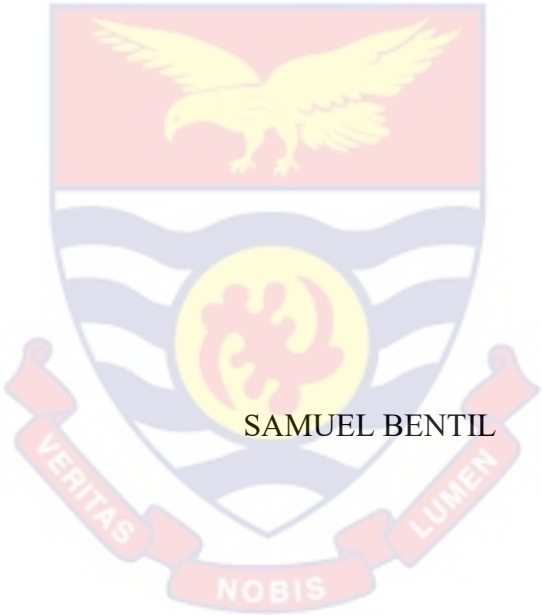
UNIVERSITY OF CAPE COAST

PRE-SERVICE GEOGRAPHY TEACHERS' SOFT SKILLS AND TEACHING SELF-EFFICACY BELIEFS IN THE UNIVERSITY OF CAPE COAST



SAMUEL BENTIL

2025

UNIVERSITY OF CAPE COAST

PRE-SERVICE GEOGRAPHY TEACHERS' SOFT SKILLS AND TEACHING SELF-EFFICACY BELIEFS IN THE UNIVERSITY OF CAPE COAST

BY

SAMUEL BENTIL

Thesis submitted to the Department of Business and Social Sciences Education of the Faculty of Humanities and Social Sciences Education of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Doctor of Philosophy Degree in Curriculum and Teaching

JULY 2025

DECLARATION

Candidate's Declaration

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

Candidate's Signature…….. Date……..

Name: Samuel Bentil

Supervisors' Declaration

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

Principal Supervisor's Signature……. Date:……..

Name: Alhaji. Prof. Mumuni Baba Yidana

Co-Supervisor's Signature…… Date:…….

Name: Dr. Anthony Akwasi Owusu

ABSTRACT

The study examined pre-service Geography teachers' soft skills and teaching self-efficacy beliefs at the University of Cape Coast. It was based on an explanatory sequential mixed-method design guided by a pragmatist philosophical orientation that underpinned this study. The census method was adopted to involve 200 level 400 pre-service Geography teachers in the quantitative phase, while convenient sampling selected 12 participants for a follow-up focus group discussion. Structured soft skills and teaching self-efficacy questionnaires were adapted and validated to collect quantitative data. A semi-structured focus group protocol was used for the follow-up discussion. Data analysis involved descriptive statistics (frequency, percentages, mean, standard deviation) and inferential statistics (One-way and Two-way MANOVA, PLS-SEM) for quantitative data, and thematic analysis for qualitative data. Results showed that pre-service Geography teachers possessed high levels of soft skills and teaching self-efficacy. Skills such as lifelong learning, communication, emotional intelligence, intellectual and leadership significantly boosted their teaching self-efficacy. No significant differences were found in soft skills based on gender or age. The Department of Business and Social Sciences Education at the University of Cape Coast should integrate these soft skills into the teacher education curriculum. Teacher educators planning any training geared toward preservice teachers' soft skills should not discriminate gender and age.

KEY WORDS

Geography Education

Hard Skills

Pre-service Teachers

Self-efficacy

Soft Skills

Teacher Educators

ACKNOWLEDGEMENTS

DEDICATION

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

In the field of education, soft skills are crucial for training learners to become lifelong learners, creative, innovative, effective communicators, analytical thinkers, and efficient in their professional lives (Ağçam & Dogan, 2021; Elisa et al., 2020; Tang, 2020; Vasanthakumari, 2019; Yan et al., 2019). Therefore, these studies have shown that pre-service teachers often do not receive effective soft skills training, and research in Africa, especially in Ghana, is limited. After integrating specific soft skills into the 'Methods of Teaching Geography' course that I teach at Level 300, it is vital to assess how these skills influence teaching self-efficacy, including aspects like instructional methods, classroom management, and student participation. This chapter provides a general overview of the study, outlining the research problem, the purpose, research questions, and hypotheses, the study's significance, as well as its delimitations and limitations. It also defines key terms and describes the structure of the study.

Background to the Study

Education in geography is a powerful tool for advancing human resources (individuals), economic growth, international cooperation, environmental protection, and sustainable development. As students study, they gain valuable insights into various issues impacting the environment, society, and the economies of different regions. They also develop skills in spatial awareness, such as reading and interpreting maps, collecting information using scientific methods, and using Geographical information System (GIS), communication, problem-solving, and teamwork. Moreover,

they learn how to evaluate spatial interactions and make decisions based on their analysis (German Geographical Society, 2012). Geography plays a crucial role in understanding sustainable development challenges because it explores the Earth's environment and resources. According to Aikins (2014), since resources are limited and finite, studying geography equips students with essential skills to use available resources efficiently and sustainably. Additionally, the German Geographical Society (as cited in Ababio, 2017) emphasizes that training geography students to analyse the relationships between natural and human features across different spaces, as well as to assess the impacts of these interactions (such as land use, urban climates, access to drinking water, river management, and flood control), forms a key foundation for educational competencies in sustainable development.

Owing to this powerful contribution of geography to national and global development, Helmke (as cited in Bentil, 2018) opined that geography lessons should be understood as a dynamic process where teachers engage in complex situations involving multiple interactions. The outcomes of a teacher's action, therefore, vary based on factors such as location, time, students' unique characteristics, and class composition. As a result, geography teachers must acquire a distinct set of knowledge, characteristics, skills, and experiences. According to Ababio (as cited in Bentil, 2018), further emphasised that instructors need an in-depth knowledge of geography, efficient teaching strategies, and appropriate instructional materials. This calls for an effective and efficient teacher education programme for prospective geography teachers.

Teacher education in Ghana aims to produce teachers imbued with professional skills, attitudes, and values as well as the spirit of enquiry, ingenuity, and inventiveness. This foundation enables them to respond to evolving circumstances, apply inclusive approaches, and commit to continuous learning (Ministry of Education, 2024). In Ghana, the training of teachers is primarily handled by forty-six public colleges of education, alongside a few private institutions and universities, including the University of Cape Coast (UCC), the University of Education, Winneba (UEW), and the University of Development Studies (UDS). This investigation focuses specifically on the University of Cape Coast because of the particular issues at hand, so it is important to elaborate on the preparation that pre-service teachers, especially those majoring in geography, undergo.

At UCC, aspiring teachers complete a bachelor-level training programme, which consists of eight academic semesters, each lasting fourteen weeks. For those looking to become geography teachers, the Department of Business and Social Sciences Education, which operates under the Faculty of Humanities and Social Sciences Education within the College of Education Studies, provides specialized training. Students pursuing this path enrol in the Bachelor of Education in Social Sciences program, majoring in Geography and minoring in either Economics or Mathematics. The goal of this programme is to cultivate skilled and knowledgeable geography teachers who will not only understand the subject deeply but also apply critical and reflective thinking to educational issues, particularly those related to curriculum and teaching methods in Geography.

Some of the content and pedagogical courses students read include Elements of Human Geography, Elements of Physical Geography, Thematic Geography, Social and Philosophical Foundations of Education, Principle and Practice of Curriculum and Instruction, Nature of Geography, Educational Statistics, Special Education, Introduction to Earth Science, Curriculum Studies in Geography, Geographic Thought, Introduction to Surveying and Cartography, Methods of Teaching Geography, Transport and Space, Geomorphology and Oceanography, Assessment in Education, Regional Analysis and Development Planning; Geography of Development with Emphasis on Ghana, and Climatology and Hydrology. In addition, Remote Sensing, Geographical Information System (GIS), Teacher Professional Enhancement, Rural Land Use, Population and Development, and History and Management of Education in Ghana are read by geography students. These and other content-related courses equip aspiring geography teachers with in-depth subject knowledge, pedagogical understanding, and instructional skills to teach the various aspects of the pre-tertiary Geography syllabus.

Additionally, PGTs are made to do microteaching (On-Campus Teaching Practice) at level 300, second semester, and Education field experience in teaching (Off-Campus Teaching Practice) at level 400, first semester. The essence of this practicum is to empower PGTs to translate their subject and pedagogical knowledge and skills in an actual classroom setting. These practicums are done under the auspices of the Centre for Teacher Professional Development (CTPD) of the College of Education Studies. The CTPD organises orientations for pre-service teachers before they begin their practicums (Cobbold, 2019a). The rationale is to introduce student-educators

to the philosophy of teaching practice, including various stages of the teaching process, the period for exercise, and the assessment criteria. During the microteaching, pre-service geography teachers are allowed to teach their colleagues (assuming that their colleagues are SHS students) in a small classroom (20 to 30 students in each class). In addition, two supervisors are assigned to each class to supervise or observe PGTs' teaching tasks and score them accordingly. The supervisors are also expected to do post-teaching discussions with PGTs to highlight their strengths and provide suggestions to improve their teaching performance. Besides, the supervisors, PGTs are also assessed by their peers by pointing out the good areas of their teaching and suggestions to improve upon their teaching.

Concerning off-campus teaching practice, similar orientations take place, and more than two supervisors are assigned to different zones to oversee the pre-service geography teachers. Regarding the orientations, lesson observation involves several stages, including a preliminary briefing, live lesson review, and post-observation discussions. Additionally, pre-service teachers are encouraged to voice any concerns or challenges they may have, which can then be addressed by the Director of the centre. The PGTs are allowed to select any senior high school of their choice to do the practice for a whole semester in Level 400. During this practicum, PGTs are expected to bring their theoretical knowledge in content and pedagogy together with their experiences obtained from microteaching to effectively teach geography students in the SHS. Adding up, competencies such as communication skills, innovation and creativity skills, personal attributes, traits of PGTs, intellectual skills, commitment to duty, collaboration skills, empathy, teamwork, and

classroom management skills are very crucial to the effective and efficient instructional delivery of pre-service geography teachers (Good & Lavigne, 2018). These are some soft skills which literature (Ağçam & Dogan, 2021; Elisa et al., 2020; Macqual, 2020; Tang, 2020; Vasanthakumari, 2019; Yan et al., 2019) has shown to be essential to teachers' effective performance in the teaching and learning process.

Soft skills, including a diverse set of attributes like communication, collaboration, problem-solving, adaptability, and emotional intelligence, are vital for pre-service geography teachers. These skills enhance teaching effectiveness and facilitate positive learning environments (Kausar, 2024). Internationally, the integration of soft skills into teacher tutoring curricula is documented as crucial. A study by Annan-Brew et al. (2024) emphasized that incorporating 21st-century skills, including critical thinking and collaboration, into teacher training enhances pre-service teachers' effectiveness during off-campus teaching experiences.

Within Africa, there is a growing emphasis on embedding soft skills into teacher training curricula. In Ghana, for instance, the Vice-Chancellor of Cape Coast Technical University, Professor Kweku Adutwum Ayim Boakye, advocated for integrating soft skills like critical thinking and communication into teaching and learning processes, asserting that all these abilities are important for students to thrive in the job market or as entrepreneurs (Kumi, 2024). Focusing on Ghana, research indicates a need for enhanced soft skills development among pre-service teachers. A study by Nukpetsi et al. (2023) highlighted that quality assurance practices and leadership roles significantly influence the quality of pre-service teacher training, suggesting that

incorporating soft skills into training programs can improve educational outcomes. Furthermore, Takyi (2024) postulated that pre-service social studies teachers in Ghana had a low level of 21st-century skills acquisition, underscoring the necessity for integrating soft skills development into teacher education curricula. Incorporating soft skills into the training of pre-service geography teachers is vital for their professional development and classroom effectiveness. Globally and within Africa, there is a clear recognition of the value these skills bring to teaching practices. For Ghanaian pre-service geography teachers, enhancing soft skills like communication, adaptability, and problem-solving will not only improve their teaching efficacy but also better prepare them to navigate the evolving educational landscape.

A high level of self-efficacy among teachers helps them tackle challenges with confidence and resilience, which directly affects their effectiveness in the classroom (Jerrim, Sims & Oliver, 2023). Around the world, the importance of soft skills in boosting teacher self-efficacy has been widely recognized. Teachers who possess strong interpersonal and intrapersonal skills are generally better equipped to foster positive learning environments, manage their classrooms effectively, and adjust to the varying wants of their pupils (Sodergren et al., 2023). According to Bandura's (1997) social cognitive theory, it emphasises that educators with greater self-efficacy are more inclined to persist in the face of difficulties and embrace innovative teaching methods. Key competencies like communication, collaboration, decision making, adaptability, and emotional intelligence significantly contribute to boosting teachers' self-efficacy, which is fundamentally their self-assurance in their capacity to positively impact student learning (Bandura,

1997). Generally, teaching self-efficacy is categorised into three primary domains: instructional strategies, classroom management, and student engagement (Tschannen-Moran & Hoy, 2001). Developing soft skills in pre-service teachers directly improves these areas, ultimately resulting in more effective teaching.

When we talk about instructional self-efficacy, we are referring to a teacher's confidence in their capacity to design and carry out effective teaching strategies (Tschannen-Moran & Hoy, 2001). Educators with strong decision-making and analytical reasoning skills are better able to modify their instructional strategies to respond to the varied needs of learners (Sodergren et al., 2023). Strong communication skills also have a major impact in making lesson delivery clearer, allowing teachers to present information in ways that really enhance student understanding (Ampofo et al., 2024). Furthermore, collaboration skills help teachers integrate innovative, student-centred teaching styles, such as peer-assisted learning and exploratory instruction, which have been shown to improve student outcomes (Osei & Mensah, 2024). Classroom management self-efficacy describes a teacher's confidence in their instructional capabilities to maintain discipline and create a structured, conducive learning environment (Tschannen-Moran & Hoy, 2001). Emotional intelligence, which encompasses self-awareness, self-management, and emotional understanding, enables teachers to manage student behaviour more effectively (Bandura, 2022). Teachers who can remain calm and adaptable in the face of classroom disruptions are better equipped to handle disciplinary challenges without escalating conflicts (Osei & Mensah, 2024). Additionally, strong interpersonal skills allow teachers to build respectful relationships with

students, reducing behavioural issues and nurturing a positive classroom climate (Ampofo et al., 2024). Student engagement self-efficacy denotes a teacher's belief in their aptitude to inspire students and sustain their interest in learning (Tschannen-Moran & Hoy, 2001). Adaptability and creativity are essential for designing engaging lessons that cater to different learning styles (Sodergren et al., 2023). Teachers who demonstrate strong social and emotional intelligence can connect with students on a personal level, making learning more relatable and engaging (Osei & Mensah, 2024). Furthermore, effective communication skills enable teachers to provide constructive feedback and encouragement, which are key factors in sustaining student motivation and participation (Ampofo et al., 2024).

The inclusion of soft skills in teacher education programs is essential in boosting teaching self-efficacy in three main areas: instructional strategies, classroom management, and engaging students. Around the world, particularly in Africa and more specifically in Ghana, there's an increasing awareness of how essential soft skills are in helping teachers build the confidence and abilities they need to foster effective learning environments. By focusing on developing these skills among pre-service geography teachers, we can ultimately enhance teaching effectiveness and improve student results.

Developing soft skills is vital for pre-service teachers looking to boost their self-confidence in instructional approaches, classroom organization, and student engagement. Research from various global, African, and Ghanaian perspectives shows how these skills can be developed through intentional learning processes. Around the world, pre-service educators usually gain soft skills through well-structured teacher education programmes that blend

specific coursework with practical experiences. For example, a study conducted in Malaysia explored the soft skills that pre-service teachers developed through mandatory second and third-year undergraduate courses specifically designed to provide these competencies. The study found that such courses significantly enhanced the participants' soft skills, which are crucial for effective teaching (Hutkemri et al., 2021). Additionally, the incorporation of reflective practices and critical thinking exercises in teacher training programs has been shown to foster soft skills development. A systematic review highlighted those interventions focusing on critical thinking and problem-solving within curricula positively impact pre-service teachers' soft skills, thereby improving their readiness for classroom challenges (Orih, Heyeres, Morgan, Udah, & Tsey, 2024).

In Africa, empirical evidence suggests that experiential learning and mentorship are pivotal in building pre-service teachers' soft skills. Mensah (2023) conducted a study in Ghana, evaluating the pedagogical competence of pre-service geography teachers in their minor subjects, including political science, economics, and social studies. The findings indicated that hands-on teaching experiences and mentorship from experienced educators significantly enhanced the pre-service teachers' soft skills, particularly in adaptability and classroom management (Mensah, 2023). Furthermore, integrating information technology into teacher education has been recognised as a means to develop digital literacy and adaptability among pre-service teachers. Research involving in-service teachers in Ghana reflected on their pre-service education experiences, emphasizing the need for adequate preparation in using

information technology to enhance teaching effectiveness (Abedi, Prestridge, Geelan, & Hodge, 2024).

In Ghana, the nurturing of soft skills among aspiring teachers is facilitated through a combination of curriculum design, teaching methods, and classroom ecology. A qualitative case study investigated how teaching strategies and classroom environments affect the analytical reasoning abilities of pre-service teachers. The study, even though old, discovered that interactive teaching methods and supportive classroom settings significantly promote the development of critical thinking and problem-solving skills among pre-service teachers (Owu-Ewie, 2010). Moreover, the inclusion of soft skills into teacher preparation syllabi has been shown to enhance teacher trainees' preparedness for the teaching profession. A study assessing prospective teachers' soft skills curriculum implementation found that structured programs focusing on these skills positively affected their perception of teaching performance and classroom management efficacy (Maren, Salleh & Zulnaidi, 2021). Hence, through targeted courses, experiential learning, mentorship, and reflective practices, pre-service educators can develop and strengthen the soft skills necessary for effective teaching strategies, managing classrooms, and engaging students.

Geography instruction inherently demands a strong set of soft skills due to its interdisciplinary nature, real-world applications, and the necessity for student-centred teaching approaches. Unlike some other subjects that may rely more on rote memorization or standardized content delivery, geography requires teachers to involve students in analytical reasoning, issue resolution, spatial analysis, and real-world decision-making (Favier & van der Schee,

2014). Geography teachers often facilitate discussions on global issues, environmental concerns, and societal interactions, requiring them to convey complex spatial and environmental relationships effectively (Gryl & Jekel, 2018). Effective communication enables them to guide students in understanding geographic concepts and in expressing their perspectives on local and global challenges. Geography education involves analysing spatial patterns, interpreting data, and making informed decisions about environmental and human systems (Bednarz, 2016). This requires geography teachers to cultivate students' ability to assess real-world problems, such as climate change or urban development, and propose viable solutions. With technological advancements, geography teaching increasingly depends on Geographic Information Systems (GIS), interactive mapping tools, and remote sensing (Kerski, 2015). Geography teachers need to be flexible and skilled in technology to incorporate these digital tools into their teaching effectively. Many geography lessons involve group projects, fieldwork, and inquiry-based learning. Teachers must facilitate teamwork among students and collaborate with experts, policymakers, and the local community to make lessons relevant (Walshe, 2018). Fieldwork is a key component of geography education, requiring teachers to manage students outside traditional classroom settings. This necessitates strong classroom management and organizational skills to ensure safety, discipline, and active learning in diverse environments.

Compared to other subjects, geography teaching is uniquely positioned at the intersection of social and natural sciences. It demands a combination of inquiry-based learning, spatial thinking, and real-world application, all of which require a distinct set of soft skills. Unlike subjects that are confined to

either the sciences or humanities, geography bridges both, requiring teachers to integrate perspectives from environmental science, economics, history, and sociology (Solem, Cheung, & Schlemper, 2013). This demands greater flexibility, critical thinking, and decision-making skills. Geography is among the few subjects where fieldwork is an essential component. Teachers must manage outdoor learning experiences, facilitate hands-on investigations, and engage with real-world problems (Fuller, 2012). This differs from subjects like mathematics or literature, where traditional classroom instruction suffices. The increasing use of GIS, satellite imagery, and spatial analysis tools makes digital literacy more critical for geography teachers than for many other subject teachers (Kerski, 2015). Geography teachers address urgent global challenges like climate change, migration, and sustainability, requiring them to communicate these challenges effectively and encourage critical thinking (Walshe, 2018).

Soft skills are particularly essential for geography teachers because of the subject's interdisciplinary and applied nature. The ability to communicate effectively, think critically, manage classrooms in diverse settings, and integrate digital tools is crucial for geography educators. These demands make the study of soft skills among pre-service geography teachers especially relevant compared to other subjects. However, some studies (Copper & Semich, 2019; Macqual, 2020; Macqual et al., 2021) opined that some teacher trainees are not experienced with teaching these soft skills, hence affecting teachers' self-efficacy. Since these studies do not reflect the Ghanaian context because they were conducted outside Ghana and in a culturally specific context, it is imperative to investigate pre-service teachers in Ghana's soft

skills and how they reflect in their instructional activities. This study aimed to examine the soft skills of pre-service geography teachers and how these skills impact their confidence in teaching, particularly in areas like instructional strategies, classroom management, and engaging students.

Statement of the Problem

A 21st-century teacher is expected to possess technological pedagogical content knowledge (hard skills) and practical, action-oriented (Soft skills) to effectively and efficiently deliver his/her instructional activities (Good & Lavigne, 2018). A geography teacher does not just need to grasp the subject and how to teach it, but also has to cultivate a range of interpersonal skills. These include being dedicated, effective at communication, able to collaborate well, empathetic, creative, innovative, committed to lifelong learning, and good at teamwork. All these qualities help build strong relationships and promote a fulfilling life.

However, from my observations and experiences supervising off-campus teaching practices at the University of Cape Coast, I have noticed that many teacher trainees have a solid understanding of their content and teaching methods, yet, they often struggle with being creative, flexible, and collaborative, as well as managing their time effectively, creating a positive learning environment, and maintaining high levels of confidence. This situation affects their effective, efficient, and enthusiastic delivery of their instructional activities. An interaction with some of them after teaching revealed that they had no training in these skills, which are at the heart and core of soft skills. In support of the researcher's observation and experience, studies (Gulamhussein, 2013; Cooper & Semich, 2019; Macqual, 2020;

Macqual et al., 2021) have indicated that the majority of pre-service educators lack access to effective teacher training, particularly in the development of soft skills. For instance, Macqual (2020) revealed that teachers who are resiliently committed, innovative, and collaborative are hard to find. In addition, their job performance as teachers was rated unsatisfactory. As a geography educator with such experience, I consciously incorporated some of these soft skills in a course, 'Method of Teaching Geography', which I teach at level 300 to address such challenges. These students are now in Level 400 doing their off-campus teaching practices, and it is imperative to examine their soft skills levels and their reflection on their teaching efficacy beliefs. The justification for the investigation is that the global job market in this 21st century increasingly prioritizes graduates' proficiency in soft skills over solely their technical expertise (hard skills) (Jardim et al., 2022; Macqual, 2020; States et al., 2018).

From the literature, numerous global studies have explored the soft skills of teacher trainees (Hendriana, 2017; Hadiyanto et al., 2017; AlHouli & Al-Khayatt, 2020; Elisa et al., 2020; Gero & Mano-Israeli, 2020; Macqual, 2020; Noah & Aziz, 2020; Tang, 2020; Ağçam & Dogan, 2021; Macqual et al., 2021; Kniaz & Chukno, 2021; Susilawati et al., 2021; Touati, 2023). For example, Hendriana assessed the hard and soft skills of 17 Indonesian mathematics teachers and found a robust positive correlation between the two, noting that soft skills were generally more developed than hard skills. Also, Hadiyanto et al. examined efforts to reframe the application of soft skills among pre-service English teachers in Indonesia. Their findings indicated an overall moderate development across all the assessed soft skills. In another

study, AlHouli and Al-Khayatt explored the soft skills needs of pre-service teachers in Kuwait, revealing a medium to high demand for growth in areas such as career competence, self-discipline, academic skills, solution-oriented thinking, and interpersonal skills. Additionally, Kniaz and Chukno investigated pre-service teachers' insights into their soft skills and the potential gap between their actual competencies and expectations. Their research found that pre-service teachers generally rate their soft skills growth as moderate. However, key professional abilities such as creativity, emotional regulation, and time management were identified as the least developed.

Furthermore, Ağçam and Dogan (2021) did a study on perceptions of teacher trainees on their soft skills. The participants rated fairly high in academic interpersonal skills, self-management, and approaches to learning. Moreover, Elisa et al. (2020) studied the relationship between internship and soft skills of pre-service physics instructors and found a very weak but significant correlation. Noah and Aziz (2020) also explored the perceived development of soft skills among pre-service English teachers. Their findings indicated that the teachers believed the program effectively enhanced their critical thinking, entrepreneurship, and moral reasoning abilities. Similarly, Macqual (2020) examined the influence of pre-service teachers' soft skills on teaching performance in senior high schools in North Central Nigeria. His study found that participating in the soft skills course led to a moderate improvement in the soft skills of pre-service teachers. Touati (2023), in a position paper, discussed the role of developing teachers' soft skills and their influence on the teacher-student relationship. The paper confirmed a strong

positive correlation between soft skills and the quality of teacher-student interactions.

A thorough analysis of the prior studies shows a knowledge gap in research specific to the Ghanaian context. That is, most of the existing studies were concentrated in a jurisdiction other than Ghana. For instance, the studies of Hendriana, Hadiyanto et al., Elisa et al., and Susilawati et al. were conducted in Indonesia. Also, AlHouli & Al-Khayatt's study was done in Kuwait; Gero & Mano-Israeli's study was conducted in Israel; Macqual and Macqual et al were done in Nigeria; Noah and Aziz in Malaysia; Tang in Thailand; Ağçam and Dogan in Turkey. Furthermore, Kniaz and Chukno's study was done in Ukraine, and Touati's in Morocco. From these previous studies, only Macqual and Macqual et al studies were found in West Africa (Nigeria, not Ghana). Even though Nigeria and Ghana are both West African nations, the results of their research, along with the studies described above, fall short of accurately describing the circumstances in Ghana. The reason is that the variables that affect pre-service teachers' soft skills and their teaching efficacy have cultural context dimensions. Besides, the Nigerian study did not relate pre-service teachers' soft skills to their teaching self-efficacy beliefs.

Also, findings from the literature review indicated that most studies have concentrated on the general soft skills of pre-service teachers (AlHouli & Al-Khayatt, 2020; Gero & Mano-Israeli, 2020; Macqual, 2020; Tang, 2020; Ağçam & Dogan, 2021; Macqual et al., 2021; Kniaz & Chukno, 2021; Touati, 2023). Other studies covered the soft skills of pre-service teachers in specific subject areas such as English (Hadiyanto et al., 2017; Noah & Aziz, 2020); Science (Elisa et al., 2020; Susilawati et al., 2020 & 2021) and Mathematics

(Hendriana, 2017). However, there is a lack of research specifically addressing the soft skills of pre-service teachers specializing in Geography. In other words, no studies were identified that focus on those who are training to become geography teachers, which is the main target group of the current study. The unique nature and philosophy of various subjects or disciplines make it difficult to generalise or utilise the findings of pre-service teachers mentioned earlier in Geography. Ababio (as cited in Bentil, 2018) indicates that the unique nature of Geography as a discipline requires teachers to possess a distinct set of knowledge, skills, and attributes to teach it effectively. Hence, the current study aims to examine the soft skills of pre-service Geography teachers and their beliefs about their teaching self-efficacy.

Furthermore, most of these studies did not relate the pre-service teachers' soft skills to their teaching efficacy beliefs, which is very essential in their world of work as teachers. Since the levels of preservice teachers' instructional confidence were not included in their study. It is only Macqual (2020) who related pre-service teachers' soft skills to their influence on teaching performance in senior high schools in North Central Nigeria. This single study cannot represent the situation of Ghana due to differences in cultural and educational aims, goals, and objectives. In addition, this study was generic and not specific to pre-service geography teachers. Besides, the majority of these studies did not include preservice teachers' demographic variables, including gender, age, and prior teaching experience. It is only the study of Agcam and Dogan (2021) that considered gender in their studies, and Macqual (2020) that included differences in experience and novice teacher trainees' perception of their soft skills on their teaching achievement. These

two studies mentioned were generic and not specific to preservice geography teachers. This highlights a gap in the existing research concerning the soft skills and teaching self-efficacy beliefs of pre-service geography teachers within the Ghanaian context. Therefore, the present study intends to tackle the lacuna by examining the soft skills of pre-service geography teachers and their self-efficacy beliefs in areas such as instructional strategies, classroom management, and student engagement.

Purpose of the Study

The main thrust of this study was to examine pre-service Geography teachers' (PGTs) soft skills and their teaching self-efficacy beliefs. The essence was to examine how PGTs' soft skills manifest in their instructional strategies, class management, and student engagement efficacy. To fulfil this goal, the research was guided by the following specific objectives.

