaching: Practice and Critique, 12*(3), 137-156.

Bintz, W. P., & Monobe, G. (2018). Interdisciplinary curriculum: using poetry to integrate reading and writing across the curriculum. *Middle School Journal*, *49*(3), 36–48. https://doi.org/10.1080/00940771.2018.1439667

Boocock. P. (1991). *The little scientists*. Education Week, XXI, 33.

Boud, D., & Felleti, G. I. (1997). *The challenge of problem-based learning*. London: Rutledge.

Bower, G. G. (2014). Theory and practice: Utilizing Dewey's experimental learning theory to implement a 5K Road Race. *Journal of Hospitality, Leisure, Sport, & Tourism Education, 15*, 61-67.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. New York, NY: Sage Publications, Inc.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). "Thematic analysis," in *Handbook of research methods in health social sciences*, ed. P. Liamputtong (Singapore: Springer), (pp. 843–860). doi: 10.1007/978-981 10-5251-4_103.

Burden, P., & Boyd, D. (2016). *Methods of effective teaching*. New York: Pearson Education, Inc.

Büyükkaragöz, S. (1997). *Program curriculum development "source texts*. Enhanced (2nd ed.). Konya:Kuzucular Ofset.

Campbell, A., McNamara, O., & Gilroy, P. (2004). *Practitioner research and professional development in education*. SAGE Publications Ltd, https://dx.doi.org/10.4135/9780857024510

Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2019). Malleability, plasticity, and individuality: How children learn and develop in context1. *Applied Developmental Science*, *23*(4), 307–337. https://doi.org/10.1080/10888691.2017.1398649

Chin, C., & Chia, L. G. (2004). Implementing project work in biology through problem-based learning. *Journal of Biological Education*, *38*(2), 69–75. https://doi.org/10.1080/00219266.2004.9655904

Choi, B. C. K., & Pak, A. W. P. (2006). Multidisciplinarity, interdisciplonarity and transdisciplinarity in health research, services, education and policy: 1. defenition, objectives, and evidence of effectiveness. *Clinical and Investigative Medicine*, *29*(6), 351–364.

Clinton, L. (1996). *The advisory book: Building a community of learners grades 5-9* (2nd ed.). Minneapolis, MN: Origins

Conway, P. F. (2001). Anticipatory reflection while learning to teach: from a temporally truncated to a temporally. *Teaching and Teacher Education*, *17*, 89–106. http://linkinghub.elsevier.com/retrieve/pii/S0742051X00000408

Creswell, J. W. (2007). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five traditions* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, W.J. & Creswell, J.D. (2018). *Research design, Qualitative, quantitative and mixed methods approaches*, (5th ed.).SAGE Publications, Inc. 2455 Teller Road Thousand Oaks, California 91320 .

Crick, R. D. (2008). Key competencies for education in a European context: Narratives of accountability or care. *European Educational Research Journal*, *7*(3), 311–318. https://doi.org/10.2304/eerj.2008.7.3.311

Crockett, M. D. (2002). Inquiry as professional development: Creating dilemmas through teachers' work. *Teaching and Teacher Education*, *18*(5), 609–624. https://doi.org/10.1016/S0742-051X(02)00019-7

Curtis, K., & Carter, R. (1996). A move to the integrated curriculum. *Exeter: Materials in Modern Education, 5*(10) *96*-126.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Das, M., Mpofu, D. J. S., Hasan, M. Y., & Stewart, T. S. (2002). Student perceptions of tutor skills in problem-based learning tutorials. *Medical Education*, *36*(3), 272–278. https://doi.org/10.1046/j.1365-2923.2002.01148.x

Davies, R. (2002) Common sense and the craft of teaching, In: M. Hand & R. Davies (Eds.) *Education, ethics and experience: Essays in honour of Richard Pring* (Abingdon, Routledge), 98– 108.

Dawson, T. L. (2002). A comparison of three developmental stage scoring systems. *Journal of Applied Measurement, 3*, 146-189

Demetrion, G. (2012). Dewey's Logic as a Methodological and theoretical grounding point for practitioner-based inquiry. *Journal of Research and Practice for Adult Literacy, Secondary and Basic Education*, *1*(3), 161–172.

Detel, W. (2015). Social constructivism. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (Second Edi, Vol. 22). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.63081-7

Dewey, J. (1902). *The child and the curriculum*. Chicago, IL: University of Chicago.

Drake, S. M. & Burns, W. (2004). *Interweaving curriculum and classroom assessment: Engaging the 21st century learner*. Don Mills: Oxford University Press.

Drake, S. M., Reid, J. L., & Kolohon, W. (2014). *Interweaving curriculum and classroom assessment: Engaging the 21st-century learner*. Don Mills, ON: Oxford University Press

Edwards, C., Gandini, L., & Forman, G. (1998). Introduction: background and starting points. In C. Edwards, L. Gandini, & G. Forman (Eds.), *The hundred languages of children: the Reggio Emilia approach- advanced reflections* (pp. 5–25). ABLEX Publishing.

