UNIVERSITY OF CAPE COAST

READINESS AND SELF-EFFICACY OF PRE-SERVICE TEACHERS TO TEACH LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

ROCKSON EBENEZER KYEM

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BY

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Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Special Education

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DECLARATION

Candidate's Declaration

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

Candidate's Signature……. Date ……

Name: ……..

Supervisors' Declaration

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

Supervisor's Signature…… Date ……

Name: ……

ABSTRACT

This study examines Readiness and Self-efficacy of Pre-service Teachers (PST) to teach Learners with Special Educational Needs (SEN). The study used the Convergent mixed methods design. Semi-structured interview and questionnaire were the data collection instruments. Eighty-two PST who have gone through practicum in special education from the Department of Basic Education, at the University of Cape Coast were purposively selected to participate in the study. Ten of the PSTs were conveniently interviewed. Mean and Standard Deviations, Pearson Correlation coefficient, and independent *t*-test were used to analyse the quantitative data. While the qualitative data was analysed thematically. The study found that PSTs have high readiness levels and high self-efficacy levels in teaching children with SEN. Furthermore, there was a strong significant relationship between pre-service teachers' readiness levels and their self-efficacy levels to teach children with SEN. Additionally, the study revealed that there was no statistically significant gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN. It was therefore recommended that the Ministry of Education (MoE), and Ghana Education Service (GES) should ensure that all PSTs are made to go through practicum in special education, and the government should ensure that all necessary teaching and learning materials needed to prepare PSTs for the teaching of children with SEN are made available. Furthermore, both genders should be encouraged to enrol to be prepared to teach learners with SEN.

KEYWORDS

Learners with SEN

Inclusive Education

Practicum

Pre-service Teacher

Teacher Readiness

Teacher Self-efficacy

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I would like to express my profound gratitude to my supervisor, Prof. Irene Vanderpuye for her professional guidance, advice and encouragement throughout my study. I am extremely grateful.

DEDICATION

To my late father, Pastor Solomon Nsiah.

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ADHD	-	Attention deficit Hyperactive Disorder
CCDRR	-	Centre for Child Development Research and Referral
CRPD	-	Conventional Right on Persons with Disabilities
IEP	-	Individualised Education Plan
MOE	-	Ministry of Education
PBC	-	Perceived Behavioural Control
PSTs	-	Pre-service Teachers
PWD	-	Persons with Disabilities
SEN	-	Special Educational Needs
SENCOs	-	Special Educational Needs Coordinators
SEND	-	Special Educational Needs/Disabilities
TPB	-	Theory of Planned Behaviour

CHAPTER ONE

INTRODUCTION

Background to the Study

It is possible for children to encounter challenges in their learning processes at various stages. This occurrence is not atypical (Ramachandram, 2019). For the majority of children, transitory challenges are often resolved by the provision of assistance and support from both their household and educational institution. Some other children however, carry these difficulties throughout and thus require extra assistance to be able to cope in the classroom (Winter & O'Raw, 2010). The system of assistance and help offered to these individuals in school to help them maximise their potentials and excel in academics is referred to as Special Education (Halliwell, 2012). Children with Special Educational Needs (SEN) can be classified as those who demonstrate a range of challenges, including learning, physical, and developmental disabilities, as well as behavioural, emotional, and communication obstacles, in addition to learning deficits (Monchy, Pijl, & Zandberg, 2004).

According to the Children and Families Act (2014), the categorisation of Special SEN is bestowed upon a child who exhibits a learning difficulty or disability that requires the provision of tailored educational support. Various problems or impairments might lead to a significant discrepancy in learning capabilities when compared to the majority of children within the same age cohort. Furthermore, persons with disabilities may have challenges that hinder their ability to utilize educational materials that are generally accessible to their non-disabled counterparts in mainstream educational settings. Delaney

(2016) asserts that the understanding of the word SEN might exhibit variation across different geographical locations, encompassing a heterogeneous population of students. The interpretation of the phrase exhibits variation among different nations. Delaney (2016) proposed a definition of SEN that asserts children can be identified as having SEN when they demonstrate significantly greater learning challenges in comparison to the majority of their same-age peers, thereby requiring the implementation of targeted educational interventions. Bryant, Bryant, and Smith (2019) assert that the concept of SEN has existed for a significant period, but with differing nomenclature across various countries. Bryant et al. emphasise that SEN should not be conflated with remedial teaching, gifted education, or the training of kids who experience economic or cultural disadvantages. Nevertheless, a discrepancy arises when comparing this definition with the objectives delineated in the inclusive education plan implemented by the Ministry of Education (MOE) in Ghana in 2015.

As stated by the Ministry of Education (2015) individuals with SEN encompass not only those with disabilities, but also youngsters who have challenges in their academic performance due to various barriers that hinder their capacity to make optimal progress in learning and development. This policy further acknowledges distinct cohorts of students with diverse educational requirements. The individuals in question encompass; “Persons with Intellectual Disability, Street Children ,Gifted and Talented Persons, Nomadic children (shepherd boys, fisher-folks’ children and domestic child workers), Persons with physical disability, children exploited for financial purposes, persons with specific learning disability, persons with autism,

children living with HIV/AIDS, persons with attention deficit hyperactivity disorder (ADHD), persons with hearing impairment, persons with visual impairment, persons with deaf-blindness, persons with speech and communication disorders, persons with other health impairment and chronic diseases such as rheumatism, epilepsy, asthma, spina bifida and sickle cell anaemia, children displaced by natural catastrophes and social conflicts, persons with multiple disabilities, and lastly persons with emotional and behaviour disorders" (MOE,2015, p.4).

Like all other children, children with SEN have ambitions and dreams for their future, and thus need quality education to develop their skills in order to realise or maximise their full potential. Despite widespread agreement on the importance of education, children with SEN are still falling behind **(**UNICEF, 2021). On a global scale, these youngsters have an increased likelihood of experiencing a lack of access to formal education. People with disabilities face persistent barriers in accessing education as a result of discriminatory practices, social stigmatization, and the continued failure of policy makers to effectively incorporate disability-related policies into educational services. The World Health Organisation [WHO] (2015), and the World Bank (2020) estimate that being disabled alone doubles the chance of never enrolling in school. An estimated 33.3% of out-of-school children have a disability (Kameyama, 2021).

According to Spaull (2015) the provision of education for children with SEN is limited to a mere 13% in certain nations. According to a study conducted by Lamichhane and Kawakatsu (2015) the primary school completion rate for individuals with disabilities in Bangladesh is at 30%,

whereas the corresponding rate for individuals without disabilities is 48%. According to a recent study conducted by Trani, Fowler, Bakhshi, and Kumar (2019), it has been shown that around 75% of children with impairments in Afghanistan are not enrolled in educational institutions. In the African context, the proportion of children with disabilities enrolled in primary education remains below 10% (Murungi, 2015). In the context of Ghana, the population comprises around 700,000 persons who are classified as having impairments. Individuals undergoing examination face several obstacles, including the limited availability of education of superior quality (Singal et al., 2015).

Missing out on education affects the quality of life of individuals and their families, and also has a negative economic impact on the country at large. This is so because education is one major tool that can help people with disabilities get increased access to employment, health, and other services and develop a better awareness of their rights (Groce, Kett, Lang, & Trani, 2011). The issue of determining the appropriate educational setting for learners SEN has risen to prominence in the efforts of nations to resolve the 1994 UNESCO Salamanca Statement on inclusion (Gyimah, Sugden, and Pearson, 2009). The idea of SEN and the protection of the disabled has become a global phenomenon (Special Attention Project, 2011) there has been an international and national commitment to educating individuals who deviate significantly from what is considered normal and call for special education (Special Attention Project, 2011).

Ainscow and César (2006) assert that the Salamanca Declaration (UNESCO, 1994) carries significant significance as a global agreement in the field of special education. During the World Conference on Special Needs, a

treaty was officially endorsed by a total of 92 member countries and 25 international organizations. According to the treaty, it is advocated that the implementation of normal schools with an inclusive approach is the ideal method for eliminating discriminatory attitudes, fostering inclusive communities, developing an inclusive society, and achieving universal education (UNESCO, 1994). In conjunction with the Salamanca Treaty, the concept of inclusive education (IE) as a form of education that encompasses all individuals has received global recognition, resulting in the development of additional treaties and declarations that align with the Education for All framework established by UNESCO (2000). The implementation of the United Nations Convention on the Rights of Persons with Disabilities (2006) was intended to provide a comprehensive framework of agreements with the goal of ensuring equal educational opportunities for children with disabilities, regardless of the precise nature of their impairments. Several treaties have been established to encompass various aspects of education. The agreement under consideration pertains to the UNESCO International Conference on Education, which took place in the year 2008. The conference placed considerable emphasis on the promotion of inclusion and equity as primary methods for addressing different forms of exclusion and inequality, in accordance with the Education 2030 Framework of Action. In addition, the impact of the United Nations Sustainable Development Goals (SDG) on education is substantial, including several aspects such as educational policies and practices. When persons who have impairments are offered a thorough and high-quality education, they possess the ability to attain influential positions within their communities, question established cultural prejudices,

and alter negative perceptions of their potential. The main purpose of the Persons with Disability Act (2006) Act 715 was to provide a legal framework that would require agencies to efficiently implement and enforce legislation designed to protect and assist individuals with disabilities.

According to Avramidis and Norwich (2002), the efficacy of IE is contingent upon the active participation of educators. The 48th International Conference on Education, themed "IE: The Way of the Future" (UNESCO IBE, 2008), underscored the importance of teacher education as a pivotal domain for forthcoming advancements. According to Gyimah, Sugden, and Pearson (2009), instructors play essential roles in the implementation of IE. The importance of the teacher's role in the education of children with SEN has been underscored in various international documents, including the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities (United Nations, 1993), the Policy Guidelines on IE (UNESCO, 2009), and the World Report on Disability (WHO, 2011). These publications collectively recognize the crucial role of teachers in the successful implementation of IE. The study done by İnceçay and Dollar (2012) investigates the correlation between classroom management and teacher efficacy. The findings highlight the importance of PSTs developing specific competencies during their undergraduate teacher education program to enhance their effectiveness as educators in the future. Deku and Vanderpuye (2017) propose that the integration of IE courses into teacher training programs is advantageous. It is argued by proponents that the inclusion of such courses is imperative in order to adequately provide prospective educators with the requisite abilities to proficiently instruct learners with SEN.

In the context of classroom management, teacher effectiveness is seen as one of the key competencies. According to Sharma and Nutta (2016), certain factors are linked to effective inclusive teaching, including the level of self-efficacy exhibited by the instructor. According to Bandura (1977), self-efficacy may be defined as the individual's conviction in their own capabilities to effectively plan and carry out the required actions in order to achieve desired results (p. 3). According to Vanderloon (2020), self-efficacy encompasses an individual's views or judgments pertaining to their capacity to achieve the desired goal inside various environments or situations. Self-efficacy may be described as a conviction that is oriented towards the future, as it pertains to the evaluation of one's future performance. Vanderloon further underscored the notion that self-efficacy is a motivating construct rooted in an individual's self-perception, rather than being contingent upon real levels of skill.

According to Hoy (2004), educators who possess a strong feeling of efficacy demonstrate increased levels of preparation, organization, and excitement. Additionally, they allocate more instructional time to areas in which they feel more efficacious. Conversely, instructors with a poor sense of efficacy prefer to avoid certain courses and themes. This finding illustrates that the efficacy of a teacher is contingent upon the specific situation in which they operate. Today's demonstration reaffirmed the positive correlation between enhanced efficacy and increased effort and perseverance, resulting in higher performance, which in turn fosters a new sense of mastery experience, ultimately leading to further increased effectiveness. Consequently, it has been ascertained that the development of a sense of efficacy is a significant result of

initial teaching encounters, which may be nurtured through targeted training programs that offer essential pedagogical information, a variety of feedback mechanisms, and a supportive social environment that acknowledges and addresses the common anxieties experienced by beginner educators. In a distinct investigation conducted by Sharma, Shaukat, and Furlonger (2015) it was observed that individuals who possessed specialized education training, familiarity with disability laws, teaching background, and personal encounters with disabilities exhibited elevated degrees of self-efficacy while instructing youngsters with SEN. Kuyini, Desai, and Sharma (2020) did a research in Ghana which yielded similar findings, indicating that instructors exhibited elevated levels of self-efficacy beliefs pertaining to the instruction of children with SEN. The primary emphasis of their study was to incumbent instructors inside the profession, rather than those in the pre-service stage.

The consideration of teacher readiness is a crucial aspect in the management of the classroom (Poznanski, Hart, & Cramer, 2018). According to Aishah, Bua, and Bahari (2011), the concept of teacher ready encompasses the instructors' possession of knowledge, abilities, attitudes, and practices that enable them to effectively address the unique needs of every student. According to Ali and Mohamed (2017), the readiness of a teacher to educate children with SEN is dependent on their proficiency and competence in effectively managing the instructional process. According to Rabi, Ghazali, Rohaizad, and Zulkefli (2018), it is essential for pre-service educators to be adequately equipped to teach students with SEN within an inclusive classroom setting. Based on the findings of Rabi et al., it can be inferred that a significant proportion of pre-service educators in Malaysia possess a perceived

preparedness to effectively teach students with SEN. The results of Nketsia and Saloviita's (2013) study indicate a significant disparity when compared to the present findings, as they revealed that a limited number of PST in Ghana possessed the necessary readiness to effectively educate students with SEN.

It is important to acknowledge that the study was done during the initial implementation period of the IE policy, potentially influencing the outcomes observed. Furthermore, it should be noted that the participants in the study conducted by the researchers were PSTs enrolled at the College of Education in Ghana. It is important to acknowledge that these individuals did not have any prior exposure to practicum in the field of special education. This particular factor has the potential to influence the outcomes and findings of the research. The rationale for my interest in exploring the readiness and self-efficacy of PST in teaching children with SEN at the University of Cape Coast stems from the inconsistent findings in existing literature regarding teacher readiness and self-efficacy, as well as the dearth of research specifically focused on PSTs who have engaged in a practicum related to readiness and self-efficacy in special education.

Statement of the Problem

Teachers' self-efficacy and readiness to teach children with SEN is in doubt. My informal engagement with both teachers and children with SEN has given me reasons to suspect that teachers are not ready and efficacious to teach children with SEN. This became true when a child with suspected case of Attention Deficit Hyperactive Disorder (ADHD) was denied an admission in a basic school. Another instance was when a child with Autism was

mishandled in an inclusive school. These experiences informed the researcher to explore the self-efficacy and readiness of PST to teach children with SEN.

Research reveals that pre-service teachers' training is one of the key factors in the promotion of IE (Nketsia & Saloviita, 2013). It is possible the kind of experience obtained during their training sessions creates in them some skills that make them effective at handling children with SEN. This is so because a pre-service teacher's readiness and self-efficacy to teach children with SEN can depend on the training they receive at the university (Rabi et al., 2018). It is not a surprise that Rabi et al. (2018) found that PST at Universiti Pendidikan Sultan Idris have a greater sense of readiness and self-efficacy to teach children with SEN. On the contrary, Avramidis, Bayliss, and Burden (2000) found that PSTs in the United Kingdom (UK) have a low level of self-efficacy in teaching children with SEN. Nketsia and Saloviita (2013) also report that the majority of PSTs from three Ghanaian colleges of education were not ready to teach children with SEN.

However, it appears all these studies did not consider PSTs who have gone through practicum in special education, as in the case of UCC, where students are made to go through technical training in teaching and running interventions for children with SEN (practicum). This missing variable can alter the findings of past studies done in this area, hence making this study essential in UCC.

It also appears that after the official launching of the IE policy in Ghana, much research has not been done into pre-service teachers' self-efficacy and readiness to teach children with SEN. It is for this reason that I deem it imperative to look into the self-efficacy and readiness of PSTs as it

has already been established that they affect the teaching of children with SEN, hence making this study relevant.

Purpose of the Study

The purpose of the study was to examine pre-service teachers' readiness and efficacy levels to teach children with SEN. This research aimed at;

1. Examine PSTs' readiness levels to teach learners with SEN.
2. Examine PSTs self-efficacy levels to teach learners with SEN.
3. Investigate the relationship between PSTs' self-efficacy levels in teaching learners with SEN and their readiness levels to teach learners with SEN.
4. Investigate the gender difference in PSTs' self-efficacy levels in teaching learners with SEN.
5. Investigate the gender differences in PSTs' readiness levels to teach learners with SEN.

Research Questions

The study is guided by the following research questions:

a. What is the level of PSTs' readiness to teach learners with SEN?
b. What is the level of PSTs' self-efficacy in teaching learners with SEN?

Research Hypotheses

1. H_0: There is no statistically significant relationship between pre-service teachers' self-efficacy levels in teaching children with SEN and their readiness levels to teach children with SEN.

   H_1: There is a statistically significant relationship between pre-service teachers' self-efficacy levels in teaching children with SEN and their readiness levels to teach children with SEN.

2. H_0: There is no statistically significant gender difference in PSTs' self-efficacy levels in teaching children with SEN.

   H_1: There is a statistically significant gender difference in PSTs' self-efficacy levels in teaching children with SEN.

3. H_0: There is no statistically significant gender difference in PSTs' readiness levels to teach children with SEN.

   H_1: There is a statistically significant gender difference in PSTs' readiness levels to teach children with SEN.

Significance of the Study

Results of this research will have practical and empirical implications for teacher educators and educational researchers in Ghana. First, the findings will help the Ministry of Education to come out with some unique support for both PSTs and teachers who handle children with SEN. The findings will also be beneficial to Special Educational Needs Coordinators (SENCOs). As it will help them to know the necessary information to use to train staff who handle children with SEN.

Delimitations

The scope of the research was confined to the University of Cape Coast, which is located in the Central Region of Ghana. This is due to the fact that this particular university is the sole educational establishment that offers PSTs the opportunity to engage in practical experiences specifically focused on special education. The individuals at the Centre for Development Research and Referral (CDRR) are specifically trained to provide interventions to learners or students who have various difficulties. The study specifically

examined PSTs enrolled in the Department of Basic Education who have completed a practicum experience in the field of special education.

Limitations

Most of the PSTs were not willing to respond to the instruments. To them, it was more or less an exam. Although the researcher convinced them to participate in the study, chances are that they were not still willing, and as such, their responses do not truly represent their position on the subject under discussion. Secondly, using students from the University of Cape Coast alone was also another limitation for generalizing the findings.

Definition of Terms

The researcher employed these terms in the research, with their respective definitions provided.

Pre-service teachers: This refers to students who have been prepared to teach in the regular classroom, which will contain learners with special educational needs.

Self-efficacy: This refers to how a teacher sees himself to effect change in the learner. His or her perceived abilities to teach children with SEN

Teacher readiness: This refers to the attitude, knowledge, skill, perceived behavioural control, and subjective norms of a teacher towards a learner.

Learners with special educational needs (SEN): Learners whose academic needs cannot be met without modifications and adjustments in the classroom.

Practicum: A training program that provides PSTs with hands-on experience on how to render intervention to learners with SEN. Learners with varied disabilities and educational needs are provided with the necessary interventions.

Organisation of the Study

There are five chapters in this research study. The first chapter of the study covers the background of the study, problem statement, purpose, research questions, significance, delimitations, study limitations, and definitions of terms. Chapter two presents the literature review, which includes the theoretical and conceptual framework, the conceptual review, and the empirical review of the study. Chapter three presents the research design, study area, population, sample and sampling procedure, data collection instruments, data collection procedures, data processing, and analysis. Chapter Four presents the findings and discussion, while Chapter Five presents the summary, recommendation, and conclusions of the study and suggestions for further studies

Chapter Summary

The study's background and the problem statement were reviewed in this chapter. The chapter presents the two research questions and three hypotheses that guided the study. Additionally, the purpose of this study, its delimitation, and its limitations were discussed. The chapter concluded by defining a few key terms and outlining how the entire study was structured.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews relevant literature that relates to teacher readiness levels and self-efficacy levels to teach children with SEN. The chapter covers the theoretical review, conceptual framework, conceptual review, and the empirical review.

Theoretical Review

Self-efficacy theory and the Theory of Planned Behaviour formed the philosophical backbone of this study. They are further explained below.

Self-efficacy Theory

Bandura (1997) defines self-efficacy as a person's confidence in their ability to competently strategize and execute the necessary steps to achieve specific goals. According to Bandura's (1986) research, the concept of perceived self-efficacy refers to individuals' perceptions of their ability to competently plan and execute the required actions in order to attain specific performance objectives. This view, according to Bandura, has a significant impact on individuals' decisions regarding which activities to indulge in, the amount of effort they exert, and their long-term commitment to these activities. The cognitive components that comprise the idea of self-efficacy were identified by the author as personal self-efficacy and result expectancy. Bandura (1977) proposed that personal self-efficacy refers to the evaluation of an individual's capacity to competently strategize and execute the necessary actions in order to navigate upcoming situations that are characterized by ambiguity, unpredictability, and frequently elicit stress. Bandura (1977)

defines outcome expectancy as an individual's perception or estimation of the probability that a particular behaviour will result in a particular outcome. Self-efficacy is a significant factor in influencing and determining a variety of human behaviours (Shunk, 1989). Individual capacity determines the ability to effectively plan and execute actions (Khourey-Bowers & Simonis, 2004).