1. Assess pre-service Geography teachers' level of soft skills.
2. Assess pre-service Geography teachers' level of teaching self-efficacy (i.e., instructional strategies, class management, and student engagement efficacy).
3. Determine whether pre-service Geography teachers' soft skills levels significantly influence their teaching self-efficacy.
4. Establish whether significant differences exist in the soft skills of pre-service geography teachers in relation to their gender and age.
5. Examine whether significant differences exist in the soft skills of experienced and novice pre-service Geography teachers.
6. Ascertain whether significant differences exist in the self-efficacy level of experienced and novice pre-service Geography teachers.

Research Questions

The study was guided by the following research questions.

1. What are pre-service geography teachers' levels of soft skills?
2. What is pre-service geography teachers' level of teaching self-efficacy, i.e., instructional strategies, class management, and student engagement efficacy?

Research Hypothesis

1. H_0: There is no statistically significant influence of pre-service geography teachers' soft skills on their teaching self-efficacy levels.

   H_1: There is a statistically significant influence of pre-service geography teachers' soft skills on their teaching self-efficacy levels.
2. H_0: There is no statistically significant difference in the soft skills of pre-service Geography teachers in relation to their gender and age.

   H_1: There is a statistically significant difference in the soft skills of pre-service Geography teachers in relation to their gender and age.
3. H_0: There is no statistically significant difference in the soft skills of experienced and novice pre-service Geography teachers.

   H_1: There is a statistically significant difference in the soft skills of experienced and novice pre-service Geography teachers.
4. H_0: There is no statistically significant difference in the self-efficacy level of experienced and novice pre-service Geography teachers.

   H_1: There is a statistically significant difference in the self-efficacy level of experienced and novice pre-service Geography teachers.

Significance of the Study

The results of this study are anticipated to be valuable to key stakeholders involved in geography education and teacher training, especially pre-service geography teachers, teacher educators, management of the Department, the quality assurance unit of the University, Ghana Tertiary Education Commission (GTEC), and other colleges or universities. This is because the study would reveal the soft skills level of Pre-Service Geography Teachers (PGTs) and their manifestation in their teaching self-efficacy, which is essential for 21st-century instructional activities in the classroom.

Since the study would reveal the soft skills of PGTs and how they influence their teaching self-efficacy, it would prompt them to invigorate and build their knowledge, understanding, and experiences in soft skills and confidence in their abilities. This can be done by the conscious efforts of pre-service teachers learning basic instruction techniques and tasks in soft skills and their self-efficacy to ensure effective and efficient instructional delivery and learning. The findings would enable pre-service teachers to focus on self-development rather than externalities that are beyond their capacity to handle, as opined by Asare (2020).

Also, the findings would enable teacher educators or lecturers to know areas that must be emphasised in the training of teachers. This is because the findings would provide information on areas where pre-service geography teachers' soft skills and self-efficacy levels are high or low. This focused training would address areas where pre-service teachers have low soft skills and teaching self-efficacy to enhance the quality of professional teachers who are fit for 21st-century instructional tasks.

Furthermore, the findings would be a source of data for the management of the Department of Business and Social Science Education to incorporate teaching soft skills in their programme development and re-accreditation. This is because the study would make recommendations for policy direction and practice. Therefore, seminars or workshops can be organised by the Department for lecturers on how pre-service teachers' soft skills and teaching self-efficacy levels can be enhanced. To the Quality Assurance Unit of the University, the data, as mentioned earlier, would alert them to monitor the training of aspiring teachers in the University. This would help invigorate pre-service soft skills and self-efficacy levels to enhance their confidence in the teaching profession.

Moreover, the outcomes of the research would provide valuable data for the Ghana Tertiary Education Commission (GTEC) and other colleges of universities that consciously want to develop the soft skills of their preservice teachers. GTEC is responsible for the accreditation of new programmes (both undergraduate and postgraduate) and the re-accreditation of existing programmes for both public and private tertiary institutions. Through this data, GTEC can include in their policy for accreditation of new programmes and reaccreditation of existing programmes that it must demonstrate how the programme will develop the soft skills of the student who will pursue the programme. Also, colleges or Universities that seek to mature the soft skills set of their students can utilise this data to guide their programme development and instructional practices.

Lastly, the study contributes to the current debate on pre-service teachers' soft skills development as a critical indicator for 21st-century

teaching and learning. It is also expected that certain findings from this research will serve as a valuable reference for future research on pre-service teachers' soft skills and their teaching self-efficacy beliefs in other academic departments or educational institutions.

Delimitation

Pajares (as cited in Ababio, 2017) indicates that delimitation deals with how a study is narrowed in scope, and explains the areas that the researcher includes and excludes from the study. Therefore, the study was delimited to pre-service geography teachers' soft skills and their teaching self-efficacy levels at the University of Cape Coast (UCC). The research focused exclusively on UCC because of the condition introduced in the statement of the problem (refer to the first paragraph of p.1). Besides, all the pre-service teachers had gone through the same geography teacher education and were educated by the same lecturer, particularly, the methods of teaching geography at the UCC. In addition, the PGTs were exposed to the same academic facilities, experiences, and opportunities in their training at the University. Hence, it provides a conducive situation to ascertain and compare differences that exist in their soft skills and teaching self-efficacy levels.

Furthermore, only level 400 pre-service geography teachers (PGTs) for the 2023-2024 academic year were involved in the study. The justification is that they were the year group of PGTs, the investigator introduced the soft skills tasks in the course 'Method of Teaching Geography', and they are currently doing their off-campus teaching practice. Levels 100, 200, and 300 are yet to be taught methods of teaching geography and do both on-campus

and off-campus teaching practices. Hence, Levels 100 to 300 are excluded from this study.

In terms of the PGTs' teaching self-efficacy levels, the Teacher Sense of Efficacy Scale (TSES) was adopted from Asare (2021). The justification for adopting Asare's TSES instrument is that it has been subjected to rigorous reliability and validity tests and also reflects the characteristics of UCC students. This scale comprised three indicators, namely, instructional strategies efficacy, class management efficacy, and student engagement efficacy. Besides, the PGT's soft skills were adapted from a number of literature (Alhouli & Al-Khayatt, 2020; De Pietro & Altomari, 2019; Georgia Career Information Centre, 2007). Owing to the broad scope of the soft skills element or component, the current study delimited the soft skills of PGTs to communication, teamwork and collaboration, problem-solving, intellectual adaptability, emotional intelligence, lifelong learning, and leadership skills. These soft skills from the literature are exhibited by pre-service teachers in their instructional practices. Since the current study focused on preservice geography teachers, it was imperative to delimit it to these soft skills mentioned.

In determining the demographic features that have the potential influence on PGT's soft skills and teaching self-efficacy, the study was delimited to the gender, age, and experience (experienced and novice PGTs) in teaching. Additional factors, including socio-economic background, learner types, and the development of psychological traits, were not captured in this study.

Limitations

Limitations are factors or issues that the researcher can't control. These include potential threats to internal validity, the methods we use to analyse data, the tools employed, and the sample itself. This study does have some limitations. For one, the target population for the sample was somewhat restricted since it excluded certain groups (as noted in the delimitations). To enhance the validity and consistency of the assessment regarding the problem at hand, it would have been beneficial to include a broader range of aspiring geography educators from both public and private universities. Therefore, the findings should not be broadly generalized but rather viewed as specific to this particular group.

Additionally, soft skills cannot be viewed as the sole factor affecting the self-efficacy levels of pre-service geography instructors. The omission of other relevant factors might influence how well soft skills predict the effectiveness of these teachers' instructional strategies, classroom management, and student engagement. Moreover, the study's conclusions are also dependent on the honesty of the participants and whether they participated without bias (meaning they behaved normally without altering their actions just because they were part of a study).

Definition of Terms

The subsequent terms are defined as they apply to this study.

Soft skills: These are the personal attributes that help individuals communicate effectively, collaborate with others, and build positive relationships

Hard Skills: It refers to the technical abilities that people rely on daily to perform their jobs, like proficiency with computers or specific procedures in the workplace.

Self-efficacy: It is about an individual's belief in their capability to plan and execute the actions needed to achieve certain goals

Pre-service teachers: They are those students who are currently enrolled in educational programs to become qualified teachers.

Pre-service geography teachers: They are student-teachers who are focused on teaching geography in senior high schools.

Experienced pre-service teachers: They are those who already have some teaching experience before starting their Bachelor of Education (B.Ed.) degree program.

Novice pre-service teachers are students who have not had any teaching experience prior to enrolling in the B.Ed. Programme.

Geography Teacher Education: It encompasses the training and education provided to geography student-teachers, equipping them with the necessary knowledge, skills, experiences, attitudes, and values to excel as professional teachers.

Geography Education: It refers to all activities involved in creating and sharing knowledge, understanding, skills, attitudes, and values related to geography.

Teacher educators: They are the lecturers or instructors at universities responsible for training these pre-service teachers.

Organisation of the Study

The study was structured into five key chapters. Chapter One presented the introduction encompassing the background of the study, the statement problem, the purpose of the research, the research questions, its significance, as well as the delimitations, limitations, definitions of terms, and the organization of the study. Chapter Two centred on reviewing relevant literature connected to the study, featuring theoretical, conceptual, and empirical reviews along with a conceptual framework that supports the research.

Moving on to Chapter Three, it focused on the research methods employed in the study. This chapter outlined the philosophical orientation, research approach, design, study area, population, sample, sampling procedure, research instruments, along with tests for validity and reliability. It also covered data collection procedures, ethical considerations, and how the data was processed and analysed.

Chapter Four presented the results derived from the collected data and discussed the findings of the research. Finally, Chapter Five wrapped up the research with a summary, conclusions, and recommendations based on the entire research endeavour, alongside suggestions for further research. The next chapter is the literature review.

CHAPTER TWO

LITERATURE REVIEW

Overview

Effective geography teaching goes beyond just knowing the subject; it also involves managing classroom dynamics, adapting to different learning styles, and inspiring students to think critically about and act on environmental and global issues. This chapter focuses on reviewing existing literature related to the soft skills of pre-service geography instructors and their beliefs about teaching efficacy. It examines the theoretical, conceptual, and empirical aspects of the study. The theoretical part covers Bandura's Social Cognitive Theory and the theory of Emotional Intelligence. In the conceptual review, we look at various key variables relevant to the study, while the empirical section addresses the current state of the issue and what previous researchers have discovered or written about it. The literature review helps compare our study's findings with earlier research, either aligning with or contradicting past conclusions, and positions our current study in context.

Theoretical Review

Bandura's Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory (SCT) was used in this research. It is a theory developed by Albert Bandura in 1986 that emphasises the aspect that learning is a social process and does not entirely rely on direct experience but also on observation, imitation, and modelling other people's actions. Self-efficacy is among the central principles of this theory, as it is a concept that highlights an individual's judgment of themselves being able to do something successfully in a specific situation (Waddington, 2023). Self-efficacy

instruction pertains to a teacher's confidence in their capacity to teach and manage a class effectively. Teachers with high self-efficacy are more inclined to adopt innovative teaching methods, manage challenging classroom behaviours, and impact students' learning positively (Gorospe, 2022). In Ghana, the importance of self-efficacy among preservice geography teachers becomes even more critical due to context-specific difficulties, including high student-to-teacher ratios**,** inadequate teaching resources**,** and sociocultural diversity across student populations (Salifu & Abonyi, 2023). Self-efficacy is essential for preservice geography teachers to tackle the complexities of teaching geography in the classroom, requiring subject-matter expertise and classroom management. Bandura's theory hypothesized that teachers' soft skills, such as problem-solving, leadership, and emotional intelligence, are responsible for their self-efficacy. This concept resonates well in the Ghanaian setting, where collectivist cultural values**,** mentorship from senior teachers, and community-oriented school environments shape preservice teacher development.

Bandura's theory relied on the idea of reciprocal determinism as well, whereby behaviour, personal variables (e.g., cognitive processes, emotions, attitudes), and environmental elements all interplay with and influence one another. Preservice geography teachers' instructional effectiveness and development were influenced by a variety of factors like their classroom conduct (e.g., how they do the teaching and discipline of pupils), their ideologies (e.g., belief regarding the teaching of complex geography topics), and their environment (e.g., assistance from colleagues or mentor teachers). Observational learning, where people learn by watching others' behaviours

and the consequences of these actions, is another fundamental concept in SCT. In the colleges of Education and universities, peer observation and mentorship are key components of practicum. Observational learning, another SCT tenet, occurs when preservice teachers learn by watching experienced educators, particularly during teaching practice. Wiens et al. (2021) affirm that preservice geography teachers gain valuable insights into classroom management, student engagement, and content delivery by observing mentor teachers in real-world situations. In Ghana, such observation often happens within tightly knit, community-centred school cultures where authority and hierarchy are respected, enhancing the value of modelling from seasoned professionals.

Furthermore, mediated learning plays a crucial role in boosting preservice teachers' belief that they, too, can become effective instructors. Seeing relatable role models - teachers who have succeeded in similarly under-resourced schools - can be especially powerful for Ghanaian trainees, often more impactful than abstract theories or distant ideals. Bandura's Social Cognitive Theory (SCT) emphasizes vicarious experiences and social persuasion, aligning well with the communal values of Ghanaian education, where verbal encouragement from mentors, peer group support, and collective reflection build confidence.

SCT also incorporates the idea of self-regulation, where individuals monitor their performance, set goals, and reward themselves for achievements. Among Ghanaian preservice geography teachers, this is often reflected in practices such as journaling, peer reflection, and seeking feedback from supervisors (Osei et al., 2020). Vosniadou et al. (2020) and Panadero (2017) found that self-regulation helps teachers adapt to dynamic classroom

environments—a finding echoed in Ghana, where teaching often involves coping with infrastructural constraints, behavioural challenges, and curriculum overload. Worick et al. (2024) further demonstrated that teachers who engaged in self-regulation practices had enhanced teaching self-efficacy, as they were better equipped to manage classroom demands through controlled learning and professional growth.

Importantly, collective efficacy, that is, the confidence that a group can succeed together, is often more influential in Ghana than individual efficacy alone. Given the collaborative nature of school staff in Ghanaian basic and secondary education, this collectivist form of SCT adaptation is essential. Preservice teachers typically function within hierarchical structures where teamwork, respect for elders, and group problem-solving are highly valued. Consequently, training programs should explicitly foster collaborative reflective practices that enhance both individual and collective efficacy.

In summary, while Bandura's SCT offers powerful insights into teacher learning and self-efficacy development, its relevance increases when contextualized to reflect Ghana's communal values, educational realities, and cultural norms. Adaptations that emphasize collective efficacy, peer modelling, localized mentoring, and pragmatic classroom strategies render SCT not only applicable but potentially transformative for preservice geography teacher education in Ghana.

Emotional Intelligence Theory (EI)

Emotional intelligence (EI) theory by Daniel Goleman (1995) hypothesised that individuals with a sense of their own emotions and who are capable of handling them would perform better in interpersonal and leadership

contexts. In education, emotional intelligence was found to be extremely crucial to establish a supportive classroom atmosphere, particularly in geography, where teachers were required to handle delicate topics like climate change, poverty, and inequality. High EI teachers had a sense of who they were teaching, managed classroom behaviour, and established a cooperative learning community, all of which improved their self-efficacy. Emotional intelligence was thought to be the primary determinant of personal and professional success, particularly in social relationships and leadership roles. Five core components of emotional intelligence were outlined by Goleman's theory, namely "self-awareness, self-regulation, motivation, empathy, and interpersonal skills".

These components helped geography teachers navigate complex emotional dynamics in the classroom, especially when instructing global topics like climate change, migration, and social inequality. According to Safina et al. (2020), emotional intelligence at high levels helps teachers deal with these topics with empathy, tackle students' emotional reactions, and create a supportive classroom atmosphere that fosters a sense of safety among students expressing their thoughts and concerns. Employing the EI in exploring preservice geography teachers' soft skills and teaching confidence in their abilities brought to light the importance of being able to handle the complexities of geography instruction, whereby preservice instructors must deal with several global challenges, effectively communicate with students, and hold high confidence in their teaching capabilities. Through developing these soft skills, preservice geography instructors will have the capacity to

improve their teaching self-efficacy and, subsequently, yield effective teaching and better student performance.

Self-awareness, proposed by Carden and Passmore (2022), involves the ability to know and recognize one's feelings and their impact on others. Such high self-awareness teachers will control their emotional responses, handle classroom behaviour, and introduce topics in an objective and balanced manner. For example, a geography teacher discussing the destruction caused by hurricanes or floods will have to manage his or her emotional reactions to such catastrophes, and provide facts in addition to communicating the emotional impact of the events to students (Jennings & Greenberg, 2009). Moreover, self-conscious geography teachers are better at identifying how their own biases or sentiments can affect their teaching (Feize, 2020). On a class discussion of world poverty, for instance, self-conscious teachers will recognize how their upbringing shaped their world perspective and enable them to moderate more equally and inclusively and enrich their knowledge of world economic disparities. Different research studies validated the assumption that teachers' emotional intelligence was correlated with performance among students. For instance, Wahyuni et al. (2021) used a quantitative study grounded on the correlational approach to quantify the levels of emotional intelligence and achievement of students. The research aimed to determine whether a significant relationship exists between emotional intelligence and ninth-grade students' performance in social studies, while also measuring the levels of emotional intelligence and academic achievement.

Self-regulation is also a component of EI. To research preservice geography teachers' soft skills, the ability to manage or redirect disruptive emotions is essential, particularly in handling sensitive issues on international issues, Hopkins (2018). It was discovered by Ekanayake (2024) that teachers with emotion-control ability are likely to remain calm when under pressure, maintain a healthy classroom environment, and respond positively when confronted with students' misbehaviour. For example, preservice geography teachers discussing abstract topics such as poverty may create strong emotional reactions, yet with self-regulation, they can suppress such feelings to establish an effective classroom environment (Gross, 2015). The recent years have highlighted the increasing role of emotional intelligence in geographical studies, exemplified by the integration of urgent global issues in the expanded scope of the subject, like climate change and sustainable development. Emotionally intelligent geography educators, according to Stevenson et al. (2018), will assist students in navigating their emotional responses to such threats, such as eco-anxiety, and establish a sense of agency by highlighting achievable remedies. Second, the more geography teachers include the United Nations' Sustainable Development Goals (SDGs) into their instructional plan, emotional intelligence plays a critical role in allowing students to reconcile emotional responses with constructive action, generating empowered global citizens (UNESCO, 2020).

Besides that, motivation, empathy, and social skills are important components of emotional intelligence that have significant functions as preservice geography teachers' soft skills and teaching self-efficacy. Motivation refers to intrinsic motivation for achieving personal and career

goals that inspires preservice teachers to seek continuous learning, look for innovative teaching methods, and remain committed to their teaching purpose. Professionally ambitious tutors who are strongly motivated are more likely to pursue professional development in areas like environmental education or geospatial technology, which enhances their confidence and teaching self-efficacy (Klassen et al., 2020). Empathy, or the ability to know and respond to other individuals' feelings, was essential for geography teachers since the subject matter is inclined to involve emotionally charged topics like inequality, environmental catastrophes, and migration. Empathy is seen through teachers who can support students emotionally, creating a non-threatening, open classroom setting where constructive learning experiences prevail and build students' confidence regarding their capacity as teachers (Mérida-López & Extremera, 2017).

Social skills are equally essential for communication and management of the classroom in facilitating preservice geography teachers to plan group work, lead discussions, and build positive relationships with students. Through encouraging cooperation and conflict resolution, teachers will more effectively manage classroom dynamics, further enhancing their teaching self-efficacy (Mustafa, Vinsent, & Badri, 2023). Together, all these elements of emotional intelligence enhanced preservice geography teachers' ability to establish lively, supportive, and structured classrooms.

Bandura's Social Cognitive Theory (SCT) Versus Emotional Intelligence Theory

Bandura's Social Cognitive Theory (SCT) focuses on the concept that learning and behaviour result from the reciprocal relationship between

individual characteristics, actions, and environmental influences (Bandura, 1986). At the core of SCT is self-efficacy; the belief in one's capability to succeed in specific tasks. This concept is particularly relevant for preservice geography teachers, who must develop confidence in managing diverse learners, using geographic tools, and addressing sensitive global issues. While SCT and Emotional Intelligence (EI) Theory (Goleman, 1995) emerge from different disciplinary traditions, social psychology and emotional-cognitive neuroscience, respectively, they both offer frameworks for understanding teacher effectiveness. However, they do so through different lenses, and can either complement or conflict with each other depending on the educational context.

SCT emphasizes the development of cognitive and behavioural competencies (e.g., instructional strategies, mastery experiences), while EI emphasizes emotional and interpersonal capabilities (e.g., empathy, emotion regulation). Together, they offer a holistic view of a well-rounded perspective on effective teaching, highlighting both professional competence and emotional sensitivity. An instructor with high emotional intelligence (EI) will be able to handle classroom challenges and student behaviour, which in turn strengthens their sense of self-confidence (SCT). Conversely, a teacher with high self-efficacy tends to maintain motivation, actively engage in professional growth, and develop higher emotional awareness. SCT's concept of observational learning aligns with EI's emphasis on emotional contagion; students often imitate not just behaviours, but also emotional responses. A geography teacher who models calm, reflective emotional responses while

discussing issues like climate change or poverty not only teaches content but also emotional regulation strategies.

SCT is deeply rooted in individual cognitive agency—the idea that one can influence their environment and outcomes through self-regulation. EI theory, while also focused on individual development, places more emphasis on social connectedness and emotional responsiveness. This could create tension in contexts where emotional labour is undervalued or where teacher preparation focuses narrowly on skills and mastery rather than relational or affective dimensions.

Both theories have Western origins and may assume levels of personal autonomy that are not fully aligned with collectivist cultures like Ghana or other West African contexts. While SCT emphasizes mastery and performance, EI highlights emotional self-awareness and empathy, qualities that may be shaped differently across cultures. For example, the collectivist orientation in Ghanaian education may privilege emotional harmony and social conformity over assertive self-efficacy or individual emotional expression. For preservice geography teachers in Ghana, the combination of SCT and EI theory may offer a powerful but culturally nuanced model. Self-efficacy helps them build the confidence to teach complex and emotionally charged content, while EI ensures they do so with sensitivity to students' emotional states and their own. However, both theories must be applied with an understanding of Ghana's communal values, educational infrastructure, and teacher training challenges. For instance, emotional resilience (EI) and collective mastery experiences (SCT) should be integrated into practicum experiences to reinforce both frameworks effectively.

Conceptual Review

Concept of Soft Skills

Non-professional qualities known as "soft skills" affect how people deal with others and the world around them (Marin-Zapata et al., 2022). Soft skills affect teachers' performance in providing instructions and self-efficacy. Agcam and Dogan (2021) clarified that soft skills are the skills, abilities, and characteristics of one's personality, attitude, and behaviour rather than formal qualifications or practical expertise. Also, soft skills are referred to by Melser (2019) as the characteristics that a person has to work with other people, communicate, and even coexist with others. They are also, according to him, significant factors in getting a job and keeping a job, for instance, being tidy and having good work habits. Further, the International Education Standards (as cited in Asabeh, 2023) define soft skills as a set of skills demanded of individuals to enable them to excel as professionals. Surprisingly, Maren (2020) thinks that professionals' attitudes towards soft skills vary depending on the profession. This is because what might be termed as soft in one profession may not be so in another. Therefore, in teacher training, soft skills are personality and social skills, for example, skills like ethical conduct, effective communication, critical thinking, carefulness, collaborating in team, and solving problems, whereas hard skills are the professional (content knowledge) and pedagogy abilities (Hendriana, 2017; Maren, 2020). Speaking of the earlier submission about defining soft skills, it can be situated in the context that preservice geography teachers' soft skills are a collection of intra- and interpersonal characteristics or skills that support the teacher to meet the teaching prerequisites of the students and succeed in the professional world.

Soft skills have sometimes been mistakenly used interchangeably with non-technical skills, transferable skills, employability skills, generic skills, pervasive skills, or emotional intelligence skills in the existing literature (Asabeh et al., 2023; Barac et al., 2020; Coady et al., 2018; Douglas & Gammie, 2019; Malan & Dyk, 2021). Pereira (2013) clarified that soft skills are the epicenter of all other skills due to their fascinating role in creating meta-confidence as well as creating resilience within an economy and workforce. Literature has explained that demands for instructional skills by employers are shifting towards preferring soft skills in the present-day work environment (Melser 2019; Tang 2018). In their view, soft skills are generally the most crucial skills, and employees who have them are more capable of adjusting to the ever-changing situation, quicker problem-solving, and working in teams, giving constructive criticism, motivating people, and leading by example. The above studies suggest that preservice teachers, and especially preservice geography teachers, should give high importance to soft skills because they offer a wide range of abilities that complement subject matter knowledge, improve teaching skills and instructional ability, can enhance preservice teachers' professional development, and contribute greatly to determining teaching outcomes. In addition to this, soft skills are necessary for preservice geography teachers because they help in developing relationships, effective communication, logical reasoning, innovative thinking, and flexibility, all of which support the overall teaching-learning process and improve pupils' participation and comprehension.

Components of Soft Skills

Several soft skills have been identified by various scholars depending on their perspectives and profession, as confirmed by Maren (2020). In the context of teacher education, effective communication, teamwork, solving problems, time management, critical thinking, conscientiousness skills, emotional intelligence, lifelong learning and leadership are regarded essential for teachers as it lies at the core of teaching and learning process (Dogan & Agcam, 2021; Feize, 2020, Hendriana, 2017; Maren, 2020). From this literature, the current study considers communication, teamwork and collaboration, problem-solving, adaptability, emotional Intelligence, intellectual, lifelong learning, and leadership as critical soft skills for teachers to excel in their instructional activities.

Communication Skills

Communication is a vital component of soft skills and is demanded for academic and professional environments, and also for successful teamwork. It involves conveying ideas clearly and effectively both verbally and in writing to learners, faculty, and educational stakeholders. This involves not only information transmission but also listening actively and adapting communication to diverse classroom needs. Barke (2019) defined communication skills as the ability to communicate and be understood by others to exchange information, ideas, and emotions. Speaking ability is an essential foundation for effective teaching because it allows the teacher to establish rapport with students and to perform various pedagogic roles that are inherent in the profession (Delfin, 2009; Rahman, 2010). Similarly, Melser (2019, p. 4) shows in her book "Teaching Soft Skills in a Hard World" that an effective teacher with strong communication skills can clearly convey

information and respond promptly to challenges. Since teaching is all about communication, it is not too much to say how crucial it is to utilise communication as a vital skill in the classroom.

Effective communication is not possible without which the purpose of an activity cannot be executed effectively (Maren, 2020). Communication aptitudes support problem-solving and decision-making processes while also fostering relationships and teamwork (Lavilles & Robles, 2017). Efficient communication supports teachers to keep students engaged, make complex things easier, and effectively deal with classroom interaction. Aizenberg and Oplatka (2019) underline the teaching purpose of soft skills by establishing a positive and direct connection between students' learning and motivation, and academic achievement, and the teachers' ability to communicate. Inferred from the above discussion, communication skills within the context of this study are referred to as the systematic and responsive ability of preservice geography teachers to exchange effective and clear messages via verbal, non-verbal, and digital means in ways that facilitate understanding, maximize student participation, and enhance their confidence in teaching delivery and classroom control.

To evaluate the changing desires of the teaching profession for pre-service geography teachers and students, there has been a recent emphasis on integrating communication skills training into their curricula. This self-efficacy and success of pre-service geography teachers and students have their foundation in mastering communication skills. Effective communication has been shown in studies like Çelik and Alpan (2023) to improve classroom management, active learning, and teacher-student relationships, all of which

are key components of teacher self-efficacy. Effective education and professional training of future geography teachers both depend heavily on communication skills. It calls for an interdisciplinarity in preparation to teach on a topic that combines the social and physical sciences, and conveying complex geographical concepts well is essential. According to Jo and Bednarz (2014), teachers of geography are often obliged to explain intricate spatial relationships, environmental processes, and socio-cultural dynamics. Thus, effective communication is central to enabling students to understand. Pre-service geography teachers must not only be skilled at oral instruction but also in the use of digital tools, maps, and visual material in a bid to pass on content.

Communication skills are also very important to classroom management as well as student engagement for pre-service geography teachers. Those who can build rapport with the students and generate a sort of learning environment that promotes inquiry and critical thinking are viewed as good. Research has established that effective communication between the student and teacher has a direct influence on academic performance and student motivation (Murray et al, 2018). It is more important in geography class, where students must engage in argument over intricate global topics like urbanization, population increase, climate change, and globalization. It is more likely that pre-service teachers of geography will be successful at engaging students and creating a greater understanding of the topic if they can present these concepts in their appropriate context and relate them to common occurrences.

Teamwork and Collaboration

Teamwork is the collective action of individuals gathering together in an effort to achieve a common goal, while collaboration emphasizes the cooperative nature of this interaction, where knowledge and responsibility are shared equally (Lavilles & Robles, 2017). All these skills encompass interpersonal communication, problem-solving, conflict resolution, and adaptability, enabling the person to successfully deal with group behaviour. Teamwork and collaboration are important in facilitating successful group work, enhancing the productivity and morale of the individuals (Vangrieken and Kyndt, 2019). For pre-service geography teachers' development, teamwork and collaboration in education are of significance. They enable them to get involved in professional learning communities, collaborate with their peers, and successfully interact with students (Masats & Guerrero, 2018). The teaching profession, by nature, requires teamwork, whether in the form of co-teaching, curriculum design, or building support structures for students. Pre-service geography teachers who exhibit effective teamwork skills are more poised to manage the complexities of contemporary classroom setting, which increasingly requires group problem-solving and creativity.