Eley, M. G. (2006). Teachers' conceptions of teaching, and the making of specific decisions in planning to teach. *Higher Education*, *51*(2), 191–214. https://doi.org/10.1007/s10734-004-6382-9

Erdem, A. (2009). Preservice teachers' attitudes towards cooperative learning ın mathematics course. *Procedia - Social and Behavioral Sciences*, *1*(1), 1668–1672. https://doi.org/10.1016/j.sbspro.2009.01.295

Ermeling, B. A. (2010). Tracing the effects of teacher inquiry on classroom practice. *Teaching and Teacher Education*, *26*(3), 377–388. https://doi.org/10.1016/j.tate.2009.02.019

French, L. A. (2004). Real-world knowledge as the basis for social and cognitive development. In J. B. Pryor & J. D. Day(Eds.), *Social and developmental perspectives on social cognition* (pp. 179–209). New York: Springer-Verlag.

Fullan, F. (2007). *The new meaning of educational change,* (4th ed.). New York: Teachers College Press

Fullan, M. (2013). Great to excellent: Launching the next stage of Ontario's Education Agenda. Retrieved from: *http://www.michaelfullan.ca/media/13599974110.pd*

Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An* introduction (7th ed.). Boston, MA: Allyn & Bacon.

Gardner, H. (1999). *The disciplined mind*. New York, NY: Simon & Schuster.

Gerde, H. K., Schachter, R. E., & Wasik, B. A. (2013). Using the scientific method to guide learning: An integrated approach to early childhood curriculum. *Early Childhood Education Journal*, *41*(5), 315–323. https://doi.org/10.1007/s10643-013-0579-4

Gillies, R. M. (2003). Structuring cooperative group work in classrooms. *International Journal of Educational Research*, *39*(1–2), 35–49. https://doi.org/10.1016/S0883-0355(03)00072-7

Golightly, A. (2016a). Geography student tutors' facilitative skills in a problem-based learning environment. In E. Mentz & I. Oosthuizen (Eds.), *Self-directed learning research: An imperative for transforming the educational landscape* (pp. 158–183). AOSIS. https://doi.org/10.4102/aosis.2016.sdlr14.06

Golightly, A. (2016b). Geography student tutors' perceptions and experiences in problem-based learning tutorial sessions. *Journal of Communication*, *7*(1), 20–33. https://doi.org/10.1080/0976691x.2016.11884880

Good, T. L., & Brophy, J. E. (2008). *Looking in classroom*. New York: Pearsson.

Gopinathan, S. & Deng, M. (2006). Remaking the Singapore curriculum: Trends, issues and prospects. In Hong Kong Institute of Education, *School- based curriculum renewal for the knowledge society: Developing capacity for new times*. Conference Proceedings of the First Conference of Asia Pacific Curriculum Policy Makers, Hong Kong, China

Grix, J. (2004). *The foundations of research,* (2nd ed.). Basingstoke and New York: Palgrave Macmillan.

Groves, M., Régo, P., & O'Rourke, P. (2005). Tutoring in problem-based learning medical curricula: The influence of tutor background and style on effectiveness. *BMC Medical Education*, *5*, 1–7. https://doi.org/10.1186/1472-6920-5-20

Gürkan, B. (2021). Transdisciplinary integrated curriculum: an analysis of teacher experiences through a design model within the framework of IB-PYP. *Participatory Educational Research*, *8*(1), 176–199. https://doi.org/10.17275/per.21.10.8.1

Hajhosseini, M., Zandi, S., Hosseini Shabanan, S., & Madani, Y. (2016). Critical thinking and social interaction in active learning: A conceptual analysis of class discussion from Iranian students' perspective. *Cogent Education*, *3*(1), 1–9. https://doi.org/10.1080/2331186X.2016.1175051

Hammond, K .K. (2020). The continuum of problem-based learning. *Medical Teacher*, *20*(4), 317–322. https://doi.org/10.1080/01421599880733

Hanafi, H. (2016). The effect of discovery learning method application on increasing students' listening outcome and social attitude. *Dinamika Ilmu*, *16*(2), 291. https://doi.org/10.21093/di.v16i2.552

Harden, R. M., & Davis, M. H. (1998). The continuum of problem-based learning. *Medical Teacher*, *20*(4), 317–322. https://doi.org/10.1080/01421599880733

Harden, R. M., Sowden, S., & Dunn, W. R. (1984). Educational strategies in curriculum development: the SPICES model. *Medical Education*, *18*(4), 284–297. https://doi.org/10.1111/j.1365-2923.1984.tb01024.x

Heron, J., & Reason, P. (1997). A participatory inquiry paradigm. *Qualitative Inquiry*, *3*(3), 274-294.