Self-efficacy and self-concept should be distinguished. Shavelson, Hubner, and Stanton (1976) define self-concept as an individual's holistic comprehension of their own personal identity, which is influenced by their interactions with and perceptions of the external world. According to the findings of Marsh et al. (2018), the concept of self-efficacy is linked to a future-oriented perspective. Bandura (1997) defines this perspective as inquiring, "What can I do?" or, more positively, "What am I capable of achieving?" In contrast, self-concept is based on past accomplishments, experiences, and reflections. Self-efficacy refers to an individual's expectations of attaining particular objectives, whereas self-concept is influenced by the extent to which accomplishments correspond with various standards associated with different perspectives. The concept of teacher self-efficacy refers to an individual's subjective evaluation of their ability to achieve desired outcomes in relation to student engagement and learning, especially when confronted with difficult or resistant students (Tschannen-Moran & Hoy, 2001). According to Tschannen-Moran, Hoy, and Hoy (1998), instructors with a strong sense of self-efficacy are more receptive to innovative teaching strategies and ideas. In addition, they demonstrate enhanced proficiency in the areas of planning and organization, a more

constructive approach when addressing the deficiencies of their students, and increased tenacity in the face of adversity.

The concept of teacher self-efficacy bears substantial importance in the field of education. The occurrence of its manifestation is reliant on a variety of elements, including the personal characteristics of teachers (such as gender and length of teaching experience), the dynamics within the classroom (such as levels of performance), and the institutional factors (such as the professional background of the principal) (Fackler & Malmberg, 2016). Distinguishing between teacher self-efficacy and teaching efficacy is an essential endeavour (Gibson & Dembo, 1984). Teachers' efficacy beliefs, sometimes referred to as outcome expectations, encompass the views held by educators on the anticipated results of performing specific activities or behaviours at varying degrees of competence. In contrast, teacher self-efficacy refers to the degree to which educators evaluate their own ability to effectively promote positive student outcomes, even in the face of unexpected obstacles (Tschannen-Moran & Hoy, 2001).

Bandura suggests that self-efficacy develops from four fundamental sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (Gunning & Mensah, 2011). The most influential source is the individual's previous performance or mastery experience, as interpreted. When discussing mastery experiences, this refers to the experiences one acquires when tackling a new challenge and achieving accomplishment. According to Bandura (1997), mastery experiences are the most influential source of efficacy information because they provide the most credible evidence of a person's ability to master whatever is required for

success. Bandura adds that success fosters a robust conviction in one's personal efficacy, whereas failures undermine it, particularly if they occur before a sense of efficacy has been thoroughly established. Practicing is one of the most effective methods to acquire a new skill or enhance one's performance in a given activity. Using Bandura's theory of self-efficacy as a guide, one can assert that once UCC PSTs have completed a practicum in special education, they will feel competent and prepared to teach children with SEN. This is, however, speculative and subject to confirmation by this study.

Vicarious experiences serve as a crucial source of self-efficacy within social models. According to Bandura (1977), the observation of others who are similar to oneself achieving success via persistent effort enhances the observers' confidence in their own ability to effectively engage in comparable activities. According to the source on page 38, it is evident that... Vicarious experiences entail the act of witnessing individuals effectively complete a certain job. This specific component can also be associated with PSTs at UCC by suggesting that their awareness of other teachers' ability to effectively interact with kids with SEN might potentially enhance their self-efficacy.

Again, Bandura reiterates that receiving positive verbal feedback while performing a difficult task convinces a person that they have the skills and abilities to succeed. Using Bandura's assertion as a guide, we can also say that commendations and favourable comments made by practicum in special education facilitators and other significant stakeholders can influence a teacher's sense of self-efficacy to instruct students with SEN. This is due to the fact that self-efficacy is affected by encouragement and discouragement regarding a person's performance or ability to perform (Redmond, 2010).

Self-efficacy is determined primarily by an individual's performance accomplishment (Huang, 2013). Due to the fact that self-efficacy is founded on self-perceptions of certain behaviours, it is considered situation- and task-specific (Giles, Byrd, & Bendolph, 2016; Huang, 2013). This indicates that a teacher may be quite effective when instructing children without SEN, but less effective when instructing students with SEN. PSTs with a high level of efficacy believe they have control over students' achievement and motivation (Tschannen-Moran et al., 1998). They will demonstrate this by encouraging and assisting students with SEN to achieve academic success (Shunk, 1989). PSTs who believe that effective teaching can influence children's learning (outcome expectancy beliefs) and who also believe in their own teaching abilities (self-efficacy beliefs) will always persist longer, provide a greater academic focus in the classroom, and exhibit different types of feedback than PSTs who have lower expectations concerning their ability to influence children's learning (Gibson & Dembo,1984). (Tschannen-Moran et al., 1998) state that a high level of efficacy leads to increased effort and perseverance, which in turn results in improved performance. PSTs with a low sense of self-efficacy, on the other hand, will have doubts about their ability to influence children's learning and will refrain from planning activities that are beyond their capabilities. They may give up fast on assisting children with SEN and will not go out of their way to research materials or develop innovative teaching strategies (Shunk, 1989). (Tschannen- Moran et al., 1998) found that low self-efficacy leads to less effort and perseverance, resulting in poor teaching outcomes.

In accordance with the theory of self-efficacy, it can be concluded that all PSTs who maintain the belief that they are capable of teaching children with SEN are more likely to be successful than their counterparts who do not hold this belief. Second, the theory suggests that a pre-service teacher's level of self-efficacy could be determined by their success in teaching a child with SEN (mastery experience) and the verbal commendation they receive from reasonable Ghanaian stakeholders.

The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is a cognitive theory devised by Ajzen (1985) that proposes a person's decision to engage in a specific behaviour, such as gambling or ceasing gambling, can be predicted by their intention to engage in that behaviour. It is assumed that intentions capture the motivational factors that influence behaviour; they are indicators of how hard individuals are willing to try and how much effort they intend to exert to execute the behaviour. "As a general rule, the greater the intention to engage in behaviour, the higher the likelihood that it will be carried out" (Ajzen, 1991, p. 181).

Based on the TPB, intentions are influenced by three variables, with the initial component being an individual's attitudes. This is our subjective viewpoint of a specific behaviour. When evaluating conduct, it is important to evaluate both positive and negative information, attitudes, and prejudices. In the context of educating learners with SEN, it is possible that a pre-service teacher may have a pessimistic disposition towards these students, thereby leading to reluctance in instructing them.

Subjective norms are the second factor. This considers how we perceive the beliefs of others regarding particular behaviours. This could be the perspective of family, acquaintances, and co-workers regarding a specific action. It is not necessarily what other people believe about us, but rather how we perceive their attitudes. Due to the fact that some Ghanaians still attribute disability to divine curses (Agbenyega, 2005; Avoke, 2002), a pre-service teacher who is being prepared to teach a learner with SEN may feel inferior to do so, as he or she will be working with someone who carries a curse.

Perceived behavioural control follows. This is the degree to which we believe we can exert control over our behaviour. This depends on how we perceive internal factors, such as our own ability and determination, and external factors, such as the resources and support we have access to. The theory posits that our perception of behavioural control has two effects: it influences our intentions to conduct in a particular manner. Therefore, the more control we believe we have over our behaviour, the firmer our intention to carry out the behaviour. Moreover, it has direct effects on our behaviour. If we perceive that we have a high degree of control, we will work harder and for longer to achieve our goals. The current view of perceived behavioural control, however, is most compatible with Bandura's (1977, 1982) concept of perceived self-efficacy, which is concerned with evaluations of one's ability to execute courses of action required to deal with future situations (Bandura, 1982). In this instance, the extent to which a pre-service teacher can instruct children with SEN depends on his or her own evaluation of oneself.

Based on the TPB, the constructs of perceived behavioural control and behavioural intention can be utilised as direct predictors of behavioural

attainment. When considering the application of this theory within the context of teaching children with SEN, it is possible to posit that the inclination of a pre-service teacher to instruct children with SEN can be attributed to three primary factors or variables. These variables include the pre-service teacher's attitude towards children with SEN, their subjective norms (i.e., how they perceive others' opinions of their professional role), and their perceived behavioural control (i.e., their confidence and perceived suitability in teaching learners with SEN.

One notable advantage of the TPB is its consideration of the impact of peers, specifically subjective standards. This factor has significance not only during the initiation of behaviour but also in its long-term sustenance. Nevertheless, this theoretical framework operates under the assumption that all behaviours are consciously deliberated and premeditated, neglecting to acknowledge the impact of emotions, such as grief, frustration, and many others, which may significantly shape and influence behaviour.

Conceptual Frame Work

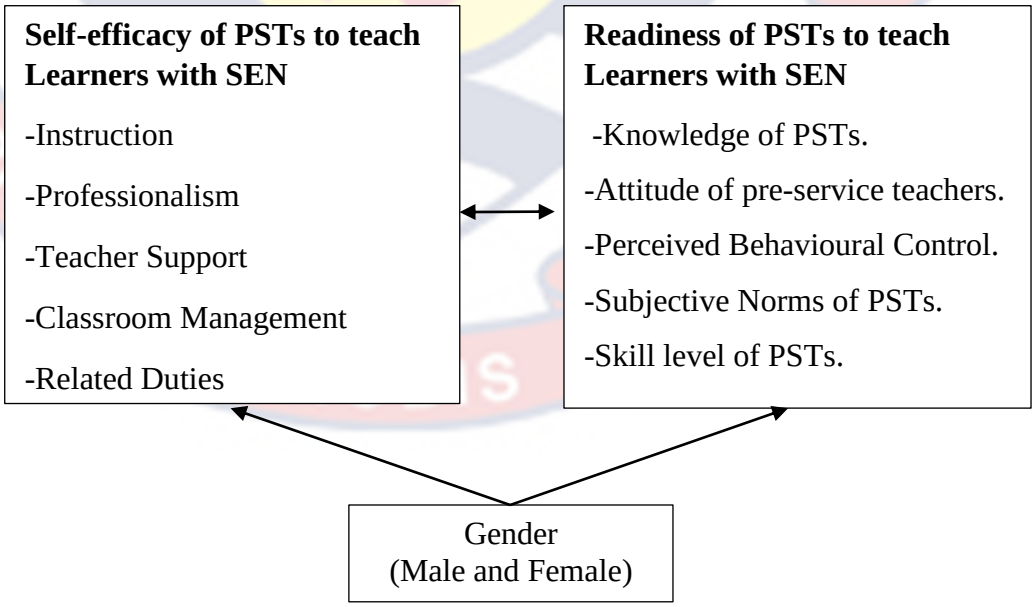

Figure 1: PSTs' Self-efficacy and Readiness to teach Learners with SEN.

Source: Author's Conceptual Framework

Figure 1 is a framework that shows pre-service teachers' self-efficacy to teach children with SEN with its respective sub-variables (Instruction, Professionalism, Teacher Support, Classroom Management, and Related Duties) and the Readiness of PSTs' to teach learners with SEN with its respective sub-variables (knowledge level, perceived behavioural control, subjective norms, skill level, and attitude of pre-service teachers). The figure hypothesises that there is a relationship between pre-service teachers' self-efficacy levels to teach learners with SEN and PSTs' readiness levels to teach learners with SEN (İnceçay & Dollar (2012). It is also hypothesised that the gender (male or female) of PSTs can influence their self-efficacy and readiness levels to teach learners with SEN (Fackler & Malmberg, 2016).

Conceptual Review

This section discusses the concepts that are pertinent to the subject being studied. Consequently, the concept of SEN, self-efficacy, and readiness of pre-service teachers and teachers with their respective sub-variables were reviewed in this section.

The Concept of SEN

The historical roots of SEN may be traced back to the year 1799, when Jean-Marc-Gaspard Itard commenced the instruction of Victor, a lively child who was said to have cerebral impairments (Kryszewska, 2017). Additional sources provide information on older dates, such as 1760, when Thomas Braidwood established a school for individuals with hearing impairments in Edinburgh, and 1765, when Bristol started educating children with visual impairments (Kryszewska). In 1784, the first school for individuals with visual impairments was established in France. During the 19th century, Édouard

Séguin, who was a follower of Itard, started the education of children with impairments in the United States of America (Kryszewska, n.d.). Following this, a plethora of educational establishments were founded by prominent individuals such as Maria Montessori, Thomas Hopkins Gallaudet, Samuel Gridley Howe, and Elizabeth Farrell in many nations (Razon-Fernandez, 2019). The nomenclature employed serves to exemplify the nascent stages of SEN and serves as a testament to the pressing need for addressing issues pertaining to SEN.

These early instances of SEN also demonstrate a trend that persisted up until the 1970s: students with educational difficulties either received individualised instruction or were placed in groups based on their condition, such as blindness or deafness. They were not educated alongside their peers who were able to fit into the educational system and did not need special care or accommodations since they were not allowed to attend the regular school system. Furthermore, children with SEN suffered from terrible conditions in those days; they were rejected, marginalised, or mistaken for those who were mentally ill (Kryszewska, 2017). Due to all of these factors, the education they received, was of a very low quality. Nevertheless, there were occasional instances of innovation, such as Montessori schools.

After World War II and in the 1970s, the social climate started to change. There were worries over the disparate treatment of handicapped children and the disparities in their educational chances in other nations, such as the United States and the United Kingdom (Kryszewska, 2017). These paved the way for changes, which resulted in the implementation of numerous legislative measures. Furthermore, legal actions were taken by parents and

students against the educational system or the state, alleging unfair treatment and the deprivation of equal chances (Silas, 2014). Despite the early sluggishness of the legal system in addressing the requirements of learners with SEN, it is evident that supplementary assistance is now accessible. Moreover, there exists a substantial legislative dedication to enhancing the educational prospects of learners via the implementation of IE.

Learners who have various types of impairments, including learning, physical, and developmental disabilities, as well as behavioural, emotional, and communication issues, and learning inadequacies, are collectively referred to as students with SEN (Kalambouka, Farrell, Dyson, & Kaplan, 2007). The concept currently known as SEN has a substantial historical background and has experienced several changes, shown in the different terminology employed to refer to it throughout the years. (Bryant, Bryant & Smith, 2019). SEN refers to pupils whose academic performance lags behind the majority of their classmates for intellectual or medical reasons. This indicates that the definition of SEN does not include remedial education, exceptional education, or training for socially or economically disadvantaged children (Delaney, 2016). However, this definition contradicts the Ministry of Education's (2015) definition of SEN, as stated previously.

Various researchers and experts in the realm of education have proposed alternative terms, including problematic learners, inclusive classrooms, disability, specific learning differences, and Special Educational Needs/Disability (SEND) (Kryszewska, 2017; Silas, 2014, 2016). The linguistic and terminological selections utilized to denote SEN frequently reflect the particular historical epoch in which they were originally

established, the predominant legislation of that time, the political and educational milieu of the respective country, and societal attitudes and awareness, encompassing considerations of political correctness. In current discussions, it is crucial to avoid use disparaging terms such as handicapped, crippled, retarded, uneducated unintelligent, mentally defective, or sluggish and backward when making reference to children who have SEN. O'Brien (2016) strongly advocates for the rejection of such terminology.

Special Educational Needs in Ghana

Despite Ghana's strong track record in educational development, the initiatives to enhance educational opportunities after gaining independence from colonial authority in 1957 have extended beyond the non-disabled population to include those with special needs. The inception of special needs education in Ghana may be traced back to 1936, when Christian missionaries took the initiative. In 1936, Harker, a missionary, established an educational program targeted towards those with visual impairments. Nevertheless, it was not until the year 1946 that an educational institution specifically catering to the needs of visually impaired individuals was formally established at Akropong Akwapim, located in the Eastern Region of Ghana. The Castle Road Special School was established in Accra in the year 1956. In 1958, the Methodist Church founded the Wa School for the Blind in the northern portion of the nation.

In 1959, barely two years after attaining independence, the then administration assumed the responsibility of training persons with disabilities. As a result, a committee was set up by the Government chaired by Mr. John Wilson from the Royal Commonwealth Society of the Blind to investigate the

types and incidence of disabilities prevalent in Ghana and to make recommendations (Okyere, Amedahe, & Edjah, 2002). The report of the committee, which was accepted by the Government, became the blue print for the policy concerning the people with disabilities. The recommendations were:

1. A national system of publicity and registration should be carried out to determine the extent of the problem.
2. Special provisions should be made in schools for the blind and the deaf, but as far as possible, orthopedically disabled children should be mainstreamed.
3. The disabled should be sufficiently rehabilitated as far as possible to enable them to be absorbed into the country's normal occupations, both in rural and urban areas and that specialized segregated institutions should be encouraged only where no alternative existed.
4. Rehabilitation units should be established across the country (Okyere, Amedahe, & Edjah, 2002).

The Education Act of 1961, alongside the Wilson Committee report, played a crucial role in establishing legislative provisions for the education of individuals with disabilities in Ghana. The Education Act enacted in 1961 emphasized the crucial role of providing education to all individuals in Ghana, irrespective of whatever disabilities they may have, as long as they are considered ready for formal education. However, there is a dearth of legislation specifically addressing the provision of education for children with special needs inside the country. The Ghanaian Parliament passed the Persons with Disability Act in 2006 in order to build a comprehensive legislative

framework that would effectively address the needs and rights of individuals with disabilities in Ghana. Ghana strives to fulfil its constitutional duty to pass legislation that protects and advances the rights of those with disabilities, as demonstrated by the implementation of the Disability Act.

Access to Education for Children with SEN in Ghana

According to the United Nations High Commissioner for Human Rights (2020), it has been determined that significant proportions, namely one-seventh, of children who are currently not enrolled in educational institutions are youngsters who possess disabilities. There are several reasons that might contribute to the challenges faced by handicapped children in accessing school, such as socio-economic disadvantage, gender, or certain health conditions (Le Fanu, 2014). According to the Ghana Statistical Service (2010), empirical data indicates that around 623,500 children in Ghana who fall within the primary school age bracket are currently not enrolled in educational institutions. Furthermore, the statistical analysis reveals that a significant proportion of children between the ages of four and five, namely one out of every four, are not attending preschool. According to the Ghana Statistical Service, findings from the 2010 Census of Population and Housing reveal that significant proportions, namely 20%, of children who have physical impairments are not enrolled in educational institutions. In addition, according to the Ghana Statistical Service (2010), 17.4% of individuals with disabilities (PWDs) aged three and above, who have completed primary schooling, belong to the 40% of PWDs who have not received any formal education.

The process of social isolation and marginalization of children with disabilities starts when their educational opportunities are limited (Gomda,

Sulemana, & Zakaria, 2022). Children with impairments are sometimes denied access to pertinent professional opportunities in their later years due to their comparatively lower level of talents. It is considerably more difficult for them to contribute to developmental interventions and efforts since they are unable to participate in society and contribute meaningfully. In recent years, the emphasis has shifted to encouraging IE in order to lower educational barriers for all pupils (Le Fanu, 2014). This has highlighted the importance of education in promoting social justice for all persons with disabilities (PWDs) (Miles, 2010; Singl, 2010). Although IE has numerous definitions, many accept that it requires restructuring normal schools and/or classrooms to accommodate the needs of a wide range of children in society (Deku, 2012). According to the Ghana Education Act (Act 778, 2008), IE is conceptualized as a value system that provides guidance to educational institutions, aiming to provide equitable chances for every student. A comprehensive and equitable education is the sole means by which persons with Individuals with impairments have the potential to surmount the challenges of poverty, vulnerability, and social marginalization.

The main aim of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) is to acknowledge and advance IE as a basic mechanism for ensuring educational opportunities for children with disabilities (World Health Organization, 2012). In accordance with Article 24 of the Convention on the Rights of Persons with Disabilities (CRPD), individuals with disabilities possess the right to access educational opportunities. To facilitate the accomplishment of this goal, it is crucial to ensure that individuals with disabilities are granted fair and equal access to an inclusive

education system at all levels. This can be achieved by implementing appropriate accommodations and personalized support services that aid in their educational achievement (Morgon, Banks, & Polack, 2013).

In accordance with the guidelines established by the Ministry of Education (MOE, 2015), the concept of inclusion refers to the promotion of equal opportunities and educational possibilities for all children, particularly those who face disadvantages due to factors such as language, ethnicity, gender, geographical location, or religious minority status. Furthermore, the notion of inclusion encompasses the incorporation of children originating from socioeconomically disadvantaged households, as well as those with diverse disabilities that fall under the category of special needs. The concept of inclusion is a pivotal element within the comprehensive restructuring of an educational system, as delineated by the IE strategy. The objective is to provide educational settings that encompass the diverse requirements of all students, promote favourable educational outcomes, and ultimately contribute to a more equitable society. Ensuring the acceptability, well-being, and optimal development of students extends beyond the confines of the educational system to encompass the surrounding local communities in which they dwell.