This study, through the inspiration of the above discourse, defines teamwork and collaboration skills refer to the integrated intellectual, affective, and social abilities that enable preservice geography teachers to work with others in the development and delivery of effective lessons.

Collaboration is more than classroom-based and also involves other teachers, parents, and the community. Pre-service geography educators can work together by undertaking interdisciplinary projects, sharing teaching materials, and engaging in continuous professional growth (Hamilton-Jones &

Vail, 2014). Development of effective collaborative skills is important for pre-service geography educators as they transition into the workplace, where they will be required to work with fellow teachers, administrators, and support staff. Ma and Cavanagh (2018) demonstrate that teachers who are teaching in collaborative learning environments have a higher likelihood of demonstrating greater degrees of confidence, as they become confident by working alongside peers and mentors. Collaborative learning assists them in acquiring the communication, negotiation, and leadership skills essential for thriving within a school environment. In addition, collaboration has been associated with improved student performance where teachers collaborate to employ more impactful and innovative teaching methods (Ronfeldt et al., 2015). Technology cannot be ignored in enhancing collaboration. With the development of digital platforms and tools, pre-service teachers are utilizing technology to virtually collaborate, making it easier to collaborate despite physical distances (Matthews & Johnson, 2017). This online collaboration has become more useful over the past few years, as schools and teacher preparation programs have responded to distance and blended learning environments.

Problem-Solving Skills

The skill to identify problems in the classroom or curriculum and develop effective, practical solutions. This construct encompasses critical thinking and creativity so that teachers can find diverse educational problems creatively. Problem-solving is one of the essential soft skills for pre-service geography teachers, including the capacity to be critical in thinking, analyse complex situations, and develop effective solutions. Geography teachers

encounter real-world problems daily, such as environmental degradation, spatial inequalities, and management of resources (Lee, 2021). Such issues call for a strong problem-solving approach, where the teachers must guide students through complex debates on geographical issues, make them understand, and create solutions to global pressing concerns. For instance, in teaching such topics as disaster risk management, educators have to employ problem-solving skills in simulating real disasters to allow students to explore and propose adaptation or mitigation strategies. Similarly, educators in teaching sustainable development courses have to engage students to critically scrutinize the impacts of anthropogenic activities on the environment and come up with feasible solutions reconciling conservation and development. By advancing such skills, geography teachers enhance student learning as well as enhance their confidence in managing intricate class conversations and unforeseen teaching circumstances (Soleas, 2020).

Moreover, problem-solving is crucial in guiding learners through geographic information analysis and interpretation. From the interpretation of maps, satellite imagery, or population trends, geography teachers must facilitate the ability of the learners to synthesize data and make conclusions. Sari (2021) recommended that those instructors who have effective problem-solving skills are likely to design lessons encouraging analytic thinking and challenging the students to analyse and recommend solutions for issues such as urban extension, conflicts over land use, and climate change adaptation measures. Deductively, the research views problem-solving as the well-coordinated cognitive, emotive, and behavioural abilities that enable preservice geography instructors to identify, investigate, and resolve

instructional and classroom problems through reflective thinking, innovative strategies, and dynamic adaptations.

Not only enhanced students' critical thinking, but it also vindicated the teacher's belief in being capable of addressing complex matters in the class (White & Foresman, 2019). Moreover, problem-solving ability allowed instructors to balance the introduction of new classroom technologies, such as Geographic Information Systems (GIS), which students utilize for engaging with spatial data and solving real-world problems, like flood mapping. Problem-solving instructors can help students utilize these tools effectively, hence making geography more relevant to their professional and everyday lives (Perkins & Summerville, 2021).

Adaptability

Adaptability is the capacity to adjust teaching practice and approach as a response to changing classroom dynamics, student requirements, or curriculum needs. Pre-service geography teachers today need to hold the skills of adjusting their approaches to teaching in line with the varying needs of the students in more diverse learning environments today. Martin et al. (2012) noted that adaptability is the capacity or potential of a person to shift his/her mindset, feelings, and actions when faced with new, unpredictable, or inconstant situations. Adaptability in this context is greater than flexibility; it is the potential to effectively respond to changing classroom environments, student diversity, and shifting curriculum requirements. This capacity enables educators to constantly improve their teaching method and implement differentiated instruction to address the varying needs of learners, whether

disabled or originating from diverse cultural and language backgrounds (Darling-Hammond, 2016).

Adaptability, within the scope of this research, is the cognitive, affective, and behavioural capacity of preservice geography teachers to change instructions, technology, and context without ease. The necessity of adaptability in teacher training is emphasised by evidence. For Mansfield et al. (2016), adaptable teachers are better placed to deal with classroom disruptions, changes in student behaviour, and changes in education policy. Furthermore, various desirable student and teacher results have been associated with adaptability in practising teachers (Granziera et al., 2019). For instance, Collie and Martin (2017) established that adaptable teachers also enjoyed better well-being and organisational commitment. Additionally, since the adaptability of teachers improved the well-being of teachers, the teachers' adaptability was associated with students' numeracy performance. Such capacity for adaptation guarantees that teachers will be equipped to create a conducive learning environment despite uncertain situations.

Flexibility is also a critical component of classroom management as instructors can adjust their approach to maintain student engagement and reduce problem behaviour (Collie, Shapka, Perry, & Martin, 2015). Instructors who can make changes with immediate feedback or changes in student performance will be more effective at creating thorough and effective learning atmospheres. In a technology-driven world, flexibility encompasses the capacity to adapt digital tools and emerging pedagogies. Pre-service teachers must possess the capacity to absorb and utilize new technologies quickly, to enhance the learning of students (Rikhotso, 2017). Such technological

flexibility allows instructors to stay abreast of trends in education and offer teaching that mirrors the digital literacies of their learners.

Research conducted by Arthars et al (2019) reveals that adaptive teachers are well placed to utilise student-centred technologies, hence crafting more interactive and engaging lessons. Teacher training is, therefore, now incorporating training on how to adopt technological as well as pedagogical changes to prepare pre-service teachers to navigate the modern classroom. Pre-service geography teachers must adapt their strategy for welcoming different student learning styles and needs, including fieldwork, experimentation, and the integration of digital content to make geographical concepts more concrete (Bednarz, 2016). They must also respond to varying classroom environments and levels of student participation, typically adapting lesson plans in an attempt to promote the development of critical thinking and problem-solving abilities.

Emotional Intelligence

Emotional intelligence (EI) was at the heart of the teaching job and, more particularly, the geography classroom since geopolitics, climate change, and inequalities on a global level are being passionately discussed in geography classrooms. As per Khassawneh et al. (2022), emotional intelligence is the ability to perceive, understand, and manage one's own and other individuals' emotions, which can create a constructive and positive learning atmosphere. Highly emotionally intelligent pre-service geography teachers supported emotionally sensitive topics with sensitivity that allowed students to address problems reflectively and without being overwhelmed by their emotions.

For instance, when discussing topics such as forced displacement or environmental degradation, anxiety, frustration, or even hopelessness can be experienced by the students. Teachers possessing high emotional intelligence can observe these emotional responses and guide the conversation into channels that recognize students' feelings and nudge the conversation in directions toward solutions. In doing so, educators build a positive and empathetic learning atmosphere that nurtures open communication and critical thinking skills. This supportive learning environment facilitated greater student participation and contributed to the teacher's sense of self-efficacy in that they felt more confident to cope with challenging classroom dynamics. Emotional intelligence, in this study, is described as the capability of preservice geography teachers to perceive, control, and utilise emotional information to improve their interpersonal relationships, classroom management, and professional well-being. It integrates self-awareness, empathy, control of emotions, and social competence. In addition to student emotion regulation, emotional intelligence helps teachers to regulate their stress levels and be adaptive to emotionally stressful situations. Geography teachers are confronted by sensitive topics like global poverty or environmental injustice, which can provoke personal feelings.

An emotionally intelligent educator will manage these feelings effectively to maintain a calm and impartial demeanour, which is crucial to ensure class order and facilitate productive discussions. By staying calm emotionally, teachers exemplified good emotional regulation to their students, demonstrating how to approach challenging topics with sensitivity and with analytical thinking (Kirk & Hall, 2020). Emotional intelligence also enhanced

classroom management because it allowed teachers to respond to off-task behaviours calmly and prudently. For example, a teacher recognized the root of the misbehaviour by students and addressed it positively when the students became frustrated or disconnected during the lesson on climate change. This not only diffused inevitable showdowns but strengthened the teacher's stronger student-teacher connection, even further supporting the teacher's confidence in his or her ability to manage the classroom (Mérida-López & Extremera, 2021).

Emotional intelligence was key in geography education to construct a diverse classroom environment. Topics like migration resonated differently among students from different backgrounds. An extremely emotionally intelligent geography teacher embraced these differences and implemented a style that got all learners to listen and feel involved in classroom discourse. Such inclusivity enriched the entire learning process and supported the teacher's self-efficacy in a positive manner through effective student engagement and cooperation within the classroom (Sakiz, 2022).

Intellectual Skills

Intellectual skills refer to the mental abilities that enable individuals to solve problems, analyse information, think critically, and apply their knowledge to new contexts. They are the essential skills of geography education that consist of the ability to synthesize and interpret information, think critically, and also be innovative. These capacities are required for preservice geography teachers as they learn to guide students in the complex processes of spatial analysis, geographic data interpretation, and investigation of environmental and societal problems. Teachers with such intellectual

capacities are in a better position to promote analytical and reflective minds among students, which is critical when learning about the principles of geography (Yaacob et al., 2020). An essential cognitive ability in geography is the capacity to think critically about spatial data. Geography instructors must be equipped to analyse geographic information systems (GIS), maps, and spatial trends to inform students of the complexities of geographic processes such as urbanization, deforestation, and global warming. For example, well-developed intellectual potential in preservice geography teachers can enable learners to investigate how spatial inequalities in the provision of resources contribute to global inequality in wealth, health, and education. By provoking such critical thinking, the teachers enable learners to develop their analytical frameworks, and this enhances their intellectual potential (Georgiou et al. 2022). For this purpose, intellectual capabilities within this research are defined as mental capacities to analyse, assess, and utilize knowledge across contexts.

Intellectual capabilities empower preservice geography teachers to think critically, solve issues, and adjust pedagogies, as well as initiate meaningful learning. Intellectual capabilities, therefore, constitute a core support of teaching self-efficacy and professionalism in geography education. Moreover, integration of information is essential in teaching complex geographic concepts. Geography teachers must guide students to synthesize data from various disciplines such as economics, political science, and environmental studies to understand interdependent global issues.

For instance, preservice teachers can synthesize knowledge regarding climate policy, environmental ethics, and social justice to educate students on

global reactions to climate change. This cognitive capacity supports higher-order thinking and makes students think from diverse perspectives about geographic challenges (Evans & Czerny, 2021). This goes a long way in strengthening instructors' confidence in their instructional skills as they observe students making sense of complex issues using integrative thinking. Cognitive capacities also enabled geography teachers to adjust their teaching styles to suit diversified learning needs. Geography lessons tend to have student populations with varying abilities and interests that require tailored teaching methods by the instructors to reach all student learners. Teachers with cognitive abilities will adopt differentiated instruction, modifying teaching methods to suit the intellectual capabilities of individual students. The adaptability not only enhanced student involvement but also teachers' self-efficacy through being able to address different learning challenges effectively (Pace, 2020). Lifelong learning refers to ongoing, voluntary, and self-directed learning of information, which is crucial for preservice geography teachers since geographic knowledge and technology are continuously evolving (Thwe & Kálmán, 2023). In geography, innovations through innovation and discovery, e.g., advances in geospatial technologies like Geographic Information Systems (GIS), climate sciences, and advancements in environmental policy, require educators to continuously update themselves so that they can provide students with the most relevant and current information.

Lifelong Learning

Engagement in lifelong learning enabled geography educators to remain in tune with new curriculum requirements, integrate new teaching tools, and monitor world developments. For instance, as climate change and

sustainable development-related matters become more challenging, teachers engage their students in discussions and projects on the complex matters. This commitment towards professional development enhanced teaching self-efficacy through enhancing the teacher's belief in his/her knowledge and capability to handle fluid and challenging classroom situations (Walshe, 2020). Here, lifelong learning is the continuous and inherent growth of knowledge and abilities throughout one's lifetime, both through formal education and informal contacts. For preservice teachers of geography, it is more than a professional requirement but an attitude that encourages adaptability, creativity, and long-term achievement in an ever-changing educational and geographical environment. Secondly, continuing education allows geography educators to remain flexible, in a position to react appropriately to changes in education standards or the needs of students. By acquiring new geographic tools and methods, i.e., GIS or remote sensing technologies, educators can enhance their instruction and get their students involved in real-world, experiential learning environments that facilitate critical thinking in addition to problem-solving skills.

For example, a student who is GIS proficient can prepare lessons to ensure students can map real data and, in doing so, comprehend the spatial relationships and geographic phenomena more profoundly.

This practice strengthens student participation and strengthens the teacher's sense of competence and confidence in teaching complex learning tasks (Kneale & Rand, 2018). Furthermore, lifelong learning enables geography educators to incorporate interdisciplinary approaches, which are increasingly finding their way into addressing international challenges such as

climate change, urban development, and sustainability. Educators practising lifelong learning are likely to incorporate the use of environmental science, economics, and political frameworks in the teaching of geography, providing students with a more holistic understanding of global concerns. This interdisciplinarity enhanced not just students' learning outcomes but also the teachers' self-efficacy, as they have greater confidence to offer exhaustive, effective lessons (Bourn & Hunt, 2021).

Leadership Skills

Leadership to drive students and colleagues towards learning objectives. Teaching leadership involves classroom management, motivating students, and being proactive in teaching and group settings. Geography instructors require leadership capabilities to effectively guide students, collaborate with peers, and organize classroom activities. Successful leadership assisted teachers in facilitating group discussion, guiding fieldwork, and organizing environmental or community-based projects that are part of geography coursework. For instance, organizing a field trip to study local ecosystems or preparing a community project on waste management requires not only logistical arrangements but also the ability to motivate and engage students to address actual-world problems. Teachers possessing these leadership skills can build a more dynamic and participatory learning space, promoting student engagement in courses such as urban sustainability, climate change, or resource management.

Leadership in geography education moved beyond classroom administration to encompass broader functions, such as the guidance of students in civic responsibility or fostering care for the environment. Teachers

who modelled leadership by engaging directly in environmental activism or advancing green action modelled responsible behaviour for students and prompted them to take charge of their learning as well as to contribute as leaders in their local settings. This improvement of leadership in the students contributed to the teacher's self-efficacy, as they realized the beneficial impact of their leadership on the development of the students (Friedrich et al., 2020). This study defines leadership skills as the ability to motivate, inspire, and lead individuals to shared learning objectives. Classroom management, cooperation, and lifelong learning define leadership for preservice geography teachers.

Leadership skills are essential for effective teaching in the contemporary, pluralistic, and rapidly changing learning environment. By creating strong leadership, pre-service teachers will be able to further promote logical thinking, cooperation, and solving problems among their students, particularly in the case of geography education Furthermore, effective leadership skills enhanced a teacher's capacity to collaborate with colleagues, which was particularly important when geography projects merged with other disciplines like biology, economics, or political science. Enhanced collaboration allowed teachers to co-plan interdisciplinary projects, share resources, and incorporate innovative pedagogical practices that enhance their students' comprehension of complex problems in their world.

A study by Day and Sammons (2016) explained that a geography teacher who worked with science teachers in a project concerning climate change provided spatial analysis and environmental policy discourse leadership that enhanced students' learning experience. Classroom

management was also facilitated by leadership skills, enabling geography teachers to cater to diverse student needs, moderate group dynamics, and guide students through challenging or sensitive topics. Teachers with high leadership ability are also likely to resolve problems, make decisions, and maintain a healthy classroom setting. Such classroom confidence further solidifies their teaching self-efficacy, since they are more confident in helping students produce successful learning outcomes (Kouzes & Posner, 2017).

Concept of Self-Efficacy

Teacher behaviour in the classroom is not solely driven by training or policy, but also by internal beliefs**.** According to Gavora (2011), teachers' visible actions are underpinned by implicit beliefs, which influence how they interpret their role, respond to students, and make pedagogical decisions. Among these beliefs**,** self-efficacy is especially important. Tschannen-Moran and Hoy (2001) conceptualized teacher self-efficacy as a teacher's confidence in their ability to motivate students and achieve meaningful learning outcomes, even among the most difficult or unmotivated students. Similarly, Hattie (2009) described it as teachers' belief in their ability to cause student learning. These definitions, grounded in Bandura's (1977) broader theory, highlight that teachers' belief in their competence serves a crucial function in teaching effectiveness.

Understanding and enhancing preservice teachers' self-efficacy has become a central concern for educational researchers. A strong sense of self-efficacy is associated with higher student achievement, improved classroom management, and greater resilience when facing teaching challenges (Hattie, 2009). Therefore, teacher preparation programs should not only focus on

pedagogical skills but also foster positive efficacy beliefs. Researchers have employed various tools to measure teacher self-efficacy, drawing primarily from two frameworks, locus of control and theory of personal efficacy by Rotter (1966) and Bandura (1997), respectively.

Self-efficacy is a multi-faceted concept. Bandura (1997) suggests, various measures of teacher self-efficacy allow research professionals to manipulate the characteristics most relevant to the functioning domain on which the study is centred. The other instruments were also developed to measure teacher self-efficacy. These are the Teacher Sense of Efficacy Scale (TSES) of (Tschannen-Moran & Hoy, 2001), the Self-Efficacy Questionnaire (SEQ) of (El-Okda & Al-Humaidi, 2003), and the Self-Efficacy Scale (SES) of Tsai et al. (2014). The Teacher Sense of Efficacy Scale (TSES) has been widely employed by numerous scholars in measuring the self-efficacy of preservice teachers. The TSES was designed on a 24-item scale that contains three dimensions: efficacy in instructional strategies, efficacy in classroom management, and efficacy in student engagement.

Instructional Strategies

Instructional strategies refer to how educators present content to students, encompassing both the methods and procedures used (Young-Lovell, 2009). These strategies reflect the approaches and tools teachers utilize to enhance learning in schools. They can include a mix of techniques such as lectures, group activities, hands-on experiences, discussions, and more. Effective instructional strategies factor in the varying needs and learning styles of pupils. Choosing the right strategies often depends on the specific course being taught. A range of instructional methods is crucial for meeting learning

objectives and addressing students' needs (Saskatchewan Education, 2009). When students struggle, it can often be traced back to ineffective teaching and strategy use (Onweh & Akpan, 2014). The instructional subscale in the Test of Strategic Instructional Efficacy (TSES) assesses the instructional effectiveness of preservice teachers using various indicators. Classroom management involves the skills and strategies that enable teachers to effectively oversee their students, creating a conducive learning environment (Sternberg & William, 2010).

Classroom Management

Classroom management as an area of the Teaching Self-Efficacy Scale involves beliefs and faith in a teacher's ability to have an optimistic and structured classroom setting. It involves effective classroom management that includes the establishment of routines addressing disruptive behaviour and the establishment of a proper learning environment (Mosaddaq, 2016). Wong and Wong (2009) defined classroom management as a teacher's capability to keep order in the classroom, engage students in learning, and elicit students' cooperation in all classroom activities. Classroom management efficacy reflects teachers' confidence in their ability to handle disruptive behaviour, supervise student work, and establish effective classroom norms and routines (Emmer & Hickman, as cited in Winston & Arthur, 2021). The field of classroom management provides valuable information about what preservice teachers perceive about their ability, something that is likely to impact their practice and, eventually, student outcomes. Preservice teachers with strong classroom management efficacy are more likely to maintain an efficient and healthy learning environment conducive to students' outcomes.

Student Engagement

Student engagement is essential to both academic learning and the development of related skills. It reflects the degree to which students show interest, partake actively, and are emotionally and cognitively invested in the learning process. Student engagement, according to Trowler (2010), refers to the time, effort, and other resources that the institution and the students put into attaining the best possible experience in learning, promoting student growth, and boosting the image and performance of the institution. Fredricks et al. (2004, as cited in Fredericks, 2022) define student engagement as a meta-construct consisting of behavioural, emotional, and cognitive dimensions, which together represent students' active participation and psychological investment in the learning process. Additionally, student engagement efficacy refers to teachers' beliefs in their ability to motivate students, engage parents, and foster students' appreciation for learning (Blazevski, as cited in Winston & Arthur, 2021). Similarly, Reeve and Jang (2022) view classroom engagement as the extent to which students are behaviourally, emotionally, cognitively, and actively involved in academic activities. A more recent definition by Gomes et al. (2023) emphasizes that classroom engagement encompasses visible participation in class activities, internal emotional reactions to school tasks, and the use of learning strategies to master complex content.

Although all definitions highlight the importance of active student involvement in the learning experience, they vary in the components they highlight. For example, while Fredricks et al. (2004) focus on the three primary dimensions, behavioural, emotional, and cognitive, Reeve and Jang

(2022) extend this to include agentic engagement, suggesting students can actively influence their learning environment. For this study, the tripartite model by Fredricks et al. (2004) is adopted, as it aligns best with the nature of geography education, where behavioural participation, emotional engagement, and cognitive effort are all critical to student success.

From this understanding, students' engagement can be viewed not only as a measure of how much effort students exert in school tasks but also as an indicator of how emotionally connected and cognitively invested, they are in the learning process. This is particularly significant in geography education, where students must engage in spatial thinking, fieldwork, critical discussion, and collaborative learning. Therefore, understanding students' engagement from a multidimensional lens is essential to evaluating how emotionally intelligent students navigate the complex academic and interpersonal dynamics of geography classrooms.

Empirical Review

The empirical review explored the essential contribution of soft skills in the professional development of preservice teachers, with a specific focus on geography education. Soft skills such as problem-solving, emotional intelligence, and leadership were essential for effectively teaching complex geographic topics. Research highlighted the impact of demographic factors such as age, gender, and educational background on the development of these skills, which in turn affected teaching practices. Additionally, the review examined the close connection between soft skills and self-efficacy beliefs, emphasizing that preservice geography teachers with well-developed soft skills are likely to show greater confidence and competence in their teaching

abilities. This review analysed studies on soft skills development, demographic influences, and their impact on self-efficacy to better understand their importance in shaping effective geography educators.

Preservice Teachers' Soft Skills

Several studies emphasized the importance of soft skills in teacher preparation, particularly for preservice geography teachers subjected to particular challenges, grappling with instructing complex global affairs. González et al. (2020) centred on those essential soft skills that were merely indispensable for teachers to navigate the current dynamic classroom environments. In geography instruction, since preservice teachers must define complex concepts like climate change, effective communication allows them to simplify such complex topics for learners, while adaptability allows them to respond to the diverse learning needs in class. This was relevant to geography teachers, who constantly dealt with shifting content and perceptions of students regarding global matters.

Kniaz and Chukno (2021) carried out research on the perspectives of English trainee teachers in Ukraine regarding their soft skills development. The study was guided by three questions: (a) How do trainees assess their soft skills? (b) How much emphasis do instructors place on developing those skills? (c) Is there a gap between student expectations and actual instructional focus? The first research question is essential to the current study since it seeks to assess the levels of preservice geography teachers' soft skills. A survey-based cross-sectional design was used with 153 English trainee teachers sampled from H.S. Skovoroda Kharkiv National Pedagogical University. A questionnaire was used to measure self-perceived soft-skill

competence and the extent of instructor involvement. Descriptive statistics were employed to interpret the data. The design and sample used for the study are appropriate, but the use of descriptive statistics alone cannot determine whether a gap exists between student expectations and actual instructional focus. Hence, inferential statistics should have been used.

The findings indicate that pre-service teachers rate their soft skills development as moderate to high; however, essential skills for the teaching profession, such as generating new ideas, managing negative emotions, and time management, are among the least developed. However, a significant number reported that university instructors placed minimal or no emphasis on teaching soft skills. This revealed a mismatch between student confidence and institutional support. These findings are interesting and important to the current study since it seeks to determine the levels of preservice teachers' soft skills and their influence on their instructional strategies, classroom management, and student engagement. The results would help corroborate or repudiate the results of the current study. The study suggested additional research to include instructor perspectives and institutional policy analysis. They also advocated for increasing faculty engagement in soft-skill development through integrated teaching methods and aligning student expectations with curriculum design. The recommendations are relevant to the current study. However, the researchers should have included the instructors' perspective in the study since one of the research questions sought to assess how much emphasis instructors place on developing these soft skills. In addition, the nature of the research question could have been best measured through qualitative analysis. Besides, the involvement of the

instructor's perspective could have validated or otherwise the responses of the preservice teachers. This current study will be devoid of such errors.

Besides, Ağçam and Dogan (2021) did a study on pre-service teachers' perceptions of their soft skills. Their study objectives sought to explore the perceptions of pre-service teachers on their soft skills, determine whether pre-service teachers significantly differ in their perceived soft skills regarding gender, and whether pre-service teachers significantly differ in their perceived soft skills regarding seniority. These three objectives are relevant to my study since the current study seeks to examine preservice geography teachers' soft skills levels, assess whether a statistically significant difference exists in the soft skills of preservice geography instructors regarding gender, experience, and novice student teachers.

A descriptive survey design was used with 453 pre-service teachers sampled from a state university in Turkey, across the 1st to 4th year levels. Soft Skills Evaluation Scale was adopted to measure academic social skills, self-management, social skills, and approaches to learning. Descriptive statistics were used to calculate means for each soft skill domain, and t-tests and ANOVA were used to analyse the differences by gender, academic year, and major of the programme. The results showed that participants rated themselves fairly high across all domains, especially in academic social skills, followed by self-management, social skills, and approaches to learning. In addition, the study found no significant gender differences but found significant differences by academic year (seniors rated highest, that juniors). Also, classroom, science, and social studies majors rated their soft skills higher than others.

Ağçam and Doğan's findings provide strong correlational evidence through the parallel development of soft skills and seniority alignment. While theoretically sound, the direct, quantitative impact of specific soft skill domains on specific geography teaching self-efficacy dimensions remains largely unmeasured. Also, the finding for gender differences is a robust strength, supported by a large sample (N=453) and aligning consistently with numerous other studies across different contexts. This strongly suggests that teacher education programs develop soft skills effectively regardless of gender. The researchers' use of academic year as a proxy for experience is a valid approach. While the gender finding is robust, the cultural context (Ghana) might influence results. Regarding age, the study didn't analyse chronological age independently from academic year/experience. This study will explicitly include age as a separate variable and prior experience. This allows for a direct test of the age hypothesis within geography cohorts, and including qualitative exploration would help understand if preservice geography teachers perceive their prior experiences as assets or challenges in developing teaching-specific soft skills.

Also, Macqual (2020) explored pre-service teachers' soft skills and their impact on teaching performance in senior high schools in North Central Nigeria. Two of his objectives, that sought to assess the level of soft skills pre-service teachers gain from the curriculum and whether these soft skills enhance classroom control and teaching practicum outcomes, are relevant to the current study since it also seeks to explore the levels of pre-service geography teachers' soft skills levels and determine the influence of their soft skills in their teaching self-efficacy beliefs. In addition, his hypothesis that

sought to determine whether there is a significant difference between experienced and novice pre-service teachers in terms of the impact of soft skills on their teaching success is related to my fifth objective. Macqual adopted a non-experimental course-exit survey design. The survey was administered to final-year undergraduate students enrolled in a two-semester soft skills course. A total of 772 valid responses were analysed from five federal universities in North-Central Nigeria. Data were analysed using PLS-SEM (SmartPLS) to examine relationships among soft skills, classroom control, and teaching performance. The choice of the researcher's methodology is appropriate for the study. However, the cross-sectional design limits causal inference.

The findings revealed that preservice teachers showed moderate levels of soft skills. Conscientiousness and lifelong learning had strong positive effects on classroom control and teaching success. Creativity had a smaller positive effect, while communication and teamwork showed weak or slightly negative relationships. Additionally, it was revealed that there was no significant difference between the experienced and novice preservice teachers in terms of the impact of soft skills on their teaching success. Overall, soft skills improved classroom management, which in turn enhanced teaching performance. These findings are vital to the current study since the results that would emerge from this study would corroborate Macqual's findings. However, a focus group discussion could have been added to obtain a follow-up explanation for soft skills whose findings were weak or unclear, like communication and teamwork, and their relationship to teaching performance.

Macqual (2020) recommended integrating soft skills explicitly in teacher education curricula through dedicated courses and assessments such as situational judgment tests. Continuous curriculum refinement, faculty development, and subject-wide skill integration were emphasized to support long-term impact. These recommendations are relevant to the current study because this study seeks to make recommendations for policy direction and practice, as well as the development of a course in soft skills.