Hesse-Biber, S. (2010). Qualitative approaches to mixed methods practice. *Qualitative Inquiry*, *16*(6), 455–468. https://doi.org/10.1177/1077800410364611

Hesse-Biber, S. N. (2011). *Mixed method research; Merging theory with practice*. New York: Guilford Press.

Hewett, V. M. (2001). Examining the Reggio Emilia Approach to Early Childhood Education. Early Childhood Education Journal, 29(2). 1082-3301/01/1200-0095$19.50/0

Heywood, D., Parker, J. & Jolley, N. (2012). Pre-service teachers' shifting perceptions of cross-curricular practice: The impact of school experience in mediating professional insight. *International Journal of Educational Research, 55*, 89-99, https://doi.org/10.1016/j.ijer.2012.07.003

Hieu L. T., Nam D. D. (2019) Integrating mathematics and science in Vietnamese primary schools, *Journal of Education Management, 8*(8), 2016.

Hmelo-Silver, C. E. (2004). Problem-based learning: what and how do students learn? *Educational Psychology Review*, *16*(3), 235–266. https://doi.org/10.1023/B:EDPR.0000034022.16470.f3

Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, & Clark (2006). *Educational Psychologist*, *42*(2), 99–107. https://doi.org/10.1080/00461520701263368

Holmnes, M. (2011) Project-based instruction: A review of the literature on the effectiveness of it in Prekindergarten through 12th grade classrooms. *Insight: River Academic Journal, 7*(2), 1-13

Howitt, R. (2010). Constructing engagement: Geographical education for justice within and beyond tertiary classrooms. *Journal of Geography in Higher Education, 25*, 147–166.

Hubbard, G. T. (2012). Discovering constructivism: how a project-oriented activity-based media production course effectively employed constructivist teaching principles. *Journal of Media Literacy Education*, *4*(2), 159–166. http://www.jmle.org/index.php/JMLE/article/view/220

Inan, H. Z., Trundle, K. C., & Kantor, R. (2010). Understanding natural sciences education in a Reggio Emilia-inspired preschool. *Journal of Research in Science Teaching*, *47*(10), 1186–1208. https://doi.org/10.1002/tea.20375

Jensen, L. (2001). Planning lessons. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 403–413). Heinle & Heinle.

Jervis, L. M., & Jervis, L. (2005). What is the constructivism in constructive alignment? *Bioscience Education*, *6*(1), 1–14. https://doi.org/10.3108/beej.2005.06000006

Johnson, D. W., Johnson, R. T., & Smith, K. (2007). The state of cooperative learning in postsecondary and professional settings. *Educational Psychology Review*, *19*(1), 15–29. https://doi.org/10.1007/s10648-006-9038-8

Kahn, P., & Rourke, K. O. (2005). Understanding enquiry-based learning. In T. Barret, I. Mac Labhrainn, & H. Fallon (Eds.), *Handbook of Enquiry & Problem Based Learning* (Issue January 2005, pp. 1–13). Galway: Centre for Excellence in Learning and Teaching.

Kansanen, P. (1999). Teaching as teaching-studying-learning interaction. *Scandinavian Journal of Educational Research*, *43*(1), 81–89. https://doi.org/10.1080/0031383990430105

Kantar, L. (2013). Incorporation of constructivist assumptions into problem-based instruction: A literature review. *Nurse Education in Practice*, *14*(3), 1–9. https://doi.org/10.1016/j.nepr.2013.08.010

Keys, C. W., & Bryan, L. A. (2001). Co-constructing inquiry-based science with teachers: Essential research for lasting reform. *Journal of Research in Science Teaching*, *38*(6), 631–645. https://doi.org/10.1002/tea.1023

Khoja, S. A., Sana, F., Karim, A., & Rehman, A. A. (2008). Implementing constructivist pedagogical model in dynamic distance learning framework. *Communications in Computer and Information Science*, *20 CCIS*, 191–201. https://doi.org/10.1007/978-3-540-89853-5_21

Kindlinger, M. (2021). Meta-reflexivity and epistemic cognition in social science teacher education**.** *Social Science Teacher Education, 20*(3), 29–54.

Kleve, B, & Penne, S. (2012).Cross-curricularity in a literacy perspective: Contrast, confrontation and metalinguistic awareness. *International Journal of Educational Research*, *55*, 48-56,

Koponen, T., Salmi, P., Torppa, M., Eklund, K. A., Aro, M., Poikkeus, A.-M., & Nurmi, J.-E (2016). Counting and rapid naming predict the fluency of arithmtic and reading skills. *Contemporary Educational Psychology, 44*, 83-94.

Lake, K., Work, C., Timo, Y. (2014). Integrated Curriculum: School Improvement Research Series. Retrieved from *https://educationnorthwest.org/sites/default/files/integrated-curriculum.pdf*.