Evolution of the philosophy of inclusive education in Ghana

During the latter stage of colonialism, Dr. Kwame Nkrumah assumed the role of Leader of Government Business. In the year 1951, he took charge of the administration of the State. The "Education for All" program, which was established by the Nkrumah administration in 1952, reasserted the significance of education as a pivotal instrument for promoting the

advancement of the nation. “The implementation of the Accelerated Development Plan (ADP) in 1951 marked a significant milestone in the expansion and improvement of Ghana's foundational education system. This initiative was promptly executed as the inaugural action undertaken by Dr. Nkrumah. The objective of this initiative was to eliminate tuition fees and provide universal access to free primary education for all children (Gomda, Sulemana, & Zakaria, 2002). During this particular era, the primary school enrollment stood at an estimated figure of 500,000 pupils. According to Avoke (2001), there was a rise in primary school enrolment from 3571 to 3713 in the year 1957. Similarly, middle school enrolment also saw an increase from 1311 to 1394 in the year 1959. The Educational Act of 1961 implicitly incorporated a provision for children with SEN by instituting compulsory and cost-free education for all children within the school-age population. The establishment of the Special Education Division under the Ghana Education Service in 1962 aimed to address and support the educational requirements of individuals with disabilities in Ghana. It is noteworthy to acknowledge that the British exerted a substantial impact on the initial implementation of special education in Ghana (Avoke, 2001).

The conditions pertaining to special education in Ghana have exhibited a gradual improvement over time. Based on the findings of the United Nations Development Programme (UNDP, 2007), there was a notable rise of 40.5 percent in the representation of students with disabilities who were actively engaged in specialized educational initiatives between the academic periods of 2001/2002 and 2005/2006. This increase is reflected in the rise in the number of students with disabilities from 3361 to 4722. The 1961 Education Act is

associated with the Education of Children with Disabilities Act, while Ghana's 1992 constitution ensures the provision of Free Compulsory Universal Basic Education (FCUBE). The FCUBE policy is designed with the objective of promoting equitable educational opportunities for every child. Instead of employing levies as a means to generate funds for operational expenses, these initiatives provide nourishment to underprivileged youngsters (Gomda, Sulemana, & Zakaria, 2022).

The Ghanaian government has formulated an inclusive education plan in order to establish a strategic direction for the education of children and adolescents with SEN. This endeavour is being pursued with the aim of upholding the international dedication to advancing Education for All. In the academic year of 2003-2004, the Ghanaian government initiated the implementation of an inclusive education program in three distinct areas, namely central, Greater Accra, and Eastern. The initiation of this program was undertaken as a pilot project under the auspices of the Ministry of Education, especially through the Special Education Division of the Ghana Education Service. According to Asamoah, Ofori-Dua, Cudjoe, Abdullah, and Nyarko (2018), The policy enacted by the Ministry of Education in 2015 offered comprehensive support for individuals with various disabilities, including but not limited to hearing, visual, intellectual, physical, neurodevelopmental (such as autism), and emotional impairments.

The practice of inclusive education in Ghana

The implementation of IE in Ghana during the 2003-2004 academic year was carried out on a trial basis in select places due to the absence of a suitable policy framework (Anthony, 2011). The pilot programme's results

provided the Ghana Education Service and the government organization responsible for implementing pre-tertiary education initiatives with first-hand knowledge of the programs' efficacy within the Ghanaian setting. The effort was extended to encompass more areas of Ghana in 2010 and 2011, following an initial indication of the pilot program's effectiveness (Opoku et al., 2017). Consequently, the Education Strategic Plan (ESP) of Ghana comprehensively incorporated the idea of IE (Ministry of Education, 2012). Indeed, the facilities provided by IE are specifically designed to enable students without impairments to access and engage with the national curriculum (Lalvani, 2015). The Ghanaian government's endeavours to establish a comprehensive framework for IE were bolstered by the endorsement of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2012 and the enactment of the Disability Act (Act 715) in 2006. In 2015, Ghana successfully implemented an all-encompassing policy on IE following a decade of program development, which included assistance from UNESCO and UNICEF (Mantey, 2017).

The primary objective of the IE policy was to ensure that children with SEN were afforded an equal opportunity, foster social integration, and cater to their educational needs within a regular school setting. The implementation of the IE plan in Ghana has been shaped by several international treaties, laws, regulations, and conventions (Ministry of Education, 2015). The main purpose of these legislations is to improve the overall well-being of persons with disabilities by advocating for their right to receive fair and equal services and benefits. This, in turn, enables them to fully participate in many aspects of society and education (Botts & Owusu, 2013).

Despite the introduction of Ghana's inclusive education program into the educational system over 19 years ago and the considerable support it has garnered from teachers (Opoku et al., 2019), empirical data suggests that a notable portion of teachers lack knowledge regarding the precise features and substance of the policy (Mantey, 2017; Subbey, 2018). Nketsia and Saloviita (2013) assert that instructors in inclusive educational environments exhibit a lack of necessary knowledge to adequately assist students with special education needs. According to Adera and Asimeng-Boahene (2011), the findings of the study suggest that the educational system in Ghana demonstrates a standardized approach, wherein children with specialized needs do not receive the necessary attention and acknowledgement comparable to children with exceptional needs. The pupils are situated in a conventional classroom environment without the necessary resources and materials necessary for the attainment of their educational objectives (Adera & Asimeng-Boahene, 2011; Opoku et al., 2017).

The concept of teacher Self-efficacy

The notion of self-efficacy is grounded in Bandura's social cognitive theory, positing that an individual's performance across various domains is influenced by the reciprocal interplay between their behaviours, internal cognitive processes (e.g., thoughts and beliefs), and external environmental factors (Schunk & Pajares, 2002). Bandura (1995) defines self-efficacy as an individual's confidence in their capacity to effectively strategise and execute the necessary tasks to navigate future challenges with success.

Hendricks (2016) posits that the perception of efficacy is shaped by four primary components, namely mastery experiences, vicarious experiences,

social impact, and physiological or emotional input. According to Bernasconi (2017), self-efficacy has a crucial role in influencing individuals' goal-setting, decision-making, and perseverance in completing tasks. The study done by Kim and Beehr (2017) demonstrates that self-efficacy, a cognitive construct, has a substantial role in shaping an individual's perspective of accountability. The importance of teachers' self-efficacy beliefs in several aspects of their professional practice, such as classroom management, lesson preparation, instructional delivery, student motivation, and student-teacher relationships, has been continuously evidenced.

It is crucial to understand that teacher self-efficacy does not refer to the concrete skills and abilities that an educator possesses in order to effectively complete a certain task. Conversely, it concerns the subjective viewpoints of individuals regarding their own ability to proficiently carry out this task (Bandura, 1997). Tschannen-Moran et al. (1998) believe that self-efficacy refers to an individual's self-perception of their capability, rather than being only contingent on their objective levels of competence. The findings of Meijer and Foster's (1988) study indicate that instructors who possess elevated levels of teaching self-efficacy are less likely to support the placement of students in special education programs. These phenomena might perhaps be ascribed to the instructors' heightened inclination to allocate more time and focus towards pupils with SEN, rather than yielding to a feeling of resignation or disinterest. Dawson and Scott (2013) have delineated five sub-constructs that fall within the conceptual framework of teacher self-efficacy. As a result, these buildings experience enlargement in the subsequent method.

Instruction

The task of instructing students in a classroom is difficult (Scott, Hirn, & Alter, 2014). Teachers are being expected more and more to make accommodations for pupils whose disruptive and off-task behaviours hinder both their own and other children' learning in the class (McLeskey, Henry, & Hodges, 1999; Sawka, McCurdy, & Mannella, 2002; Sprague & Walker, 2000). Without good teaching techniques, both students and teachers are more likely to struggle, which leads to teacher fatigue and attrition (Zabel & Zabel, 2002). Along with planning and managing the classroom, classroom instruction is one of the main activities for teachers. It involves the deliberate guidance of the learner's learning process (Huitt, 2003). Instruction can be quite difficult and come in many different forms (Berliner & Rosenshine, 2017). The classroom activity in question holds considerable importance; however, it is imperative to evaluate it within the framework of various factors that contribute to desired student learning outcomes. These factors include aligning instructional objectives with assessment objectives, implementing effective classroom management strategies to regulate student behaviour, addressing the needs of students with SEN, and considering the specific procedures and characteristics of the school environment. According to Huitt (2003). The learning goals for special education are different from those of ordinary classrooms, it must be highlighted. Educational programs for students with SEN provide a strong emphasis on each student's personal development, achievement, and learning. As a result, instruction in resource rooms, classrooms for inclusion of all students, and classrooms for special education

must be specialised, targeted, and personalised (Tzivinikou & Papoutsaki, 2016).

Professionalism

Professionalism is a term that is used in many different contexts and is challenging to define. For instance, it typically refers to an activity that is paid for rather than voluntary in everyday English (Demirkasımoğlu, 2010). The Latin term "profess" is the etymological foundation for the phrases "profession" and "professor." According to Baggini (2005), it is essential for individuals to establish their proficiency in a certain skill or area of study in order to qualify for the position of a professional or professor. Boyt, Lusch, and Naylor (2001) define the concept under consideration as a multifaceted construct including an individual's attitudes and behaviours towards their occupation, with an emphasis on striving for higher benchmarks. Professionalism may be conceptualized as a holistic framework including an individual's work behaviours and attitudes, with the ultimate goal of attaining optimal performance and enhancing the quality of service provided. The term in question has been formulated by the synthesis of previously introduced notions, as posited by Demirkasımoğlu.

The term teacher professionalism describes a set of implicit and explicit standards that educators must uphold while working. Professional and courteous behaviour must be used when interacting with students, co-workers, administrators, parents, and other community members in order to provide a positive learning environment. The ability of an educator to perform honourably in a learning environment can be seen in some traits of educators (Demirkasmolu, 2010). Even though teachers and other professionals share

some fundamental workplace norms, such as suitable clothes and communication.

When working with children with SEN, it's critical to establish trusting relationships with the students and their families, work on the curriculum, and cultivate effective teaching practices. Technically speaking, the teacher has a responsibility to act professionally, that is, as a mature, moral, and ethical adult and part of the community (Darling-Hammond, 1990). This professionalism will be demonstrated in areas such as the teacher's being able to display some effectiveness in being assisting children with SEN in achieving their objectives, work as a team member with other educators, paraprofessionals, and administrators. The teacher should be able to live good behaviour for all the children (those with SEN and those without) and also be able to seek counsel when necessary from other specialist while maintaining his value as a teacher (Tichenor & Tichenor, 2005). Lastly, the proof of the professionalism of a teacher who handles children with SEN is in the area of giving praise to his or her children with SEN, irrespective of the pace of progress made (Dawson & Scott, 2013).

Teacher Support

Teacher support encompasses two key characteristics, namely self-determination and social support, as identified by Lei, Cui, and Chiu (2018). Based on the perspective of self-determination, the provision of educational assistance by a teacher may be seen when students perceive cognitive (Skinner, Furrer, Marchand, & Kindermann, 2008), emotional (Skinner & Belmont, 1993), or autonomy-oriented support from their instructor (Wellborn & Connell, 1987). The manner in which individuals engage in work and

accomplish tasks is influenced by their own views, interests, and hobbies. However, the emotions and motivations of individuals may also be influenced by the presence of people inside their immediate social circle (Ryan & Deci, 2000). Skinner, Furrer, Marchand, and Kindermann (2008) propose that teacher support encompasses three fundamental dimensions, namely support for autonomy, structure, and engagement. Consequently, the instructor's capacity to provide pupils with options, pertinence, and esteem serves as a means of fostering autonomy. Clarity of expectations and contingencies, as well as the presence of structure and warmth, compassion, resource commitment, grasp of the learner, and reliability, are all vital components of engagement.

According to Lei, Cui, and Chiu (2018), the social support paradigm allows for two different perspectives on teacher support: broad and narrow. According to the broad definition, teacher support is when a teacher offers a student in any scenario informational, practical, emotional, or appraisal support (Lei, Cui, & Chiu). Informational assistance consists of imparting knowledge or direction on a certain topic. Giving resources, such as cash or time is referred to as instrumental help (Kameswaran, Cameron, & Dillahunt, 2018). Love, trust, or empathy are all forms of emotional support. Giving each pupil evaluative input is called appraisal help (Zurqoni, Apino, & Anazifa, 2018). The limited viewpoint only sees teacher support as assistance, trust, friendliness, and interest in the classroom setting (Brezicha, Bergmark, & Mitra, 2015). In the context of educating students with SEN teacher support refers to the ability to effectively encourage all students to embrace individuals with impairments within the classroom. This entails creating an

inclusive and welcoming environment for students with disabilities, as well as fostering meaningful connections with them (Dawson & Scott, 2013).

Classroom Management

The concept of classroom management encompasses a wide array of skills and tactics that educators utilize to maintain student engagement, discipline, organization, and academic progress throughout instructional sessions (Babadjanova, 2020). According to Hans and Hans (2017), the implementation of effective classroom management practices enables instructors to optimize the behaviours that facilitate or enhance the learning process, while simultaneously reducing the behaviours that impede learning, for both individual students and groups of students. According to Hans and Hans (2017) proficient educators commonly possess strong classroom management skills, but inexperienced or less proficient educators tend to exhibit a lack of organization in their classrooms, resulting in disengaged students who are not attentive to their academic tasks.

A broader and contemporary understanding of classroom management encompasses the range of actions that teachers can undertake to support and improve student learning. This differs from a narrower and conventional understanding of classroom management, which primarily focuses on enforcing compliance through rules and strategies that ensure students remain seated, follow instructions, and listen attentively (Hans & Hans, 2017). The elements encompassed in this context are expectations, behaviour, environment, and learning experiences (Hans & Hans, 2017). Expectations refer to the standards of work that teachers anticipate students to produce, as well as the manner in which teachers expect students to treat their peers.

Behaviour entails displaying a positive attitude, exhibiting happy facial expressions, providing encouraging statements, and treating students with respect and fairness. The environment aspect pertains to creating a welcoming and well-lit classroom, equipped with intellectually stimulating learning materials, and organized in a manner that supports specific learning activities. Lastly, learning experiences encompass the types of educational opportunities that teachers design to engage student interests, passions, and intellectual curiosity (Hans & Hans, 2017).

The integration of classroom management within the broader spectrum of teachers' decision-making processes poses a challenge in terms of its distinct separation. For example, inadequately planned instructional materials, unsnagging pedagogical methods, or ambiguous performance criteria may diminish students' inclination towards learning, contribute to heightened behavioural issues, or result in disordered and chaotic classroom environments. According to Saggaf, Salam, and Rifka (2017) within this expansive perspective of classroom management, the concepts of successful teaching and effective classroom management are to some extent intertwined. The effective and cohesive incorporation of classroom management strategies into student education frequently necessitates the utilization of advanced methodologies and a substantial level of expertise and practice. In practical use, these approaches may exhibit a deceptively straightforward nature (BTh, nd).

Related Duties

A teacher's responsibilities in the classroom are extremely varied (Roberge, Siegal & Harklau, 2009). He or she has to serve as an instructor, a

critic, a disciplinary authority, a motivator, a role model, and an advisor. The obligations of a teacher may extend beyond the confines of the classroom. To cultivate a robust rapport with pupils or for many other motives, some educators undertake extracurricular duties. Coach, club sponsor, tutor, and counsellor are some roles for teachers outside of the classroom (Ladson-Billings, 2004).

Teachers who work with children with SEN provide them with academic help and intervention (Katsafanas, 2007). Individualized education plans (IEPs) are developed by a special education teacher in collaboration with classroom teachers, clinicians, and families for students with academic, social, or emotional difficulties. The main responsibilities of this role include teaching, organising lessons, and assessments. All subgroups of students with SEN are served by special education instructors. Educators responsible for students with SEN are capable of undertaking supplementary responsibilities, including the safe transfer of physically disabled students from automobiles to wheelchairs, from wheelchairs to designated workstations, and to lavatory facilities, without experiencing any sense of intimidation or apprehension. In addition, they are capable of providing support to students with impairments in their everyday activities, including but not limited to chores related to personal hygiene and mealtime (Dawson & Scott, 2013).

The concept of Teacher Readiness

In the study conducted by Aishah Bua and Bahari (2011) it was found that teacher preparation encompasses a range of factors including the instructors' knowledge, abilities, attitudes, and practices, all of which are

essential for effectively addressing the diverse needs of every student. In light of the increasing prevalence of inclusive education, there is a rising expectation for teachers to possess the necessary preparedness to effectively address a diverse array of duties across various educational levels, while also catering to the needs and demands of all students within the general education setting (Ekstam, Korhonen, Linnanmäki, & Aunio, 2018). Previous studies have utilized many characteristics to evaluate a teacher's preparedness in instructing students with SEN (Moosa, Shareefa, Adams, & Mohamed, 2020).

The concept of inclusion extends beyond the mere placement of learners with SEN in a regular classroom setting, as it necessitates a consideration of their distinct individual characteristics. In order to achieve successful inclusion, it is imperative for educators to cultivate an environment that embraces, acknowledges, and advocates for the individuality of their students (Adams, Harris, & Jones, 2017). In the study conducted by Ekstam, Korhonen, Linnanmäki, and Aunio (2018), it was found that instructors need to exhibit preparedness and proficiency in addressing the individual needs of students within the regular classroom setting, while simultaneously providing tailored education and support. Porakari et al. (2015) and Mansor et al. (2021), opine that teacher readiness can be appreciated as the teachers' knowledge, attitude, perceived behavioural control, subjective norm, and skill level.

Knowledge of PSTs

According to Hyman, (1999), knowledge could be defined as the capacity to act in a certain way, or stop from acting in a certain way, or believe, want, or doubt something for reasons that are supported by facts.

Being in cognitive contact with reality is a highly appreciated condition of knowledge. Consequently, it is a relationship (Zagzebski, 2017).

Zagzebski (201) proposed that the concept of knowledge entails a conscious person who is intricately linked, either directly or indirectly, to a corresponding aspect of reality. Porakari et al. (2015) conducted a research that emphasises the importance of pre-service teachers' competence in many areas pertaining to the instruction of children with SEN. These aspects encompass the ability to effectively oversee the instruction and acquisition of knowledge, identify students who may be experiencing challenges in their learning, evaluate students who may have learning difficulties, understand the fundamental principles and methods of inclusive education, create and sustain an inclusive learning environment, and possess the requisite leadership skills to facilitate the transition of a traditional school into an inclusive institution.

The attitude of PSTs

In alignment with psychological perspectives, attitude can be delineated as a composite of affective, cognitive, and behavioural components directed towards a certain entity, individual, entity, or occurrence. According to Ardoin, Wheaton, Bowers, Hunt, and Durham (2015) the impact of attitudes on behaviour is significant and often influenced by personal experiences or upbringing (Ardoin, et al., [year]). While attitudes have a tendency to endure, they also possess the capacity to be shaped or altered (Cherry, 2018). Cherry consistently demonstrates the notion of a learned inclination to perceive the world via a specific lens. This might encompass evaluations of persons, issues, objects, or even events. The evaluations commonly exhibit either favourable

or unfavourable tendencies, while there are instances where they may possess an indeterminate nature.

Murphy and Murphy (1996) claim that attitude is basically a way of having a position toward or against something. According to Sherif and Cantril (1945), attitude is a terminology which connotes ones readiness to exhibit an action. According to Porakari et al. (2015), the attitude of PSTs serves as an indicator of their willingness to support the holistic development and educational progress of children with SEN. This includes valuing all stakeholders within the school community, such as parents, teachers, and students, as well as demonstrating a commitment to professional development in the field of IE. Additionally, PST with a positive attitude are characterized by their belief in their students' potential to excel and their dedication to fostering an inclusive teaching and learning environment.

Perceived behavioural control (PBC)

PBC pertains to individuals' subjective assessments of their capability to engage in a specific behaviour (Ajzen, 2002). This is the extent to which one is convinced of being able to control his or her behaviour. The outcome is influenced by our impression of both internal elements, such as personal aptitude and determination, and external factors, such as the availability of resources and assistance. This actually reveals how people feel confident in themselves to perform a particular task. The notion at hand may be readily compared to Albert Bandura's self-efficacy theory, which focuses on individuals' assessments of their ability to effectively carry out the necessary actions to handle future events (Bandura, 1982).

Subjective norms

Subjective norms refer to the belief held by an individual or a group that a particular behaviour will be approved and supported by a major person or group. Subjective norms are formed by the interplay between the perceived social pressure exerted by others on an individual and their inclination to conform to the beliefs and behaviours of other individuals (Ham, Jeger, Frajman, & Ivkovi, 2015). This explores the manner in which we comprehend the perceptions of others regarding certain actions. The sentiments expressed by acquaintances, relatives, and colleagues towards a certain course of action may be as follows. Teachers of children with SEN may possess some sort of inferiority complex, judging from how they think other people around them may see them and not necessarily how they are seen by those individuals. This is actually a personal perception of how others perceive him or her to be (Agbenyega, 2005; Avoke, 2002).