Furthermore, Elisa et al. (2020) explored the relationship between internship experiences and the soft skills of pre-service physics teachers. The study aimed to examine how internship participation contributes to the development of soft skill competencies among these future educators. That is, whether internships significantly enhance communication, teamwork, problem-solving, and leadership abilities. They employed a descriptive survey with a correlational approach. Thirty-six (36) physics education students were purposively sampled from a public university in Banda Aceh, Indonesia. Instruments included multiple-choice tests for soft skills and internship logs. Data analysis was performed using SPSS product-moment correlation. The sample size (36) involved appears too small for a quantitative study of this nature, and this limits the ability to generalise from the study. Hence, other universities could have been involved in the study to increase the reliability of the results.

The study found a very weak positive correlation ($r = 0.022$) between internship value and soft skill competence. The internship experience explained only 0.48% of the variance in soft skill development, indicating minimal measurable impact. The recommendations from the study included

increasing direct hands-on practice, improving program structure with better orientation and formal agreements (MOAs), and enhancing industry-academic collaboration. Curriculum reviews were also advised to align content with soft skill development goals. The findings of the study answered the research aim, which sought to determine the contribution of internship experiences to the soft skill competencies of pre-service teachers. But they failed to show which of the soft skills competencies, such as communication, teamwork, problem-solving, and leadership abilities, had a very weak positive correlation. Hence, the current study under investigation seeks to avoid such errors.

In conclusion, all these studies reviewed never include preservice geography teachers. Hence, building a Geography-specific evidence base would offer valuable insights into soft skills among preservice teachers, providing a foundation applicable to geography. Its strengths include a robust design, a validated instrument, a large sample, and clear findings on progression and gender. Key criticisms for geography research are the lack of domain specificity in measures (both soft skills and teaching self-efficacy), reliance on self-report, and absence of causal or nuanced experiential analysis. This research will prioritize developing and validating geography-specific instruments, mixed-methods designs to track development, and establishing causal links. Differentiating the impact of specific geography teaching experiences on soft skills and self-efficacy and incorporating multi-source assessment will generate actionable evidence needed to optimize geography teacher preparation for the 21st-century classroom.

Preservice Teachers' Demographic Characteristics and Soft Skills Levels

The acquisition and improvement of soft skills by pre-service teachers is increasingly considered essential to their classroom effectiveness and capacity to foster a positive learning environment. These non-cognitive skills, like communication, empathy, teamwork, emotional intelligence, and adaptability, are key to managing classrooms and engaging students. Research shows that age and gender significantly impact how these skills develop.

In a study by Ajayi and Afolabi (2019) in Nigeria, the researchers explored how age affects the acquisition of communication skills among preservice teachers. Using a quantitative cross-sectional design with over 200 education students, they found that younger pre-service teachers (ages 18–24) tended to show greater enthusiasm and adaptability in honing their communication skills, likely due to their increased exposure to digital media and contemporary teaching methods. However, a limitation of their work is its narrow focus solely on communication as a soft skill, without considering contextual factors like practicum experience or teaching methods.

On the other hand, Baharudin et al. (2021) focused on a slightly older group of Malaysian preservice teachers and used a mixed-methods approach. Their findings revealed that older trainees often had higher emotional intelligence, better conflict resolution skills, and stronger stress management abilities. The researchers suggested that these skills stem from life experiences and possibly previous work. The in-depth interviews they conducted added richness to their findings, offering a deeper understanding of classroom readiness that went beyond technical know-how. This perspective contrasts

with Ajayi and Afolabi's stance that youth can be a strength, instead highlighting the advantages of maturity in handling classroom dynamics.

Gender is also an important aspect of this discussion. In a comparative study across teacher education programs in China and the U.S., Zhou and Brown (2015) found that female preservice teachers consistently outperformed their male counterparts in empathy, collaboration, and active listening, regardless of the cultural context. Their large-scale study, which spanned two culturally diverse systems, bolstered the general applicability of their results. Similarly, Jalali and Heidari (2022) undertook a quantitative study in Iran using validated emotional intelligence measures and discovered that females excelled in emotional regulation and interpersonal communication, skills that are vital in inclusive classrooms.

However, studies by Gallo et al. (2020) and Nguyen and Hallinger (2020) offer a more balanced view. Gallo et al. observed, through a longitudinal case study in Brazil, that male preservice teachers displayed a stronger focus on task leadership, initiative, and strategic classroom management. Similarly, Nguyen and Hallinger noted that in the Vietnamese context, male participants were more confident in leading group projects and enforcing discipline, even if it sometimes came at the cost of empathetic communication. These findings suggest that different expressions of soft skills by gender may reflect societal expectations more than inherent abilities.

Beyond demographic factors, educational experience significantly contributes to the development of soft skills. For instance, Alhothali (2021) studied Kenyan preservice teachers from various academic backgrounds and found that they had advanced problem-solving and critical thinking skills,

particularly in subjects like geography. By employing a qualitative design with semi-structured interviews, the study highlighted how exposure to diverse academic disciplines fosters cognitive flexibility and innovative teaching strategies, though its small sample size (n=15) limits the generalizability of its findings. Supporting this idea, Alpay and Soysal (2019) found a strong link between subject-specific mastery and intellectual soft skills in their quantitative survey of Turkish geography education students. Unlike Alhothali's broader perspective, Alpay and Soysal underscored that depth of knowledge in a singular area drives the development of intellectual soft skills. This raises an intriguing question: Is it the breadth or depth of academic experience that better nurtures soft skill development? Most likely, a blend of both; breadth enhances adaptability, while depth cultivates precision and confidence.

From reviewing these studies, it is clear that soft skills do not develop uniformly; they are shaped by a complex mix of personal demographics, academic experiences, and cultural contexts. While youth bring energy and adaptability, age often contributes emotional resilience. Additionally, gendered manifestations of soft skills reflect deeper cultural narratives, and educational exposure, whether broad or deep, lays the groundwork for effective teaching practices. As both a researcher and an educator, I think teacher training programs should move away from a one-size-fits-all model. Instead, they ought to incorporate targeted mentorship, reflective practices, and intercultural learning opportunities to cultivate well-rounded professionals equipped with both technical skills and interpersonal sensitivity.

Soft Skills and Their Influence on Pre-service Teachers' Self-Efficacy Beliefs

Research has consistently highlighted a strong link between soft skills and self-efficacy, stressing that these skills should be intentionally woven into pre-service teacher education programs. For example, Agcam and Dogan (2021) showed that preservice teachers who participated in collaborative learning and peer feedback reported higher levels of self-efficacy. Their study, which took place in Turkey, used a quasi-experimental design involving preservice teachers from education faculties. They assessed changes in self-efficacy after implementing structured peer learning interventions. The results indicate that collaboration not only boosts self-efficacy but also helps develop vital soft skills like communication and adaptability. However, it is important to highlight that the study's short duration limits insights into long-term retention or the applicability of these skills. When we compare it with Kanyimba et al. (2018), who looked at teamwork and leadership in South African teacher education, a common theme emerges: being in collaborative settings builds both confidence and professional agency. Kanyimba et al.'s (2018) mixed-methods study surveyed and interviewed more than 300 pre-service teachers across two South African universities. They found a significant relationship between leadership roles, collaborative group work, and higher self-efficacy. Their rich qualitative data highlighted cultural and institutional factors that influence teamwork. The strength of this study lies in its integrative approach, though relying on self-reported leadership roles may introduce some bias.

Similar findings were noted by Oseisi et al. (2022), who conducted a correlational study with Nigerian pre-service teachers, revealing that well-developed soft skills, especially in communication and leadership, were linked to stronger confidence in managing classroom interactions and behaviour. Their research involved final-year education students from three universities and utilized regression analysis for data interpretation. Oseisi et al. also pointed out how culturally responsive leadership styles can impact classroom management and engagement. In contrast to Agcam and Dogan's process-oriented intervention, Oseisi et al. focused more on dispositional traits and their predictive value. Together, these three studies underline the significance of soft skills in various educational contexts across Africa and beyond, despite different methodologies and emphases.

In addition to collaboration and leadership, emotional intelligence (EI) has also been shown to affect the self-efficacy of preservice teachers. In a study conducted in Kenya, Mungai and Muthama (2017) investigated the link between EI and teaching competence. Utilizing a descriptive survey design, they examined 200 student-teachers, finding that those with high emotional intelligence felt more capable in managing classrooms and building relationships. Their use of validated EI scales and self-efficacy inventories adds credibility to their findings, although the cross-sectional design limits causal conclusions. Comparatively, Ding, Ramdas, and Mortillaro (2024) conducted a large-scale cross-national study involving preservice teachers from Asia, Europe, and the Americas, which adds a broader perspective. They employed structural equation modelling, revealing that emotional regulation and empathy were significant predictors of teaching self-efficacy and

classroom climate quality. While Ding et al.'s work provides robust statistical generalizability, Mungai and Muthama's work focuses on important regional insights. Together, these studies highlight EI as a valuable personal and pedagogical asset in training for future educators.

However, a significant concern arises with the findings from Afolabi and Abosede (2021), who pointed out implementation issues in teacher training within Nigeria. Their qualitative evaluation of six teacher training colleges found that the curricula were largely content-driven, often overlooking the development of soft skills. By analysing documents and interviewing stakeholders, they concluded that institutional priorities and mismatched policies are major obstacles to effectively integrating soft skills. This study contrasts sharply with the previous intervention and correlation-based research by not merely showing the benefits of soft skills but instead shedding light on systemic neglect. Their work brings a critical structural analysis that's often missing from research focused on outcomes. It raises the important point that even if the advantages of soft skills are backed by empirical evidence, inertia within institutions may still hinder their incorporation.

In my opinion, while the converging results from multiple academic studies emphasize the universal importance of soft skills in enhancing preservice teacher efficacy, there's a noticeable gap between what we know and what happens in practice. Research like that of Agcam and Dogan (2021) and Oseisi et al. (2022) demonstrates how soft skills can boost self-efficacy. Still, Afolabi and Abosede (2021) remind us that these ideals do not always translate into real policy or curriculum changes. Additionally, although

emotional intelligence is consistently recognized as crucial (e.g., Mungai & Muthama, 2017; Ding et al., 2024), the differences in methodological approaches and cultural contexts point to a need for more context-sensitive models for integrating soft skills. Moving forward, we should consider longitudinal, mixed-methods studies that evaluate both skill acquisition and how institutions implement these practices to comprehensively assess how pre-service education programs can nurture both competence and confidence in future teachers.

Studies on Pre-service Teachers' Self-efficacy

Pre-service teachers are individuals enrolled in teacher education programs to acquire the knowledge, skills, and certification required to teach in public or private schools, either domestically or internationally (Dejene et al., 2018). These individuals are gradually introduced to the teaching profession under the guidance of a cooperating teacher or mentor. According to Dejene et al. (2018), the process typically begins with the pre-service teacher observing classroom practices and culminates with them functioning as competent teaching professionals. Often referred to as student teachers or practicing teachers, they receive structured training within educational institutions. In the realm of teacher characteristics, self-efficacy has been identified as particularly significant. Gavora (2011) emphasized its importance within the domain of beliefs and assumptions. In a related study, Zuya et al. (2016) investigated the self-efficacy levels of pre-service mathematics teachers in both mathematical ability and teaching competence. The study found that these pre-service teachers exhibited above-average confidence in

both mathematics self-efficacy (MSE) and mathematics teaching self-efficacy (MTSE)

Ma, Trevethan, and Lu (2019) demonstrated that the pre-service teacher needs to believe in themselves to get motivated to do the job of teaching. Therefore, pre-service teachers must possess a belief in their ability to succeed in a given task. The self-efficacy of a person accounts for the direction towards goals, tasks, and obstacles. Kendra (2019) stated that individuals who have high self-efficacy view challenging problems as learning opportunities to master and therefore become more motivated towards tasks. That is why it is essential to develop a reliable and valid scale for assessing pre-service teachers' self-efficacy, which would facilitate the identification and evaluation of their self-efficacy levels. The application of the scale is expected to enhance pre-service teachers' motivation and self-confidence, thereby better equipping them to cope with the demands and stresses of the teaching profession. The teaching profession has been identified by Prillel-Tensky et al. (2016) to be stressful and most of the time results in teacher burnout. As teachers become more assured that they can manage classroom circumstances, they become less apprehensive, less susceptible to experiencing 'burnout' (Aloe, Amo & Shanahan 2014) and, in turn, more likely to remain teaching (Woodcock & Reupert 2012).

The role of self-efficacy in pre-service teacher training has also been emphasized, and low classroom management self-efficacy has been accounted for by the high attrition rate of early career teachers (Simonsen et al. 2014). Researchers have argued that graduate teachers report feeling unprepared when they step into the classroom and are worried about their ability to

manage the class (Page & Jones, 2018; Subban & Round, 2015). Low self-efficacy was also a predictor of emotional exhaustion for 1,227 German pre-service teachers in one recent study (Dicke et al. 2014), and emotional exhaustion has been linked to intention to leave teaching (Skaalvik & Skaalvik 2017).

Aksoy and Bozgeyikli (2016) in another study investigated pre-service teachers' perceptions of their profession. It was confirmed by research that the overall attitudes of pre-service teachers towards teaching were favourable but were also determined by factors like gender, academic achievement, and how prestigious the teaching profession was in their countries. Female pre-service teachers, for example, had more positive attitudes towards the profession than male pre-service teachers.

A study conducted in the Netherlands included Bent, Bakx, and Den Brok (2017). The focus of the study was to know the self-efficacy of the primary school teachers for teaching geography, what they held in their minds regarding the classroom environment, and how those factors related to one another and the teachers themselves. The data collected through the survey were based on 489 primary school teachers. What the study revealed was that primary education instructors had moderately strong self-efficacy for teaching geography. Findings also showed that teachers perceived surface learning to be a very crucial parameter of teaching geography. The study found that collegial support was perceived as being less crucial to the teachers in promoting geography education. Teachers' beliefs regarding geography education quality and students' motivation and attitudes were the most important predictor variables to explain variability in teachers' self-efficacy.

In Turkey, Yildiz, Sahin, and Çelik (2020) conducted a study aimed at investigating pre-service social studies teachers' self-efficacy beliefs regarding their ability to teach geography, as well as their attitudes toward teaching as a career, with consideration given to gender and university-related variables. The study adopted a descriptive research design based on the survey model. The sample consisted of fourth-year social studies education students from selected state universities, specifically, two state universities from each of the seven geographical regions of Turkey during the spring semester of the 2017-2018 academic year.

The research was performed with the assistance of 654 pre-service social studies teachers from 14 universities in Turkey. For the collection of data, "The Scale of Attitudes towards the Profession of Teaching" and "The Geography Teaching Self-Efficacy Scale" were utilized. For the analysis of collected data, independent samples t-test, arithmetic mean, standard deviation, and one-way analysis (ANOVA) were utilized. According to the research findings, the attitudes towards the profession and the self-efficacy perceptions regarding geography teaching are high. Overall mean scores of the self-efficacy perception scale and its sub-dimension scores differed significantly according to the variable of university attended, but not significantly according to the variable of gender. However, attitudes towards the teaching profession differed significantly according to both variables. Christian (2017) revealed the factors related to the course that the preservice teachers in Australian primary schools reported contributed to their instructional self-efficacy. Using a qualitative design, the study gathered data on 50 preservice teachers from a series of focus groups, which were then

categorized under themes. The findings indicated that both vicarious and enactive modelling, when supported by professional dialogue and a positive learning atmosphere, played important roles in boosting instructional self-efficacy. The author suggested that teacher educators should demonstrate to preservice teachers both the art and the science of teaching, while also giving them opportunities to apply these concepts in their coursework. The environment for these activities must be engaging and of high quality, enabling preservice teachers to grow and build their confidence in teaching.

Furthermore, Winston and Arthur (2021) conducted a study on preservice economics teachers' self-efficacy beliefs in teaching economics. There are objectives were to determine pre-service Economics self-efficacy beliefs across three domains, namely, student engagement, instructional strategies, and classroom management. Although no explicit hypotheses were stated, the study assumed that trainees would report high confidence in these areas. These objectives are essential to the current study since it seeks to examine the levels of preservice geography teachers' self-efficacy beliefs. However, their study did not explore whether there is a significant difference in the teaching self-efficacy beliefs between experienced and novice preservice Economics teachers. This current study seeks to examine whether there is a significant difference in the teaching self-efficacy beliefs between experienced and novice preservice geography teachers.

Winston and Arthur (2021) employed a descriptive cross-sectional survey design and utilized the census method to include all 54 Level-400 Bachelor of Education (Social Sciences) students majoring in Economics at the University of Cape Coast in their study. The research used the Teacher

Sense of Efficacy Scale (TSES), a validated tool with high reliability (Cronbach's α = 0.94). Data were analysed using means and standard deviations. The use of the census method was appropriate since the population was small (54) and the instrument adopted was relevant to the objectives of their study. The outcomes showed that participants had high self-efficacy across all domains: instructional strategies (M = 4.01), classroom management (M = 3.98), and student engagement (M = 3.95). The grand mean score was approximately 3.98 on a 5-point scale. This indicates strong confidence in teaching capabilities among the pre-service teachers. Therefore, they recommended maintaining and enhancing quality instructional practices by lecturers to support the high self-efficacy of trainees. They also called for longitudinal research to track how self-efficacy evolves when trainees enter the workforce. Pre-service Economics teachers in Ghana exhibit strong belief in their teaching abilities, especially in engaging students, classroom control, and using teaching strategies. These beliefs are encouraging, but support should continue into their practicum and early career stages to ensure they translate into effective teaching. These findings are essential to the current study since the results that would emerge from this study would corroborate or disprove Winston and Arthur's findings.

Asare (2021) looked into the self-efficacy and anxiety levels of preservice management teachers (PMTs) regarding their teaching practicum. The study adopted a repeated measures sequential explanatory design, incorporating a follow-up explanation model to further interpret the quantitative findings. Participants were selected using a census-extreme case sampling strategy. In total, the census phase included 119 respondents for the

quantitative part of the study, while extreme case sampling identified eight unique participants for focus group discussions based on quantitative measures. The quantitative data were analysed with various techniques, like mean, standard deviation, chi-square, repeated-measures ANOVA, factorial MANOVA, paired-samples t-test, binomial logistic regression, and structural equation modelling statistics. For the qualitative data, template analysis was used.

The results revealed that preservice management teachers felt very confident in their abilities, often driven by their passion. Nevertheless, they experienced temporary anxiety, primarily stemming from concerns over supervision and inconsistent negative feedback. Notably, self-efficacy was strongly linked to increased anxiety levels. The study suggests that admissions into teacher education programs should focus on candidates' passion as well as their grades. Additionally, preservice teachers should participate in sensitization workshops during their training to help ease their fears related to the practicum. The study recommends that school districts adopt a comprehensive assessment strategy instead of merely competency-based testing using a rating scale.

Asare and Amo (2023) examined how pre-service teachers' teaching engagement efficacy can be developed to enhance classroom management. It focused on the relationship between engagement efficacy and managerial competence. A correlational quantitative study was conducted with 380 final-year pre-service teachers from public colleges of education in Ghana. Data were collected through validated self-report questionnaires and analysed using Pearson's correlation and regression techniques. The sample size of their work

was large and diverse, and the statistical analysis, which included correlation and regression, was robust for the research work. This information is relevant to the current study since it seeks to examine preservice geography teachers' levels of self-efficacy beliefs, which include student engagement.

Findings showed a statistically significant positive correlation between teaching engagement efficacy and classroom managerial competence. Pre-service teachers with high engagement efficacy were more confident and capable in managing classrooms. Engagement efficacy was a strong predictor of instructional control, behavior management, and student interaction. Teacher education programs should focus on building engagement efficacy through practicum experiences, simulations, and feedback-rich activities. Curriculum designers should integrate strategies that enhance real-world classroom readiness and promote reflective teaching practices. When pre-service teachers feel confident about engaging students, they become more effective classroom managers. Training programs must intentionally nurture this confidence by integrating practice-based learning, mentorship, and feedback systems to prepare teachers for real classroom environments. These findings are vital to the current study since the results that would emerge from this study would corroborate or repudiate Asare and Amo's results or findings.

Studies on Pre-service Geography Teachers' Self-efficacy

A study by Bent, Bakx, and Den Brok (2017) in the Netherlands aimed to delve into primary school teachers' self-efficacy regarding teaching geography, how they viewed their classroom environments, and how these factors related to their backgrounds. Gathering data from 489 primary education professionals, the researchers found that teachers felt moderately

confident about their geography instruction. Interestingly, while teachers prioritized surface-level learning over deeper cognitive engagement, they also saw peer support as less important for enhancing geography education. The most significant indicators of self-efficacy were teachers' beliefs regarding the quality of geography instruction and their perceptions of student attitudes.

When we compare this with a study by Yildiz, Sahin, and Çelik (2020), which assessed self-efficacy in geography teaching among pre-service social studies teachers at 14 Turkish universities, we get a broader perspective that includes contextual and demographic factors. Yildiz et al. discovered that self-efficacy perceptions were generally high and greatly influenced by the university attended, but interestingly, gender didn't seem to contribute significantly. This contrasts with Bent et al.'s focus on in-service teachers without consideration for institutional influences. Yildiz et al.'s research adds valuable depth by acknowledging how different institutions impact teacher preparation. However, since they utilized a purely quantitative survey method (like ANOVA and t-tests), they might have overlooked some nuanced insights that a mixed-methods or qualitative approach, like that used by Christian (2017), could uncover.

Christian (2017) took a qualitative approach in Australia to investigate what aspects of a course helped boost primary pre-service teachers' self-confidence in teaching. Through focus groups with 50 participants, the study highlighted how hands-on experiences, peer modelling, and professional conversations contributed to building self-efficacy. This adds a crucial layer of understanding absent from the surveys done by Bent et al. (2017) and Yildiz et al. (2020). Christian's (2017) findings support Bandura's (1997) social

cognitive theory, especially around concepts of vicarious learning and verbal encouragement. While Bent et al. emphasized internal beliefs and attitudes, Christian pointed out the importance of relational and environmental factors, like mentorship and collaborative opportunities, that play a significant role in developing self-efficacy. To me, Christian's work is particularly convincing in the field of educational psychology since it showcases the transformative effect of the learning environment, rather than just cognitive attitudes.

Switching gears to mathematics education, Zuya, Kwalat, and Attah (2016) examined self-efficacy among Nigerian pre-service teachers using scales for Mathematics Teaching Self-efficacy (MTSE) and Mathematics Self-efficacy (MSE). They found a strong link between confidence in mathematical ability and self-assurance in teaching math. Though their study had limitations due to a small sample size (n=49), their correlational analysis (PPMCC) effectively demonstrated a connection between subject mastery and confidence in teaching. While their focus is narrower compared to Christian's qualitative findings or the extensive national sample of Yildiz et al., Zuya et al.'s work compellingly illustrates the relationship between content knowledge and self-efficacy. Still, incorporating classroom observations or reflective journals could have strengthened their findings by validating self-reports.

In a different educational and cultural setting, Sarfo et al. (2015) investigated the teaching self-efficacy of senior high school teachers in Ghana using the Teacher Self-Efficacy Scale (TSES). Their large sample (n=437) indicated that generally, teachers felt quite self-efficacious, with student engagement standing out as the strongest area. This aligns with Bent et al.'s (2017) findings that perceptions of student attitudes significantly affect self-

efficacy. However, while Sarfo et al. argue that teacher education programs are successfully preparing teachers, this conclusion assumes a cause-and-effect relationship where only a correlation exists. A longitudinal or experimental approach could provide a clearer picture of how teacher training impacts efficacy over time. Nevertheless, examining the Ghanaian context is essential, particularly in Sub-Saharan Africa, where teacher preparation can be inconsistent and influenced by local factors like resource limits.

Together, these studies highlight the complex nature of teacher self-efficacy across various contexts and subjects. Bent et al. (2017) and Sarfo et al. (2015) focus on in-service teachers, offering practical applications of self-efficacy, while Yildiz et al. (2020), Christian (2017), and Zuya et al. (2016) concentrate on pre-service teachers, illuminating key formative influences. Methodologically, Christian's qualitative strategy provides deeper contextual insights that studies based on surveys, like those of Bent or Yildiz, might miss. The quantitative methods used by Zuya et al. and Sarfo et al. offer solid statistical backing, yet they risk overlooking the intricate social and institutional factors that impact self-efficacy. From my viewpoint, the field would greatly benefit from more mixed-methods research that combines the statistical strength of surveys with the richness of qualitative analysis. Additionally, cross-national comparisons, as seen with studies from Turkey, the Netherlands, Ghana, Nigeria, and Australia, could reveal how cultural, institutional, and educational contexts shape teachers' beliefs about self-efficacy. One recurring oversight is the insufficient exploration of support systems within institutions (beyond just peer collaboration) and the practicum experiences that appear crucial for enhancing pre-service teachers' confidence.

Conceptual Framework for the Study

This study introduces a conceptual framework that focuses on the soft skills of preservice geography teachers and their beliefs in teaching self-efficacy. The framework includes a set of activities that involve a thorough review of existing literature, highlighting the connections between various key concepts that the researcher aims to explore. It also examines empirical studies on how effectively the process of implementing Problem-Based Learning (PBL) impacts the teaching and learning of geography. The conceptual framework for this study is illustrated in Figure 1.

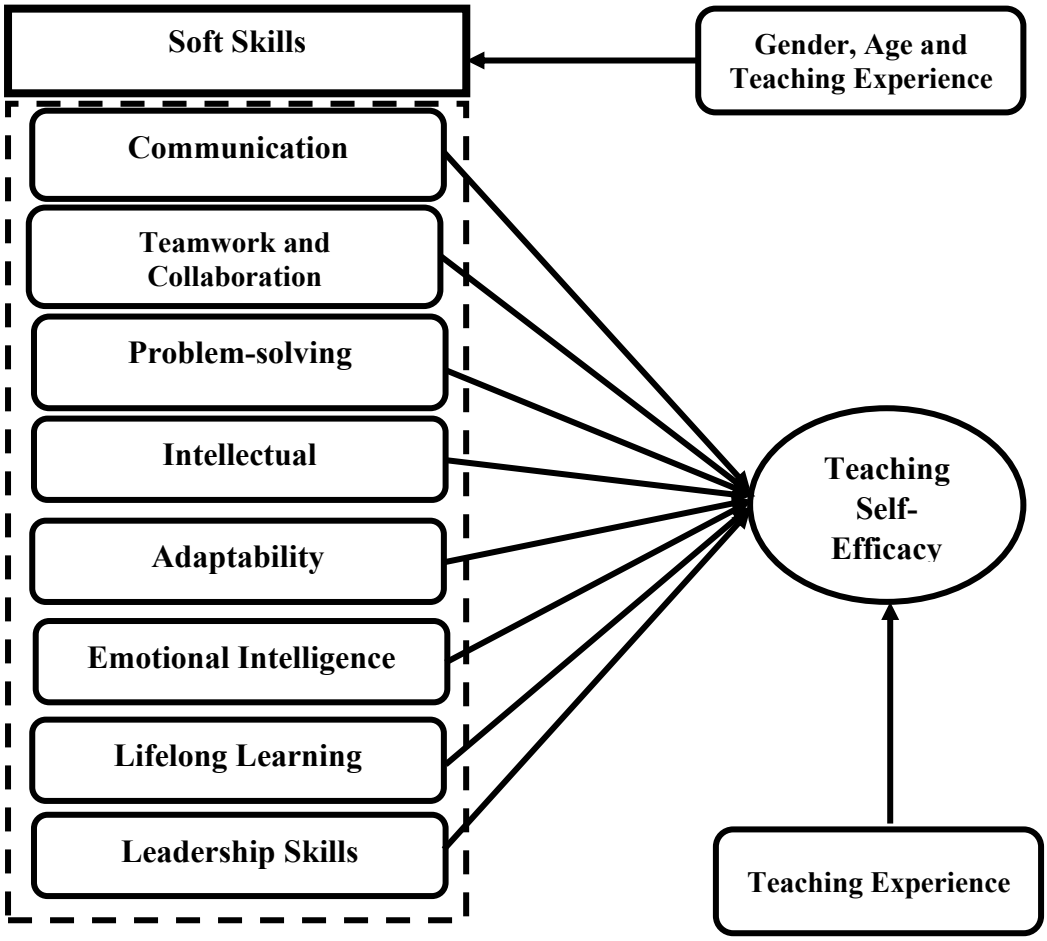


Figure 1: Conceptual framework for PGTs' Soft Skills and Teaching Self-Efficacy
Source: Author's Construct (derived from Macqual, 2020; Tang, 2020 & Vasanthakumari, 2019)

Explanation of the Conceptual Framework

This study is anchored on a conceptual framework that investigates the interrelationship between soft skills and teaching self-efficacy among pre-service geography teachers (PGTs). The framework is constructed with the understanding that teacher quality in the 21st century extends beyond cognitive and subject-matter expertise to include affective and interpersonal capabilities. As such, the soft skills that PGTs develop during their training play a critical role in shaping their confidence and competence in the teaching profession.

At the core of this conceptual model is Bandura's Social Cognitive Theory (1986, 1997), which emphasizes the triadic interplay between personal factors, behavioural patterns, and environmental conditions. According to Bandura, self-efficacy beliefs serve as a mediating mechanism through which individuals evaluate their ability to perform tasks under varying circumstances. In the context of teacher education, self-efficacy beliefs influence how PGTs approach instructional planning, student engagement, and classroom management (Tschannen-Moran & Hoy, 2001). These beliefs shape not only the effort teachers invest in their profession but also their resilience in the face of challenges and setbacks (Zee & Koomen, 2016).