Lam, C. C., Alviar-Martin, T., Adler, S. A., & Sim, J. B-Y. (2012). Curriculum integration in Singapore: Teachers' perspectives and practice. *Teaching and Teacher Education, 31*, 23-34

Lam, C. C., Chan, K. S. J., & Zhang, S. (2006). *Curriculum organization*. Beijing: Educational Science Press (in Chinese).

Lam, C.C., Alviar-Martin, T., Adler, S.A., Sim, J.B-Y. (2013). Curriculum integration in Singapore: Teachers‟ perspectives and practice. *Teaching and Teacher Education,31*, 23-34

Langa, M. A., & Yost, J. L. (2007). *Curriculum mapping for differentiated instruction*, k-8.Thousand Oaks, California: Corwin Press.

Lapadat, Judith C. & Lindsay, Anne C. (1999). Transcription in research and practice: From standardization of technique to interpretive positionings. *Qualitative Inquiry, 5*(1), 64-86.

Lijnse, P. (2004). Didactical structures as an outcome of research on teaching–learning sequences? *International Journal of Science Education*, *26*(5), 537–554. https://doi.org/10.1080/09500690310001614753.

Lincoln, Y. S., & Denzin, N. K. (Eds.). (2003). *Turning points in qualitative research: Tying knots in a handkerchief*. Rowman Altamira.

Lincoln, Y. S., & Guba, E. E. (1986). Research, evaluation, and policy analysis: Heuristics for disciplined inquiry. *Review of Policy Research*, *5*(3), 546-565.

Lipscomb, S. T., Hatfield, B., Goka-Dubose, E., Lewis, H., & Fisher, P. A. (2021). Impacts of roots of resilience professional development for early childhood teachers on young children's protective factors. *Early Childhood Research Quarterly*, *56*, 1–14. https://doi.org/10.1016/j.ecresq.2021.02.002.

Mansilla, V. B. (2010). Learning to synthesize: The devevelopment of interdisciplinary understanding. In R. Frodeman, J. T. Klein, C. Mitcham, & J. B. Holbrook (Eds.), *The Oxford handbook of interdisciplinarity* (pp. 288–306). Oxford University Press. https://doi.org/10.31046/tl.v5i2.228

Meeth, R. L. (1978). Interdisciplinary studies: A matter of definition. *Change: The Magazine of Higher Learning, 10*(7), 10-17.

Merriam, S. B. (1998). *Qualitative research and case study application in education*. San Francisco: Jossey-Bass

Merriam, S. B. (2002). *Qualitative and case study applications in educational research*. San Francisco, CA: Jossey-Bass.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco: Jossey-Bass

Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.). Thousand Oaks, CA: Sage.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: SAGE.

Moore, T., & Kain, D. L. (2011). Student tutors for problem-based learning. *Journal of Dental Education*, *75*(6), 805–816.

Moyles, J., Adams, S., & Musgrove, A. (2002) .Early years practitioners' understanding of pedagogical effectiveness: Defining and managing effective pedagogy. *Education*, 3-13, 30:3, 9-18, DOI: 10.1080/03004270285200291

National Association for the Education of Young Children (NAEYC). (2005). *Position statement: A conceptual framework for early childhood professional development.* Online: ***www.naeyc.org/about/positions/pdfpsconf98 Retrieved 16-12-2013*.**

National Council for Curriculum and Assessment (NaCCA). (2018). *Listening for children's stories: Children as partners in the framework for early learning. www.ncca.ie.* Retrieived 26th June, 2022

Nowell, S. D. (2016, March 18). "It's About the Why": Social Studies Teachers' Perceptions and Pedagogy of Common Core Literacy Integration. *The Journal of Social Studies Research*, 41(1), 63-73.

O'Connell, C. (2006), "Defining, Conceptualizing, and Measuring Fidelity of Implementation and Its Relationship to Outcomes in K–12 Curriculum Intervention Research. *Review of Educational Research, 78* (1), 33-84,

Okur-Akçay, N. & Doymuş, K. (2012). The effects of group investigation and cooperative learning techniques applied in teaching force and motion subjects on students' academic achievements. *Journal of Educational Sciences Research*, 2(1), 100-116.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage. Posner, G.

Penna-Baskinger, K. (2018). Competencies for fresh graduates' success at work: Perspectives of employers. *Industry and Higher Education*, *33*(1), 55–65.

Pop, S. F. (2014). Cross-curricular teaching approaches favouring the active learning of mechatronics at secondary Level. *Procedia-Social and Behavioral Sciences Sciences*, 142, 123-126.

Prawat, R. S. (1995). Misreading Dewey: Reform, Projects, and the Language Game. *Educational Researcher*, *24*(7), 13-22.

Pring, R. (2000). Curriculum integration. *Journal of Philosophy of Education, 5* (2):170–200

Rao, N., S. S. Ng., & E. Pearson. (2010). *Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice. In Revisiting the Chinese learner*, ed. C. K. K. Chan, and N. Rao, 255–79. Dordrecht: Springer.