Skill level

Working as a teacher requires having strong teaching abilities. These competencies assist educators in maintaining the attention and active participation of the learners throughout instructional sessions. The process of securing a teaching position that aligns with one's preferences can be enhanced by cultivating an understanding of the most sought-after teaching competencies and strategies for accentuating them (Bada, 2007).

The aptitude of PST within the framework of IE can be conceptualized as their capacity to engage in conversations with parents on the social and emotional requirements of their children on a daily basis. It also encompasses the capacity to offer guidance and suggestions pertaining to children's rights in

relation to inclusivity, as well as the ability to implement comprehensive support programs for both educators and kids. The study additionally examines the teachers' capacity to effectively handle students experiencing learning and behavioural challenges, such as ADHD. It also evaluates their aptitude in cultivating harmonious relationships among staff, parents, and students to facilitate IEP. Furthermore, the research assesses their proficiency in generating potential solutions for resource management (Porakari et al., 2015).

Empirical Review

This section examines previous research conducted on the readiness levels and self-efficacy levels of PSTs in relation to their ability to teach learners with SEN. This section examines several key themes, including the readiness levels of PSTs to instruct learners with SEN, the self-efficacy levels of PSTs in teaching learners with SEN, the relationship between pre-service teachers' self-efficacy levels and readiness levels in teaching learners with SEN, gender differences in pre-service teachers' self-efficacy levels when instructing learners with SEN, and gender differences in pre-service teachers' readiness levels when teaching learners with SEN.

PSTs' Readiness Levels to Teach Learners with SEN.

In a study done by Hemmings and Woodcock (2011), a survey-based research approach was employed to investigate the perspectives of PSTs enrolled at a prominent regional Australian University regarding inclusion and their preparedness to instruct in inclusive educational settings. The survey used open-ended questions in order to obtain insights on the emotions and apprehensions of the participants towards inclusion and inclusive activities.

The study conducted by the researchers revealed that a considerable proportion of the PSTs who participated in the survey expressed a lack of confidence in their ability to effectively instruct students with SEN. The research was conducted within the geographical context of Australia, thereby limiting its applicability to drawing broad implications in the context of Ghana.

In their 2013 study, Nketsia and Saloviita investigated the viewpoints of PSTs towards inclusive education within the specific setting of Ghana. A research was undertaken, wherein a sample of 200 PSTs in their final year from three Colleges of Education in Ghana were surveyed. It was determined that a substantial majority of the participants had encountered the concept of inclusion in the context of their educational endeavours. However, the study revealed that a mere 33% of the participants had a sense of being adequately equipped to proficiently educate children with SEN. A survey questionnaire comprising of four pages was disseminated to a representative sample of 300 PSTs in their last year of study from many participating Colleges and institutions. The individuals' involvement in the research was characterized by both anonymity and voluntariness. The participants indicated their willingness to participate by completing the questionnaire. The survey was completed by a cohort of 200 teachers, resulting in a response rate of 67%. College A exhibited a return rate of 88%, whereas both college B and college C shown a return rate of 64%. Within the sample of participants involved in the study, it was noted that 39% were classified as female, whilst the remaining 61% were classified as male. The mean age of the participants was 24 years, with a standard deviation (SD) of 2 years. The age range encompassed individuals

between the ages of 21 and 33 years. It is crucial to recognise that the individuals involved in the study lack experience to practicum activities, in contrast to the University of Cape Coast, where pre-service professors actively participate in practicum exercises.

Rihter and Potonik (2022) also did a study on PSTs' beliefs about teaching learners with SEN in visual art education. They found that PSTs had positive beliefs about the inclusion of children with SEN, but they did not feel ready to teach them. Data was collected from Slovenian students in general education, special education, and visual art education at the first or second Bologna level (N = 168). A four-point Likert-style questionnaire with a type rating scale was designed for the study. Their study was limited to just a particular learning disability and cannot be used for drawing general conclusions in Ghana.

PSTs' Self-efficacy Levels to teach Learners with SEN.

Peebles and Mendaglio (2014) conducted a study that investigated the impact of an inclusion course and a field experience on the self-efficacy of PSTs on their ability to teach in inclusive classrooms. The findings of the study revealed that PSTs shown a notable level of self-assurance in their competence to effectively educate learners with SEN due to their hands-on experience gained during their practical training in the field. The study's findings revealed that the inclusion course as well as the field experience led to significant enhancements in self-efficacy. The study employed a quantitative research approach in their investigation. The researchers utilized a convenience sampling methodology. The study instrument utilized by the researchers was the Teacher Efficacy for Inclusive Practice (TEIP). The study

under consideration failed to include the self-efficacy levels of the pre-service teachers, therefore resulting in a research gap that necessitates attention in this study.

Sharma, Shaukat, and Furlonger (2015) undertook an independent inquiry to investigate the attitudes and self-efficacy of PSTs on inclusion in the context of Pakistan. The research encompassed a cohort of 194 PSTs from Pakistan, including 73 males and 121 females. The results of the study revealed that men PSTs displayed more positive views in comparison to their female counterparts about the inclusion of children with disabilities in regular classes.

Tindall, Culhane, and Foley (2016) examined the self-efficacy of PSTs in regard to children with impairments. The research utilised a cohort of 64 participants, ranging in age from 19 to 25, who were in their third year of a physical education starting teacher education (PE-ITE) program at the University of the Republic of Ireland. The process of data collection encompassed the employment of questionnaires and interviews. The findings of the study demonstrated a statistically significant increase in levels of self-efficacy among persons who participated in the program.

The study conducted by Metsala and Harkins (2020) investigated the self-efficacy and beliefs pertaining to IE among pre-service teachers. The research conducted by the scholars involved a group of 179 individuals who were currently pursuing their studies in either secondary or primary teaching programs. The findings of the study indicated that individuals who were enrolled in elementary education programs exhibited an increased sense of accountability towards children with disabilities and exhibited greater levels of

confidence in their ability to implement inclusive practices, when compared to those in secondary education programs. Simultaneously, PSTs enrolling in the secondary course, as well as those in their second year, had elevated levels of self-assessed unfavourable attitudes towards inclusive education and retained a more rigid conviction in the unchangeable and enduring nature of their talents. The researchers observed that PSTs who had previously experienced difficulties with reading exhibited greater levels of teacher self-efficacy compared to their classmates who did not have a comparable background. The previously reported observations about the self-efficacy levels of PSTs in teaching learners with SEN have exclusively been conducted in settings that are not located within the geographical context of Ghana. Consequently, I am inclined to conduct an investigation on this matter within the context of Ghana.

Relationship between PSTs' self-efficacy Levels in teaching learners with SEN and their readiness Levels to teach learners with SEN

A study was conducted by Ahsan, Sharma, and Deppeler (2012) to investigate the preparedness of PSTs in Bangladesh for IE. The research encompassed a cohort of 1,623 pre-service teachers, carefully chosen from a diverse range of 16 teacher training colleges. The researchers utilized two standardized scales for the purpose of data collection. There was an observed favourable association between the reported teaching efficacy of PSTs and their views towards inclusive education. Furthermore, the study uncovered that PSTs who had a higher perception of their teaching efficacy demonstrated a reduced degree of concerns pertaining to inclusive education.

The research done by İnceçay and Dollar (2012) investigated the efficacy of PST and its association with their readiness to proficiently handle their classrooms. The results of the study demonstrate a significant association between the effectiveness of PST in managing classroom dynamics and their level of readiness to address challenging behaviours within the classroom setting. The study involved a sample of 36 senior students from a foundation university located in Istanbul, Turkey. The study's findings provided significant insights into the effectiveness and readiness of PST in the field of classroom management within a realistic teaching environment, as well as their progress and advancement in this specific domain. The study revealed that the participants demonstrated the necessary abilities and readiness to effectively teach kids who are considered usual. However, they lacked the necessary resources and knowledge to properly educate children with SEN. As a result, it became essential to investigate the relationship between the preparedness of PST and their self-efficacy in instructing students with SEN.

The study conducted by Endot, Jamaluddin, Ayub, and Puad (2021) investigated the preparedness of educators in integrating design and technology education, commonly referred to as RBT. Additionally, the study explored the relationship between this preparedness and both self-efficacy and intrinsic motivation. A relatively favorable correlation was seen between instructors' self-efficacy and their preparedness. The present study employed a quantitative approach to examine a descriptive survey conducted among 368 instructors of RBT fourth-year KSSR courses in the Peninsul fourth-year cluster. The sample for this study was selected using a simple random sampling technique. The study instrument comprised a series of questions with

a total of 77 items. While the majority of research has examined the correlation between teacher preparedness and teacher self-efficacy in teaching, it is worth noting that the participants in these studies have not undergone practical training in the field of special education. There is a lack of research conducted in Ghana that examines the relationship between teacher preparedness levels and teacher self-efficacy levels in teaching students with SEN.

Gender difference in PSTs' self-efficacy levels in teaching learners with SEN

The study done by Jennett, Harris, and Mesibov (2003) aimed to investigate the correlation between teacher efficacy and burnout in educators who work with children diagnosed with autism. The researchers have identified a notable gender-related impact on teacher self-efficacy when it comes to educating children who have been diagnosed with autism. The research encompassed educators who utilized either Applied Behaviour Analysis (ABA) or TEACCH (Treatment and Education of Autistic and Related Communication-Related Handicapped Children) as therapeutic methodologies for individuals with autism. The ABA group had a sample size of 34, whereas the TEACCH group had 30 individuals. The investigators employed the Autism Treatment Philosophy Questionnaire as a method for collecting data from the people included in the study.

In their 2015 study, Sharma, Shaukat, and Furlonger investigated the perspectives and levels of teaching self-efficacy among PSTs on the inclusion of children with disabilities in regular classes. The study's results suggest that men PSTs had more positive views than their female counterparts about the

inclusion of children with disabilities in mainstream classrooms. Data was collected from a sample of 194 PSTs in Pakistan, consisting of 73 males and 121 females, using a questionnaire. The aforementioned persons were registered in a teacher education program lasting for a duration of one year at a governmental institution situated in Pakistan.

In a study conducted by Odanga, Raburu, and Aloka (2015), the researchers examined the impact of gender on teachers' self-efficacy within public secondary schools in Kisumu County, Kenya. The findings of the study indicated that there was no statistically significant association between gender and teachers' self-efficacy. The research utilized a mixed-methods methodology, specifically employing a contemporaneous triangulation design. The study focused on a target population of 1790 instructors employed in 143 public secondary schools. A sample size of 327 teachers was selected through the utilization of stratified random sampling. Data collection was conducted through the utilization of questionnaires and an interview schedule. However, it must be noted that the respondents of their study teach normal children and not children with SEN, hence my quest to test the gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN.

In a research done by Yada et al. (2021), an examination was made regarding the self-efficacy of PST in adopting inclusive practices and their resilience in Finland. The findings revealed a direct and statistically significant association between gender and the perceived resilience of pre-service teachers. The researchers discovered that female students had significantly higher scores on the resilience measure in comparison to their male counterparts. The survey data were obtained from a sample of 105 PST

enrolled in a teacher education program at a single institution in Finland. The study employed an online questionnaire to elicit data from the respondents. This study was done outside Ghana and cannot be used for drawing general conclusions on how gender influences pre-service teachers' self-efficacy levels to teach children with SEN in Ghana.

Gender difference in PSTs' readiness levels in teaching learners with SEN.

A study was undertaken by Ahsan, Sharma, and Deppeler (2012) to examine the readiness of PSTs in Bangladesh for IE. The study aimed to measure the perceived teaching efficacy, concerns, and attitudes towards inclusive education among these instructors. Additionally, the researchers sought to uncover predictor variables that contribute to these three variables. The study revealed a statistically significant association between gender and participants' preparedness (attitude) and concerns towards the instruction of children with SEN. The researchers employed two standardized questionnaires to assess a sample of 1,623 PSTs enrolled at 16 teacher training schools.

A recent investigation done by Adigun (2021) examined the impact of gender on pre-service teacher ready in the context of IE among individuals from Nigeria and South Africa. The findings of this study indicated that gender can play a significant role in shaping pre-service teacher readiness, as female participants exhibited a greater level of knowledge in IE compared to their male counterparts. Notably, female PST achieved the highest mean score in this regard. The present study employed a cross-sectional survey research methodology to gather data from a sample of 217 PST from Nigeria and 266 PST from South Africa. The data gathering process involved the utilization of

a questionnaire that was produced by the researcher. The pilot testing of the questionnaire was conducted among PST enrolled at a public institution in Tanzania.

Trivio-Amigo et al. (2022) did a study that aimed to investigate the discrepancies between male and female Spanish instructors in relation to their self-reported degree of readiness for inclusive education. The results of the study suggest that there are no statistically significant differences between males and females in their perceived preparedness to teach pupils with special educational needs. Nevertheless, scholarly investigations indicate that women exhibit higher levels of self-Efficacy in their competencies, as they demonstrate a reduced inclination to participate in extensive preparatory measures when addressing the diverse requirements of students with disabilities and fostering inclusion within the educational milieu. A cohort of 420 educators in Spanish secondary schools participated in the administration of the Evaluation of Teacher Education for Inclusion Questionnaire (CEFI-R). The educators were provided with a set of three dichotomous inquiries pertaining to their initial and continuous training. While there is empirical data about the potential influence of gender on the readiness of PSTs, it is important to recognize that the generalizability of these findings to Ghana may be limited due to the study's implementation in a specific geographic context.

Chapter Summary

This chapter reviewed issues that are of great interest to the topic under study. Some of the issues discussed are the concept of SEN, the concept of teacher self-efficacy, and teacher readiness with their respective sub-variables.

The sections further reviewed two theories that underlie this study; Albert Bandura's philosophy of self-efficacy and the Azjen TPB.

The section further discussed some prior studies that relate to the current work. The researcher categorised the related prior studies under the following key themes: pre-service teachers' readiness levels to teach children with SEN; pre-service teachers' self-efficacy levels to teach children with SEN, relationship between PSTs' efficacy levels in teaching children with SEN and their readiness levels to teach children with SEN; gender differences in PSTs' self-efficacy levels in teaching children with SEN, and gender differences in PSTs' readiness levels in teaching learners with SEN.

CHAPTER THREE

RESEARCH METHOD

Introduction

The techniques used in the study were covered in this chapter. This study sought to examine readiness and self-efficacy levels of PSTs to teach learners with SEN. The areas that were covered include; Research Design, Study Area, Population, Sample and Sampling Procedures, Data Collection Instruments, Data Collection Procedures, and Data Processing and Analysis and Ethical Considerations.

Research Design

This study was based on the pragmatist paradigm and it employed a mixed-method approach to investigate pre-service teachers' readiness and self-efficacy levels to teach children with SEN. Mixed method research is a method of collecting and analysing both quantitative and qualitative data in the same study. It involves the collection of both qualitative (open-ended) and quantitative (closed-ended) data in response to research questions or hypotheses (Creswell & Creswell, 2017). The mixed method was considered appropriate in this study because of its ability to draw on both qualitative and quantitative research while reducing the constraints of both methodologies (Creswell & Creswell, 2017).

Typically, the study adopted convergent mixed method design. This design aided the researcher in collecting both quantitative and qualitative data, analysing them individually, and comparing the results to see if the findings agree or disagree (Creswell & Creswell, 2017; Shorten & Smith, 2017).

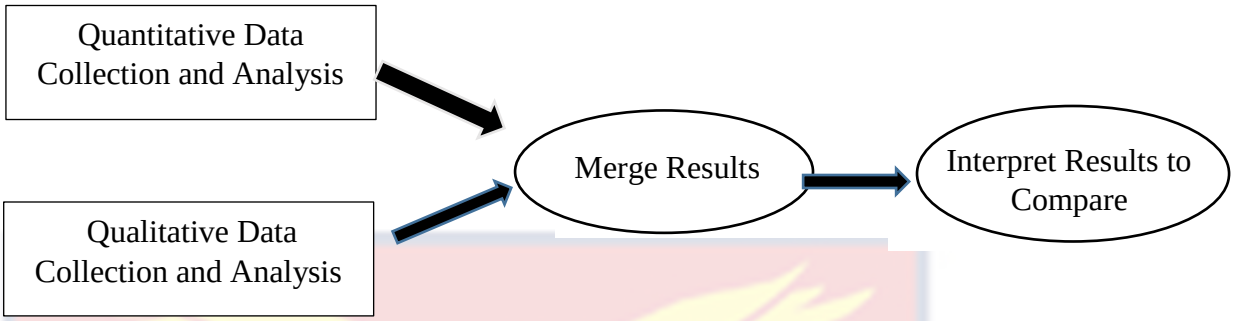

Figure 2 : Flow chart of Convergent Mixed Method Design (Cohen, Manion & Morrison, 2017).

Figure 2 is a pictorial description of the Convergent Mixed Method Design. The diagram shows how the design allowed the researcher to gather both quantitative and qualitative data, which was collected separately and in parallel, and then converged the results, which resulted in data triangulation and complementary data on the research questions and hypothesis (Cohen, Manion & Morrison, 2017, Shorten & Smith, 2017). This design was considered appropriate because the researcher intended to collect both qualitative and quantitative data at the same time, where the quantitative data would be explained by the qualitative data (Smith, 2017).

Study Area

The study was conducted at the University of Cape Coast. The University of Cape Coast is a public university in the Central region of Ghana, close to the Atlantic Ocean's coastlines. The institution was established in 1962 by the then-President of Ghana, Osagyefo Dr. Kwame Nkrumah, and given the duty of training graduate professional teachers. After 60 years of operation, the University today spans its five colleges and offers a wide range of academic and research programs in fields like health and allied sciences, agriculture, natural sciences, education, and humanities.

For students, faculty, and residents of the neighbourhood, the University also provides a library, counselling, health, transportation, banking, and canteen facilities. This study targeted students at the Faculty of Educational Foundations of the College of Education Studies, one of the colleges previously mentioned. The Faculty comprises the Centre for Child Development Research and Referral (CCDRR); the Counselling Centre; the Department of Basic Education; the Department of Education and Psychology; and the Department of Guidance and Counselling. The study was conducted at the Department of Basic Education, which offers the Bachelor of Education in Early Childhood Education, Bachelor of Education in Primary Education, Bachelor of Education in Secondary Education, and Bachelor of Education in Basic Education. Students reading Bachelor of Education (Basic Education) and Bachelor of Education (Early Childhood Education) were the primary subjects of this study.

Population

A population may be described as a collection of components, persons, objects, or events that satisfy predetermined criteria and serve as the target for generalizing the results of a research. The individuals to whom the outcomes of the investigation are ascribed constitute a collective entity (Pharm, 2018). The population of the research consisted of PSTs enrolled at the University of Cape Coast. The study focused on PSTs enrolled in the Department of Basic Education as the target demographic. The study's target group consisted of PSTs enrolled in the Department of Basic Education who had undergone the practicum exercise in special education. The total number of PSTs who have

gone through practicum in special education were 82 (Department of Basic Education 2022).

Sample and Sampling Procedures

Quantitative phase

The Department of Basic Education was selected for this study using purposive sampling due to the fact that its students are the only undergraduate students that undergo practicum in the field of special education. This sampling technique enabled the researcher to handpick the cases to be included in the sample on the basis of their judgement of the typicality (Cohen, Manion, & Morrison, 2018). Because the numbers of PSTs who have been exposed to practicum in special education were relatively small in number, a census survey was used by the researcher to gather information from all 82 students (Steinbach, Wilker, & Schöttle, 2020). The census survey is a method of statistical enumeration where all members of the population are studied (Cohen, Manion, & Morrison, 2018). This method was considered appropriate because the researcher desired to collect accurate information from the population.

Qualitative phase

For the qualitative phase, a convenience sampling technique was employed to select ten PSTs who have already participated in the quantitative study. Convenience sampling is a non-probability sampling technique in which units are chosen to be part of the sample based on their accessibility to the researcher (Kandola, Banner, O'Keefe-McCarthy & Jassal, 2014). Accordingly, a sample size of 10 was deemed adequate for the qualitative phase of this study after data saturation was attained (Dworkin, 2012). Data

saturation occurs when no new information is found through data analysis, this alerts researchers that they may need to stop collecting data. Here, the researcher can be reasonably assured that further data collection would yield similar results and serve to confirm emerging themes and conclusions (Faulkner & Trotter, 2017).

Data Collection Instruments

Quantitative phase

Generally, there are various procedures for collecting data. The main instruments used in the mixed methods research consist of closed-ended and open-ended questionnaires, interviews, and classroom observations. These different ways of gathering information can supplement each other and hence boost the validity and dependability of the data (Zohrabi, 2013).