Teaching self-efficacy refers specifically to a teacher's conviction in their ability to effectively carry out teaching-related responsibilities, such as delivering instruction, managing behaviour, and motivating students. Pre-service teachers, in particular, form their self-efficacy beliefs through a combination of theoretical knowledge, practicum experiences, and internal personal characteristics (Han et al., 2022). As such, it is important to examine

how the development of soft skills during teacher preparation contributes to the formation and reinforcement of these beliefs.

Soft skills, in this study, encompass a cluster of interpersonal, emotional, cognitive, and behavioural competencies that enable individuals to function effectively in social and professional settings. These include communication, collaboration, emotional intelligence, adaptability, problem-solving, leadership, and a commitment to lifelong learning (Succi & Canovi, 2020). While traditionally undervalued in teacher preparation programs, recent discourse highlights that these skills are not supplementary; they are foundational to effective teaching in increasingly diverse and unpredictable classrooms (Darling-Hammond et al., 2020; Mujtaba et al., 2023).

To begin with, *communication skills* are vital for classroom instruction, as well as for maintaining productive interactions with students, colleagues, and parents. Pre-service teachers who possess the ability to convey ideas clearly, listen actively, and adjust their communication based on audience needs are more likely to feel confident in their instructional efficacy (Khan et al., 2023). Inadequate communication, on the other hand, can impede student learning and erode classroom relationships.

Collaboration and teamwork are equally essential. Modern educational settings rely on cooperative cultures where teachers engage in shared decision-making, peer mentoring, and interdisciplinary instruction. PGTs who cultivate these collaborative dispositions during their training often report stronger beliefs in their capacity to contribute meaningfully to school improvement efforts (OECD, 2021). Likewise, *emotional intelligence,* the capacity to understand and regulate one's emotions and respond appropriately to others,

has been shown to be a significant predictor of classroom management success and student rapport (Ahmed et al., 2023).

Problem-solving allows teachers to devise creative strategies for addressing instructional challenges. Whether dealing with varying student learning styles, limited resources, or behavioural issues, teachers must be agile thinkers. PGTs who score high in these competencies often report greater confidence in their ability to overcome instructional barriers (Salas-Pilco et al., 2022).

Adaptability, or the readiness to respond to change, has become indispensable in the wake of global disruptions to education, particularly the COVID-19 pandemic. The transition to hybrid and remote learning, increased integration of technology, and new curricular demands have all underscored the need for teachers to be flexible and innovative. Research indicates that PGTs who perceive themselves as adaptable are more likely to exhibit high levels of self-efficacy in integrating technology and managing diverse classrooms (Robles, 2022).

In addition, *lifelong learning* denotes a willingness to seek out new knowledge, engage in professional development, and remain intellectually curious. This attribute not only supports continuous growth but reinforces a sense of professional agency and competence (OECD, 2021). *Leadership skills*, while often associated with formal roles, are expressed in everyday teacher behaviors such as mentoring peers, guiding student leaders, or initiating classroom improvements. PGTs who develop leadership potential during training are more likely to see themselves as change agents within the school context (Wenner & Campbell, 2017).

These soft skills are not isolated traits; rather, they interact dynamically with one another and collectively shape the pre-service teacher's sense of efficacy. A PGT with strong emotional intelligence, for instance, may be more effective in communication and conflict resolution, thereby bolstering their confidence in managing classroom behaviour. Similarly, an adaptable and collaborative pre-service teacher may more easily integrate into school cultures, engage with professional learning communities, and navigate the complexities of real-world teaching, all of which feed into their overall self-efficacy.

Additionally, this conceptual framework recognizes the potential influence of demographic variables such as age, gender, and teaching experience. Age may be associated with maturity and exposure to diverse life experiences, both of which can enhance emotional regulation and reflective practice. Gender differences, although complex and context-specific, have been shown to influence how teachers perceive and report their self-efficacy, with some studies indicating that female teachers may report lower confidence in certain domains despite equal or higher competence (Klassen & Chiu, 2010). Teaching experience, especially through practicum placements, allows PGTs to apply and refine soft skills in authentic settings, providing critical feedback that shapes self-efficacy beliefs (Han et al., 2022).

This framework posits that the soft skills acquired during teacher education directly and indirectly shape pre-service teachers' teaching self-efficacy beliefs. These beliefs, in turn, influence the quality of instructional practices and the ability of teachers to persist in the profession. As such, the development of soft skills should be treated not as supplementary but as

central to teacher education programs, particularly for pre-service geography teachers who must bridge content knowledge with real-world relevance, learner diversity, and interdisciplinary approaches.

In conclusion, this conceptual framework offers a nuanced understanding of how soft skills serve as foundational inputs in the development of teaching self-efficacy among PGTs. By integrating psychological theory, current research, and contextual variables, it provides a solid foundation for investigating how teacher education can be optimized to produce confident, competent, and reflective geography educators equipped for 21st-century challenges.

Differences in the Self-Efficacy Level of Experienced and Novice Preservice Geography Teachers

Asare (2021) looked into the self-efficacy and anxiety levels of preservice management teachers (PMTs) regarding their teaching practicum. The research aimed to figure out if there were any notable differences in self-efficacy and anxiety, drawing on previous teaching experience. This aligns with my fourth hypothesis, which examines whether experienced and novice preservice geography teachers differ significantly in their self-efficacy levels.

The study employed a repeated measures sequential explanatory design, complemented by a follow-up explanation model to provide deeper insight into the quantitative findings. Participants were selected using a census-extreme case sampling strategy. The census gathered data from 119 respondents during the quantitative phase, while extreme case sampling identified eight atypical participants for focus group discussions based on the quantitative findings. To assess self-efficacy and anxiety, the study employed

the validated revised TSES and STAS, respectively. The chosen methodological approach was sound, and similarly, my study will adopt a mixed-method approach, incorporating the census method to include all 218 preservice geography teachers. Additionally, a follow-up focus group discussion will take place in my study to delve into any emerging issues from the quantitative analysis.

The findings indicated no statistically significant differences in the self-efficacy and anxiety levels of preservice management teachers based on their prior teaching experience. This outcome is relevant to my research as I also aim to determine if there is a significant difference between experienced and novice preservice geography teachers regarding their self-efficacy levels. Moreover, this finding will help support and validate both Asare's conclusions and the objectives of my current study.

In Ghana, novice pre-service teachers, who have not had any previous experience in a classroom, often face a wave of anxiety when they start their practicum. They usually lack deep knowledge of teaching methods and feel unsure about how to engage their students. On the other hand, more experienced pre-service teachers, those who have done tutoring, volunteered, or worked as teaching assistants, tend to be more confident. However, they still often find it challenging to plan lessons and develop effective assessment strategies.

This contrast was highlighted by Amoah et al. (2020), who found that experienced pre-service teachers tended to view themselves as more effective, even though feedback from mentor teachers sometimes disagreed with this self-perception. As a result, Asare's findings challenge the straightforward

notion that more experience automatically leads to greater competence or less anxiety, underlining the importance of reflective supervision during practicum, no matter one's background. Asare (2021) presents a well-structured and conceptually sound study that draws valuable connections for exploring self-efficacy among pre-service geography teachers. Although the lack of correlation with teaching experience might seem surprising at first, it encourages a deeper look at how factors like the institutional environment, the quality of mentorship, and supportive reflection influence pre-service teachers' experience in Ghana. For this current study, it will be beneficial to keep a critical comparative perspective while employing a comprehensive census-mixed-methods approach. This will enhance both the robustness of my findings and their impact on the literature related to pre-service teachers' experiences in education in Ghana.

Chapter Summary

The chapter began by emphasizing the developing nature of the teaching profession, where soft skills had become as important as content knowledge for effective teaching, particularly for preservice geography teachers. It outlined how soft skills like problem-solving, emotional intelligence, leadership, lifelong learning, and intellectual skills were integral to effective geography instruction, as they helped teachers manage classroom dynamics, engage students, and tackle complex global challenges, including climate change and sustainable development. The theoretical framework was grounded in Bandura's Social Cognitive Theory and Goleman's Emotional Intelligence Theory. Bandura's theory highlighted the role of self-efficacy, which influenced preservice teachers' confidence in their teaching abilities.

Emotional Intelligence theory stressed the importance of managing both personal and students' emotions in creating a productive learning environment, especially when discussing sensitive topics in geography.

The chapter further offered an in-depth conceptual analysis of key soft skills. Problem-solving helped teachers navigate real-world geographical challenges, while intellectual skills enabled teachers to synthesize and interpret complex data. Emotional intelligence was pivotal in managing classroom dynamics and fostering an empathetic learning environment. Lifelong learning ensured that geography teachers stayed updated with new educational tools and content, and leadership skills were essential for guiding student projects and collaborative work. An empirical review highlighted how soft skills influenced preservice teachers' self-efficacy beliefs. It showed that preservice teachers with stronger soft skills were more confident and effective in teaching geography. Demographic factors, such as age, gender, and socioeconomic background, also played a role in the development of these skills.

CHAPTER THREE

RESEARCH METHODS

Overview

This study examined the soft skills and teaching self-efficacy beliefs of preservice geography teachers at the University of Cape Coast. This chapter outlines the methodology used, allowing future researchers to accurately replicate the study. The chapter starts by discussing the research philosophy or paradigm that informed the study design. The chapter also details how data was collected, outlining the various procedures and techniques we employed throughout the process. Key elements covered include the research design, study location, target population, sample size and sampling technique, research instruments, data collection methods, ethical considerations, and data analysis procedures.

Research Paradigm

This study draws on a pragmatist philosophical orientation. Pragmatism, as articulated by thinkers like John Dewey, posits that knowledge arises from the interaction between humans and their environments (Flowers, 2024). This type of knowledge is fluid, evolving, and focused on real-world consequences. Dewey believed that human experiences, such as fears and aspirations, are deeply intertwined with nature, suggesting a shared reflection between the two. Pragmatism advocates for addressing the world's challenges through both subjective and objective approaches (Brown & Leonov, 2025). Pragmatist researchers tend to be adaptable and practical, seeking effective solutions to the phenomena they investigate. They acknowledge the importance of incorporating various viewpoints and worldviews in tackling

research problems, valuing both objective quantitative data and subjective experiences.

By embracing a pragmatist perspective, we can collect both qualitative and quantitative data (Elgeddawy et al., 2024). Pragmatism supports blending research methods to gain a deeper understanding of research issues and their solutions. It recognizes the significance of individual viewpoints and life experiences (Kaushik & Walsh, 2019). The relevance of pragmatism as a guiding paradigm in this context is substantial; it honours the reality of human experience in action, viewing knowledge as both constructed and rooted in the world we inhabit.

By integrating quantitative and qualitative methodologies, researchers can achieve a thorough understanding of the problem at hand. The goal here is to generate actionable insights that address the issue and assist decision-makers. This paradigm fosters practical knowledge that is relevant and viable in real-world contexts (Turyahikayo, 2021). Pragmatism encourages researchers to reflect on their biases when interpreting and understanding the perspectives of others and the broader world (Sim et al., 2024). This approach is flexible, allowing for multiple viewpoints regarding the phenomenon in question. It enables the findings from quantitative data to be cross-referenced with qualitative insights, fostering thoughtful re-evaluation of both datasets. A thorough understanding of the issues being investigated requires exploring both quantitative and qualitative dimensions.

As a philosophical approach, pragmatism often moves beyond the dichotomy found in positivist theories, recognizing that realities are numerous and always in flux, shaped by our actions and experiences (Kaushik & Walsh,

2019). These diverse realities are best understood by integrating different perspectives. By merging empirical assessments with scientific insights, the researcher aims to build a more comprehensive understanding of the research issue (Kelly & Cordeiro, 2020). Ultimately, this empirical exploration contributes to a broader perspective on research, leading to a well-rounded conclusion.

Research Design

This study is grounded in a pragmatic worldview, which supports the integration of multiple research methods to address complex educational phenomena. Pragmatism underscores the significance of the research problem itself, rather than the methodological approach, advocating for the integration of both quantitative and qualitative methods when appropriate (Plano Clark & Creswell, 2015). Given the multifaceted nature of this study, an explanatory sequential design was adopted, as it best serves the objective of delving deeper into preservice geography teachers' soft skills and their teaching self-efficacy beliefs.

The design unfolds in two distinct phases. The first phase entails the collection of quantitative data, offering a broad, generalizable overview of participants' soft skills and teaching self-efficacy beliefs. This phase identifies trends and correlations across a larger sample, providing the initial empirical insights that form the foundation for the subsequent analysis. Following the quantitative analysis, the qualitative phase consists of semi-structured interviews with a selected subgroup of participants. The qualitative data enrich the statistical findings and offer deeper insights into preservice geography teachers' soft skills and their teaching self-efficacy beliefs. This two-phase

approach adheres to the follow-up explanation model delineated by Plano Clark and Creswell (2015), wherein the qualitative component is specifically designed to elucidate or expand upon the initial quantitative results.

The explanatory sequential design aligns with the pragmatist research orientation of this study, which privileges the identification of existing trends as well as the exploration of the underlying reasons and mechanisms at play. It is not sufficient to merely assess the presence of soft skills or levels of teaching self-efficacy beliefs; understanding the personal experiences, professional motivations, and classroom dynamics that shape these beliefs is equally important. By connecting general patterns with individual stories, this mixed-methods approach facilitates a more nuanced understanding of preservice geography teachers' professional development.

Several benefits were obtained from this design. The quantitative phase provides a systematic means of measuring soft skills and self-efficacy levels, allowing for the identification of broad trends. However, the qualitative interviews offer an opportunity to capture personal experiences and narratives, which cannot be fully captured by standardized survey instruments. This combination enables a more holistic examination of the research questions, integrating both measurable data and rich, qualitative insights. Thematic analysis was employed to ensure the thoroughness of the qualitative data, helping to identify recurring patterns, themes, and participant perspectives that contextualize the statistical findings and give the results greater depth.

The follow-up explanation model was incorporated to explain and expand on the quantitative results. For instance, while the quantitative results indicated which levels of soft skills pre-service geography teachers have, the

qualitative phase helped to offer explanations for these findings. Participants provided examples and narratives that offered richer insights into their teaching self-efficacy beliefs. When the quantitative and qualitative data aligned, the researcher had greater confidence in the results. Creswell and Plano Clark (2018) emphasised that the explanatory sequential mixed methods design is particularly valuable when qualitative data are needed to provide deeper insight into initial quantitative results, helping researchers to better understand unexpected findings or add depth to statistical trends. The follow-up explanatory model addresses limitations in quantitative data by incorporating qualitative inquiry to explore underlying reasons and contextual factors. This integration was achieved through joint displays and thematic analysis, allowing for a cohesive interpretation of the findings.

Studies have demonstrated the efficacy of the follow-up explanatory model in various contexts. For example, Neville et al. (2022) emphasized that the model offers a unique ability to uncover socio-cultural and emotional nuances that are not immediately visible in quantitative data. Their study of family strengthening interventions among resettled refugees illustrated how the explanatory model bridges empirical results with human experience, reinforcing its value in contexts requiring cultural depth and sensitivity.

Siddiqui et al. (2023) viewed the model as highly adaptable and responsive, especially in settings marked by social and political instability. Their use of the qualitative phase helped refine instruments and interpret results in contextually appropriate ways, thus demonstrating the model's strength in ethically and culturally grounded research. Within the field of teacher education and professional development, the model continues to gain

recognition. Salajegheh et al. (2024) highlighted the model's ability to uncover mentoring relationships, self-reflective practices, and identity formation, which might otherwise remain hidden in quantitative metrics. Their findings affirm the model's capacity to explore how deeper personal development influences teaching efficacy.

Toyon (2021) critically acknowledged the model's methodological complexity, noting challenges in sequencing and integration. However, he argued that its capacity to yield nuanced, layered insights outweighs its technical demands, particularly in educational and social research where understanding lived experience is essential. Okeke and Van Wyk (2020) valued the design for its potential to illuminate the informal dimensions of professional identity, showing how beliefs, values, and everyday interactions shape educator development. They viewed the model as particularly useful in capturing the non-formal learning processes that often go undocumented.

Yin et al. (2021) observed that while surveys reflected preservice teachers' self-efficacy trends, the qualitative follow-up revealed the central importance of mentorship and practical teaching exposure. Their work demonstrated that explanatory designs can clarify the underlying mechanisms driving development. In the Ghanaian context, Mensah and Dzameshie (2022) found that the explanatory design allowed them to examine both formal instruction and informal learning paths, providing a holistic view of how soft skills are developed. They endorsed the model for its ability to integrate structured and experiential learning insights, a key concern of this current study.

While the explanatory sequential design offers numerous advantages, it is time-intensive, requiring extensive planning and coordination for both the quantitative and qualitative phases (Creswell & Plano Clark, 2018). Additionally, integrating results from both phases can be challenging, particularly if the findings do not align as expected, leading to difficulties in synthesising data (Yin et al., 2021). Participant attrition is another potential challenge, as participants who engage in the quantitative phase may not be accessible for the qualitative follow-up, which can lead to sampling biases or incomplete data (Siddiqui et al., 2023). Furthermore, because the qualitative phase builds upon the quantitative findings, there is a risk of interpretative bias, where qualitative analysis could unintentionally reinforce or skew the initial statistical results (Salajegheh et al., 2024).

Despite these challenges, the explanatory sequential design remains the appropriate approach for this study. This is because it afforded the researcher the opportunity to explain why some soft skills could not significantly influence pre-service geography teachers' teaching self-efficacy beliefs. The dual-phase structure is particularly beneficial for uncovering both broad patterns and individual stories, offering a more comprehensive and meaningful understanding of pre-service geography teachers' levels of soft skills and their teaching self-efficacy beliefs. By incorporating participants' voices through qualitative interviews, this study goes beyond mere statistical analysis and provides a human-centred perspective, acknowledging that behind every survey response lies a personal narrative shaped by individual experiences, professional aspirations, and classroom dynamics.

Study Area

The University of Cape Coast (UCC) was deliberately selected as the site for this study due to both its institutional strengths and the researcher's personal and professional affiliation with the university. As a lecturer at UCC, the researcher has first-hand insight into the structure of the B.Ed. Geography Programme, the nature of teacher preparation, and the experiences of preservice teachers. This insider perspective not only facilitates access to data but also allows for a more grounded and contextually rich exploration of the research problem.

UCC is widely recognized as a leader in teacher education in Ghana. Its B.Ed. Programmes are designed to blend academic knowledge with professional practice, ensuring that future teachers are not only well-versed in subject content but also equipped with the necessary pedagogical and soft skills for the classroom. The Geography Education programme, in particular, provides students with a well-rounded education that includes teaching practice, microteaching sessions, and capacity-building workshops, making it an ideal setting to study the levels of soft skills and teaching self-efficacy beliefs.

In addition, UCC has a vibrant and diverse student population drawn from different regions and backgrounds. This diversity allows for a richer understanding of how students' soft skills and self-efficacy are shaped by their unique experiences. Since the study seeks to explore these dimensions in depth, the varied student body presents a fertile ground for data collection and meaningful insights. Being a faculty member in this context also enables the researcher to establish trust and rapport more easily with participants,

encouraging honest and reflective responses. Lastly, UCC's strong emphasis on research and innovation in teacher education aligns with the goals of this study. The findings will not only contribute to the academic literature but could also be used to inform improvements in course delivery, student support, and curriculum development within the Geography Education programme and beyond.

Population

The population for this study consisted of all Level 400 preservice geography teachers in the Department of Business and Social Sciences Education at the University of Cape Coast during the 2024/2025 academic year. In total, there were 218 students at this level, and every one of them was included in the study. These students were enrolled in the regular geography teacher education programme, a structured training pathway designed to deepen their understanding of geographical concepts and to shape them into effective educators. One of the critical components of their training is the Method of Teaching Geography course, which they undertake in their third year. This course is instrumental in preparing them for the realities of classroom teaching. It introduces them to instructional strategies, classroom management, learner-centred pedagogies, and practical approaches for making geography relatable and engaging for students.

By the time they reach their final year, these preservice teachers have had the opportunity to put their knowledge into practice during their teaching practicum. However, it is important to acknowledge the differences in their backgrounds. While some of the students have previously been trained and may already have some classroom experience, others are new to the profession

and are receiving formal teacher training for the first time. This blend of experience brought a rich perspective to the study, allowing a more nuanced understanding of how individuals with varied professional journeys perceive their soft skills and teaching self-efficacy. Students in other levels, particularly those in Level 100, 200, and 300, were intentionally excluded from the study. Focusing on Level 400 students ensured that the study drew insights from those who are in the final year and the most integrative stage of their training, where both theoretical knowledge and practical teaching experience come together.

Census Method

All 218 pre-service geography teachers were included in the quantitative stage of the study. Thus, the census method was used to involve them in the study. Richard (as cited in Bentil, 2018), a census is an attempt to gather information from each and every person of interest, the universe of the study target. Moreover, in educational research contexts, especially within teacher education, where variability in experience and perception can be significant, employing a census ensures that no subgroup is omitted, allowing for findings that can be confidently generalized to the entire cohort (Baltar & Brunet, 2018).

For the qualitative phase, a total of 12 students were conveniently involved in two different focus group discussions. The rationale for the convenient sampling is due to the fact that as at the time of the focus group discussions, these 12 participants were available on campus. Each group contains six participants. In support of this focus group size, Denscombe (as cited in Asare, 2021) opined that a focus group typically comprises a small

number of participants, usually between six and nine. Creswell and Poth (2018) suggest that the smaller size of the focus groups enables richer discussions and allows participants to feel more comfortable sharing their thoughts.

Data Collection Instruments

To collect the data needed for this study, two tools were used: a structured questionnaire and a semi-structured focus group protocol. These were perfectly suited to the chosen design (explanatory sequential mixed methods design), where the study began with a quantitative phase and followed up with a qualitative one to explore the findings in greater depth (Creswell & Plano Clark, 2018). For Preservice Geography Teachers' (PGTs) self-efficacy levels, the Teacher Sense of Efficacy Scale (TSES) was adopted from Asare (2021). The justification for adopting Asare's TSES instrument is that it has been subjected to rigorous reliability and validity tests and also reflects the characteristics of UCC students. This scale had only three indicators, namely, instructional strategies efficacy, class management efficacy, and student engagement efficacy. Besides, the PGT's soft skills were adapted from a number of literature (Alhouli & Al-Khayatt, 2020; De Pietro & Altomari, 2019; Georgia Career Information Centre, 2007). It had three main parts. Section A gathered background information such as gender, age, and whether the participants had any teaching experience before entering their degree programme. This helped the researcher understand the unique profiles and backgrounds of the respondents. Section B was dedicated to assessing pre-service geography teachers' soft skills levels. It contained 83 items that focused on areas such as communication, teamwork and collaboration,

problem-solving, adaptability, intellectual skills, emotional intelligence, lifelong learning, and leadership. These skills have been increasingly recognized as essential for effective teaching and professional success (Andrews & Higson, 2018; Suleman et al., 2020). Section C focused on pre-service geography teachers' levels of teaching self-efficacy beliefs. This section contained 24 items that explored how confident the future teachers felt about handling various classroom tasks like instruction, student engagement, and classroom management. Research has shown that teacher self-efficacy is a powerful predictor of how motivated, persistent, and successful teachers can be (Donohoo et al., 2018; Skaalvik & Skaalvik, 2017).

Besides, the semi-structured focus group protocol was developed based on the patterns and themes that emerged from the survey data. This ensured that the follow-up conversations were meaningful and grounded in what the students had shared (Guetterman et al., 2015). The protocol contains five items. These items comprise why the participant can teach, why teamwork and collaboration, adaptability, intellectual and problem-solving skills did not significantly influence pre-service geography teachers' teaching self-efficacy beliefs.

Validity and Reliability of the Instrument

The research instruments were put through tests to check both their validity and reliability. Validity is all about how well the evidence and theories back up the conclusions drawn from the test results (Taherdoost, 2016). In simpler terms, it ensures that the results are meaningful and appropriate. On the flip side, reliability looks at whether the instruments consistently produce similar results over time (Field, 2018).

To evaluate both face and content validity, the researcher's supervisors and colleagues reviewed the questionnaire and the semi-structured focus group protocol. Face validity ensured that the questions were clear, relevant, and easy for participants to understand (Moule & Goodman, 2017). On the other hand, content validity focused on assessing how well the instrument covered all the relevant topics it aimed to measure (Kane, 2019). The feedback from experts helped make the necessary adjustments to enhance the instruments' validity.

Following that, a pilot test was carried out with Level 300 preservice geography students from the Department of Business and Social Sciences Education. This pilot was crucial for gathering feedback on whether the items in both the questionnaire and semi-structured focus group protocol were comprehensive and suitable. The completed questionnaires were collected, checked for any missing answers, and analysed using IBM SPSS Statistics (Version 27). To evaluate the reliability of the items, Cronbach's coefficient alpha was calculated. As noted by Cohen, Manion, and Morrison (2018), a reliability coefficient of .70 is regarded as acceptable. The pilot study results confirmed that internal consistency reliability was acceptable across all constructs, with Cronbach's alpha values surpassing the recommended threshold of 0.70. Specifically, the values were as follows: CS ($\alpha = 0.812$), TCS ($\alpha = 0.843$), PS ($\alpha = 0.801$), ISS ($\alpha = 0.827$), AS ($\alpha = 0.846$), EI ($\alpha = 0.869$), LLS ($\alpha = 0.803$), LS ($\alpha = 0.834$), IS ($\alpha = 0.815$), SE ($\alpha = 0.857$), CM ($\alpha = 0.836$), and TSE ($\alpha = 0.874$), all showing strong reliability.

Besides, the focus group discussion (FGD) guide was subjected to credibility, transferability, dependability, and confirmability analysis. With the

credibility of the data, each focus group conducted was summarised, and participants were allowed to verify whether the summary accurately echoed their views. Also, the transcribed results were made available to the participants for their comments. In terms of transferability, the researcher provided a detailed description of the context of the study, participants from whom data were collected, and the rationale for selecting them. Also, the processes that guided the data collection, analysis, and interpretation were indicated. With regards to confirmability, the researcher involved in extended discussions with colleagues, who helped review the focus group transcripts, data analysis, findings, and conclusions. As indicated in the credibility test, focus group transcripts were also given to some participants for their remarks. About dependability, the decisions that were made in the course of the research were carefully documented to facilitate dependability checks in the research process. Also, primary evidence was distinguished from secondary evidence in the data reporting. These qualitative validation and reliability processes adopted were supported by Cobbold (2015) and Asare (2021), who have shown credibility, transferability, confirmability, and dependability as critical procedures in the qualitative data collection, analysis, and interpretation.

Data Collection Procedure

After obtaining the ethical clearance from the University of Cape Coast's Institutional Review Board and the permission from the lecturers handling the pre-service geography level 400 students, the respondents were briefed on the purpose of the study to get their understanding, support, and cooperation for data collection. The researcher, supported by a field assistant,

distributed the questionnaires to the students. Forty minutes were given to each respondent to fill out the questionnaire. The researcher had a 92 per cent return rate of the questionnaire. This return rate is justified by Dilman (as cited by Bentil, 2018) that a return rate of 70% is classified as a good and acceptable return rate. This return rate was because, within the days of the data collection and follow-up, there was no day a researcher met a full class.

Following the quantitative results where three soft skills namely, teamwork and collaboration, problem-solving and adaptability skills could not statistically significantly influence teaching self-efficacy, the researcher proceeded with the qualitative phase (Focus Group Discussion) to get deeper insight on why these skills could not influence teaching self-efficacy. Two different focus groups comprising six members each were formed. Prior information was given to prepare participants' minds for the exercise. Each of the discussions lasted for 30 minutes. With the permission from the participant, the tape recorder was used to record the responses for transcription purposes. The focus group discussion was informed by the responses from the questionnaire on the various soft skills of pre-service geography teachers and their influence on their teaching self-efficacy beliefs.

Ethical Considerations

Before beginning the study, ethical approval with reference number, UCCIRB/CES/2024/092 was obtained from the Institutional Review Board (IRB). This was a critical first step to ensure that the research met the required ethical standards and safeguarded the rights and well-being of all participants involved. With the IRB's approval, the researcher proceeded to uphold all ethical responsibilities throughout the study. To begin with, informed consent

was sought from the students. They were given a clear explanation of the purpose of the study, what was expected of them, how long it would take, and how their responses would be used. This allowed them to make a well-informed decision about their participation. The well-being of participants was taken very seriously. Every effort was made to avoid any form of harm, discomfort, or embarrassment. Identities were protected by keeping all information confidential and ensuring that no personal details were shared with anyone outside the study. This created a respectful and trusting environment where participants felt safe to express themselves. Confidentiality was strictly maintained throughout. Real names and any identifying features were removed or replaced with pseudonyms, and the data was securely stored. Participants were also informed about how their data would be used, and their right to withdraw from the study or withhold permission to use their information was fully respected. Importantly, participants were treated as partners in the research process, not as objects of study. Their thoughts, feelings, and experiences were valued, and the researcher approached every interaction with care and respect. Finally, it was communicated that participation was voluntary. Students were told that they could choose not to take part or to stop participating at any time, without facing any form of penalty or losing access to any services or benefits.