Reiser R. A. (2018). A history of instructional design and technology: Part 1: A history of instructional media. *Educational Technology, Research and Development, 49*, 53–64

Rogoff, B. (1998). Cognition as a collaborative process. In *Handbook of child psychology: Vol . 2. Cognition, perception and language* (pp. 679–744). John Wiley & Sons Inc.

Rolfe, S.A., & Siraj-Blatchford, I. (Eds.). (2001). *Doing early childhood research: International perspectives on theory and practice (1st ed.)*. Routledge. https://doi.org/10.4324/9781003115397

Ryan, T. G. (2011). The teacher / researcher and the role of pre-understanding : a personal analysis. *New Zealand Journal of Teacher's Work*, *8*(2), 220–228.

Safta, C. G. (2015). *Academic drop-out between individual decision and institutional pressure.* Petroleum Gas University of Ploiesti, 39 Bucuresti Blvd., Ploiesti 100680, Romania Charlene.

Salam, A., Mohamad, N., Siraj, H. H. H., Latif, A. A., Soelaiman, I. N., Omar, B. H., Ngah, W. Z. W., & Moktar, N. (2009). Challenges of problem-based learning. *South East Asian Journal of Medical Education*, *3*(2), 54–60. https://www.researchgate.net/publication/261107839_Challenges_of_Problem_Based_Learning

Savage, J. (2012). Moving beyond subject boundaries: Four case studies of cross-curricular pedagogy in secondary schools. *International Journal of Educational Researc*h, *55*, 79-88.

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-Based Learning*, *1*(1), 4–16. https://doi.org/10.7771/1541-5015.1002

Schreier, H. (2001). Dewey, John (1859-1952). In N. J. Smelser & P. B. Baltes (Eds.). I*nternational Encyclopedia of the Social & Behavioral Sciences*, 332-336. Amsterdam, Netherlands: Elsevier.

Schwandt, D. R. (2000). Integrating strategy and organizational learning: A theory of action perspective. In J. P. Walsh &A. S. Huff (Eds.). O*rganizational learning and strategic management, 14, 337–359*, Greenwich, CT: JAI Press, Inc.

Schwandt, D. R., & Marquardt, M. (2003). *Organizational learning: From world-class theories to global best practices*. New York: St Lucie Press.

Selçuk, G. S. (2010). The effects of problem-based learning on pre-service teachers' achievement, approaches and attitudes towards learning physics. *International Journal of Physical Sciences*, *5*(6), 711–723.

Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. L. (2009). Professional development in early childhood programs: process issues and research needs. *Early Education and Development*, *20*(3), 377–401. https://doi.org/10.1080/10409280802582795

Siew, N. M., Chin, M. K., & Sombuling, A. (2017). The effects of problem based learning with cooperative learning on preschoolers ' scientific creativity. *Journal of Baltic Science Education*, *16*(1), 100–112.

Silander, P. (2015). *Rubric for phenomenon based learning*. Available online at: http://www.phenomenaleducation.info/phenomenon-based-learning.html (accessed January 18, 2021).

Slavin, R. E. (1990). *Cooperative learning*. New York: Longman

Slavin, R. E. (1995). *Cooperative learning theory, research and practice*. New York: Allyn & Bacon.

Smits, P. B. A., Verbeek, J. H. A. M., & de Buisonje, C. D. (2002). Problem based learning in continuing medical education: a review of controlled evaluation studies. *BMJ*, *324*(7366), 153–1566. https://doi.org/10.1136/bmj.325.7366.693

Stake, R. E. (2005). Q*ualitative case studies. In N. Denzin, & Y. Lincoln (Eds.), Sage handbook of qualitative research* (pp. 443e466). Thousand Oaks, CA: Sage

Suhendi, A., & Purwarno, P. (2018). Constructivist learning theory: the contribution to foreign language learning and teaching. *KnE Social Sciences*, *3*(4), 87. https://doi.org/10.18502/kss.v3i4.1921

Symeonidis, V., & Schwarz, J.F. (2016). *Phenomenon-based teaching and learning through the pedagogical lenses of phenomenology*: The recent curriculum reform in Finland. *Forum Oswiatowe, 28*(2), 31–47. Retrieved on 10-6-22 from http://forumoswiatowe.pl/index.php/czasopismo/article/view/458

Tarim, K. (2009). The effects of cooperative learning on preschoolers' mathematics problem-solving ability. *Educational Studies in Mathematics*, *72*(3), 325–340. https://doi.org/10.1007/s10649-009-9197-x

Tomlinson, C. A. (2011). One to grow on: Finding your grading compass. *Educational Leadership*, 92-93.

Tuckett , A. (2005) Enough is Enough. *Adults Learning*, *17*(1), 6.