A 52 item questionnaire was used by the researcher to elicit information for the quantitative part (See Appendix A). The questionnaire consisted of three section; A, B, and C. Section A gathered demographic data and consisted of one item. Section B adapted Teaching Students with Disabilities Efficacy Scale (TSDES) [Dawson & Scott, 2013]. The adaptations were done in terms of rewording of the items on the original instrument to suit the current study. The original TSDES is a nine point Likert scale consisting of 19 items with a Cronbach's Alpha .913. It has five subscales namely; Instruction, Professionalism, Teacher Support Classroom Management, and Related Duties. The TSDES (Dawson & Scott) was modified to measure the self-efficacy level of PSTs to teach learners with SEN. The modified scale now consists of the following new subscales; Instructional efficacy of pre-service teacher, professionalism of pre-service teacher, pre-service teacher

ability to support learners with SEN, pre-service teacher's self-efficacy to manage a classroom, and pre-service teacher's efficacy to perform other Related Duties. This section consisted of 18 items and was used to elicit information on pre-service teachers' self-efficacy levels to teach children with SEN. A four-point Likert scale was employed, ranging from Strongly Disagree to Strongly Agree. This was to make sure that no respondent will assumes neutral grounds since the four point Likert scale is a forced scale (Chang, 1994).

The Section C of the instrument adapted the Teacher Readiness Scale developed by Porakari et al. (2015) and Mansor et al. (2021). The teacher readiness scale developed by Porakari et al. (2015) consists of three key constructs about IE. These were: (1) knowledge and understanding (2) skills, abilities, and experiences, and (3) attitudes and feelings. The instrument employed a six-point Likert scale ranging from totally disagree (1), through to Agree (6). Each of the three constructs consisted of six items giving a total of 18 items. The psychometric property of the items in each scale was determined, with results indicating good reliabilities for knowledge (0.909); skills (0.929), and attitude (0.947) .

Mansor et al. (2021) teacher readiness scale on the other hand consists of four constructs, namely establishing ICT efficacy, perceived behaviour control, subjective norms, and attitude. The questionnaire was constructed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The instrument had 26 items covering the four major constructs. The Cronbach's alpha reliability value for the entire scale was

0.83. The Cronbach alpha coefficient for each of the four components was calculated as 0.84, 0.84, 0.87, and 0.77, respectively.

These two instruments were merged and modified under five key constructs. These are;

1. Knowledge of PST
2. Attitude of pre-service teachers
3. Perceived Behavioural Control
4. Subjective Norms
5. Skill level of pre-service teachers.

All the items were reworded to suit the present study while some items were also were divided into two because they were double barrel items. The total number of items that were covered in this section was 33. A four-point Likert scale was employed, ranging from Strongly Disagree to Strongly Agree. It was to make sure that no respondent will assumes neutral grounds since the four point Likert scale is a forced scale (Chang, 1994). There were eight items for knowledge of pre-service teachers, six items for attitude of pre-service teachers**,** perceived behavioural control-nine items, subjective norms four items, and six items for the skill level of pre-service teachers".

Qualitative phase

According to Cohen, Manion and Morrison (2018), research interviews can be said to be a multiple conversation that the interviewer initiates with the specific intent of gathering research-relevant data and that he then focuses on the information to make systematic description, prediction, or explanation. The researcher developed a semi-structured interview guide based on the major issues outlined in the study's research questions. The interview guide

helped the researcher to get first-hand information directly from the preservice teachers (Zohrabi, 2013).

The interview guide had three sections; A, B, and C. Section A elicited demographic information and consisted of one question. Section B elicited information on pre-service teacher self-efficacy levels and consisted of nine questions. Section C elicited information on teacher readiness levels and it consisted of seven questions. The interview guide had a total of 17 questions (See Appendix B).

Pilot-Testing of Research Instruments

Cohen, Manion and Morrison (2018) reveals that pilot testing facilitates examining the items', the directions', and the layout's clarity of the entire instrument. Additionally, piloting fosters the elimination of ambiguities or difficulties in wording (Boakye-Akomeah, 2015). Creswell (2012) posits that a subset of the population should be chosen to pre-test the researcher's questions. Pre-testing the questionnaire assures that the sample members are capable of completing the survey and have a perfect understanding of the items. After pilot testing of the questionnaire on a few people, you can decide which questions to add, remove, modify, or maintain (Creswell, 2012).

According to Cnnelly (2018), a pilot should be 10% of the main sample intended for the principal study. Barkar (1994) also supports the view that the pilot sample should be 10-20%. Accordingly, the researcher pilot-tested the instrument with 20 PST (which constituted 24% of the main sample) who have been exposed to practicum exercises at the University of Education, Winneba in the Central Region of Ghana. University of Education was chosen because it has PSTs who have equally been exposed to practicum exercises.

The pilot-testing allowed for the revision, clarification, and reorganisation of questionnaire items that appeared confusing and misleading to responders. For instance, two items on the teacher readiness scale were split into two each. Item number 5 which used to be *I know how to create and sustain an inclusive learning environment* was split into two items of *I know how to create an inclusive learning environment* and "I know how to sustain an inclusive learning environment. Again, item number 17 which happen to be *I can effectively help children with SEN to perform self-help skills like hygiene and toileting* on the teacher self-efficacy scale was also reworded into *I can help children with SEN to perform adaptive skills like feeding and dressing*" (see Appendix A).

Validity and Reliability of Questionnaire

Validity and reliability are two important factors to consider when developing and testing any instrument for use in a study. Attention to these considerations helps to ensure the quality of your measurement and of the data collected for your study. Cohen, Manion, and Morrison (2018) posit that validity is the touchstone of all types of educational research. Validity is concerned with whether the findings of the research are authentic. Again, Cohen, Manion, and Morrison (2018) reveals that content validity indicates the extent to which items adequately measure or represent the content of the property or trait that the researcher wishes to measure. Accordingly, the questionnaire was given to my supervisor who is a subject matter expert for review before they were printed. This was to ensure content validity. Face validity was ensured before the final print of the questionnaires for pilot testing. To ensure face validity, I asked other colleagues to measure my items

to gauge their suitability for measuring teacher self-efficacy and readiness levels.

Reliability on the other hand deals with the degree to which an instrument yields consistent result. Common measures of reliability include internal consistency, test-retest, and inter-ratter reliabilities (Singh, 2017). The instrument was pilot tested in the University of Education, Winneba in order to determine the coefficient alpha or Cronbach Alpha. The reliability test was carried out on the two factors of the questionnaire. The coefficient obtained was deemed appropriate to ensure reliability, this is consistent with the suggestion of Pallant (2010), that reliability coefficient of 0.70 or above is considered accurate for the instrument. Table1 depicts the reliability score for the questionnaire's variables administered to the pre-service teachers.

Table 1: Reliability Coefficient for Factors on the Instrument

Factors	Number of items	Cronbach's Alpha
Self-efficacy	18	.930
Readiness	31	.891
Combined factors	49	.930

Source: Field survey (2022)

From Table 1, the alpha value for teacher efficacy (α= .930), and readiness (α=.891) with a combined factor-alpha of (α= .930), thus making the instrument very reliable for data collection.

Trustworthiness of Interview Schedule

Knowledge derived from qualitative methods is occasionally treated with suspicion (Berg, Malmquist, Rozental, Topooco, & Anderson, 2020). The condition of skepticism arises from concerns over the representativeness of the often limited sample size utilized in qualitative research, with perceived

deficiencies in the rigor of data collection, processing, and interpretation (Cobbold, 2015).

In qualitative investigations, the issues pertaining to internal validity, external validity, dependability, and objectivity, which are seen as key elements of quality in the post-positivist framework, are effectively tackled. Lincoln and Guba (1985) believe that the manner in which these criteria are fulfilled in qualitative research diverges from the approach employed in quantitative research. Naturalist's equivalents of internal validity, external validity, reliability, and objectivity have been redefined as credibility, transferability, dependability, and confirmability, respectively. These constructs provide truth value to qualitative research, as well as applicability, consistency, and neutrality, as well as a distinct level of precision and believability (Cobbold, 2015).

Credibility

Within the realm of post-positivist research, the idea of credibility serves as the qualitative counterpart to the concept of internal validity. The concept in question pertains to the extent to which the authentic perspectives of the participants align with the manner in which the researcher has depicted them (Cobbold, 2015).In order to enhance the trustworthiness of the qualitative data, the researcher employed the techniques of member verification and triangulation, as suggested by Mertens (2019).

Transferability

Transferability is the term used to describe the capacity of qualitative research findings to be used or generalized to many contexts. According to Petersen and Gencel (2013), the primary responsibility for transferability lies

with the generalizer, as viewed from a qualitative perspective. Consequently, the researcher presented a comprehensive depiction of the study's context, "the participants involved, and the criteria employed to assure the transferability of the data. Additionally, the researcher provided an account of the theoretical considerations that informed the process of data collecting, analysis, and interpretation.

Dependability

The qualitative equivalent of reliability, which under the post-positivist paradigm denotes stability through time, is dependability. It addresses the question whether research results could be confirmed if the same subjects and circumstances were used in a different investigation (Cobbold, 2015). Stability in data increases dependability, which is assessed by open research processes and conclusions (Mertens, 2019). In order to ensure dependability in this study, the study's procedures were described in detail, making it possible for a subsequent researcher to repeat the work—even if she or he doesn't necessarily get the same results. The study design can therefore be thought of as a model. Any reader will be able to judge the degree to which ethical research techniques have been followed with the help of such in-depth documentation.

Confirmability

Confirmability, similar to objectivity, presents a concern for researchers engaged in qualitative research. It is important to take measures that ensure the findings drawn from the study are mostly derived from the informants' experiences and thoughts, rather than being influenced by the researcher's personal characteristics and preferences (Shenton, 2004).

Confirmability also implies that the data and the researcher's interpretation of them are not subject to manipulation. Alternatively, the data may be traced back to its primary sources, the rationale for its interpretation can be demonstrated, and the process of integrating information to arrive at conclusions can be externally verified (Mertens, 2019). The researcher employed an audit trail as a means of safeguarding the integrity of the findings, so mitigating the potential impact of personal ideologies on the research outcomes. An audit trail refers to the systematic documentation of the many stages involved in qualitative research, including data collection, data processing, and interpretation of the findings (Carcary, 2020). The researcher's supervisor and other colleagues conducted a review of the interview transcripts in order to assess the extent to which the study's findings are substantiated by the collected data (Cobbold, 2015).

Data Collection Procedures

Quantitative phase

I submitted a research proposal to the University of Cape Coast's Institutional Review Board (IRB) that outlined procedure to be followed during the field study (see appendix C). To authorise me to gather data, I received a letter of introduction from the head of the Department of Education and Psychology and delivered to the Department of Basic Education (See Appendix D). A letter of permission was also taken from the Department of Basic Education which enabled me to meet the respondents (see Appendix E). I took my time to explain the essence of the study to the respondent and administered a consent form to them. This was done to confirm that they were willing to take part in the study (See Appendix F). The respondents were

assured ahead of time that records from the study were going to be kept as confidential as possible. They were also assured of their voluntary participation in the study. Respondents were further educated on the fact that the study did not pose any threat to their peace or health. The distribution and collection of questionnaires were done by visiting the respondents during their class sessions. The instruments were administered to the entire population; respondents were given a period of two days to complete the questionnaire. The researcher made sure that the identity and responses of respondents are kept confidential (Cohen, Manion, & Morrison, 2018)

Qualitative phase

The interview guide was also sent to the IRB and permission was granted for data collection for the qualitative phase like that of the quantitative phase. The interviewees were informed of the various issues they would be interviewed on. Informed consent and confidentiality were also promised ahead of time. Interview date, time, and locations were set up individually with the pre-service teachers. With the permission of the participants, the interview was recorded. Between 15 to 20 minutes was used for each session.

Data Processing and Analysis

Quantitative phase

The answered questionnaires from the respondents were serially numbered to make identification of the questionnaire easier when entering the data in the Statistical Package for Social Sciences (SPSS). The responses of the items were coded and entered into SPSS to facilitate easy and accurate analysis of the data that was collected.

The data was analysed based on the Research Questions and Hypothesis. Research question one and two were analysed using means (*M*) and Standard Deviation (***SD***). The researcher believed that mean and standard deviation were appropriate since they are effective ways to convey the relative frequency of survey responses and other data (Conner & Johnson, 2017). This agrees with the assertion made by Loeb, et al (2017), that researchers must employ descriptive statistics to organise, synthesise, analyse, and disseminate data. A mean of below 2.5 was considered a low readiness levels or self-efficacy levels in teaching children with SEN whiles a mean of above 2.5 was considered as higher self-efficacy and readiness levels.

Additionally, research hypothesis one was analysed using Pearson correlation coefficient. This tool was chosen by the researcher because of its ability to help to examine the relationship between the two quantitative variables of pre-service teachers, readiness, and self-efficacy levels (Conner & Johnson, 2017). Research hypotheses two and three, on the other hand, were analysed using independent sample t-test. This tool was considered appropriate because it allowed the researcher to compare the means of the groups of males and females (Xu, Fralick, Zheng, Wang & Changyong, 2017).

Qualitative phase

The data gathered for research questions one and two were analysed using Braun and Clarke's (2018) thematic analysis approach. Thematic analysis is a methodology employed to identify, analyse, and present recurring patterns, sometimes referred to as themes, within a given dataset. Braun and Clarke (year) assert that the tool effectively arranges the dataset in a straightforward manner and provides comprehensive explanations of its

contents. Braun and Clarke's seminal work on thematic analysis outlines a comprehensive framework consisting of six distinct stages. The theme analysis was carried out in accordance with the methodological framework outlined by Braun and Clarke. The following description is provided.

Familiarisation with the data

This phase entails transcription of interviews and extensive reading of the transcripts. Although transcription takes time, I familiarised myself with the data and that gave me the chance to start considering potential codes. I actively explored patterns and meanings as I studied transcripts. I made notes about potential coding categories that could be expanded upon in later analyses (Riger & Sigurvinsdottir, 2016).

I listened to the audio recordings of the interviews several times in order to familiarise myself with it. A numerical code was assigned to each interviewee for convenient reference (Dearnley, 2005). I gave codes to the audio recording just according to the order of interview (Judger, 2016). I personally typed the interview transcript (Corden, & Sainsbury, 2006). To ensure there were no omissions, I read the transcript alongside listening to the audio tape a couple of times (Carlson, 2010).

Generating initial codes

Researchers can establish a preliminary list of codes if they are familiar with the data. Braun and Clarke (2018) contrasted theory-driven codes that provide an answer to a particular question posed to direct the research with data-driven ones that emerge inductively from the data collection. Codes allow the data to be organised into meaningful units, but they are not yet themes, which are more general and may include more than

one code. Data coding can be done manually or automatically. Braun and Clarke (2013) advised that adding notes or sticking post-it notes on the texts, using highlighters or coloured markers makes repetitions easier to see when manually coding. At this stage, I highlighted associated key concepts. Outlined and wrote notes on the various texts in different colours. (Taylor & Gibbs, 2010). These codes were written at the comment section of the transcripts and were later categorised. The broad subjects under examination served as a guide for this procedure. These were:

1. *Examine pre-service teachers' readiness levels to teach learners with SEN.*
2. *Examine pre-service teachers' self-efficacy levels to teach learners with SEN.*

I divided the response into segments and coded each segment under the proper subject or sub-theme in order to address coding of several issues in a single response. Interviews were coded manually because I was not familiar with the available software programmes like Nvivo, ATLAS, MAXQDA, and Dedoose.

Searching for themes

According to Riger, and Sigurvinsdottir (2016), search for themes should start after the data has been coded and material that falls under the same codes has been collected. At this stage, I looked out for how the various codes might fit together with larger themes (Riger, & Sigurvinsdottir). Themes may be organised hierarchically, with higher order themes and subthemes, or in networks of interlocking ideas (Attride-Stirling, 2001). Braun and Clarke (2013) suggested that visual representations such as tables or

drawings may be helpful. At this point, a list of potential themes may exist, as well as codes that do not fit into any theme. The coded extracts are rearranged and organised to make sense by considering the connections between the codes, themes, and subthemes.

I did not follow this approach provided by Braun and Clarke (2006) because I used a semi organised interview schedule which predetermined major themes that were directly related to the research questions. The subthemes, however, were not predetermined; rather, they were generated from the data. For example; attitude of PSTs towards children with SEN, knowledge of PSTs about identification of children with SEN, ways PST can impact children with SEN, and ways of controlling children with SEN. I constantly compared the transcribed interviews to the previously established themes to see if there were any overlaps before coming up with the final subthemes.

Reviewing subthemes

It is necessary to examine and improve the prospective themes after they have been identified. While some prospective themes might be integrated into bigger concepts or separated into different themes, others might not be relevant to the study question. The boundaries between themes should be equally evident and the data within each theme should be coherent (Riger & Sigurvinsdottir, 2016). At this point, two procedures take place: first, it is determined whether the coded extracts that comprise a certain theme fit together, and second, it is determined whether the themes as a whole adequately represent the full data set. At this step, Braun and Clarke (2013) advised revisiting the whole collection of data to take note of any information

that matched themes but was missed during the initial coding. Since the main themes were predefined, I examined and tried to refine the sub-themes. I cross-checked the data to ensure that every subtheme had been recorded, along with any pertinent verbatim instances and codes that was logical and meaningful, and that every subtheme really focused on communicating something relevant to the research questions.

Defining and naming subthemes

Braun and Clarke (2013) suggested writing a detailed analysis of each individual theme and how it fits into the overall picture of the data set. Once more, this procedure was adjusted to the subthemes. I read the coding data and the example response extract again before organising it into a logical whole. I also made sure the names of the subthemes were succinct, snappy, and quickly conveyed to the reader what the subject is about (Braun & Clarke 2006). In all five subthemes were defined under the PSTs efficacy levels to teach children with SEN as captured in the coding scheme (see Appendix G). Four subthemes were defined under "pre-service teachers' readiness levels to teach children with SEN" (see Appendix G). In all nine sub-themes were defined from the participants' responses.

Producing the report

Once themes and their interrelationships are completely defined, a research report may be drafted. The report analysis should be presented in the report in a way that a reader will find trustworthy (Riger & Sigurvinsdottir, 2016). This can entail adding data excerpts that clearly demonstrate the themes as well as a summary of the choices that were made over the study's course. According to Braun and Clarke (2013), the study report must present

an argument in addition to a presentation of the data. They posed important questions that require answers: What does this theme mean? What are the assumptions underpinning it? What ramifications does this theme have? What circumstances are most likely to have caused it? Why is this topic discussed in this way specifically (as opposed to other ways)? What is the overarching narrative that the various themes regarding the subject reveal? (Braun & Clarke). Now that the raw data has been interpreted, it must be presented to others in a way that makes sense to them (Vanderpuye, 2013). Again, the analysis must provide a ‘‘concise, coherent logical, non-repetitive and interesting account of the story the data tell – within and across themes’’ (Braun & Clarke, 2006, p.93).

Accordingly, the concepts were examined and organised into themes when drafting the study's findings chapter. The main themes were included in the final report. Thus, it was possible to select captivating, vivid examples of extracts, conduct a final analysis of those extracts, and correlate the analysis to the study's topic and literature. (Braun & Clarke, 2006). Exact words picked from the pool of responses for the final report were chosen for their exactness, precision, and clarity. Each theme was supported by a varied number of responses, which served as both a point of emphasis and an illustration of the various facets of the responses to that particular issue. The researcher made an effort to analyse the data rather than just describing it.

Ethical Considerations

I submitted a research proposal to the University of Cape Coast's Institutional Review Board (IRB) that detailed the procedure to be followed during the field study for ethical clearance. Ethical clearance was given (see

Appendix C). In addition, I proposed a timeline and budget for the study. To avoid plagiarism, other authors' or literature's points of view were acknowledged. Data was collected from the accessible population for this study. The researcher did not conjure or fabricate data for this study. Respondents were thoroughly educated about the essence of the study; however, participation was optional. Respondents were made to sign an informed consent to cement their participation in the study. Confidentiality and informed consent are critical in ethical considerations while conducting a survey (Lamont-Mills, Christensen, & Moses, 2018). To ensure confidentiality, the researcher uses pseudonyms rather than revealing their names. Respondents were informed about the study's purpose and that participation was entirely voluntary. Participants were interviewed at the lecture theatres after their lectures and not in any questionable areas. The researcher reported exactly the verbatim responses of the participants.

For the qualitative phase of the study, the researcher made time to meet with participants to explain the essence of the study. The researcher never manipulated or interrupted the responses of participants. The researcher again used pseudonyms to cover the identities of the participants.

I will store the research data on cloud services (iCloud and Google Drive). Hardcopies will also be stored at a secured location to ensure that the information provided by the various respondents do not get into wrong hands to breach confidentiality. I will further store research data for at least three years with participants' approval as suggested by Floridi (2018).

Chapter Summary

This chapter gave a comprehensive description of the study's research method. The motivation behind choosing this mixed method design (convergent mixed-method) has been emphasized. It has presented an overview of the study's population, sampling strategy, research methodology, and research paradigm. The instruments that were adapted for the study have been described in this chapter. The section also described the statistical tools that were used to analyse the data collected as well as the approach that was used in analysing the qualitative data.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The chapter is presented in three sections. Section A presents the findings from the analysis of the quantitative phase. Under this the presentation was done based on the order of the research questions and hypothesis (see page10 for research questions and hypothesis).

Section B presents the findings from the analysis of the qualitative data. Under this, the presentation was based on research questions one and two. Section C presents the discussion of the findings. Here, the discussions were done based on the research questions and hypothesis. Information from both data set were used for the discussions in alliance with the convergent mixed method design used for the study.