Researcher Reflexivity

The researcher occupied a dual role as both the lecturer for the course in which soft skills were embedded and the principal investigator for the study. This unique positionality provided direct insight into the instructional environment and students' developmental experiences, yet it also presented

the potential for unintended influence over participants' responses. The possibility that students might respond in ways they believed aligned with lecturer expectations was carefully acknowledged. Measures were taken to minimize this risk. Participants were assured of anonymity and confidentiality and were informed that participation, withdrawal, or the nature of their responses would have no bearing on their academic performance. During qualitative data collection, the researcher maintained a neutral demeanor, avoided leading prompts, and encouraged open expression. A reflexive journal was maintained throughout the research process to note assumptions, methodological decisions, and areas where positional bias could arise. Peer debriefing and guidance from experienced supervisors further strengthened the credibility of interpretations and reduced the likelihood of subjective influence during data analysis. Systematic coding procedures and the triangulation of qualitative and quantitative findings enhanced analytical rigor. Ethical approval was received from the Institutional Review Board of the University of Cape Coast, and informed consent was obtained from all participants. By consciously reflecting throughout the research process, the researcher remained committed to transparency, fairness, and integrity in both data collection and interpretation.

Data Processing and Analysis

The data collected from the preservice geography teachers were initially gathered using a questionnaire, underwent cleaning and editing. The raw data was scrutinized for any inconsistencies, errors, or missing values. During this phase, special attention was given to the accuracy and completeness of the data to ensure that no critical information was overlooked

or misrepresented. After the data was thoroughly reviewed, it was exported into the IBM Statistical Product for the Service Solution (SPSS), version 27, for further processing and analysis. SPSS was selected because of its robust capabilities for handling complex datasets and its suitability for the diverse range of statistical tests required in this study.

Once the data were transferred to SPSS, the first step in the analysis was to conduct descriptive statistics to provide a general overview of the dataset. The mean and standard deviation were computed for each of the relevant variables, such as soft skills and self-efficacy beliefs, which provided an understanding of the central tendency and variability of the participants' responses. Descriptive statistics are often the first step in analysing quantitative data, as they summarize key characteristics and set the stage for more advanced statistical tests. These measures provided a solid foundation for understanding the general trends in the dataset and helped identify any outliers or anomalies that could skew the results.

For Research Questions (RQ) 1 and 2, means and standard deviations were calculated. For Hypothesis 1, the Structural Equation Modelling (SEM) technique was employed using Smart-PLS (Partial Least Squares). SEM is a comprehensive statistical method that allows researchers to analyse complex relationships between observed and latent variables simultaneously. SEM is especially useful when examining causal relationships or when testing theories involving multiple interrelated variables (Hair et al., 2017). In this study, SEM was used to assess how soft skills influenced self-efficacy beliefs among the preservice geography teachers. Smart-PLS was selected due to its ability to handle both reflective and formative measurement models, which is common

in educational research where constructs such as self-efficacy and soft skills are not directly observable but are instead inferred from related items (Hair et al., 2017). The results from the SEM analysis provided insights into the direct and indirect effects of soft skills on self-efficacy, contributing to a deeper understanding of how these variables are interlinked in the context of teacher education. For Hypothesis 2**,** a two-way Multivariate Analysis of Variance (MANOVA) was conducted. MANOVA is an advanced statistical technique that allows researchers to assess the impact of multiple independent variables on several dependent variables simultaneously. Lastly, for Hypotheses 3 and 4, one-way MANOVA was used to analyse the data. The focus group discussion data was recorded and transcribed using google voice translator and Microsoft word processor. After the transcribed data was organised into themes using Microsoft word processor.

Chapter Summary

In this chapter, the pragmatic paradigm and mixed-methods approach with an explanatory sequential design and follow-up explanation model were used. The focus of the study was on Level 400 preservice geography teachers at the University of Cape Coast. The study specifically aimed to understand their soft skills, and self-efficacy beliefs. The participants were drawn from the Department of Business and Social Sciences Education and included students enrolled in B.Ed. Social Sciences (Geography Major) program. For the quantitative phase, a census sampling method was used, meaning that all 218 Level 400 students in the department were invited to participate in the study. This approach was chosen to ensure that the data would be comprehensive and fully representative of the entire cohort. In the qualitative

phase, convenient sampling was employed to select 12 students for focus group discussion. These students were split into two groups with each group having six participants, allowing for in-depth, manageable discussions that captured a variety of viewpoints.

The data collection methods included a questionnaire and a semi-structured focus group protocol. The hard copies of the questionnaire were made available. The questionnaire included sections on participants' demographic information, soft skills, and self-efficacy beliefs. Before starting, participants were provided with an introductory message explaining the study's purpose, assuring them of confidentiality, and reminding them that their participation was voluntary.

Once the data were collected, the quantitative data from the questionnaires were processed using SPSS version 27, with analyses such as One-Way Repeated Measures ANOVA and Structural Equation Modelling (SEM) being used to test the research hypotheses. For the qualitative data, thematic analysis was applied to explore the underlying themes in the focus group discussions. Looking ahead, Chapter 4 presents the results of the data analysis and provides a detailed discussion of the findings. By combining both quantitative and qualitative methods, this chapter sets the stage for the deeper analysis of the preservice geography teachers' experiences, which was explored in the next chapter.

CHAPTER FOUR

RESULTS AND DISCUSSION

Overview

The study looked into the soft skills of preservice geography teachers and their beliefs about teaching self-efficacy at the University of Cape Coast. In this chapter, shared and discussed the findings related to these soft skills and self-efficacy beliefs among pre-service geography teachers at the same university. The chapter used an explanatory sequential design and managed to collect 200 questionnaires, achieving a return rate of 92%. After analysing the quantitative data, a follow-up focus group discussion was conducted with 14 participants to delve deeper into some of the findings from the numbers. Both descriptive and inferential statistics were applied, alongside thematic analysis for processing the information. The results have been organised and presented according to the research questions and hypotheses outlined in the study. This chapter is split into two sections: the first part covers the demographic data of the respondents, while the second part focuses on presenting and discussing the main results and findings of our study.

Demographic Characteristics of Respondents

The demographic characteristics of the pre-service geography teachers (PGTs) provide an insight into the composition of the respondents to the study. Table 1 provides a summary of the gender, age, and previous teaching experience of the participants.

Table 1: Demographic Profile of Preservice Geography Teachers (PGT)

Variable	Subscale	N	%
Gender	Male	95	47.5
	Female	105	52.5
Age (in years)	20-25	127	63.5
	26-30	47	23.5
	31 and above	26	13.0
Experienced	Yes	105	52.5
Novice	No	95	47.5

Fieldwork (2024)

The demographic profile of the pre-service geography teachers (PGTs) in the study shows an almost even gender distribution, with females slightly outnumbering males. Of the 200 respondents, 52.5% were female and 47.5% were male. This balanced representation suggests that both genders are almost equally involved in pre-service teacher education programmes in geography. With regards to age distribution, the majority of respondents were between 20 and 25 years old, accounting for 63.5% of the sample. A smaller proportion of 23.5% were aged between 26 and 30, while the remaining 13% were aged 31 and over. This suggests that the majority of participants are relatively young, which is likely to be in line with typical pre-service teacher education demographics. In addition, more than half of the respondents (52.5%) reported having previous teaching experience, while the remaining 47.5% had never taught before. This distribution suggests that a significant number of pre-service geography teachers are entering the profession with some teaching experience, which may influence their perspectives on teaching practice and soft skills development.

Cross Tabulation for Gender and Age

Table 2 presents the cross-tabulation of gender and age, showing the distribution of respondents across different age categories. Out of the total 200 participants, 95 were male and 105 were female. Among males, the majority (54) fell within the 20-25 age range, followed by 29 in the 26-30 age group, and 12 aged 31 and above. Similarly, among females, 73 were aged 20-25, 18 fell within 26-30, and 14 were 31 and above. Overall, the 20-25 age group had the highest representation (127 respondents), while the 31 and above category had the least (26 respondents). This distribution highlights a relatively youthful sample, with a slightly higher proportion of female respondents.

Table 2: Gender and Age Cross Tabulation

Variable		Age			Total
		20-25	26-30	31 Above	
Gender	Male	54	29	12	95
	Female	73	18	14	105
Total		127	47	26	200

Source: Fieldwork (2024)

Normality Measures

Skewness and kurtosis were assessed using Hair et al.'s (2022) criterion, which considers values within ±2 as indicative of approximate normality. The results show that all constructs have skewness values ranging from -1.326 (CS) to -0.561 (EI), indicating moderate negative skewness but remaining within the acceptable range. Similarly, kurtosis values range from -0.019 (EI) to 1.881 (TCS), suggesting that none of the constructs exhibit extreme peakedness or flatness (see Table 3). Since all values fall within the ±2 threshold, the data do not show severe violations of normality. However,

given that PLS-SEM was employed, its robustness to non-normality ensures reliable parameter estimation despite these moderate deviations.

Table 3: Skewness and Kurtosis

	Mean	SD	Skewness		Kurtosis	
Constructs	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CS	3.89	.77	-1.326	.172	1.485	.342
TCS	3.91	.75	-1.267	.172	1.881	.342
PS	3.77	.77	-1.057	.172	1.542	.342
ISS	3.78	.76	-.985	.172	1.188	.342
AS	3.82	.73	-1.041	.172	1.510	.342
EI	3.79	.66	-.561	.172	-.019	.342
LLS	3.82	.73	-.807	.172	.478	.342
LS	3.86	.75	-.787	.172	1.123	.342
IS	3.82	.72	-.735	.172	.864	.342
SE	3.84	.76	-.934	.172	.759	.342
CM	3.80	.78	-.808	.172	.858	.342
TSE	3.82	.69	-.871	.172	1.240	.342

Source: Fieldwork (2024)

Mardia's multivariate skewness and kurtosis assess the extent to which a dataset deviates from multivariate normality, a fundamental assumption in structural equation modelling (SEM) and other multivariate analyses. In this study, the calculated multivariate skewness ($b = 44.4567$, $z = 1481.89010$, $p < 0.001$) and kurtosis ($b = 205.4100$, $z = 26.09494$, $p < 0.001$) indicate significant departures from normality, suggesting that the data distribution is highly asymmetric and exhibits excessive kurtosis. Given this violation of normality assumptions, Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed as the analytical approach, as it is a non-parametric method that does not require strict normality assumptions. PLS-SEM is particularly suitable for handling non-normal data, complex models, and smaller sample sizes while ensuring robust parameter estimation and

predictive accuracy. Its ability to accommodate non-normal distributions makes it an appropriate choice for this study.

Presentation of Main Results

This section focuses on the results corresponding to the specific research objectives formulated to guide the study. Each objective is addressed through a detailed presentation of the analysed data, highlighting key patterns, relationships, and statistical findings. The results are structured to provide clarity on how each research objective was met, offering insights into the underlying trends and associations relevant to the study's focus.

Research Question One: What is pre-service geography teachers' level of soft skills (communication, teamwork and collaboration, problem-solving, intellectual, adaptability, emotional intelligence, lifelong learning, and leadership skills)?

Research Question One aimed to assess the level of soft skills among pre-service geography teachers, specifically focusing on communication, teamwork and collaboration, problem-solving, intellectual adaptability, emotional intelligence, lifelong learning, and leadership skills. The data were analysed using mean scores and standard deviations, with the results summarised in Table 4.

Table 4: PGT Level of Soft Skills

Dimensions of Soft Skills	Mean Scores	*SD*	Interpretation
Communication Skill	3.90	1.09	High
Teamwork and collaboration	3.91	1.02	High
Problem-solving skill	3.77	1.02	High
Intellectual Skill	3.78	1.03	High
Adaptability Skill	3.82	1.00	High
Emotional Intelligence	3.79	0.98	High
Lifelong Learning Skill	3.82	1.00	High
Leadership Skill	3.86	0.95	High
Level of Soft Skill (SS)	3.83	1.01	High

Scale: 1.00-1.49 (*Very Low*); 1.50-2.49 (*Low*); 2.50-3.49 (*Moderate*); 3.50-4.49 (*High*); 4.50-5.00 (*Very High*).

The results in Table 4 indicate that pre-service geography teachers exhibited a high level of soft skills across all dimensions. Communication skills were rated with a mean score of 3.90 (SD = 1.09), reflecting a strong ability to convey information effectively. Similarly, teamwork and collaboration skills scored slightly higher with a mean of 3.91 (SD = 1.02), suggesting that the respondents are proficient in working with others in group settings. These findings highlight the importance of communication and collaboration in teacher preparation programs, as these skills are crucial in educational environments.

In terms of problem-solving, the respondents reported a mean score of 3.77 (SD = 1.02), indicating a high level of competency in addressing challenges and finding solutions. Intellectual skills were also rated highly, with a mean of 3.78 (SD = 1.03), signifying a strong capacity for critical thinking and cognitive engagement. The adaptability skill score, at 3.82 (SD = 1.00), further suggests that pre-service geography teachers are capable of

adjusting to changing situations and demands, which is essential in the dynamic nature of teaching.

Moreover, emotional intelligence, with a mean score of 3.79 (SD = 0.98), was identified as a significant strength among the respondents, suggesting that they possess the ability to understand and manage emotions effectively. Lifelong learning, an essential skill for continuous professional growth, was rated highly with a mean of 3.82 (SD = 1.00). Leadership skills, scoring 3.86 (SD = 0.95), reflect the pre-service teachers' capacity to inspire and guide others, a critical quality for educators in leadership roles.

The overall mean score for the level of soft skills was 3.83 (SD = 1.01), indicating that pre-service geography teachers possess high levels of soft skills across all dimensions. This result suggests that the respondents are well-prepared in terms of the non-technical skills necessary for effective teaching and learning, supporting their readiness to engage in the multifaceted demands of the teaching profession. The high levels of soft skills observed are likely to contribute positively to their future careers, as these competencies are integral to fostering a conducive learning environment.

Research Question Two: What is pre-service geography teachers' level of teaching self-efficacy (i.e., instructional strategies, class management, and student engagement efficacy)?

This research question sought to examine pre-service geography teachers' teaching self-efficacy. The data were analysed and discussed using mean and standard deviation. The summarised descriptive results are presented in Table 5.

Table 5: PGT Level of Teaching Self-Efficacy

Dimensions of Teaching Self-Efficacy	Mean Scores	*SD*	Interpretation
Instructional Strategy	3.82	0.94	High
Student Engagement	3.84	1.01	High
Classroom Management	3.80	0.99	High
Level of Teaching Self-Efficacy (TSE)	3.82	0.98	High

Scale: 1.00-1.49 (*Very Low*); 1.50-2.49 (*Low*); 2.50-3.49 (*Moderate*); 3.50-4.49 (*High*); 4.50-5.00 (*Very High*).

The results indicate that pre-service geography teachers demonstrated high levels of teaching self-efficacy across all three dimensions. Instructional strategy, a critical aspect of teaching effectiveness, was rated with a mean score of 3.82 (SD = 0.94), representing a strong belief among respondents in their ability to design and implement effective instructional methods. This suggests that pre-service teachers are confident in their ability to plan lessons, deliver content, and use different teaching strategies to meet students' learning needs.

In terms of student engagement, respondents also demonstrated high levels of efficacy, with a mean score of 3.84 (SD = 1.01). This finding highlights the belief of pre-service geography teachers in their ability to motivate and actively engage students in the learning process, an essential component of fostering a productive classroom environment. Effective student engagement is key to ensuring that learners remain attentive, motivated, and participatory, which in turn improves overall learning outcomes.

Classroom management, another important dimension of teaching self-efficacy, was rated with a mean score of 3.80 (SD = 0.99), reflecting pre-

service teachers' confidence in maintaining discipline and order in the classroom. The ability to manage student behaviour and create a conducive learning environment is fundamental to effective teaching, and the high score in this area suggests that respondents are well equipped to manage classroom dynamics.

The overall mean score for teaching self-efficacy was 3.82 (SD = 0.98), indicating that the pre-service geography teachers have a high level of confidence in their teaching abilities in terms of teaching strategies, student engagement, and classroom management. This high level of self-efficacy suggests that respondents are well prepared to navigate the complexities of teaching, which is critical to their future professional success. Their belief in their ability to implement instructional strategies, manage classrooms, and engage students effectively is likely to contribute to positive classroom experiences and learning outcomes.

Research Hypothesis One: There is no statistically significant influence of pre-service geography teachers' soft skills on their teaching self-efficacy.

The first research hypothesis examined the influence of pre-service geography teachers' soft skills on their teaching self-efficacy. Given that Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed as the analytical technique, both the measurement model and the structural model were rigorously assessed. The measurement model evaluation focused on establishing the reliability and validity of the latent constructs, ensuring that the indicators accurately represented the underlying variables. Following this, the structural model was examined to test the hypothesised relationship between pre-service geography teachers' soft skills and their

teaching self-efficacy. This hypothesis aimed to determine whether soft skills exert a statistically significant influence on the self-perceived teaching efficacy of pre-service geography teachers.

Measurement Model

The measurement model was evaluated to determine the reliability and validity of the lower-order construct, Teaching Self-Efficacy, and its related sub-dimensions. The assessment focused on the factor loadings of items, internal consistency reliability, convergent validity, and collinearity diagnostics.

Validation of the Lower Order Construct (Teaching Self-Efficacy)

The validation of the lower-order construct *Teaching Self-Efficacy* was assessed through its three dimensions: Student Engagement Efficacy, Classroom Management Efficacy, and Instructional Strategies Efficacy. Each dimension exhibited strong factor loadings, reliability, and validity, confirming its suitability for measuring teaching self-efficacy.

Factor Loadings and Indicator Reliability

All items retained in the measurement model met the minimum threshold of 0.50 for factor loadings, signifying that each item loaded significantly on its respective latent construct (Hair & Alamer, 2022). For instance, the items measuring Adaptability Skill (AS) recorded loadings between 0.731 and 0.818 (see Table 6). Similarly, Communication Skills (CS) items had loadings ranging from 0.686 to 0.863, while Intellectual Skills (IS) items ranged from 0.617 to 0.841. These results suggest adequate indicator reliability, with no item falling below the critical cutoff point of 0.50. Even the lowest loading observed (SE1 = 0.608) was still above the acceptable

minimum, affirming the suitability of all retained indicators for construct measurement.

Internal Consistency Reliability

Internal consistency was assessed using Cronbach's alpha (α), rho_A, and composite reliability (CR). All constructs surpassed the recommended threshold of 0.70, demonstrating strong internal consistency (Hair et al., 2022). For example, Problem-Solving Skills (PSS) and Leadership Skills (LS) both reported Cronbach's alpha values of 0.897 and 0.900, respectively. Likewise, Emotional Intelligence (EI) had a high reliability score of 0.929, and Teamwork and Collaboration Skills (TWCS) recorded a reliability value of 0.887. The consistency across rho_A and CR values reinforced the internal reliability of all constructs measured.

Convergent Validity

Convergent validity was examined using the Average Variance Extracted (AVE). All constructs exceeded the minimum AVE threshold of 0.50 (Hair et al., 2022), indicating that the majority of variance was explained by the latent constructs rather than measurement error. Communication Skills recorded an AVE of 0.599, Lifelong Learning Skills (LLS) had an AVE of 0.584, and Teaching Self-Efficacy (SE) had an AVE of 0.564. The highest AVE was found in Classroom Management (CM) at 0.653, which suggests strong convergent validity across the board.

Collinearity Statistics

Variance Inflation Factor (VIF) values were used to examine multicollinearity. All items reported VIF values well below the critical threshold of 5 (Hair, Risher, Sarstedt & Ringle, 2019), which suggests that

multicollinearity was not a concern in the model. For instance, the VIF values for Adaptability Skill ranged from 1.689 to 2.261, while those for Communication Skills ranged from 1.503 to 2.568. The highest VIF observed was 2.942 (see Table 6), still comfortably within acceptable limits, indicating that multicollinearity does not distort the estimation of path coefficients in the structural model.

The measurement model for the lower-order construct of Teaching Self-Efficacy demonstrated robust psychometric properties. All items had satisfactory factor loadings (≥ 0.50), and all constructs achieved acceptable thresholds for internal consistency reliability (α ≥ 0.70), convergent validity (AVE ≥ 0.50), and collinearity diagnostics (VIF ≤ 5). These results confirm that the measurement model is reliable and valid, thereby supporting its use in further structural model analysis.

Table 6: Measurement Model Assessment for LOC (TSE)

First-order Constructs	Items	Factor Loadings	CA (α)	CR (rho_a)	CR (rho_c)	AVE	VIF
AS	AS3	0.787	0.881	0.883	0.908	0.584	2.056
	AS4	0.731					1.814
	AS5	0.768					1.876
	AS6	0.753					1.880
	AS7	0.818					2.261
	AS8	0.752					1.840
	AS9	0.737					1.689
CM	CM2	0.833	0.911	0.913	0.929	0.653	2.942
	CM3	0.815					2.656
	CM4	0.800					2.298
	CM5	0.819					2.531
	CM6	0.843					2.912
	CM7	0.760					1.973
	CM8	0.782					2.039
CS	CS2	0.863	0.864	0.872	0.899	0.599	2.568
	CS4	0.694					1.514
	CS6	0.796					1.981
	CS7	0.782					1.879
	CS8	0.806					2.058

Table 6 Continued

	CS1	0.686					1.503
IS	IS1	0.617	0.900	0.907	0.920	0.592	1.545
	IS2	0.772					2.123
	IS3	0.773					2.172
	IS4	0.841					2.637
	IS5	0.819					2.319
	IS6	0.818					2.390
	IS7	0.765					2.193
	IS8	0.727					1.852
ISS	ISS1	0.684	0.897	0.902	0.916	0.549	1.738
	ISS2	0.767					2.090
	ISS3	0.823					2.805
	ISS4	0.727					2.179
	ISS5	0.700					1.820
	ISS6	0.815					2.291
	ISS7	0.729					2.008
	ISS8	0.682					1.960
	ISS9	0.728					1.769
LLS	LLS1	0.692	0.910	0.913	0.926	0.584	2.013
	LLS11	0.693					1.766
	LLS2	0.802					2.609
	LLS3	0.822					2.559
	LLS4	0.785					2.499
	LLS5	0.796					2.194
	LLS6	0.820					2.560
	LLS7	0.717					1.871
	LLS8	0.738					1.963
LS	LS1	0.737	0.900	0.903	0.921	0.625	1.735
	LS2	0.824					2.545
	LS3	0.806					2.367
	LS4	0.819					2.921
	LS5	0.794					2.225
	LS6	0.813					2.462
	LS7	0.736					2.066
PS	PS2	0.712	0.897	0.899	0.918	0.583	1.738
	PS3	0.773					2.130
	PS4	0.726					1.797
	PS5	0.796					2.328
	PS6	0.774					2.089
	PS7	0.734					1.895
	PS8	0.770					2.082
	PS9	0.817					2.436
EI	RM2	0.684	0.929	0.931	0.938	0.503	1.993
	RM3	0.725					2.119
	RM4	0.743					2.384

	RM5	0.668					2.084
	SA1	0.706					2.122
	SA2	0.682					2.567
	SA3	0.715					2.785
	SA4	0.711					2.087
	SA5	0.731					2.196
	SAA1	0.800					2.627
	SAA3	0.691					1.982
	SM2	0.656					1.827
	SM3	0.747					2.349
	SM4	0.720					2.056
	SM5	0.643					1.768
SE	SE1	0.608	0.887	0.897	0.911	0.564	1.411
	SE2	0.629					1.637
	SE3	0.773					2.060
	SE4	0.786					2.178
	SE5	0.836					2.654
	SE6	0.844					2.697
	SE7	0.783					2.203
	SE8	0.714					1.709
TWCS	TCS1	0.781	0.887	0.893	0.910	0.561	2.130
	TCS3	0.676					1.600
	TCS4	0.677					1.558
	TCS5	0.815					2.234
	TCS6	0.797					2.259
	TCS7	0.728					1.923
	TCS8	0.798					2.211
	TCS9	0.704					1.743

Note: "AS = Adaptability Skill, TSE = Teaching Self-Efficacy; CM = Classroom Management (LOC); CS = Communication Skills; EI = Emotional Intelligence; IS = Instructional Strategy (LOC); ISS = Intellectual Skills; LS = Leadership Skills, LLS = Lifelong Learning Skills; PSS = Problem Solving Skills, SE = Student Engagement (LOC); TWCS = Teamwork and collaboration skill; LOC = Lower Order Construct".

Figure 2 shows the PLS-SEM algorithm results for LOC (Teaching Efficacy).

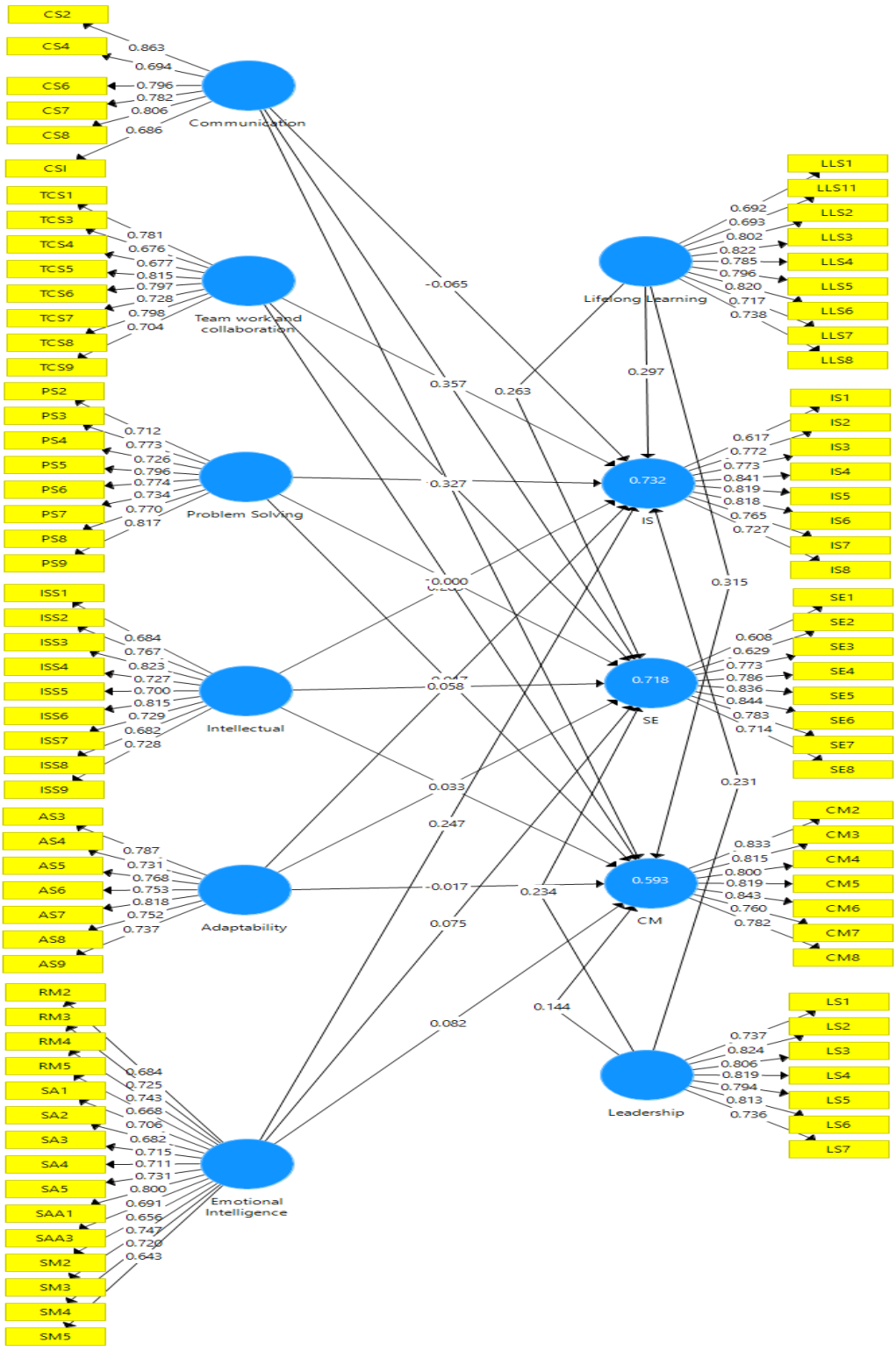


Figure 2: PLS-SEM Algorithm Results for LOC (Teaching Efficacy)

Discriminant Validity for LOC

Discriminant validity assesses whether constructs in a model are sufficiently distinct from one another, ensuring that each variable captures a unique concept. In this study, discriminant validity for LOC **(**Teaching Efficacy**)** was examined using the Heterotrait-Monotrait (HTMT) ratio, a strong measure in Partial Least Squares Structural Equation Modelling (PLS-SEM). According to Henseler et al. (2015), an HTMT value below 0.90 is considered acceptable, confirming that constructs are empirically distinct. The results in Table 7 indicate that most HTMT values remain within the acceptable threshold, supporting the discriminant validity of the LOC constructs.