Tudor, L. S. (2014). Perception of teachers on curriculum integration. Integration Patterns Practice. *Procedia-Social and Behavioral Sciences*, *127*, 728-732

Tzou, P. W., Yang, C. H., & Wright, S. K. (2011). Child-centered education: Incorporating reconceptualism and poststructuralism. *Academic Journals*, *6*(8), 554-559

Ulger, K. (2018). The effect of problem-based learning on the creative thinking and critical thinking disposition of students in visual arts education. *Interdisciplinary Journal of Problem-Based Learning*, *12*(1), 3–6. https://doi.org/10.7771/1541-5015.1649

Ultanir, E. (2012). An epistemological glance at the constructivist approach: constructivist learning in Dewey, Piaget, and Montessori. *International Journal of Instruction*, *5*(2), 195–212. http://www.liebertpub.com/doi/10.1089/jmf.2006.9.422

Valanne, E. A., Al Dhaheri, R. M., Kylmalahti, R., & Sandholm-Rangell, H. (2017). Phenomenon based learning implemented in Abu Dhabi school model. *International Journal of Humanities and Social Sciences*, *9*(3)

Vars, G. F. (1991). Integrated Curriculum in Historical Perspective. *Educational Leadership*, *49*(2), 14-15.

Wall, A., & Leckie, A. (2017). *Curriculum integration: An Overview*. *22*, 36–40.

Watkins, D., & Kritsonis, W. W. A. (2008). Designing an effective school curriculum: enhancing student achievement based on an integrated curriculum model and the ways of knowing through. *FOcus on Colleges, Universities & Schools*, *2*(1), 1–15. http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Developing+and+Designing+an+Effective+School+Curriculum+:+Enhancing+Student+Achievement+Based+on+an+Integrated+Curriculum+Model+and+the+Ways+of+Knowing+Through+the+Realms+of+Meaning#1%5Cnhttp://n

Wiersma, W., & Jurs, S. G. (2005). *Research methods in education: An introduction*. Boston, MA: Ally and Bacon

Wijnia L., Loyens S. M. M., Derous E., Koendjie N. S., Schmidt H. G. (2014) Predicting educational success and attrition in problem-based learning: Do first impressions count? *Studies in Higher Education, 39*, 967–982

Wijnia, L., Loyens, S. M. M., Derous, E., & Schmidt, H. G. (2015). How important are student-selected versus instructor-selected literature resources for students' learning and motivation in problem-based learning? *Instructional Science*, *43*(1), 39–58. https://doi.org/10.1007/s11251-014-9325-6

Wineburg, S. S., & Grossman, P. L. (2000). *Interdisciplinary curriculum: Challenges to implementation*. New York, NY: Teachers College Press.

Xie, M., Talin, R., & Sharif, S. (2014). The relationship between teachers knowledge, attitude and belief with the implementation of inquiry-based learning in Zhengzhou, China. *International Journal of Learning, Teaching and Educational Research*, *8*(1), 149–161.

Yimwilai, S. (2015). An integrated approach to teaching literature in an EFL classroom. *English Language Teaching*, *8*(2), 14–21. https://doi.org/10.5539/elt.v8n2p14

APPENDIX

Informed Consent

Dear Teacher,

Your participation in the research on "**Pre-school teachers' knowledge on the use of integrated method of teaching kindergarteners in the Kumasi Metropolis**" is highly appreciated and welcomed!

This study is carried out by MEd student of the University of Education, Winneba - Ghana. It aims to probe into **integrated method of teaching** in **pre-school classrooms** and offer insights to ECE stakeholders on how to improve integrated teaching methods for quality teaching and learning in ECE classrooms.

In this interview, you will be required to provide information on your sociodemographic and work characteristics as well as describe your knowledge about integrated teaching and the integration teaching practices in the classroom. An estimated time of 20 minutes is required for interview's completion. There are no right or wrong answers, you just have to describe your experience.

Be assured that the information acquired as a result of this research will be kept under strict confidentiality – respecting the privacy and identity of respondents and will solely be used for the purposes stated in this research.

Thanks for your support!

If you agree to participate, please sign.

Signature: _____

Date: _____

SECTION A – BIO DATA

Age

Less than 25 years [ ]

25 - 35years [ ]

36 - 45 years [ ]

46 - 55 years [ ]

Over 50 years [ ]

Gender: Male [ ] Female [ ] (Select only one)

Years of teaching experience

Less than 1 year [ ]

1-5 years [ ]

6-10 years [ ]

11-15 years [ ]

16-20 years [ ]

21-25 years [ ]

Over 25 years [ ]

Level of Teaching

KG 1 [ ]

KG2 [ ]

SECTION B –

(This section solicits information on Teachers Technical and Pedagogical

Knowledge/skills)

What Teaching Technological Knowledge/skills do you possess, which are

beneficial to teaching and learning?