Results

Section A: Quantitative Phase

Demographic information of the respondents

Analyses of the responses of the respondents on their demographics are presented in Table 2. The information elicited from the respondents was about their gender.

Table 2: Gender distribution of respondents

Gender	Frequency	Percentage (%)
Male	30	36.6
Female	52	63.4
Total	82	100

The data in Table 2 shows that 52(63.4%) of the respondents are females while 30(36.6%) of them are males.

Research Question One: What is the level of Pre-service Teachers' Readiness to teach Learners with SEN?

Research question one sought to examine pre-service teachers' readiness levels to teach children with SEN. A total of 33 questions on five subscales (Knowledge of PSTs about children with SEN, attitude of pre-service teachers, perceived behavioural control, subjective norms, and skill level of pre-service teachers) were used to elicit data from the respondents. Respondents chose among four options; option 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. Responses were presented using means and standard deviations. Mean scores above 2.5 indicate respondents agreed that their readiness level is high to teach children with SEN whiles mean scores below 2.5 indicate that respondents have low readiness to teach children with SEN or that their readiness level is low in teaching children with SEN. Table 3 presents the analysis of the responses of PSTs results on their readiness levels to teach learners with SEN. The results are presented in the order in which respondents ranked themselves, from highest to lowest sub-scales.

Table 3: **The level of Pre-service Teachers' Readiness to Teach Learners with SEN**.

Attitude of pre-service teachers	**M**	**SD**
I care for the well-being of children with SEN	3.5000	.74120
I have the heart for all teaching staff to develop professionally to teach children with SEN.	3.4878	.75758
I value the relatives of children with SEN	3.3902	.78183
I believe children with SEN can achieve their best	3.3780	.71389
I value creative and innovative approaches in teaching and learning of children with SEN	3.2317	.75847
I can ensure that teaching and learning is conducted in an inclusive manner in my school	3.1585	.71093
Mean of mean and SD	**3.33577**	**1**

Perceived Behavioural Control	**M**	**SD**
I can communicate with students with SEN actively	4.0854	5.58260
I can boost students with SEN's motivation when teaching	3.2927	.71125
I can adapt my learning content depending on condition of the children with SEN	3.2561	.76676
I can do formative assessment when teaching children with SEN	3.2561	.75049
I can increase parents of children with SEN's participation in their children's education	3.2439	.76273
I can use various forms of communication to communicate with parents of children with SEN in order to support their children's learning	3.2317	.80582
I can encourage children with SEN to practice self-learning	3.1463	.86241
I can encourage children with SEN to practice self-learning	3.1463	.86241
I can encourage children with SEN to practice self-learning	3.1463	.86241
I can increase my work productivity in teaching children with SEN	3.1829	.77185
Preparing learning materials to teach children with SEN is much easier	3.0610	.80657
Mean of means and SD	3.3062	1.3133

Knowledge of PST about Learners with SEN	M	SD
I know how to sustain an inclusive learning environment.	3.6829	4.58629
I understand the meaning of inclusive education	3.4512	.70540
I can identify students with SEN.	3.3659	.72881
I have the knowledge to supervise the teaching and learning of children with SEN.	3.3293	.66768
I know how to create an inclusive learning environment.	3.2317	.82100
I understand the processes involved in inclusive education.	3.2195	.78606
I know how to assess children with SEN.	3.1707	.71673
I know how to change a regular classroom to an inclusive classroom	3.0976	.88345
Mean of means and SD	3.3186	1.2367

Subjective Norms	M	SD
I get full cooperation from parents and guardians when teaching children with SEN	3.4878	3.39296
There are national programmes that are organized to enhance teachers' competency in teaching children with SEN	3.1098	.78577
Support and encouragement from the Ghana Education Service will influence my confidence to teach child with SEN	3.1585	.90907
I receive feedback from parents and guardians when teaching children with SEN	3.0976	.92443
Mean of means and SD	**3.2134**	**1.5030**

Skill level of Pre-service Teachers	M	SD
I have the ability to manage children with SEN	3.3415	.72384
I have the ability to discuss with parents of children with SEN concerning their children's daily social and emotional needs	3.2805	.75807
I have the ability to provide advice and recommendations regarding the teaching of children with SEN	3.2805	.74161
I have the ability to foster collegial relationships between staff, parents, and children with SEN	3.1951	.63710
I have the ability to provide wide support programmes for both teachers and programs with SEN	3.1585	.74485
Mean of Means and SD	**3.2358**	**0.7194**
Total Mean of Means	**3.2863**	**1.1544**

Source: Field survey (2022)

Data from Table 3 revealed PSTs as having a mean of means (M = 3.2863, SD = 1.1544). On the sub-scale of knowledge of PSTs in the University of Cape Coast, they indicated a high knowledge of children with SEN, *I know how to sustain an inclusive learning environment* (M=3.6829, SD=4.58629), with a lower performance of *I know how to change a regular classroom to an inclusive classroom (M=3.0976, **SD**=.88345*). In relation to attitude of pre-service teachers, they agreed they can; *care for the well-being of children with SEN (M=3.5000, SD= .74120),* can ensure that teaching and learning is conducted in an inclusive manner in my school (M=3.1585, SD=.71093), concerning perceived behavioural control, there was an indication that they preparing learning materials to teach children with SEN is much easier (M=3.0610, SD=.80657). With respect to subjective norms; PSTs agreed that they can; get full cooperation from parents and guardians when teaching children with SEN (M=3.4878, SD=3.39296). In the light of skill

level of pre-service teachers, it was agreed that PSTs have the ability to manage children with SEN (M=3.3415, SD = .72384). They as well have the ability to provide wide support programmes for both teachers and programs with SEN (M =3.1585, SD =.74485), this means that PSTs have a higher readiness level in teaching children with SEN.

Further analyses of the data in Table 3 reveals that amongst the sub-scales of readiness, attitude (M =3.3577, SD =1) recorded the highest mean followed by Knowledge (M=3.3186, SD=1.2367). On the other hand, Skill level (M=3.2358, SD=0.7194) recorded the lowest mean. This means that amongst the sub-scales of readiness, the pre-service teachers' attitude dominates over all the other subscale.

Research Question Two: **What is the level of pre-service teachers' self-efficacy in teaching learners with SEN?**

Research question two sought to examine pre-service teachers' self-efficacy levels to teach children with SEN. A total of 18 questions on five subscales (instructional efficacy, professionalism, ability to support children with SEN, classroom management and efficacy to perform other related duties) were used to elicit data from respondents. Respondents chose among four options; option 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. Responses were presented using means and standard deviations. Mean scores above 2.5 indicate respondents agreed that their self-efficacy level is high to teach children with SEN whiles mean scores below 2.5 indicate that respondents feel low self-efficacy to teach children with SEN. Table 4 presents the analysis of the responses of PSTs results on their efficacy levels to teach children with SEN.

Table 4: Pre-service self-efficacy level to teach children with SEN

Professionalism	**M**	**SD**
I can encourage students in my class to be good role models for students with SEN.	3.3293	.96934
I can give consistent praise for students with SEN, regardless of how small or slow the progress is.	3.3171	.97977
I can consult with an intervention specialist or other specialist when I need help, without harming my own morale.	3.1585	.92255
I can model positive behaviour for all students with or without disabilities.	3.1098	.95589
Mean of means/Average of SD	3.2287	1.2758

Efficacy to Perform other Related Duties.	**M**	**SD**
I can help children with SEN to perform adaptive skills like feeding and dressing	3.1585	.90907
I can help students with SEN to perform behavioural skills like decision-making, and conflict resolution	3.1098	.92970
I can effectively help children with SEN to perform self-help skills like hygiene and toileting	3.0976	.86937
Mean of Means/Average of Standard Deviation	3.1212	0.9027

Instructional Efficacy	M	**SD**
I can use a wide variety of strategies for teaching the curriculum to enhance understanding of children with SEN.	3.1585	.83842
I can adjust my lesson plans to meet the needs of all children regardless of their need level.	3.0854	.89168
I can break down a skill into its component parts to facilitate learning for children with SEN.	3.0610	.96029
I can adapt the curriculum to help meet the needs of children with SEN in my classroom	2.9756	.88855

I can adjust the curriculum to meet the needs of children with SEN.	2.9756	.86031
Mean of means/average of SD	3.0512	0.8879

Classroom Management	**M**	**SD**
I can manage a classroom that includes students with SEN.	3.1098	.99388
I can effectively deal with the disruptive behaviours of students with SEN in the classroom.	3.0122	.88183
I can remain in control of a situation that involves students with severe or profound SEN.	2.9878	.92288
Mean of means/Average of SD	3.0366	0.9328
Total mean of means and Average of SD	3.1422	0.9956

Ability to Support children with SEN	**M**	**SD**
I can establish meaningful relationships with my students with SEN.	3.3293	.98200
I can effectively encourage all of my students to accept those with SEN in my classroom.	3.3171	.94121
I can create an open and welcoming environment for students with SEN in my classroom.	3.2683	1.01894
Mean of means/Average of SD	3.3049	0.9807

Source: Field survey (2022)

Results from Table 4 indicates that respondents agreed to all 18 statements with a mean of mean of (***M***=3.1422, ***SD*** =0.9956), indicating a higher level of self-efficacy in teaching children with SEN. Respondents agreed to the items as follows; instructional efficacy ***(M***=3.0512, ***SD***=0.8879), teacher professionalism, PSTalso agreed as follows (***M***=3.2287, ***SD***=1.2758), Ability to Support children with SEN (***M***=3.3049, SD=0.9807), Classroom

Management (***M***=3.0366, ***SD***= 0.9328), efficacy to Perform other Related Duties (***M***= 3.1212, ***SD***= 0.9027).

Further analyses of the data in Table 4 also reveals that amongst the sub-scales of teacher self-efficacy, ability to support children with SEN (M = 3.3049, SD = 0.9807) recorded the highest mean followed by teacher professionalism (M=3.2287, SD=1.2758). On the other hand, classroom management efficacy (M = 3.0366, SD = 0.9328) recorded the lowest mean. This means that PSTs feel more efficacious in supporting children with SEN but, however, fall short in their efficacy to manage a classroom containing children with SEN.

Research hypothesis one: Relationship between pre-service teachers' self-efficacy in teaching children with SEN and their readiness to teach learners with SEN.

Research hypothesis one sought to find out the relationship between pre-service teachers' self-efficacy levels in teaching children with SEN and their readiness levels to teach children with SEN. A Pearson correlation coefficient was computed to determine the relationship between pre-service teachers' self- efficacy levels to teach children with SEN and their readiness levels to teach children with SEN. Table 5 presents the analysis of the responses on the relationship between pre-service teachers' self-efficacy levels in teaching children with SEN and their readiness levels to teach children with SEN.

Table 5: Relationship between pre-service teachers' self-efficacy in teaching children with SEN and their readiness to teach learners with SEN.

		Self-Efficacy	Readiness
Self-Efficacy	Pearson Correlation	1	.679**
	Sig. (2-tailed)		.000

Source: Field survey (2022)

Table 5 reveals a strong and positive significant relationship between pre-service teachers' readiness levels to teach children with SEN and their self-efficacy levels to teach children with SEN (r = .679, p= .000). This means that as teacher readiness levels is rising, self-efficacy levels too will be rising. And if teacher readiness levels falls, self-efficacy levels too will fall.

Research hypothesis two: Gender difference in pre-service teachers' self-efficacy levels in teaching learners with SEN.

Research hypothesis three sought to investigate gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN. An independent samples t-test was conducted to find out if there was a statistically significant gender differences in pre-service teachers' self-efficacy levels in teaching children with SEN. Table 6 presents the analysis of the responses of *gender* difference in pre-service teachers' self-efficacy levels in teaching children with SEN.

Table 6: Gender difference in pre-service teachers' self-efficacy levels in teaching learners with SEN with regards to their Gender.

Gender	N	M	SD	T	Df	P
Male	30	58.5000	10.89369			
				1.064	80	0.290
Female	52	55.4423	13.37163			

Source: Field survey (2022)

The Levene's test of homogeneity of variance revealed that the variances for the two groups (male and females) are equal (p=.399). The results indicate that there was no statistically significant difference in score for males (***M*** =58.5000, ***SD*** =10.89369) and females (**M**=55.4423, ***SD***= 13.37163); t (80) =1.064, p =0 .290 (two tailed). This implies that the efficacy levels of PSTs in teaching children with SEN is unaffected by their gender.

Research hypothesis three: Gender difference in pre-service teachers' readiness levels in teaching learners with SEN.

Research hypothesis three sought to investigate gender difference in pre-service teachers' readiness levels in teaching learners with SEN. An independent samples t-test was computed to find out if there was a statistically significant gender differences in pre-service teachers' readiness levels in teaching children with SEN. Table 7 presents the analysis of the responses of gender difference in pre-service teachers' readiness levels in teaching children with SEN.

Table 7: Gender difference in pre-service teachers' readiness levels in teaching children with SEN.

Gender	N	M	SD	T	Df	P
Male	30	111.4333	16.12384			
				0.989	80	0.326
Female	52	107.1538	107.1538			

Source: Field survey (2022)

Levene's test of homogeneity of variance revealed that the variances for the two groups (male and females) are equal (p= 0.406). The results indicate that there was no statistically significant difference in score for males (***M*** =111.4333, ***SD*** =16.12384) and females (***M*** =107.1538, ***SD*** = 107.1538); t

(80) = 0.989, p =0.2900.326 (two tailed). This indicates that concerning the readiness levels of pre-service teachers, there is no difference between males and females to teach children with SEN.

Section B: Qualitative Phase

Overview

This section presents the analyses of the interview data. The background of the interviewees is presented. Ten participants (pre-service teachers) were interviewed after lectures. Five sub-themes emerged under pre-service teachers' efficacy levels to teach children with SEN as captured in the coding scheme (see Appendix G). Four sub-themes were also defined under "pre-service teachers' readiness levels to teach children with SEN" (see Appendix G). In all nine sub-themes were emerged under the two predetermined themes of pre-service teacher efficacy levels to teach children with SEN and the pre-service teachers' readiness level to teach children with SEN.

The analyses is presented thematically. The information captured in this section aims at answering the qualitative components of research questions one and two. Code identities given to PSTs are in bold type for emphasis. The researcher has presented verbatim responses in italics and quotation marks. Table 8 presents the gender of the participants.

Table 8: Gender of the participants

Participants ID	Gender
Participant 1	Female
Participant 2	Male
Participant 3	Female
Participant 4	Male
Participant 5	Male
Participant 6	Female
Participant 7	Male
Participant 8	Female
Participant 9	Female
Participant 10	Female

Source: Field survey (2022)

Pre-service teachers' level of readiness to teach children with SEN

PSTs were interviewed concerning their readiness levels to teaching children with SEN. Their responses were categorised into four themes; Readiness levels of PSTs to teach children with SEN, Skill level of PSTs in teaching children with SEN, Knowledge of PSTs about identification of children with SEN, Attitudes of PSTs towards children with SEN. These sub-themes are discussed as follows:

Readiness levels of PSTs to teach children with SEN

The excerpts of the verbatim responses from the PSTs indicate that they feel highly ready to teach children with SEN. They feel highly ready because of the knowledge they have gained from studies and also their

mastery gained from the practicum exercise. Their verbatim responses in support of their claim are as follows:

> "*I have higher readiness, although I am a regular education teacher though, but I have knowledge about children with SEN*" (**Participant 2**).
>
> "*I have a higher readiness level in teaching children with SEN, this is so because I have been exposed to some of them at the centre*" (**Participant 9)**
>
> "*I think high readiness levels because I have children with SEN at heart. In the sense that I have some in my family, distance relation though, so it speaks to me whenever I see them. It makes me put myself in their shoes whenever I see them. And I treat them just as they are supposed to be treated*" (**Participant 4).**
>
> **"***I will rate myself high. Because now…., I have the capacity to transform them***''(Participant 5**).
>
> "*I will rate myself high in teaching children with SEN. Because although we are not perfect or hundred percent sure of living but in a case where I will be given the opportunity to teach children with SEN, I will try as possible to make them feel at home*" (**Participant 7**).

Reasons for pre-service teachers' readiness levels in teaching children with SEN

PSTs gave a number of reasons why they felt ready to teach children with SEN. Their views were expressed as follows;

Highly because of knowledge gained

"….I have knowledge about children with SEN" ***(Participant 2)*****.**

"*Higher; I know I can handle them. Am emphasizing on those who cannot speak because that is my field.* "(**Participant 3).**

Highly ready because of mastery experience

"On a scale of 1-3, I will say 3, because my experience with teaching one of the special education child, the outcome or result was positive and with the speech difficulties and sound she was able to pronounce some words that at first she was not able to so I think I will say 3" **(Participant 10).**

"I have a higher readiness level in teaching children with SEN, this is so because I have been exposed to some of them at the centre" (**Participant 9)**

Skill level of PSTs in teaching children with SEN

This theme helps to explain the skill level of PSTs in teaching children with SEN. From the interview, the PSTs indicated that they have a high readiness skill level to teach children with SEN. The excerpts of their verbatim responses are

High skill level in teaching children with SEN

"*Higher because although not a special education teacher but a regular education yet have gone through practicum in special education"* (**Participant 2**).

"I have a higher skill level in teaching children with SEN because of my experience from practicum "(**Participant 3**).

"*I will say am highly skilful in teaching them*" (**Participant 8)**.

"On a scale of 1-3, I will say 3, because my experience with teaching one of the special education child, the outcome or result was positive and with the speech difficulties and sound she was able to pronounce some words that at first she was not able to so I think I will say 3" **(Participant 10).**

From the excerpts of the verbatim responses of the participant 2,3 and 10 it evident that the practicum exercise from their perspectives has equipped them with high skill in teaching children with SEN. By way of emphasis participant 1 said … "*I am so ready to teach those children"*

Knowledge level of PSTs about identification of children with SEN

This theme also emerged as the participants spoke about several ways by which they identify children with SEN. Their ability to identify children with SEN through the various means they talked about is a proof of their knowledge level.

Identification by observation

Seven PSTs confirmed that they can identify children with SEN through observation. Their verbatim statements in support of this are presented below:

"*Special, you will see certain attributes of things keep repeating and you can see them……*as *I said, their speciality makes them different from the normal children*" (**Participant 4**)

"Their behaviour, the way they do their things will help you to identify them" (**Participant 5).**

Some of the participants mentioned some specific characteristics of some of the children with SEN. For example **Participant 7** said "*Children*

with SEN can be hyperactive.. They don't pay attention in class…". He added that **"***some of them are easily irritated*"

Identification by performance

Two PSTs revealed that they can identify children with SEN through their performances in class. They had this to say:

> "*For example if am in the general classroom and I ask a question like 1+1 and the child says 11, then I will know that the person has SEN, because he sees things in a different way other than the normal so therefore is either I recommend the child to a special teacher or a Centre that they can help him or her" (***Participant 3***)*.

While **Participant 6** is of the view that "*if you are teaching five children, the one with learning disability will not be able to achieve like his colleagues*"

Identification through assessment

Some of the participants were also of the view that children with SEN are identified through professional assessment by a doctor or health personnel. Additionally, they are of the view that a person's health history can be useful for identification. The verbatim statement by **Participant 8** supports this.

> "*Sometimes a doctor or health personnel can refer that this person is having SEN, or parent's health history of the person"*

Attitudes of PSTs towards children with SEN

All the ten PSTs revealed that they have a positive attitude towards children with SEN. Their verbatim responses in support of their attitude is as follows:

> "*I have these children in heart so I have some love for them" (***Participant 1***)*

"*Am very friendly with them'; 'my attitude is a feeling for them; I see them as me'* **(Participant 3).**

"*..... I am generous to them…* (**Participant 7**).

"*I think my attitude towards SEN children is good" (***Participant 8).**

"*My attitude towards them is one of an embracing one; I feel they are part of us*" (**Participant 9) .**

"*For me being a teacher and having a little knowledge about SEN, I think Ermm, am very comfortable with SEN children" (***Participant 10).**

The excerpts from the verbatim statements confirm that PSTs have a positive attitude towards children with SEN. Specifically, they love them and have them at heart and are friendly towards them; they are comfortable with them and see them as part of themselves.

Supporting children with SEN

On the subject of supporting children with SEN, participants confirmed that they support children with SEN. When it comes to adaptive skills. Specifically, they help them with their dressing, or toiletry. The verbatim statement from **Participant 6** confirms this.

"*Sometimes their dressing, or they going out to ease themselves, I can help them'*

From the excerpts, it can be deduced that the participants rated themselves high, as far as their readiness level to teach children with SEN is concerned. Also, knowledge about children with SEN as said by **Participant 2**, and exposure at the centre and the ability to dress them as said by **Participant 9 and 5** respectively give them the high readiness level they are having as they know that they can confidently teach them. Participant 4 also

makes it clear that the readiness comes from the fact that she has these children at heart.