Table 7: Discriminant Validity for LOC (TSE)

Construct	AS	CM	CS	EI	IS	ISS	LS	LSS	PSS	SE	TWCS
AS											
CM	0.666										
CS	0.767	0.758									
EI	0.882	0.713	0.727								
IS	0.773	0.759	0.667	0.868							
ISS	0.884	0.710	0.876	0.834	0.810						
LS	0.733	0.689	0.627	0.804	0.813	0.747					
LLS	0.785	0.783	0.760	0.896	0.871	0.797	0.842				
PSS	0.853	0.649	0.825	0.700	0.648	0.867	0.735	0.731			
SE	0.779	0.885	0.812	0.813	0.839	0.809	0.796	0.851	0.711		
TWCS	0.841	0.667	0.888	0.715	0.654	0.829	0.632	0.758	0.889	0.677	

Note: "AS = Adaptability Skill, TSE = Teaching Self-Efficacy; CM = Classroom Management; CS = Communication Skills; EI = Emotional Intelligence; IS = Instructional Strategy; ISS = Intellectual Skills; LS = Leadership Skills, LLS = Lifelong Learning Skills; PSS = Problem Solving Skills, SE = Student Engagement; TWCS = Teamwork and collaboration skills"

Validation of the Higher Order Construct (Teaching Self-Efficacy)

This section presents the validation process for the higher-order construct of Teaching Self-Efficacy, modelled as a reflective-reflective construct. The validation involved assessing the reliability and validity of both the lower-order and higher-order components to ensure the construct was accurately and consistently measured within the PLS-SEM framework.

Measurement Model Assessment

The measurement model was assessed to evaluate the reliability and validity of the constructs used in the study. Table 8 presents the psychometric properties of the constructs, including item loadings, Cronbach's alpha (CA), composite reliability (CR), average variance extracted (AVE), and variance inflation factors (VIF). The assessment covered eight first-order constructs and one higher-order construct—Teaching Self-Efficacy (TSE), which consists of three lower-order dimensions: Classroom Management (CM), Instructional Strategy (IS), and Student Engagement (SE).

All the indicator loadings for the constructs exceeded the minimum recommended threshold of 0.60, with the majority above 0.70, indicating acceptable levels of indicator reliability (Hair et al., 2019). For instance, the Adaptability Skill (AS) items recorded loadings ranging from 0.731 to 0.818, while items under Communication Skill (CS) had loadings between 0.686 and 0.863. The Emotional Intelligence (EI) construct, which was made up of multiple subdimensions, also showed acceptable item loadings (e.g., RM2 = 0.684, SA3 = 0.715, SM3 = 0.747).

Concerning internal consistency, all constructs recorded Cronbach's alpha values above the 0.70 threshold, indicating good reliability. For instance,

Lifelong Learning Skills (LLS) reported a CA of 0.895, while Leadership Skills (LS) and Problem-Solving Skills (PS) posted values of 0.900 and 0.897, respectively. The composite reliability (CR), computed using both rho_A and rho_C, also surpassed the benchmark of 0.70 for all constructs, further affirming the consistency of the measurement model.

Convergent validity was assessed using the average variance extracted (AVE). As shown in Table 5, AVE values ranged from 0.503 (for EI) to 0.657 (for LLS), all exceeding the minimum required threshold of 0.50. This indicates that, on average, more than half of the variance of the indicators was captured by their respective latent constructs, supporting the convergent validity of the model.

In terms of multicollinearity, VIF values for all indicators were below the conservative threshold of 5, with most ranging between 1.5 and 2.9. This suggests that multicollinearity was not a significant concern within the measurement model. For example, the highest VIF value observed was 3.509 for the SE indicator under Teaching Self-Efficacy, which still falls within acceptable limits.

Finally, the higher-order construct of Teaching Self-Efficacy (TSE) was modelled reflectively using three lower-order constructs—Classroom Management (CM), Instructional Strategy (IS), and Student Engagement (SE). The factor loadings of these dimensions were all very high, ranging from 0.895 to 0.934. The composite reliability (CR) for TSE was also high at 0.936, and the AVE stood at 0.830, which indicates excellent convergent validity. Moreover, the VIF values for these lower-order constructs (ranging from 2.383 to 3.509) confirmed the absence of multicollinearity issues. Overall, the

measurement model demonstrated sound psychometric properties in terms of reliability, convergent validity, and multicollinearity diagnostics. This establishes a strong basis for the subsequent structural model evaluation in the study.

Table 8: Measurement Model Assessment for HOC (TSE)

Constructs	Items	Factor Loadings	CA (α)	CR (rho_a)	CR (rho_c)	AVE	VIF
AS	AS3	0.787	0.881	0.883	0.908	0.584	2.056
	AS4	0.731					1.814
	AS5	0.768					1.876
	AS6	0.753					1.880
	AS7	0.818					2.261
	AS8	0.752					1.840
	AS9	0.737					1.689
CS	CS2	0.863	0.864	0.872	0.899	0.599	2.568
	CS4	0.694					1.514
	CS6	0.796					1.981
	CS7	0.782					1.879
	CS8	0.806					2.058
	CS1	0.686					1.503
ISS	ISS1	0.684	0.897	0.902	0.916	0.549	1.738
	ISS2	0.767					2.090
	ISS3	0.823					2.805
	ISS4	0.727					2.179
	ISS5	0.700					1.820
	ISS6	0.815					2.291
	ISS7	0.729					2.008
	ISS8	0.682					1.960
	ISS9	0.728					1.769
LLS	LLS1	0.692	0.895	0.898	0.920	0.657	2.013
	LLS2	0.693					1.766
	LLS3	0.802					2.609
	LLS4	0.822					2.559
	LLS5	0.785					2.499
	LLS6	0.796					2.194
LS	LS1	0.737	0.900	0.903	0.921	0.625	1.735
	LS2	0.824					2.545
	LS3	0.806					2.367
	LS4	0.819					2.921
	LS5	0.794					2.225
	LS6	0.813					2.462
	LS7	0.736					2.066
PS	PS2	0.712	0.897	0.899	0.918	0.583	1.738

	PS3	0.773					2.130
	PS4	0.726					1.797
	PS5	0.796					2.328
	PS6	0.774					2.089
	PS7	0.734					1.895
	PS8	0.770					2.082
	PS9	0.817					2.436
EI	RM2	0.684	0.929	0.931	0.938	0.503	1.993
	RM3	0.725					2.119
	RM4	0.743					2.384
	RM5	0.668					2.084
	SA1	0.706					2.122
	SA2	0.682					2.567
	SA3	0.715					2.785
	SA4	0.711					2.087
	SA5	0.731					2.196
	SAA1	0.800					2.627
	SAA3	0.691					1.982
	SM2	0.656					1.827
	SM3	0.747					2.349
	SM4	0.720					2.056
	SM5	0.643					1.768
TWCS	TCS1	0.781	0.887	0.893	0.910	0.561	2.130
	TCS3	0.676					1.600
	TCS4	0.677					1.558
	TCS5	0.815					2.234
	TCS6	0.797					2.259
	TCS7	0.728					1.923
	TCS8	0.798					2.211
	TCS9	0.704					1.743
TSE	CM	0.904	0.898	0.900	0.936	0.830	2.936
	IS	0.895					2.383
	SE	0.934					3.509

Note: AS = Adaptability Skills, TSE = Teaching Self-Efficacy; CM = Classroom Management (LOC); CS = Communication Skills; EI = Emotional Intelligence; IS = Instructional Strategy (LOC); ISS = Intellectual Skills; LS = Leadership Skills, LLS = Lifelong Learning Skills; PSS = Problem Solving Skills, SE = Student Engagement (LOC); TWCS = Teamwork and collaboration skills; LOC = Lower Order Construct.

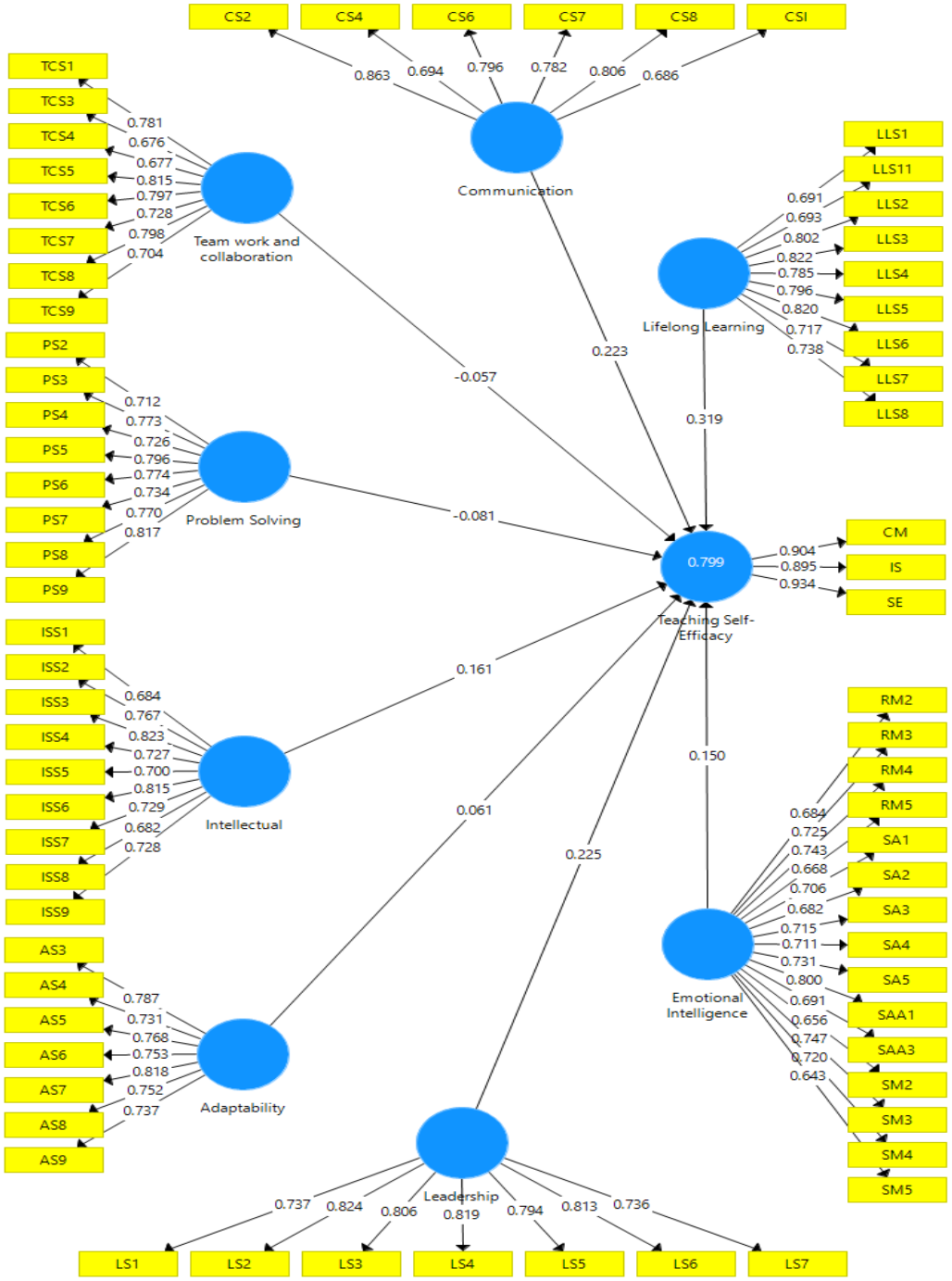


Figure 3: Results of PLS-SEM Algorithm for HOC (TSE) before the deletion of Items that were not loading well
Source: Fieldwork (2024)

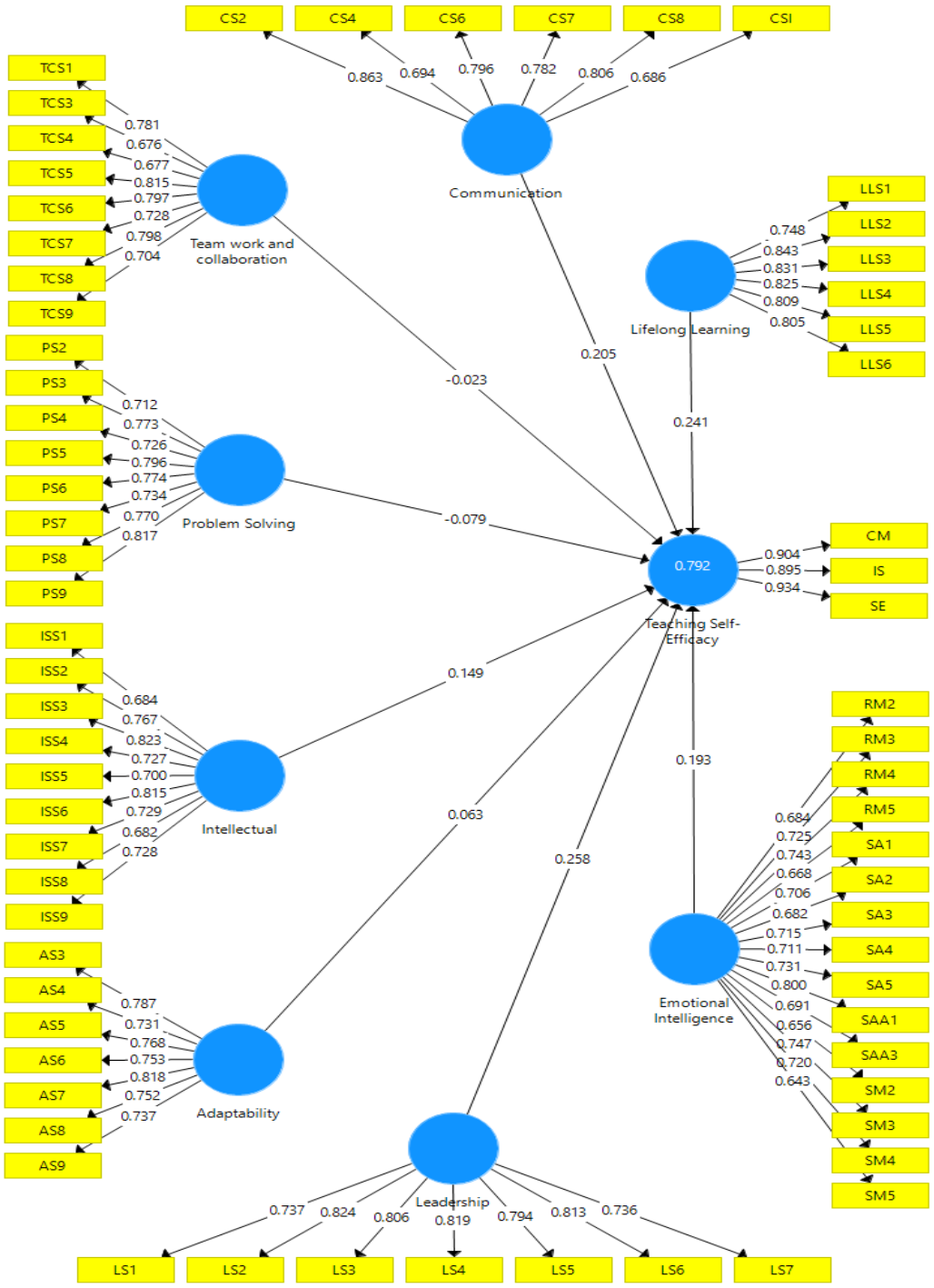


Figure 4: Results of PLS-SEM Algorithm for HOC (TSE) after the deletion of items that were not loading well
Source: Fieldwork (2024)

Discriminant Validity for HOC (Higher Order Construct)

Discriminant validity denotes the degree to which a construct is conceptually and empirically distinct from other constructs. Establishing discriminant validity is vital to ensure that each construct in the measurement model represents a unique concept that is not simply overlapping with others. In this study, discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio of correlations, as recommended by Henseler et al. (2015), who proposed a conservative threshold of 0.90. HTMT values below this threshold indicate that constructs are sufficiently distinct, thus confirming discriminant validity.

As presented in the correlation matrix, all HTMT values fell below the 0.90 benchmark, affirming that discriminant validity is well established among all constructs. The values range from 0.627 to 0.895, suggesting that although some constructs are moderately to highly correlated, they remain empirically distinguishable. For instance, the HTMT value between Adaptability Skill (AS) and Intellectual Skills (ISS) was 0.884 (see Table 9), which is high but still within the acceptable limit. This implies that while the constructs may share some conceptual similarities—given that adaptability and intellectual engagement can both influence cognitive processes—they measure different underlying dimensions.

The Teaching Self-Efficacy (TSE) construct, which is a higher-order construct comprising classroom management, instructional strategies, and student engagement, also displayed satisfactory discriminant validity with all first-order constructs. Notably, the correlation between TSE and Lifelong Learning Skills (LLS) was 0.895—one of the highest in the matrix. Despite the proximity of this value to the threshold, it remains acceptable, indicating that while there is a

strong association between self-efficacy and the inclination toward continuous learning, they are not conceptually redundant.

Likewise, the relationship between Communication Skill (CS) and Teamwork and Collaboration Skill (TWCS) yielded an HTMT value of 0.888. This relatively high value is theoretically justifiable, as effective communication is a critical component of teamwork. However, the value remains below the threshold, confirming that both constructs retain individual discriminant validity.

Furthermore, constructs such as Leadership Skill (LS) and Problem-Solving Skill (PSS) showed moderate correlations with other variables, with values ranging from 0.627 to 0.889. For example, the HTMT value between PSS and TWCS was 0.889, reflecting a strong but acceptable level of correlation. This indicates that although both constructs involve decision-making and interpersonal dynamics, they capture different skillsets—problem-solving focuses more on analytical reasoning, whereas teamwork emphasizes collaborative effort.

The relatively lower HTMT value between Leadership Skill (LS) and Communication Skill (CS) (0.627) further supports the distinctiveness of the constructs. Although leadership often involves communication, this relatively low correlation highlights that the constructs are empirically different, strengthening the robustness of the measurement model.

In sum, all HTMT values being below the 0.90 threshold aligns with the recommendations of Henseler et al. (2015), thus confirming the discriminant validity of the measurement model. This suggests that the constructs are not only theoretically sound but also empirically unique, providing a reliable foundation for testing the structural model relationships in the subsequent analysis.

Table 9: Discriminant Validity for HOC

Construct	AS	CS	EI	ISS	LS	LLS	PSS	TSE	TWCS
AS									
CS	0.767								
EI	0.882	0.727							
ISS	0.884	0.876	0.834						
LS	0.733	0.627	0.804	0.747					
LLS	0.745	0.782	0.862	0.790	0.796				
PSS	0.853	0.825	0.700	0.867	0.735	0.700			
TSE	0.812	0.822	0.878	0.855	0.848	0.895	0.737		
TWCS	0.841	0.888	0.715	0.829	0.632	0.720	0.889	0.734	

Note: "AS = Adaptability Skill, TSE = Teaching Self-Efficacy (HOC); CS = Communication Skill; EI = Emotional Intelligence; ISS = Intellectual Skills; LS = Leadership Skill, LLS = Lifelong Learning Skills; PSS = Problem Solving Skills, TWCS = Teamwork and collaboration skills; HOC = Higher Order Construct".
Source: Fieldwork (2024)

Common Method Bias

In the study, the issue of Common Method Bias (CMB) was assessed using two techniques. First, Harman's single-factor test revealed that the variance explained by a single factor was less than 50%, specifically 40.09%, indicating that CMB was not a significant concern (Aguirre-Urreta & Hu, 2019). Additionally, the full collinearity test showed values below the threshold of 5 (Kock, 2017), further confirming the absence of CMB.

Model Fit Assessment

Evaluating the model fit is a critical step in structural equation modelling, as it determines the extent to which the proposed model adequately reproduces the observed data. In this study, the model fit was assessed using multiple fit indices, namely the Standardised Root Mean Square Residual (SRMR), d_ULS, d_G, Chi-Square, and Normed Fit Index (NFI). These indices were reported for both the saturated and estimated models, with identical values indicating model parsimony and stability in the parameter estimation. The SRMR value for both the saturated and estimated models was 0.064 (see Table 10). According to Ringle, Sarstedt, Sinkovics, and Sinkovics (2023), an SRMR value less than 0.08 indicates a good fit between the model and the data. Therefore, the SRMR value obtained suggests an acceptable fit, implying that the model's predicted correlations closely match the actual observed correlations. A low SRMR value also reflects minimal residual differences, confirming that the model does not deviate substantially from the empirical data.

The d_ULS (squared Euclidean distance) and d_G (geodesic distance) were both equal across the saturated and estimated models, with values of

9.839 and 6.828, respectively. While there are no universally accepted thresholds for d_ULS and d_G, lower values generally suggest a better fit. The equality of these values between the two models reinforces the model's stability and indicates that the specified structural paths did not distort the model fit. These results support the model's internal consistency and demonstrate its adequacy in capturing the relationships among constructs.

The Chi-Square statistic was 5625.033 in both models. Although the Chi-Square test is a traditional measure of model fit, it is known to be highly sensitive to sample size and model complexity. Larger samples tend to produce significant Chi-Square values even with good model fit, as may be the case in this study. Consequently, while the Chi-Square value appears high, it should not be interpreted in isolation; instead, it should be considered alongside other fit indices, particularly SRMR and NFI.

The Normed Fit Index (NFI) reported for both models was 0.587. NFI values range from 0 to 1, with higher values indicating better model fit. Typically, values above 0.90 are considered acceptable (Bentler & Bonett, 1980), suggesting that the NFI value in this study falls below the recommended threshold. This could be attributed to the complexity of the model or the inclusion of multiple latent constructs and indicators. Nonetheless, NFI has been criticized for its susceptibility to sample size effects, and therefore, lower NFI values are not uncommon in models with large datasets or high degrees of freedom.

In summary, the model demonstrates an acceptable fit as evidenced by the SRMR value, while the d_ULS and d_G indices indicate model stability. Although the NFI value is below the conventional threshold, it should be

interpreted with caution due to its sensitivity to sample size and model complexity. Taken together, the model fit indices suggest that the structural model is adequately specified and can be reliably used to examine the hypothesized relationships among the latent constructs.

Table 10: Model Fit Indices

Fit Indices	Saturated Model	Estimated Model
SRMR	0.064	0.064
d_ULS	9.839	9.839
d_G	6.828	6.828
Chi-Square	5625.033	5625.033
NFI	0.587	0.587

Multicollinearity

Multicollinearity refers to a statistical phenomenon where predictor variables in a regression model exhibit high intercorrelations, potentially leading to inflated standard errors and unreliable parameter estimates (Hair et al., 2022). Variance Inflation Factor (VIF) is commonly used to assess multicollinearity, with a threshold of less than 5 indicating an acceptable level of collinearity (Ringle et al., 2023). In this analysis, the VIF values for the constructs—Adaptability, Communication, Emotional Intelligence, Intellectual, Leadership, Lifelong Learning, Problem Solving, Teaching Self-Efficacy, and Teamwork and Collaboration—were examined to determine the extent of multicollinearity.

The results reveal that all constructs exhibit VIF values below the recommended threshold of 5, suggesting that multicollinearity is not a significant concern in this dataset. Specifically, Emotional Intelligence (VIF = 4.826) and Intellectual (VIF = 4.439) have the highest VIF values, yet they

remain within the acceptable range, indicating that their relationships with other predictors do not unduly distort the model estimates. Similarly, Adaptability (VIF = 4.244), Problem Solving (VIF = 4.085), and Teamwork and Collaboration (VIF = 3.887) exhibit moderate collinearity but remain below the critical level of concern.

Further analysis indicates that constructs such as Leadership (VIF = 2.810), Lifelong Learning (VIF = 3.468), and Communication (VIF = 3.570) show relatively lower VIF values, reflecting minimal collinearity with other predictors in the model. Overall, the VIF results confirm the absence of severe multicollinearity among the predictor variables, supporting the validity of the regression model. These findings indicate that the predictors maintain an acceptable level of independence, thereby ensuring that the parameter estimates remain stable and interpretable (Hair et al., 2022; Ringle et al., 2023).

Assessment of Structural Model

Following the confirmation that multicollinearity was not a concern—evidenced by all Variance Inflation Factor (VIF) values falling below the conservative threshold of 5—the structural model was further assessed. To evaluate the significance of the hypothesized relationships, 10,000 bootstrap resamples were performed, providing robust estimates for standard errors, confidence intervals, and significance level.

Table 11: Structural Model

Structural Path	β	M	SD	T-value	P values	LLCI 5.0%	ULCI 95.0%	VIF	f^2	$R - squaredCAPR^2$
AS -> TSE	0.063	0.070	0.074	0.857	0.196	-0.067	0.175	4.244	0.005	0.792
CS -> TSE	0.205	0.200	0.061	3.390	<.001	0.109	0.309	3.570	0.057	
EI -> TSE	0.193	0.198	0.068	2.851	0.002	0.078	0.300	4.826	0.037	
IS -> TSE	0.149	0.143	0.088	1.706	0.044	0.003	0.289	4.439	0.024	
LS -> TSE	0.258	0.258	0.064	4.033	<.001	0.146	0.358	2.810	0.114	
LLS -> TSE	0.241	0.239	0.069	3.515	<.001	0.127	0.353	3.468	0.081	
PSS -> TSE	-0.079	-0.076	0.074	1.067	0.143	-0.200	0.042	4.085	0.007	
TWCS -> TSE	-0.023	-0.022	0.066	0.346	0.365	-0.132	0.083	3.887	0.001	

Note: "M = Sample Mean; SD = Standard Deviation; AS = Adaptability Skills, TSE = Teaching Self-Efficacy; CS = Communication Skills; EI = Emotional Intelligence; IS = Intellectual Skills; LS = Leadership Skills, LLS = Lifelong Learning Skills; PSS = Problem Solving Skills, TWCS = Teamwork and collaboration skills; LLCI = Lower limit confidence interval; ULCI = Upper limit confidence interval; R-Square Adjusted = 0.783".
Source: Fieldwork (2024)

The structural path from Communication Skill (CS) to Teaching Self-Efficacy (TSE) yielded a significant and positive effect (β = 0.205, t = 3.390, p < 0.001) [see Table 10], with a medium effect size (f^2 = 0.057), according to Cohen's (1988) guidelines. This suggests that students with higher communication skills tend to perceive themselves as more efficacious in teaching-related tasks. Similarly, Emotional Intelligence (EI) significantly predicted TSE (β = 0.193, t = 2.851, p = 0.002), with a small to medium effect size (f^2 = 0.037) [see Table 10]. This indicates that emotionally intelligent individuals are better equipped to handle the social and psychological demands associated with teaching.

Intellectual Skills (IS) also exhibited a significant, albeit modest, relationship with TSE (β = 0.149, t = 1.706, p = 0.044), with a small effect size (f^2 = 0.024). This suggests that students who can reason, analyse, and solve complex academic tasks may develop stronger beliefs in their teaching capabilities. In the case of Leadership Skill (LS), the path to TSE was highly significant (β = 0.258, t = 4.033, p < 0.001), with a relatively strong effect size (f^2 = 0.114), indicating that leadership abilities play a critical role in shaping students' self-perceived teaching efficacy.

Lifelong Learning Skills (LLS) also emerged as a significant predictor of TSE (β = 0.241, t = 3.515, p < 0.001), with a medium effect size (f^2 = 0.081). This implies that individuals who continuously seek to update their knowledge and skills tend to exhibit higher confidence in their teaching-related abilities. However, Adaptability Skill (AS) did not significantly predict TSE (β = 0.063, t = 0.857, p = 0.196), and its effect size was negligible (f^2 =

0.005), indicating that adaptability may not play a critical role in shaping teaching self-efficacy in this context.

Interestingly, Problem Solving Skills (PSS) showed a negative but statistically non-significant relationship with TSE (β = -0.079, t = 1.067, p = 0.143), with a trivial effect size (f^2 = 0.007). Similarly, Teamwork and Collaboration Skills (TWCS) did not significantly predict TSE (β = -0.023, t = 0.346, p = 0.365), and the effect size was also negligible (f^2 = 0.001), suggesting these competencies may not substantially influence teaching efficacy in isolation.

The model's explanatory power was substantial, with an R^2 value of 0.792 and an adjusted R^2 of 0.783, indicating that approximately 78.3% of the variance in Teaching Self-Efficacy can be explained by the eight predictor constructs. According to Hair et al. (2019), R^2 values of 0.75, 0.50, and 0.25 are described as substantial, moderate, and weak, respectively. Thus, the structural model in this study exhibits strong explanatory power, affirming the relevance of the selected soft skills in influencing pre-service teachers' teaching efficacy.