I acquired both technical and soft skills needed to discharged my teaching duties and responsibilities as part of my pre-service, induction and continuing professional development programmes. I therefore can plan a lesson, execute the plan by employing the developmentally appropriate methods, tools, resources, management and assessment practices. Hmmmmmmm, I have a lot of roles and responsibilities as a teacher- caregiver. My role is to be a good role model to the children that I lead and mentor. I, therefore, play the role of a substitute parent, leader, and learner of curriculum and assessment by coaching, scaffolding, mentoring, leading, playing, and assessing my student's overall growth, development, and learning process (Teacher A).

I have some level of knowledge, skills and competence in curriculum planning, implementation and teacher's classroom assessment practices. I know what, why, how, when and with what teach in my classroom. I am a facilitator and scaffold the link between parents, the community, and the children in my classroom by providing sound leadership traits for the children to learn for life (Teacher B).

I have firm idea regarding how children grow, develop and mature. This guides me in choosing the right methods, resources, including how to structure and organize the appropriate learning environment to facilitate learning in my children in the classroom (Teacher C).

I am well informed about the value of play in early childhood teaching and learning process. I often rely on children previous knowledge by choosing the right play material and educational technologies to promote learning outcomes in my classroom (Teacher D).

Base on your experience, what Pedagogical Knowledge/skills have you acquired/possessed?

I have a firm understanding of the established belief that children learn through play and are also technological advanced (Teacher A)

I acknowledge fully that children learn best through play and the use of practical hand-on -activities and as such have firm understanding of most of the developmentally appropriate classroom methods of teaching children (Teacher B).

I am capable of relying on children prior experiences to arouse, gain and sustain children attention and learning outcomes, while relying on my in-depth knowledge in the subject matter knowledge (Teacher C).

I have what it takes to help children transfer learning and knowledge from school to home or from home to the school environment (Teacher D).

SECTION C –

(The questions below are set to collect data on teachers' knowledge in integrated teaching methodology)

Are you familiar with integrated teaching methodology? If you're elaborate what you have heard about it

Well, it was taught and learnt as one of the methods of teaching at the early childhood or preschool level. However, the actual practicality wasn't really taught at the university, whilst in training (Teacher A).

I rather don't remember it too well as something learnt at the college. Nonetheless, I have attended a few workshops on its application in the real classroom situation (Teacher B).

It really became evident to me, when the new standard based curriculum was instituted in schools in 2018 and we were required to employ integration as the main tool in the classroom teaching. I therefore had to embark on a number self-tuition activities to be able to somehow use it (Teacher C).

I haven't received any formal training regarding the use of this teaching method. I therefore follow the guidelines in the curriculum and the lesson note format to deliver. I have also taken time to watch a number of videos on U-tube to able to teach using integrated approach (Teacher D).

In your understanding, how will you define integrated teaching methodology?

In my view, integration is all about combining different subjects or topics in different disciplines together in a single lesson, without treating them as separate disciplines in a traditional lesson delivery (Teacher A).

It usually a concept that is based on cross-curricular approach. In other words, it involves the fusion of two or more uncommon or even common subject areas together in a single lesson (Teacher B).

When theme-based teaching takes place, a teacher teaches one topic in a way that employs cross-curricular ideas (Teacher C)

The process of teaching different subjects around a common theme without a clear-cut boundary (Teacher D).

How experienced are you when it comes to integrated method of teaching?

*To be honest, I have a very limited knowledge, understand and the required skills to utilise the method appropriately. I often struggle to use as I was solely introduced to subject specific teaching at the college***.**

I have my own deficiencies regarding the use of this approach, since I never received any proper formal training in its utilization. But I won't also say that am totally ignorant (Teacher B).

I am somehow limited with the requisite knowledge with the use of this approach to teaching. I will therefore welcome more training to upgrade my limited competency (Teacher C).

We all struggle to effectively use this teaching approach, since it was only pushed on us, without any proper preparation and orientation on its usage. However, I am not totally dumbed though (Teacher D).

What has been some of the Effect of common themes in integrated method of teaching?

Mostly the common themes are based on existing knowledge, they therefore lead to holistic understanding on the concepts understudy among the children (Teacher A)

The common themes are not completely foreign concepts to them, and as such their creativity levels are often developed (Teacher B)

The common themes always link to their daily experiences, which in tend build in the them better linguistic ability and cross-cultural promotion and integration among the children (Teacher C).

The common themes used help the children to acquired requisite generic skills and thereby fostering close collaboration and active engagement of the children throughout the teaching and learning process (Teacher D)

During your class, what are some of the factors you considered in integrated method of teaching implementation?

The selected themes are always linked to the children daily experiences (Teacher A).

The learning objectives often drive the selected theme and the specific integration process (Teacher B).

The availability or otherwise of the teaching and learning materials and resources are usually considered when using integrated method of teaching, having related to the lesson objectives (Teacher C).

My own experiences regarding how children learn, the age appropriateness, home experiences, level of maturation, timing and season often guide my usage of the integration method (Teacher D).

Base on your experience, what are some of the major Challenges you face in the implementation of integrated teaching methodology?