Pre-service teachers' level of Self-efficacy in teaching Children with SEN

PSTs were interviewed to find their efficacy levels to teach children with SEN. Five sub-themes emerged, these are self-efficacy levels of PSTs in teaching children with SEN, ability to impact children with SEN, level of control over children with SEN, professional behaviours of PSTs to teach children with SEN, and how to teach children with SEN. These theme and sub-themes are discussed as follows:

Efficacy levels of PSTs in teaching children with SEN

This theme emerged to explain how efficacious PSTs feel they are in teaching children with SEN. Eight of the PSTs interviewed declared that they are highly efficacious to teach children with SEN with various reasons. Their verbatim responses in support of their claim are as follows;

Efficacy due to experience

> *"Am very efficacious because I have taught some at the Centre; the child was suffering from autism, as at the time the exercise was over, I witnessed a great improvement"* (**Participant 3**).
>
> "*Am very efficacious; with past experience am very efficacious. I have gotten the opportunity to teach for two years before coming to the university and I happen to have a child with SEN in my classroom. I think and know with such an experience that I have had and also have gone through practicum and as such I will say am very confident"* (**Participant 4**).

The verbatim responses from the **Participant 3 and 4** alludes that they are very efficacious in teaching children with SEN because of past experience

Efficacy because of knowledge accumulation

"*Am very efficacious. Because of the learning am expert in school from level hundred to four hundred , I think am equipped with that very necessary skills to deal with children with SEN. So am very confident*" (**Participant 5**).

"*I don't really have a problem teaching them……..yeah, sure, with the training given and what I also know, if you are able to freely teach them, they feel a part of us*"(**Participant 6**).

"*With the teaching of the children with SEN, I have much confidence in teaching…. From the previous knowledge or courses that we have been through, I will be able to implement various strategies that will help me to help the child"* (**Participant 7**).

It is clear from the verbatim responses that participant felt very efficacious to teach children with SEN because they have gained knowledge. It can thus be concluded that participants felt highly efficacious because of mastery experience and knowledge accumulation.

How to teach children with SEN

This theme helped to explains how PSTs can identify and place children with SEN and also how to teach them.

Teaching them through appropriate TLMs

PSTs indicated that they can teach children with SEN by using appropriate teaching and learning materials. The verbatim responses to support this are as follows:

*"I think erm.. through putting them in the centre of teaching and learning, expose them to the TLMs , I think that is the way to teach them" (**Participant 5**).*

*"So in teaching children with SEN,…, so maybe for instance, I can make use of TLMs. I can use visuals for children who have problem with their sight. I can use some materials that can help them in my teaching process. So we charts, visuals, logo, sand box" (**Participant 8**).*

From the verbatim statements of **Participant 5 and 8**, it is evident that they can teach children with SEN through child centred strategy and the use of appropriate teaching learning materials.

Identification of appropriate needs of the child

According the **Participants**, they can teach children with SEN by first identifying the appropriate needs. Excerpts from some verbatim responses to support this are stated as follows:

" *So firstly, I will have to observe them to identify the particular need that child has and go about it based on the TLMs available*" (**Participant 9**).

"*I will have to identify the needs of that particular child; it can be behavioural, visual, or any other. So if you get to know what the child is suffering from, then you think of how to teach. Let's take its behavioural, if you get to know how the child acts then you think of how to help the child*" (**Participant 4).**

Teaching through different strategies

PSTs again indicated that they can teach children with SEN through various forms of strategies known to them. Excerpts taken from their verbatim responses to support this are as follows:

> "*I believe the various strategies you think it can help them. There are many methods in teaching. Each and every teacher and how he or she understands how he teaches. If you think method A' is not helping you, then you need to resolve to method B*" (**Participant 2**).
>
> "*Sometimes, you can develop some strategies. The normal way of standing there, lecturing might not be okay with them so you can let them engage in some activities so that they can be enticed with it. …you can let them solve some puzzles , maybe some of them like drawings, or colouring or other things*" (**Participant 6**).

Through trips and observations

PSTs equally believe they can take children with SEN on field trips and observations to teach them. By way of emphasis, **Participant 3** had this to say…

> "*I can use field trips and observation. That is the approach I used on my child. I used it once and it worked"*

Provision of extra attention in class

PSTs revealed that giving extra attention to children with SEN will facilitate their teaching; **Participant 10** had this to say …

> *"I will make the child feel comfortable in the classroom and make some time for them as compared to the other children. I will also involve them in the activity that we do in the classroom"*

From the excerpts of the various statements of participants, it is obvious they teach children with SEN by providing them with extra attention, through field trips, identifying their unique needs, and using the best strategies known to them.

Ways by which PSTs can impact children with SEN

This theme explains the ways PSTs believe their teaching can impact children with SEN in their classrooms. Consequently, the ten PSTs interviewed indicated that they can teach children with SEN in the following ways;

Through the best strategies

"I believe I will be able to impact them. If I use the best strategies, I will be able to achieve my learning objectives"(***Participant 2)***

"*I take time in teaching and don't teach them in a rush. I break the task into bits, I believe I can impact them*" (***Participant* 3**).

"*With motivation as my hallmark, I think using that will make the child feel okay with me*" (***Participant* 4).**

"*When you put children with SEN in the Centre of teaching and learning you will be able to impact them***" (***Participant* 5).**

"*I think when you identify their problem and you use the right strategy, you can help them*" (***Participant* 6).**

From the excerpts of the verbatim statements of the participants, it can be seen that they teach children with SEN using the best strategies to achieve their objectives; they use task analysis and the child-centeredness method. Additionally, they motivate children when teaching.

Through the creation of atmosphere of love and harmony

"*I believe I will be able to teach them to create in them a sense of belongingness so they will know that they are not abnormal as people term them. They are also important and count in everything we do. I will create an atmosphere that they need, it's about their welfare*" (***Participant* 9).**

"*I will try as much as oo to create an atmosphere that will seek the indulgence of all the students including those with SEN*" (***Participant* 7).**

The excerpts of the verbatim statement reveals that participants can also impact children with SEN by creating an atmosphere of love and harmony. Again participants indicated that they have high self-efficacy in teaching children with SEN

Ways of controlling children with SEN

All the ten PSTs revealed that they have control over children with SEN in their classrooms. They indicated the ways they can control children with SEN. Their respective views are expressed bellow:

Through teacher preparation

" *I prepare before I come to class* "(***Participant* 3**).

"*As a teacher in general, in teaching you need if you don't have lesson notes and prepare your self very well, you will find yourself fumbling. I prepare myself before I enter the classroom and that gives me a high confidence"* (***Participant* 5**).

"*Am very well vest in whatever I teach them , so that if even they do not understand what am teaching them , I can provide them extra time.*(***Participant* 10**).

From the responses, it can be deduced that adequate teacher preparation, before lesson delivery is critical and helps to boost the confidence of the teacher as indicated by Participant 5.

Through active involvement of the children during teaching

"*If maybe am teaching a particular subject and some of the children are disturbing I can draw their attention to what am doing by asking them questions or to come to the board to write something. If I have to give them punishment, I can do so, so that they can realize the presence of a teacher in the classroom*" (***Participant* 8**).

"I *have much control and relating it to how the child comes up within the day, I just need to adjust to what I will teach (***Participant 9**).

From the responses, it can be deduced that active involvement of children with SEN in classroom activities has the potentials of impacting them.

Professionalism towards children with SEN and stakeholders

All the ten PSTs interviewed on their efficacy to teach children with SEN indicated that they can relate professionally with children with SEN by emphasising ways by which they can make it happen. Their views expressed as follows:

Recognition of individual differences

"*I can make the students understand that everyone is equal no matter deficiency, that no matter anyone's deficiency we are all equal and there should be respect for each other*" (**Participant 4).**

Okay, so in teaching children with SEN, you have to first and foremost as a teacher, you have to understand that people can be born like that or maybe accident and you have to show them care and love"(**Participant 8).**

According to the excerpts from the verbatim statements, it is clear that recognising individual differences in the classroom is one major way of ensuring teacher professionalism.

Modifications and adjustment to ensure children involvement

Modifications and adjustments is seen as another strategy of ensuring teacher professionalism. **Participants 5 and 7** had this to say...

"……*For example you are in the class with children with learning disability , you need to have in mind that their adaptation to teaching and learning is different than the normal children* ''(**Participant 5).**

".....I can ask of the student who has SEN to respond to question. And that wouldn't make the child with SEN eliminated from the class" (**Participant 7).**

Teacher discipline

To maintain teacher professionalism, participants indicated that the teacher must be discipline. **Participant 2, 3, 6, and 9** had this to say;

"*When I come to class I don't come with my personal issues*" (**Participant 3).**

"*As said earlier, some of them their attitude can put you off it if you don't control yourself and you do it, you can do it without letting it affect you*" (**Participant 6).**

"I *will make sure that I follow the code of conducts and the rules and regulations*" (**Participant 2).**

"*My dressing, the way I speak, I can't go to the class appearing anyhow. So I have to check my dressing and how I relate to the children. So for instance, we have an issue , where when the child sees some colour, the child is in a way attracted to that colour, another instance is where when you wear certain dresses that shows your body parts the child feels like touching your body part so you have to wear dresses that are appropriate" (***Participant 9).**

From the excerpts, it can be deduced that the participants rated themselves high as far as their self-efficacy to teach children with SEN is concerned. Again they indicated that they feel efficacious because of their past experience with children with SEN, and also they have acquired knowledge concerning children with SEN (**Participant 3, 4, 6 and 7)**.

Section C: Discussion

This Section of the chapter presents the discussion of the findings. Here the discussions were done based on the research questions and hypothesis. Information from both data sets was used for the discussion according to the convergent mixed method design used for the study.

Pre-service teachers' readiness levels to teach children with SEN.

The dual data collected revealed that PSTs have high readiness levels in teaching children with SEN. The questionnaire revealed that PSTs have

high readiness levels to teach children with SEN. It was obvious that their knowledge level was beyond average; accordingly they indicated a positive attitude towards children with SEN. Their perceived behavioural control was equally above average. The subjective norms of PSTs were above average. The study also revealed that PSTs had a high skill level in teaching children with SEN (see Table 3).

The interview responses affirm the findings of the quantitative data. Responses of the participants revealed that PSTs have high readiness levels in teaching children with SEN. However, the qualitative findings revealed that PSTs felt highly ready to teach children with SEN because of the following reasons: they had experience with children with SEN through the practicum exercise, they had the children at heart and thought they equally deserve to be taught, and they also had knowledge about children with SEN. It can therefore be said that PSTs at the University of Cape Coast are highly ready to teach children with SEN. This finding corroborates the findings of a study done by Shippen et al. (2005), who studied pre-service teachers' perceptions of including students with disabilities in the general classroom and reported that PSTs significantly decreased their level of anxiety and hostility toward serving students with disabilities in general education settings. According to Sharma, Forlin, Loreman, and Earle (2006), PSTs have more positive attitudes towards people with disabilities and inclusion and more confidence in implementing inclusive practices when they have had additional training and/or experience with people with disabilities. It is, therefore in order that the qualitative finding revealed that the PSTs felt highly ready to teach children with SEN because of their exposure to a practicum in special education. This presents

practicum as the factor of pre-service training that can be consider a core prerequisite to promoting teacher readiness to teach children with SEN.

The finding on the high readiness level of PSTs in teaching children with SEN, however, contradicts the findings of Hemmings and Woodcock (2011), who indicated that PSTs felt poorly prepared to teach students with SEN. Nketsia and Saloviita (2013) also found that only one-third of the PSTs from three Colleges of Education in Ghana felt somewhat prepared to teach children with SEN. I am inclined to say that exposure to practicum in special education may be the distinguishing factor in the disparity in the finding of previous studies and that of the current study. The findings of the qualitative aspect of the study strongly show that the practicum is what is making the PSTs have high skill level in teaching children with SEN. This definitely translates to high readiness to teach children with SEN bearing in mind that high skill level in teaching children with SEN is one of the sub-scales of readiness to teach children with SEN.

The qualitative data further revealed that participants have high levels of knowledge about children with SEN. Although not part of the current study objectives, the qualitative data importantly revealed that the participants indicated that they could identify children with SEN through observation, assessment, and performance. To be able to do this means that they have adequate knowledge about children with SEN and indeed their verbatim responses attest to this. This finding contradicts the findings of Alkahtani (2013), who realised that teachers do not have adequate knowledge concerning children with SEN. Exposure to practicum in special education alongside the

various courses in special education that the participants said they have read may be what is equipping them to feel they can do all that they are saying.

Lack of practicum exposure may have been one of the reasons the teachers who took part in Alkahtani (2013) study recorded inadequate knowledge about children with SEN. It must be noted that in the current study PSTs were the participants whiles in the study conducted by Alkahtani (2013) the participants were teachers who were not under training but had completed. This means that if the current per-service teachers complete and are posted to inclusive schools to teach, the likelihood of high performance and being able to effectively meet the needs of children with SEN in their classrooms may be assured. This will likely translate to effective teaching and learning in response to Ghana's inclusive education agenda.

The qualitative findings further revealed that, the participants have a positive attitude toward children with SEN because they love them and have their best interests at heart. This finding agrees with a study done by Batsiou, Bebetsos, Panteli, and Antoniou (2008) in Greece and Cyprus who found that teachers have a positive attitude to teach children with SEN. However, Dapudong (2014) found that teachers have a moderate attitude toward children with SEN. The qualitative data finally indicated that PSTs can support children with SEN by helping them to perform adaptive skills. This appears novel as to the best of my knowledge no previous literature directly talks about teachers or pre-service teachers' support for children with SEN. Knowledge and attitude are sub-scales of the teacher readiness scale used for the quantitative data collection therefore the qualitative findings help to add more detail and depth to the quantitative findings such that one gets to know

how the PSTs feel about the children with SEN and the sort of support they give them. This detail the quantitative data was unable to reveal.

Pre-service teachers' level of self-efficacy in teaching children with SEN

The data gathered from the quantitative phase of the study revealed that PSTs have high self-efficacy levels in teaching children with SEN. According to the quantitative data, the instructional efficacy of pre-service teachers, professionalism, and ability to support children with SEN, classroom management, and efficacy to perform other related duties all received higher scores (above 2.5- see Table 4). The qualitative data also confirms the quantitative data by indicating that PSTs have high efficacy levels in teaching children with SEN. The qualitative data revealed PSTs had a high efficacy level in teaching children with SEN because of their experience from the practicum and the knowledge acquired from the various courses in special education they read as part of their programme. It can therefore be said that PSTs from the University of Cape Coast feel highly efficacious in teaching children with SEN. This finding supports the work done by Peebles and Mendaglio (2014) that PSTs felt efficacious to teach children with SEN because of their field experience. According to the current study, some of these experiences includes; having relatives with SEN, going through practicum in special education, and picking up related courses in the course of their studies. Sharma, Shaukat, and Furlonger (2015) equally agree that PSTs with training in special education, knowledge of disability legislations, teaching experience, and personal experience with a person with disability have high levels of self-efficacy in teaching within inclusive settings. This means that the efficacy level of teachers to teach children with SEN increases

when they are made to go through practicum in Special Education (Peebles & Mendaglio, 2014).

The qualitative data further explored how the various sub-scales of teacher self-efficacy were utilised by participants. The data revealed that participants can teach children with SEN through the use of appropriate teaching and learning materials, by identifying the appropriate needs of the child, by employing multiple teaching strategies, through field trips and observations, and by providing extra attention to children with SEN (instructional efficacy on the teacher self-efficacy scale). This finding corroborates with that of Rankin-Erickson, and Pressley (2000) on teachers' instructional practices. They found that, teachers engage in different strategies to make sure students understand language. A similar study done by Zigmond and Kloo (2017), on general education and special education teachers' teaching strategies also revealed that teachers use multiple strategies to teach children with SEN.

Furthermore, the qualitative data revealed that the participants can have an impact on children with SEN by employing the best strategies and ensuring a loving and harmonious environment. It was also revealed that PSTs are of the view that teachers can control children with SEN when the teacher had prepared well and the children are actively involved in the teaching process (classroom management). Hans (2017) found that effective classroom strategies pave the way for the teacher to impact children positively. Babadjanova (2020) also revealed that effective classroom management strategies enable the teacher to keep the student on task, which eventually translates to better achievement. It appears much has not been studied into the

various ways PSTs can impact children with SEN. However, this study has shown that PSTs can have an impact on children with SEN by cultivating a loving and harmonious environment. Teacher preparation is also a key factor, which the qualitative analysis highlighted as a sure means of controlling children with SEN.

The qualitative findings again revealed that participants can exhibit professionalism by recognizing the individual differences of the children with SEN, making modifications and adjustments to teaching contents and processes, and maintaining teacher discipline. This finding corroborates the findings of Maxwell and Schwimmer (2016), who studied professional ethics education for future teachers. They found several ways a teacher can display professionalism, including the teacher's ability to make modifications and adjustments to the teaching process and contents and ensuring teacher discipline. In the same light, Tirri (2010) studied the teacher values underlying professional ethics and also found that the teachers' honesty, justice, and freedom in the classroom helped improve the teaching and learning process.

Relationship between pre-service teachers' self-efficacy in teaching children with SEN and their readiness to teach children with SEN

Pearson correlation coefficient was computed to determine the relationship between pre-service teachers' self- efficacy levels to teach children with SEN and their readiness levels to teach children with SEN. The data revealed that there was a strong significant positive relationship between pre-service teachers' readiness levels and their self-efficacy levels to teach children with SEN. Accordingly, the researcher rejected the null hypothesis that there is no statistically significant relationship between pre-service teacher

readiness levels and their self-efficacy levels to teach children with SEN. This results means that as pre-service teachers' readiness level rises, their self-efficacy levels will rise and as pre-service teachers' readiness levels lowers or decreases, teacher self-efficacy levels too will lower or decrease.

Ahsan, Sharma, and Deppeler (2012) reported that pre-service teachers' teaching efficacy correlated with their readiness to implement inclusive education. They therefore indicated that there is a relationship between pre-service teachers' self-efficacy to teach children with SEN and their readiness to teach children with SEN. Similarly, Inceçay and Dollar (2012) find a link between pre-service teachers' classroom management efficacy and their readiness to manage challenging classroom behaviours. Endot et al. (2021) also reported that there was a moderately positive relationship between teachers' self-efficacy and teachers' readiness for implementing the teaching of design and technology and its relationship with self-efficacy and intrinsic motivation. I believe their findings are quite different from the current study because their respondents are not PSTs who have been trained to teach children with SEN. It can be concluded that whenever pre-service teachers' readiness levels rises, their efficacy levels will also rise, and whenever their readiness levels drops, their efficacy levels will also drop.

Gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN

An independent sample t-test was conducted to find out if there was a statistically significant gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN. Results of the t-test revealed that there was no statistically significant gender difference in pre-service teachers' self-

efficacy levels in teaching children with SEN. Accordingly, the researcher failed to reject the null hypothesis that there is no significant gender differences in pre-service teachers' self-efficacy levels in teaching children with SEN. This is an indication that gender has no influence on the efficacy levels of University of Cape Coast's pre-service teachers.

This finding resonates with a study done by Jennett, Harris, and Mesibov (2003) on teacher efficacy, and burnout among teachers of children with autism. They found that there is no gender effect on teacher self-efficacy to teach children with autism. In the same way, Odanga Raburu and Aloka (2015) studied the influence of gender on teachers' self-efficacy in public secondary schools in Kisumu County, Kenya, and found that, there was no statistically significant influence of gender on teachers' self-efficacy. The finding of this study is however contrary to the findings of Sharma, Shaukat, and Furlonger (2015) who worked on the attitudes and teaching self-efficacy of PSTs towards the inclusion of students with disabilities into regular classrooms. They found that male PSTs expressed more positive attitudes than their female counterparts regarding the inclusion of students with disabilities in regular classrooms.

Gender difference in pre-service teachers' readiness levels in teaching children with SEN.

An independent samples t-test was computed to find out if there was a statistically significant gender difference in pre-service teachers' readiness levels in teaching children with SEN. The results indicate that there was no statistically significant difference in score for males and females. This informed the researcher's decision to accept the null hypothesis that there is no

statistically significant gender differences in pre-service teachers' readiness levels in teaching children with SEN**.** This indicates that concerning the readiness levels of University of Cape Coast's pre-service teachers, there is no difference between males and females.

However, Ahsan, Sharma and Deppeler (2012) indicated that gender had significant relationship with teacher readiness in teaching children with SEN. In the same direction, Adigun (2021) found that gender can influence pre-service teachers' readiness because females have more knowledge in inclusive education than males, with female PSTs having the highest mean score.

The literature presented so far indicate that gender can influence pre-service teachers' readiness to teach children with SEN. However, the findings of Trivio-Amigo et.al. (2022) agrees with the findings of this study that there are no significant differences between males and females regarding their readiness levels to teach children with SEN. It can thus be concluded that there is no difference in pre-service teachers' readiness levels in teaching children with SEN with regards to their gender.

Chapter Summary

This chapter presented the results and a discussion of the data that were organised for the study. The quantitative and qualitative results were presented concurrently. The discussions of the results were subsequently done. Data for research questions 1 and 2 were analysed using descriptive statistics (Means and Standard Deviations). Hypotheses one was analysed using Pearson correlation coefficient, and hypotheses two and three, on the other hand, were analysed using an independent sample t-test.