The challenges had always been that of my own limitations, parents' excess expectations, accountability issues for children to meet certain standards, local resources availability, timing, leadership demands, class size and classroom assessment requirements (Teacher A).

I have my own technical challenges and limited knowledge towards the implementation of the integrated approach to teaching coupled with lack of needed resources and support systems (Teacher B)

Limited timing, resource constraints, large class size and high parental and assessment demands (Teacher C).

The challenges had always been that of my own perception and limitations, parents' excess expectations, accountability issues for children to meet certain standards, local resources availability, timing, leadership demands, class size and classroom assessment requirements (Teacher D).

What area of integrated teaching methodology do you want to see improvement and why?

The overall concepts of integrated approach to teaching and the related types (Teacher A)

The interdisciplinary and transdisciplinary nature of curriculum integration (Teacher B

Teachers' overall competency and perception regarding the use of integrated method of teaching. This is because without competent and well-perceived and oriented teacher the implementation of the integrated curriculum will be ineffective (Teacher C)

The practical aspect of the integrated curriculum ought to be in-cooperated into the pre-service teacher education program (Teacher)

Themes, Codes and Sub-themes of preschool Teachers' Perceptions of their Pedagogical and technical knowledge, Skills and Practices relating to integrated approach to teaching

What teaching technical and knowledge or skills do you possess, that are beneficial to teaching and learning?

Themes	Sub-themes	Codes
Requisite knowledge and skills in general teaching	*Knowledge, duties, practices, skills*	• Technical and soft skills

Base on your experience, what pedagogical knowledge or skills have you acquired or possessed?

Themes	Sub-themes	Codes
Play-way and transfer of learning	*Learning through play* *Prior knowledge activation*	• Promotion of teaching and child development • Teachers understanding and experience • Right methodology

In your opinion, are you familiar with the integrated teaching methodology?

Themes	Sub-themes	Codes
Limited knowledge regarding integrated curriculum	*Pre-service, in-service and CPD*	• University • College • School-based

How would you define integrated teaching methodology?

Themes	Sub-themes	Codes
Combination of different Subjects or topics in different Discipline, without resorting to traditional subject specific teaching	*Cross-curriculum*	• Definition of integrated curriculum

As a teacher how experienced are you regarding integrated method of teaching?

Themes	Sub-themes	Codes
Not all that experienced and willing to accept more training	*Not totally ignorant*	• Knowledge • Experience • Training • Understanding • skills

What has been some of the effects of common themes in integrated method of teaching?

Themes	Sub-themes	Codes	
Generic skills and holistic understanding leading to creativity	*Collaboration* *Active* *engagement*	• cross-curriculum	

During your class, what are some of the factors you consider when using integrated method of teaching?

Themes	Sub-themes	Codes	
Children, teachers daily experiences Availability of teaching Teaching and learning resources	*Age* *Maturation* *Timing*	• factors • implementation	

What challenges are you faced with during the implementation of the integrated teaching approach?

Themes	Sub-themes	Codes
Teachers' challenges Resource challenge Parental challenge Leadership challenge	Limitations Timing Leadership Resources	Implementation challenges

Which area of integrated teaching methodology do you want to see improvement and why?

Themes	Sub-themes	Codes
Overall concepts relating to integrated approach	*Interdisciplinary* *Transdisciplinary*	• **area for improvement**

Requisite knowledge and skills in general teaching and pedagogy

When asked about the technical and knowledge or skills do you possess, that are beneficial to teaching and learning, the above themes emanated out from their responses. The numerous responses indicated that the they do possess the required knowledge and skills relating to the tradition approach of teaching specific school time table subjects. Out of the many responses, the themes that emerged included teachers viewing their roles and responsibilities as leaders, caregiver/educator and facilitators with the needed ability to plan and execute developmentally appropriate teaching practices, which resolve around play, having selected the required resources and materials. For example, (Teacher A) was quoted as saying:

I have firm idea regarding how children grow, develop and mature. This guides me in choosing the right methods, resources, including how to structure and organize the

appropriate learning environment to facilitate learning in my children in the classroom (Teacher C).

I am well informed about the value of play in early childhood teaching and learning process. I often rely on children previous knowledge by choosing the right play material and educational technologies to promote learning outcomes in my classroom (Teacher D).

Most of the teachers also viewed their and responsibilities as caregivers and educators as their daily job goes beyond the daily routine in teaching. such teachers rather identify their additional roles surrogate parents, who offer the children the needed protection in safe environment, whilst offering nursing services including dispensing od medication to children with prescription with the right dosage and time intervals. For instance;

(Teacher A).

Similarly, others understood their roles as facilitators, as the main theme that was developed during the analysis. As facilitators, they promote students learning through classroom assessment, mentoring and monitoring classroom instructions. For example;

I am a facilitator and scaffold the link between parents, the community, and the children in my classroom by providing sound leadership traits for the children to learn for life (Teacher B).