From the analysis done on the findings of research questions 1 and 2, the descriptive statistics (Mean) revealed that PSTs have high readiness levels and high self-efficacy levels respectively. With research hypothesis one, Pearson correlation coefficient was computed to find the relationship between pre-service teachers' self-efficacy levels and readiness levels to teach children with SEN. It was revealed that there was a strong and positive significant relationship between pre-service teachers' self-efficacy levels to teach children with SEN and their readiness levels to teach children with SEN. On hypotheses two and three, an independent t-test that was computed revealed that there were no significant gender difference in pre-service teachers' readiness levels and self-efficacy levels to teach children with SEN.

For the qualitative phase, thematic analysis by Braun and Clarke (2013) was used in analysing the data. The qualitative data revealed that PSTs have high self-efficacy levels and high readiness levels in teaching children with SEN mainly because of their experience gained from a practicum in Special Education.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to examine pre-service teachers' readiness levels and self-efficacy levels in teaching children with SEN. This chapter presents a summary of the study, conclusions, recommendations, and recommendations for further studies.

Summary

The study examined the pre-service teachers' readiness and self-efficacy levels in teaching children with SEN. The study employed a mixed-method approach and was guided by two research questions and three hypotheses. The study was carried out using the convergent mixed method design. The population for this study was PSTs in the Department of Basic Education, who have been exposed to the practicum exercise in special education from the University of Cape Coast. The total number of PSTs who were exposed to practicum in Special Education was 82, the researcher employed a census survey to include all the 82 pre-service teachers.

A 52-item questionnaire adapted from (Dawson & Scott, 2013; Porakari et al., 2015; Mansor et al., 2021), and a semi-structured interview guide were used for the study. The two instruments were considered appropriate to enhance a robust study (Creswell & Creswell, 2017). Data for research questions 1 and 2 were analysed using descriptive statistics (Means and Standard Deviations). Hypothesis one was analysed using Pearson correlation coefficient, and hypothesis two and three, on the other hand, were

analysed using an independent sample t-test. For the qualitative phase, thematic analysis by Braun and Clarke (2013) was used in analysing the data.

Key Findings

The data revealed that:

1. PSTs have high readiness levels for teaching children with SEN. The data further revealed that the readiness levels of PSTs are attributed to the fact that they have had experience with children with SEN through the practicum exercise. Another reason was because they have children with SEN at heart and therefore think they equally deserve to be taught, and they are also knowledgeable concerning children with SEN.
2. The data gathered also revealed that PSTs have higher self-efficacy levels when teaching children with SEN. The data further revealed that PSTs are efficacious in teaching children with SEN because of the following reasons: they have had experience through a practicum in special education, and they have also accumulated knowledge about children with SEN.
3. Respondents revealed that there was a strong significant relationship between pre-service teachers' readiness levels and their self-efficacy levels to teach children with SEN. That as readiness levels increases, the self-efficacy levels of PSTs will equally increase.
4. Again, respondents revealed that there was no statistically significant gender difference in pre-service teachers' self-efficacy levels in teaching children with SEN.

5. Furthermore, respondents revealed that there was no statistically significant gender difference in scores for males and females. This indicates that concerning the readiness levels of pre-service teachers, there is no difference between males and females.

Other findings

1. When compared to all other sub-scales of teacher self-efficacy, PSTs feel more efficacious in their ability to support children with SEN. Their classroom management efficacy was the lowest in comparison.
2. In comparison to the other sub-scales, PSTs are more knowledgeable about children with SEN and have lower skill levels to teach children with SEN.

Conclusions

Teachers' self-efficacy and readiness to teach children with SEN form an integral part of the implementation of inclusive education. They need to feel efficacious and ready to teach children with SEN. The qualitative data has highlighted that the self-efficacy and readiness levels of PSTs to teach children with SEN are hinged on their exposure to practicum in special education. To ensure a successful inclusive education in Ghana, it is therefore critical to improve practicum practice in teacher preparation to teach children with SEN.

Children with SEN must be taught to maximize their potential so they can become useful citizens for society and the nation at large. This can be true when teachers are adequately prepared to boost their readiness and self-efficacy levels through practicum in special education.

Recommendations

Following the findings of the study, the following recommendations are made:

1. The Ministry of Education (MoE), and Ghana Education Service (GES) should ensure that all PSTs are made to go through a practicum in special education. It should be taken as a core subject.
2. The Ministry of education should ensure that all necessary teaching and learning materials needed to prepare PSTs for the teaching of children with SEN are made available.
3. The ministry of education must ensure that all PSTs take courses like teaching in the mainstream classroom, in order to improve their skills in teaching children with SEN.
4. Much attention should be given to the class management courses that PSTs will undertake in their course of study.
5. The teaching of children with SEN should not be limited to only females or males. Both genders should be encouraged to enrol to be prepared to teach children with SEN.

Suggestions for Further Research

1. It is recommended that future studies consider the perception of students without SEN on inclusive education.
2. It also recommended that this study should be replicated at other Universities where the sample size could be bigger than 82.
3. Further studies in this area are recommended to also investigate the effect of pre-service teacher readiness on their self-efficacy to teach children with SEN.

4. Finally, it is also recommended that future studies will examine the perception of education stakeholders on inclusive education.

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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR MEASURING SELF-EFFICACY AND READINESS OF PRESERVICE TEACHERS

This study aims to examine pre-service teachers' self-efficacy and readiness to teach children with Special Educational Needs. The study is for academic purposes. Your candid response to this questionnaire would help find the answer(s) to the issue under investigation. Your confidentiality and anonymity would be protected. For further information kindly contact the researcher on 0242330276. Thank you.

SECTION A

DEMOGRAPHIC information

Instruction: Please tick [√] for the response which corresponds with your background information

Gender:

Male [ ]

Female [ ]

SECTION B

Self-efficacy to Teach Children with SEN

This questionnaire seeks to elicit information on the self-efficacy level of pre-service teachers. Please indicate your opinions about each of the statements below by ticking the appropriate number. **Key**: 1= Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree.

No.	Construct/Statement	1	2	3	4
	Instructional Efficacy				
1	I can adapt the curriculum to help meet the needs of children with SEN in my classroom.				
2	I can adjust the curriculum to meet the needs of children with SEN.				
3	I can use a wide variety of strategies for teaching the curriculum to enhance understanding of children with SEN.				
4	I can adjust my lesson plans to meet the needs of all children regardless of their need level.				
5	I can break down a skill into its component parts to facilitate learning for children with SEN.				
	Professionalism				
6	I can model positive behaviour for all students with or without disabilities.				

7	I can consult with an intervention specialist or other specialist when I need help, without harming my own morale.				
8	I can give consistent praise for students with SEN, regardless of how small or slow the progress is.				
9	I can encourage students in my class to be good role models for students with SEN.				
Ability to Support children with SEN					
10	I can effectively encourage all of my students to accept those with SEN in my classroom.				
11	I can create an open and welcoming environment for students with SEN in my classroom.				
12	I can establish meaningful relationships with my students with SEN.				
Classroom Management					
13	I can manage a classroom that includes students with SEN.				
14	I can effectively deal with the disruptive behaviours of students with SEN in the classroom.				
15	I can remain in control of a situation that involves students with severe or profound SEN.				

	Efficacy to Perform other Related Duties.				
16	I can effectively help children with SEN to perform self-help skills like hygiene and toileting				
17	I can help children with SEN to perform adaptive skills like feeding and dressing				
18	I can help students with SEN to perform behavioural skills like decision-making, and conflict resolution				

SECTION C

Readiness to Teach Children with SEN

This section seeks to elicit information on the readiness level of pre-service teachers to teach children with SEN. Please indicate your opinions about each of the statements below by ticking (√) the appropriate number. **Key**:1= Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree.

No.	Construct/ Statement	1	2	3	4
Knowledge of Pre-service Teachers about Children with SEN					
1.	I can identify students with SEN.				
2	I have the knowledge to supervise the teaching and learning of children with SEN.				
3	I know how to assess children with SEN.				
4	I understand the meaning of inclusive education.				
5	I understand the processes involved in inclusive education.				
6	I know how to create an inclusive learning environment.				
7	I know how to sustain an inclusive learning environment.				
8	I know how to change a regular classroom to an inclusive classroom				

Attitude of pre-service teachers					
9	I care for the well-being of children with SEN				
10	I value the relatives of children with SEN				
11	I have the heart for all teaching staff to develop professionally to teach children with SEN.				
12	I believe children with SEN can achieve their best				
13	I can ensure that teaching and learning is conducted in an inclusive manner in my school				
14	I value creative and innovative approaches in teaching and learning of children with SEN.				
Perceived Behavioural Control					
15	I can adapt my learning content depending on condition of the children with SEN				
16	I can boost students with SEN's motivation when teaching				
17	I can do formative assessment when teaching children with SEN				
18	I can communicate with students with SEN actively				

19	I can increase my work productivity in teaching children with SEN				
20	I can encourage children with SEN to practice self-learning				
21	I can increase parents of children with SEN's participation in their children's education				
22	I can use various forms of communication to communicate with parents of children with SEN in order to support their children's learning				
23	Preparing learning materials to teach children with SEN is much easier				
	Subjective Norms				
24	I get full cooperation from parents and guardians when teaching children with SEN				
25	I receive feedback from parents and guardians when teaching children with SEN				
26	There are national programmes that are organized to enhance teachers' competency in teaching children with SEN				

27	Support and encouragement from the Ghana Education Service will influence my confidence to teach child with SEN				
Skill level of Pre-service Teachers					
28	I have the ability to discuss with parents of children with SEN concerning their children's daily social and emotional needs				
29	I have the ability to provide advice and recommendations regarding the teaching of children with SEN				
30	I have the ability to provide wide support programmes for both teachers and programs with SEN				
31	I have the ability to manage children with SEN				
32	I have the ability to foster collegial relationships between staff, parents, and children with SEN				
33	I have the ability to generate possible solutions in resource management in order to ensure a successful teaching of children with SEN				

APPENDIX B

INTERVIEW GUIDE ON TEACHER EFFICACY AND READINESS

This study aims to examine the self-efficacy and readiness of pre-service teachers to teach children with special educational needs. The study is for academic purposes only. Your candid response to this interview will help find an answer (or answers) to the issue under investigation. Your confidentiality and anonymity will be protected.

SECTION A

Demographic information

Please provide appropriate answers to the following questions as it corresponds to your background:

1. What is your gender?

SECTION B

Pre-service Teacher Self-efficacy to Teach Children with SEN

2. How efficacious are you in teaching children with SEN? (low or high)
3. What makes you think you are efficacious in teaching children with SEN?
4. How can you teach children with SEN?
5. How do you think your teaching can impact children with SEN?
6. To what extent do you have control children with SEN?
7. How can you ensure professionalism as a teacher?
8. What can you do to Support children with SEN?
9. How can you manage children with SEN?
10. What are some other Related Duties that you can perform as far as teaching g of children with SEN is concerned?

SECTION C

Pre-service teaches' Readiness to teach children with SEN

11. On a scale of 1-2 (low, moderate high) how will you rate your readiness level in teaching children with SEN?
12. Give reasons for your answer?
13. On a scale of 1-3 (low, moderate, and high), what is your skill level in teaching children with SEN?
14. What do you know about children with SEN?
15. How can you identify children with SEN?
16. Describe your attitude towards children with SEN
17. Give reasons for your answer.

APPENDIX C

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES/ERS/ucc/edu/vc/22-70
Your Ref: .....
Date: 26th August, 202

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Ebenezer K. Rockson ..., Reg. No EF/SDE/20/0003 is M.Phil. / Ph.D. student in the Department of ... Education and Psychology ..... in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Examining University of Cape Coast Pre-Service teachers' readiness and self-efficacy to teach children with Special Educational needs.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

APPENDIX D

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697
Email:dep@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

2nd August, 2022

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MR. EBENEZER ROCKSON KYEM

We introduce to you Mr. Kyem a student with registration number EF/SDP/20/0003 from the University of Cape Coast, Department of Education and Psychology. He is pursuing a Master of Philosophy degree in Special Education and he is currently at the thesis stage.

Mr. Kyem is researching on the topic: **"EXAMINING UNIVERSITY OF CAPE COAST'S PRESERVICE TEACHERS' READINESS AND SELF-EFFICACY TO TEACH CHILDREN WITH SPECIAL EDUCATIONAL NEEDS."**

He has opted to collect or gather data at your institution/establishment for his Thesis work. We would be most grateful if you could provide him the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Ama Ocran [Ms.]
Principal Administrative Assistant
For: **HEAD**

APPENDIX E

PERMISSION LETTER

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UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697
Email:dep@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

2nd August, 2022

DEPT. OF BASIC EDUCATION
RECEIVED
25 AUG 2022
File No
UNIVERSITY OF CAPE COAST

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MR. EBENEZER ROCKSON KYEM

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We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Ama Ocran [Ms.]
Principal Administrative Assistant
***For:* HEAD**

SAA
circulate to all lecturers
30 - 08 - 2022

APPENDIX F

INFORMED CONSENT

EXAMINING UNIVERSITY OF CAPE COAST'S PRE-SERVICE TEACHERS' READINESS AND SELF-EFFICACY TO TEACH CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

Consent to Participate in Research

1. I voluntarily agree to take part in this research study. [ ]
2. The goal and scope of the study have been thoroughly explained to me. [ ]
3. I am aware that I have the right to withdraw from the study at any time. [ ]
4. I accept that the information I supply will be treated confidentially. [ ]
5. I agree that my personal information will be kept confidential in the study report. [ ]
6. I understand that I am entitled to have access to every information I have provided. [ ]

…… ……

Name of participant Signature

…..……

Date

I believe the participant has been given informed consent to participate in this study.

…… ……..

Signature of researcher Date

APPENDIX G

CODING SCHEME

ain themes	Sub-themes	Categories of Codes	Example of Patterns of response
THE PRESERVICE TEACHER'S SELF-EFFICACY TO TEACH CHILDREN WITH SEN	**Ways by which preservice teachers' can impact children with SEN**	***through the best strategies***	*"I believe I will be able to impact them. If I use the best strategies, I will be able to achieve my learning objectives"* ***Preservice teacher 2)*** "*I take time in teaching and don't teach them in a rush. I break the task into bits, I believe I can impact them*" (**preservice teacher 3**).
		through the creation of atmosphere of love and harmony	"*I believe I will be able to teach them to create in them a sense of belongingness so they will know that they are not abnormal as people term them. They are also important and count in everything we do. I will create an atmosphere that they need, it's about their welfare*" (**preservice teacher 9).** *"I will try as much as oo to create an atmosphere that will seek the indulgence of all the students including those with SEN*"(**preservice teacher 7).**

	Ways of controlling children with SEN	***through teacher preparation***	" *I prepare before I come to class* "(**preservice teacher 3**). "*As a teacher in general, in teaching you need if you don't have lesson notes and prepare your self very well, you will find yourself fumbling. I prepare myself before I enter the classroom and that gives me a high confidence"* (**preservice teacher 5**).
		Through active involvement of the children during teaching	"*If maybe am teaching a particular subject and some of the children are disturbing I can draw their attention to what am doing by asking them questions or to come to the board to write something. If I have to give them punishment, I can do so, so that they can realize the presence of a teacher in the classroom*" (**preservice teacher 8**). "I *have much control and relating it to how the child comes up within the day , I just need to adjust to what I will teach* (**Preservice teacher 9**).

	Professionalism towards children with SEN and stakeholders	***recognition of individual differences***	**"***I can make the students understand that everyone is equal no matter deficiency, that no matter anyone's deficiency we are all equal and there should be respect for each other*" (**Preservice teacher 4).** *Okay, so in teaching children with SEN, you have to first and foremost as a teacher, you have to understand that people can be born like that or maybe accident and you have to show them care and love*" (**Preservice teacher 8).**
		Modifications and adjustment to ensure children involvement	"*……For example you are in the class with children with learning disability , you need to have in mind that their adaptation to teaching and learning is different than the normal children,* (**Preservice teacher 5).** *"…..I can ask of the student who has SEN to respond to question. And that wouldn't make the child with SEN eliminated from the class*" (**Preservice teacher 7).** "
		Teacher discipline	"*When I come to class I don't come with my personal issues*" (**Preservice teacher 3).** *"As said earlier, some of them their attitude can put you off it if you don't control yourself and you do it, you can*

			do it without letting it affect you" (**Preservice teacher 6).**
	Efficacy levels of preservice teachers in teaching children with SEN	***Efficacy from past experience***	*"Am very confident because I have taught some at the Centre ; the child was suffering from autism, as at the time the exercise was over , I witnessed a great improvement"* (**preservice teacher 3**). *" Am very confident ; with past experience am very confident. I have gotten the opportunity to teach for two years before coming to the university and I happen to have a child with SEN in my classroom. I think and know with such an experience that I have had and also have gone through practicum and as such I will say am very confident"* (**preservice teacher 4**).
		Efficacy because of knowledge accumulation	"*Am very confident. Because of the learning am experts in school from level hundred to four hundred , I think am equipped with that very necessary skills to deal with children with SEN. So am very confident*" (**preservice teacher 5**). " *I don't really have a problem teaching them……..yeah, sure, with*

			the training given and what I also know, if you are able to freely teach them, they feel a part of us"(**preservice teacher 6**).
	How to teach children with SEN	***Teaching them through appropriate TLMs***	*"I think erm.. through putting them in the Centre of teaching and learning, expose them to the TLMs , I think that is the way to teach them" (**Preservice teacher 5**)* *So in teaching children with SEN,…, so maybe for instance, I can make use of TLMs. I can use visuals for children who have problem with their sight. I can use some materials that can help them in my teaching process. So we charts, visuals, logo, sand box" **(preservice teacher 8**).*
		Identification of appropriate needs of the child	" *So firstly, I will have to observe them to identify the particular need that child has and go about it based on the TLMs available*" (**Preservice teacher 9**). "*I will have to identify the needs of that particular child; it can be behavioural, visual, or any other. So if you get to know what the child is suffering from, then you think of how to teach. Let's take its behavioural, if you get to know how the child acts then you think of how to help the*

			child" (**preservice teacher 4).**
		Teaching through different strategies	"*I believe the various strategies you think it can help them. There are many methods in teaching. Each and every teacher and how he or she understands how he teaches. If you have been able to identify children with SEN, you should be able to come out with the strategy to teach them. If you think method A' is not helping you, then you need to resolve to method. Although they are all seated with those who are good in class and the teacher should be able to use another method to help them to understand what you are doing*" (**preservice teacher 2**). "*Sometimes, you can develop some strategies. The normal way of standing there, lecturing might not be okay with them so you can let them engage in some activities so that they can be enticed with it. ...you can let them solve some puzzles , maybe some of them like drawings, or colouring or other things*" (**preservice teacher 6**)
		Through trips and observations	*I can use field trips and observation. That is the approach I used on my child. I used it once and it worked"* ***(preservice teacher 3)***

		Provision of extra attention in class	*"I will make the child feel comfortable in the classroom and make some time for them as compared to the other children. I will also involve them in the activity that we do in the classroom. Not leaving them behind for theme to feel left out or something" (***Preservice teacher 10**)
	Attitudes of preservice teachers towards children with SEN	***Supporting children with SEN***	Sometimes their dressing, or they going out to ease themselves, I can help them. **Participant 6**
	Knowledge of preservice teachers about identification of children with SEN	***Identification by Observation***	*"Their behaviour, the way they do their things will help you to identify them"* **(preservice teacher1).** *Special" You will see certain attributes of things keep repeating and you can see them*".. "*As I said, their speciality makes them different from the normal children*" (**preservice teacher 4**)
		Identification by Performance	"*For example if am in the general classroom and I ask a question like 1+1 and the child says 11, then I will know that the person has SEN, because he sees things in a different*

			way other than the normal so therefore is either I recommend the child to a special teacher or a Centre that they can help him or her"(***Preservice teacher 3).***
			"*if you are teaching five children, the one with learning disability will not be able to achieve like his colleagues*" **(preservice teacher 6)**
PRESERVICE TEACHERS' READINESS TO TEACH CHILDREN WITH SENSE		***Identification through assessment***	*Sometimes a doctor or health personnel can refer that this person is having SEN, or parents' health history of the person"* **(preservice teacher 8).**
	Readiness levels to teach children with SEN	***Readiness because of knowledge***	"*Higher; I know I can handle them. Am emphasizing on those who cannot speak because that is my field.* "(**Preservice teacher 3).**
		Readiness because of mastery	"*On a scale of 1-3, I will say 3, because my experience with teaching one of the special education child, the outcome or result was positive and with the speech difficulties and sound she was able to*

			pronounce some words that at first she was not able to so I think I will say 3" **(preservice teacher 10).**
	Skill level of PSTin teaching children with SEN	***High Skill level in teaching children with SEN***	*"I have a higher skill level in teaching children with SEN because of my experience from practicum* "(**preservice teacher3**). "*I will say am highly skilful in teaching them*" (**preservice teacher 8)**.