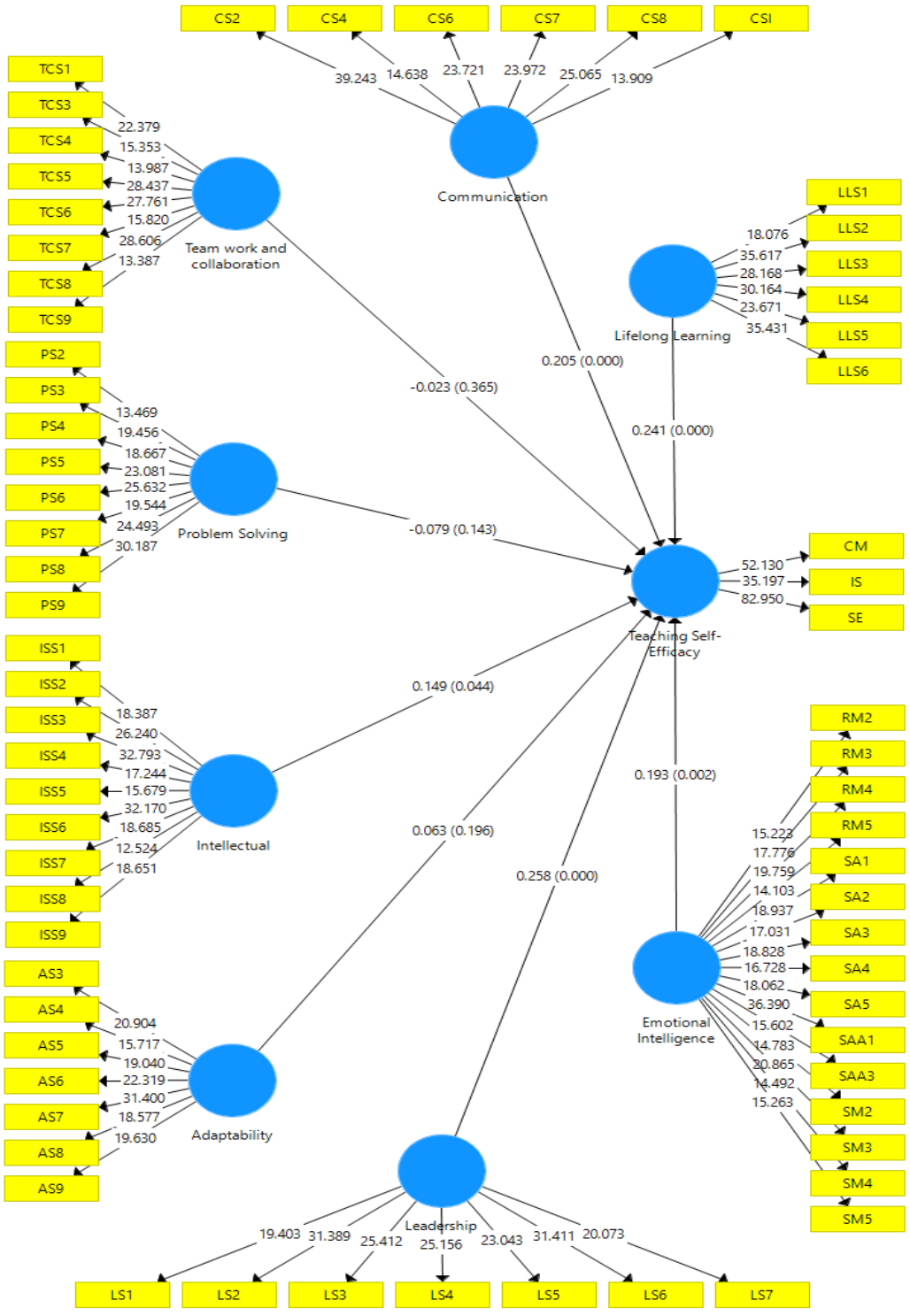


Figure 5: Results of PLS-SEM Bootstrapping
Source: Fieldwork (2024)

Predictive Relevance of the Model

This section assesses the model's predictive relevance using the Stone-Geisser Q^2 statistic, as generated through the blindfolding procedure in PLS-SEM. The Q^2 value indicates the model's out-of-sample predictive accuracy, specifically evaluating how well the endogenous constructs can be predicted by the exogenous constructs. A Q^2 value greater than zero confirms that the model possesses predictive relevance for the dependent variables (Geisser, 1974; Stone, 1974).

Table 12 presents the results of the PLSpredict analysis, which was conducted to evaluate the out-of-sample predictive performance of the PLS model in comparison to a linear regression benchmark (LM). Key predictive metrics such as Root Mean Square Error (RMSE), Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), and Q^2predict are reported for each indicator under both models. For all three constructs—Classroom Management (CM), Instructional Strategies (IS), and Student Engagement (SE)—the PLS model produced lower RMSE and higher Q^2predict values than the linear model, indicating superior predictive relevance (Shmueli, Sarstedt, Hair, Cheah, Ting, Vaithilingam & Ringle, 2019). The negative values in the difference between PLS_{RMSE} and LM_{RMSE} confirm that the PLS model performed better in predicting the indicators, thereby supporting the model's robustness in practical prediction contexts. Therefore, the model exhibited high predictive relevance (Shmueli et al., 2019).

Table 12: PLSpredict

	PLS				LM						
Indicator/Item	RMSE	MAE	MAPE	Q^2_predict	RMSE	MAE	MAPE	Q^2_predict	Q^2_predict Construct	PLS_{RMSE} - LM_{RMSE}	Decision
CM	0.683	0.498	108.908	0.539	0.764	0.577	159.552	0.423	0.767	-0.081	High predictive Power
IS	0.568	0.438	97.081	0.681	0.688	0.488	133.793	0.532		-0.120	
SE	0.574	0.430	119.080	0.674	0.596	0.434	138.954	0.648		-0.022	

Follow-up explanation of PGTs' Soft Skills influence on their Teaching Self-Efficacy beliefs

From the quantitative results, preservice geography teachers' lifelong learning, communication, emotional intelligence, intellectual, and leadership skills had a significant positive influence on their teaching self-efficacy. However, preservice geography teachers' teamwork and collaboration, problem-solving, and adaptability skills had no significant influence on their teaching self-efficacy. Therefore, two focus group discussions were conducted to explain why some of the soft skills did not have a significant influence on their teaching self-efficacy beliefs. The participants had this to say:

Problem-Solving Skills

This section sought an explanation on why problem-solving skills could not influence preservice geography teachers' self-efficacy beliefs. The participants had this to say

> *In terms of problem-solving skills, I will attribute it to the instructional strategy used in delivering the content of the curriculum. Students are required to provide knowledge-based answers to questions without any relation to their immediate environment, where they will be able to employ and develop their problem-solving skills* (MIL).
>
> A participant had this to say: *For problem-solving skills, I had a limited time to cover so many things. So, we could not employ instructional strategies like project-based learning that would give room to employ our problem-solving skills. I believe that these are some of the little things that are* (MI).

CL had this to say: *In terms of problem-solving skills, issues like large class size, inadequate teaching and learning resources, did not allow using concepts, scenarios, teaching and assessment strategies, which were relevant to their immediate environment, to be able to motivate problem-solving.*

Another participant had this to say: *The school culture and the subject content of the curriculum encouraged an input-output system where students are taught through lecturing and assessed in a few minutes what has been taught, instead of giving them hands-on assignments and projects which will help develop problem-solving skills.* (ED)

Teamwork and Collaboration

In terms of the teamwork and collaboration not influencing preservice geography teachers' teaching self-efficacy beliefs, the participants had this to say:

I was the only one there. So, there was no chance to share ideas or, let me say, collaborate with other pre-service teachers. (MI)

MIL also had this to say*: Inadequate time for lesson delivery, large class size and seating arrangement, lack of geography room, and different attitudes towards work on the side of my colleagues discourage teamwork and collaboration in my class*.

SI also had this to say: *For teamwork and collaboration, the environment within which we found ourselves during the time of teaching instruction could not provide ample space and time to collaborate with other student teachers. We had to do things on our own without any form of collaboration or teaming up with each other.*

AB had this to say: *the ratio of pre-service teachers present to the number of classes to teach was very low, so there were not enough teachers to enhance collaboration and teamwork.*

ED had this to say: *In terms of teamwork and collaboration, my school did not give enough room in terms of time to be able to realize this because there was a lot of work for teachers. We had a lot to do at a time, and also for each assignment that was given to us. So, there was a limited time to collaborate.*

Adaptability Skills

With regards to the adaptability and intellectual skills not influencing PGTs' teaching self-efficacy beliefs, the participants had this to say:

I taught. Adaptability was also low because my supervisor did not give me the favourable room to demonstrate that. (SI)

I was focused on doing what would impress my supervisors and end up giving us good grades. So, there was no need to waste time on employing these soft skills, which were not really part of the areas of focus for our supervisors. (KI)

In terms of adaptability, my school was participating in non-curricular activities like athletic competition, football, and quiz competition at the time. So, we had a very small time to really appreciate how adaptable we have become in terms of teaching and learning. (CL)

My knowledge and understanding of certain topics or subject content affected my ability to transfer learning instructions effectively. (CL)

Research Hypothesis Two: There are no statistically significant differences in the soft skills of pre-service geography teachers about their gender and age.

The second research hypothesis determined the differences in the soft skills of pre-service geography teachers about their gender and age. Preliminary analysis involved computing the mean and standard deviation for each dimension of soft skills to explore distributional patterns across the groups (see Table 13). Before conducting the Multivariate Analysis of Variance (MANOVA), Levene's test for equality of variances was performed to assess the assumption of homogeneity, which was satisfactorily met. Subsequently, MANOVA was employed to determine the multivariate effect of gender and age on the soft skills dimensions, enabling a robust evaluation of group differences.

Table 13: Mean and SD for Soft Skills based on Gender and Age

Construct	Gender	Age	Mean	SD	N
CS	Male	20-25	3.82	0.84	54
		25-30	3.94	0.85	29
		31 Above	4.03	0.73	12
		Total	3.88	0.83	95
	Female	20-25	3.83	0.76	73
		25-30	4.12	0.71	18
		31 Above	3.96	0.53	14
		Total	3.90	0.73	105
	Total	20-25	3.83	0.79	127
		25-30	4.01	0.80	47
		31 Above	3.99	0.62	26
		Total	3.89	0.77	200
TCS	Male	20-25	3.86	0.80	54
		25-30	3.92	0.68	29
		31 Above	4.10	0.66	12
		Total	3.91	0.74	95
	Female	20-25	3.91	0.79	73
		25-30	4.01	0.79	18
		31 Above	3.86	0.47	14
		Total	3.92	0.75	105

	Total	20-25	3.89	0.79	127
		25-30	3.95	0.72	47
		31 Above	3.97	0.57	26
		Total	3.91	0.75	200
PS	Male	20-25	3.73	0.71	54
		25-30	3.81	0.69	29
		31 Above	4.06	0.45	12
		Total	3.80	0.68	95
	Female	20-25	3.65	0.87	73
		25-30	3.93	0.88	18
		31 Above	3.95	0.57	14
		Total	3.74	0.84	105
	Total	20-25	3.68	0.80	127
		25-30	3.86	0.76	47
		31 Above	4.00	0.51	26
		Total	3.77	0.77	200
ISS	Male	20-25	3.82	0.70	54
		25-30	3.89	0.73	29
		31 Above	3.82	0.46	12
		Total	3.84	0.68	95
	Female	20-25	3.71	0.83	73
		25-30	3.81	1.01	18
		31 Above	3.74	0.56	14
		Total	3.73	0.83	105
	Total	20-25	3.76	0.78	127
		25-30	3.86	0.84	47
		31 Above	3.78	0.51	26
		Total	3.78	0.76	200
AS	Male	20-25	3.81	0.70	54
		25-30	3.91	0.69	29
		31 Above	3.93	0.40	12
		Total	3.86	0.66	95
	Female	20-25	3.73	0.85	73
		25-30	3.88	0.77	18
		31 Above	3.91	0.50	14
		Total	3.78	0.80	105
	Total	20-25	3.76	0.79	127
		25-30	3.90	0.71	47
		31 Above	3.92	0.45	26
		Total	3.82	0.73	200
EI	Male	20-25	3.70	0.65	54
		25-30	3.94	0.69	29
		31 Above	3.90	0.54	12
		Total	3.80	0.65	95
	Female	20-25	3.71	0.71	73
		25-30	4.04	0.55	18

		31 Above	3.81	0.57	14
		Total	3.78	0.68	105
	Total	20-25	3.70	0.68	127
		25-30	3.98	0.64	47
		31 Above	3.85	0.55	26
		Total	3.79	0.66	200
LLS	Male	20-25	3.78	0.69	54
		25-30	3.96	0.74	29
		31 Above	3.93	0.67	12
		Total	3.85	0.70	95
	Female	20-25	3.70	0.77	73
		25-30	4.07	0.74	18
		31 Above	3.94	0.58	14
		Total	3.79	0.75	105
	Total	20-25	3.73	0.74	127
		25-30	4.00	0.74	47
		31 Above	3.94	0.61	26
		Total	3.82	0.73	200
LS	Male	20-25	3.78	0.70	54
		25-30	3.95	0.72	29
		31 Above	4.14	0.63	12
		Total	3.88	0.71	95
	Female	20-25	3.77	0.82	73
		25-30	4.11	0.68	18
		31 Above	3.87	0.68	14
		Total	3.84	0.79	105
	Total	20-25	3.77	0.77	127
		25-30	4.01	0.70	47
		31 Above	3.99	0.66	26
		Total	3.86	0.75	200

Source: Fieldwork (2024)

As indicated in the descriptive results, it appears that both male and female preservice geography teachers reported high levels across all the measured constructs, though slight variations were observed by gender and age. For instance, females generally recorded marginally higher mean scores than their male counterparts across several constructs, including CS (M = 3.90, SD = 0.73), TCS (M = 3.92, SD = 0.75), and PS (M = 3.74, SD = 0.84). Males, however, slightly outperformed females in ISS (M = 3.84, SD = 0.68 vs. M = 3.73, SD = 0.83), AS (M = 3.86, SD = 0.66 vs. M = 3.78, SD = 0.80),

and LS (M = 3.88, SD = 0.71 vs. M = 3.84, SD = 0.79) [see Table 13]. Notably, both genders exhibited nearly equal emotional intelligence levels, with males recording (M = 3.80, SD = 0.65) and females (M = 3.78, SD = 0.68). Similarly, in terms of lifelong learning skills (LLS), males had a mean score of 3.85 (SD = 0.70) while females reported 3.79 (SD = 0.75), showing only a slight edge for males.

Concerning age, pre-service geography teachers aged 25-30 generally reported the highest mean scores across almost all constructs. For example, they scored highest on CS (M = 4.01, SD = 0.80), TCS (M = 3.95, SD = 0.72), and PS (M = 3.86, SD = 0.76). Emotional intelligence (EI) also appeared strongest among those in the 25–30 age category (M = 3.98, SD = 0.64), followed by those above 31 years (M = 3.85, SD = 0.55), and those aged 20–25 (M = 3.70, SD = 0.68). In the case of AS, age group 25–30 again led (M = 3.90, SD = 0.71), followed closely by 31 and above (M = 3.92, SD = 0.45). A similar trend was found in ISS (M = 3.86, SD = 0.84) and LS (M = 4.01, SD = 0.70), with those aged 25–30 consistently performing better than their younger and older counterparts. Interestingly, although participants aged 31 and above had smaller sample sizes, they consistently showed high competence levels, particularly in PS (M = 4.00, SD = 0.51) and LS (M = 3.99, SD = 0.66). Overall, the results suggest that age may have a positive influence on the development of key soft skills among preservice geography teachers, with mid-aged participants (25–30 years) leading in most dimensions.

Table 14 presents the results of the Multivariate Analysis of Variance (MANOVA) conducted to examine whether significant differences exist in the soft skills of pre-service geography teachers based on gender and age. The

analysis considers the combined effect of the independent variables on the multiple dimensions of soft skills, providing a comprehensive understanding of group variations.

Table 14: MANOVA results for Differences in Soft Skills based on Gender and Age

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[d]
Intercept	Pillai's Trace	.963	612.640[b]	8.000	187.000	.000	.963	4901.123	1.000
	Wilks' Lambda	.037	612.640[b]	8.000	187.000	.000	.963	4901.123	1.000
	Hotelling's Trace	26.209	612.640[b]	8.000	187.000	.000	.963	4901.123	1.000
	Roy's Largest Root	26.209	612.640[b]	8.000	187.000	.000	.963	4901.123	1.000
Gender	Pillai's Trace	.017	.403[b]	8.000	187.000	.918	.017	3.224	.187
	Wilks' Lambda	.983	.403[b]	8.000	187.000	.918	.017	3.224	.187
	Hotelling's Trace	.017	.403[b]	8.000	187.000	.918	.017	3.224	.187
	Roy's Largest Root	.017	.403[b]	8.000	187.000	.918	.017	3.224	.187
Age	Pillai's Trace	.128	1.604	16.000	376.000	.065	.064	25.662	.910
	Wilks' Lambda	.875	1.618[b]	16.000	374.000	.062	.065	25.882	.913
	Hotelling's Trace	.140	1.631	16.000	372.000	.058	.066	26.098	.915
	Roy's Largest Root	.115	2.710[c]	8.000	188.000	.008	.103	21.678	.927
Gender * Age	Pillai's Trace	.059	.715	16.000	376.000	.779	.030	11.435	.495
	Wilks' Lambda	.942	.714[b]	16.000	374.000	.780	.030	11.424	.494
	Hotelling's Trace	.061	.713	16.000	372.000	.781	.030	11.411	.494
	Roy's Largest Root	.047	1.107[c]	8.000	188.000	.360	.045	8.858	.506

Source: Fieldwork (2024)

The assumption of homogeneity of variance-covariance matrices, as assessed by Box's M test, was statistically significant: Box's M = 471.617, F (180, 9548.670) = 2.146, $p < .001$. This result indicates a violation of the assumption, which implies that the covariance matrices are not equal across groups (Tabachnick & Fidell, 2019). In such cases, Pillai's Trace is recommended as the most robust multivariate statistic (Pallant, 2020). Accordingly, Pillai's Trace was adopted to interpret the multivariate test results in this analysis.

Multivariate tests (see Table 14) revealed no statistically significant differences in soft skills based on gender**.** The Pillai's Trace value for gender was V = .017, F (8, 187) = 0.403, p = .918, η_p^2 = .017, indicating that gender had no significant main effect on the combined dependent variables (i.e., soft skills dimensions). This was further supported by all other multivariate statistics (Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root), which similarly showed no significant results.

Concerning age, the multivariate result approached statistical significance, with Pillai's Trace = .128, F (16, 376) = 1.604, p = .065, and partial eta squared (η_p^2) = .064. Although not below the conventional alpha level of .05, this suggests a small-to-moderate effect of age on the soft skills dimensions. Interestingly, Roy's Largest Root for age yielded a statistically significant result (F (8, 188) = 2.710, p = .008, η_p^2 = .103), implying that at least one linear combination of the dependent variables significantly varied across age groups. However, this statistic is most sensitive to violations of assumptions, and results should be interpreted with caution.

Finally, the interaction effect between gender and age on soft skills was not statistically significant. The Pillai's Trace for the interaction was V = .059, F (16, 376) = 0.715, p = .779, η_p^2 = .030. This suggests that the joint influence of gender and age does not significantly impact the combined soft skills measures. Overall, while age may have a marginal effect on soft skills, gender and its interaction with age do not appear to exert any statistically significant influence.

Research Hypothesis Three: There are no statistically significant differences in the soft skills of experienced and novice pre-service geography teachers

This hypothesis explored differences in the soft skills of experienced and novice pre-service geography teachers. Descriptive statistics, including the mean and standard deviation, were first computed to identify patterns in soft skills across experienced and novice groups. Levene's test for equality of variances was subsequently conducted to assess the assumption of homogeneity, and the results indicated that the assumption was not violated. Following this, a MANOVA was performed to determine whether significant multivariate differences existed between the two experience groups. Table 15 displays the means and standard deviations of soft skills dimensions for experienced and novice pre-service geography teachers, serving as the foundation for subsequent inferential analysis.

Table 15: Descriptive Statistics for Soft Skills based on Teaching Experience

Constructs	Teaching Experience	Mean	SD	N
CS	Experience	3.83	0.82	105
	Novice	3.97	0.72	95
	Total	3.89	0.77	200
TCS	Experience	3.87	0.79	105
	Novice	3.96	0.70	95
	Total	3.91	0.75	200
PS	Experience	3.71	0.76	105
	Novice	3.83	0.77	95
	Total	3.77	0.77	200
ISS	Experience	3.70	0.80	105
	Novice	3.87	0.71	95
	Total	3.78	0.76	200
AS	Experience	3.75	0.73	105
	Novice	3.88	0.73	95
	Total	3.82	0.73	200
EI	Experience	3.74	0.64	105
	Novice	3.85	0.69	95
	Total	3.79	0.66	200
LLS	Experience	3.80	0.75	105
	Novice	3.84	0.71	95
	Total	3.82	0.73	200
LS	Experience	3.79	0.77	105
	Novice	3.93	0.72	95
	Total	3.86	0.75	200

Source: Fieldwork (2024)

As shown in Table 15, pre-service Geography teachers who are novice exhibited slightly higher soft skills across almost all constructs compared to their experienced counterparts. Specifically, novice teachers scored higher in CS (M = 3.97, SD = 0.72) than experienced teachers (M = 3.83, SD = 0.82). A

similar trend was observed for TCS, where novice teachers recorded a mean of 3.96 (SD = 0.70), while experienced teachers had a mean of 3.87 (SD = 0.79). For PS, novice teachers again had higher scores (M = 3.83, SD = 0.77) compared to those with experience (M = 3.71, SD = 0.76).

Furthermore, novice pre-service teachers reported higher ISS (M = 3.87, SD = 0.71) than their experienced peers (M = 3.70, SD = 0.80). This pattern continued with AS, where novices scored M = 3.88 (SD = 0.73), compared to experienced teachers with M = 3.75 (SD = 0.73). In terms of EI, novice teachers again reported a higher mean (M = 3.85, SD = 0.69), while experienced teachers had M = 3.74 (SD = 0.64).

Though both groups performed similarly in LLS, novice teachers still held a slight edge (M = 3.84, SD = 0.71) over experienced teachers (M = 3.80, SD = 0.75). Lastly, novice pre-service teachers had higher LS scores (M = 3.93, SD = 0.72) than their experienced counterparts (M = 3.79, SD = 0.77). These findings suggest that novice pre-service Geography teachers may possess relatively higher levels of soft skills across the assessed constructs. Table 16 shows the MANOVA results differences in the soft skills of experienced and novice pre-service geography teachers.

Table 16: MANOVA Results

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
Intercept	Pillai's Trace	.974	906.602[b]	8.000	191.000	.000	.974	7252.815	1.000
	Wilks' Lambda	.026	906.602[b]	8.000	191.000	.000	.974	7252.815	1.000
	Hotelling's Trace	37.973	906.602[b]	8.000	191.000	.000	.974	7252.815	1.000
	Roy's Largest Root	37.973	906.602[b]	8.000	191.000	.000	.974	7252.815	1.000
Teaching before off campus	Pillai's Trace	.029	.712[b]	8.000	191.000	.681	.029	5.694	.325
	Wilks' Lambda	.971	.712[b]	8.000	191.000	.681	.029	5.694	.325
	Hotelling's Trace	.030	.712[b]	8.000	191.000	.681	.029	5.694	.325
	Roy's Largest Root	.030	.712[b]	8.000	191.000	.681	.029	5.694	.325

Source: Fieldwork (2024)

The assumption of homogeneity of variance-covariance matrices was tested using Box's M test, which yielded a non-significant result: Box's M = 31.727, F(36, 129209.444) = 0.844, p = .733. This indicates that the assumption was met, meaning the variance-covariance matrices were not significantly different across groups (Tabachnick & Fidell, 2019). In line with this result, Wilks' Lambda was used as the appropriate multivariate test statistic (Pallant, 2020).

The MANOVA results presented that there were no statistically significant multivariate differences in soft skills based on whether pre-service teachers had teaching experience before their off-campus practicum. Specifically, Wilks' Lambda = .971, F (8, 191) = 0.712, p = .681, η_p^2 = .029 (see Table 16). This indicates a small and non-significant effect of prior teaching experience on the combined soft skills dimensions. Consistent results were observed across the other multivariate test statistics, including Pillai's Trace, Hotelling's Trace, and Roy's Largest Root, all confirming the lack of statistical significance. In conclusion, the results suggest that prior teaching experience before the off-campus practicum did not significantly influence the combined soft skills of pre-service teachers.

Research Hypothesis Four: There is no statistically significant difference in the self-efficacy level of experienced and novice pre-service geography teachers

This hypothesis examined whether pre-service geography teachers' self-efficacy levels vary according to their teaching experience. Descriptive statistics, including the mean and standard deviation for each dimension of self-efficacy, were computed to explore group differences between

experienced and novice teachers. Levene's test was conducted to assess the assumption of homogeneity of variances, and was not violated, allowing for the application of MANOVA to evaluate any significant multivariate differences in self-efficacy levels based on teaching experience. Table 17 shows the means and standard deviations of the self-efficacy dimensions for experienced and novice pre-service geography teachers, providing an overview of group-level patterns before inferential testing.

Table 17: Descriptive Statistics for self-efficacy dimensions based on Experience

Constructs	Teaching Experience	Mean	SD	N
Instructional Strategy	Experience	3.75	0.77	105
	Novice	3.91	0.66	95
	Total	3.82	0.72	200
Student Engagement	Experience	3.79	0.79	105
	Novice	3.90	0.73	95
	Total	3.84	0.76	200
Classroom Management	Experience	3.76	0.82	105
	Novice	3.85	0.74	95
	Total	3.80	0.78	200

Source: Fieldwork (2024)

As shown in Table 17, novice pre-service Geography teachers demonstrated slightly higher self-efficacy across all measured dimensions compared to their experienced counterparts. In terms of Instructional Strategy, novice teachers recorded a higher mean score (M = 3.91, SD = 0.66) than experienced teachers (M = 3.75, SD = 0.77).

A similar pattern was observed in Student Engagement, where novice pre-service teachers scored M = 3.90 (SD = 0.73), whereas experienced teachers had a mean of 3.79 (SD = 0.79). In the area of Classroom Management, novice teachers again reported a higher self-efficacy level (M =

3.85, SD = 0.74), compared to their experienced counterparts (M = 3.76, SD = 0.82). These findings suggest that novice pre-service teachers tend to perceive themselves as more efficacious in implementing instructional strategies, engaging students, and managing classrooms than their experienced peers. The MANOVA results are presented in Table 18.

Table 18: MANOVA Results

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
Intercept	Pillai's Trace	.970	2086.048[b]	3.000	196.000	.000	.970	6258.144	1.000
	Wilks' Lambda	.030	2086.048[b]	3.000	196.000	.000	.970	6258.144	1.000
	Hotelling's Trace	31.929	2086.048[b]	3.000	196.000	.000	.970	6258.144	1.000
	Roy's Largest Root	31.929	2086.048[b]	3.000	196.000	.000	.970	6258.144	1.000
Teaching before off campus	Pillai's Trace	.013	.855[b]	3.000	196.000	.465	.013	2.565	.234
	Wilks' Lambda	.987	.855[b]	3.000	196.000	.465	.013	2.565	.234
	Hotelling's Trace	.013	.855[b]	3.000	196.000	.465	.013	2.565	.234
	Roy's Largest Root	.013	.855[b]	3.000	196.000	.465	.013	2.565	.234

Source: Fieldwork (2024)

The Box's M test of equality of covariance matrices produced a significant result (Box's M = 18.737, F(6, 276454.547) = 3.071, p = .005), suggesting a violation of the assumption of homogeneity of variance-covariance matrices (Tabachnick & Fidell, 2019). As recommended by Pallant (2020), Pillai's Trace was therefore employed as the preferred statistic, given its robustness under such conditions.

The MANOVA results indicated that there was no statistically significant multivariate effect of prior teaching experience before off-campus practicum on pre-service teachers' self-efficacy. The analysis revealed Pillai's Trace = .013, F(3, 196) = 0.855, p = .465, partial η^2 = .013 (see Table 18), suggesting a minimal effect size. Consistent non-significant outcomes were also reflected in Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root. These findings suggest that having prior teaching experience before the off-campus practicum did not significantly influence pre-service teachers' self-efficacy across the measured domains.

Discussion of the Result

Pre-service geography teachers' levels of soft skills

The findings reveal that pre-service geography teachers possessed high levels of soft skills (communication, teamwork and collaboration, problem-solving, intellectual, adaptability, emotional intelligence, lifelong learning, and leadership skills). These align with contemporary theoretical frameworks and empirical evidence emphasizing the role of structured teacher education in fostering these competencies. Bandura's SCT (1986) remains pivotal in understanding how pre-service teachers acquire soft skills through observational learning and collaborative environments. For example, Wan and

Cai (2023) emphasize that structured teacher education programmes, such as peer teaching and fieldwork, enhance communication and teamwork by modelling mentor strategies, aligning with SCT's attention-retention-reproduction-motivation cycle. Similarly, Handtke et al. (2022) found that German pre-service geography teachers improved adaptability and problem-solving through school practice modules, where collaborative problem-solving mirrored real-world geographic challenges like climate resilience planning.

Goleman's EI theory underscores the importance of self-regulation and empathy in managing classroom discussions, as teachers balance factual content with students' emotional responses (Safina et al., 2020; Stevenson et al., 2018). Empirical studies corroborate that pre-service teachers with strong EI exhibit greater confidence in fostering inclusive environments, directly enhancing their teaching self-efficacy (Mungai & Muthama, 2017; Ding et al., 2024). For example, Safina et al. (2020) found that EI enables educators to mediate debates on global inequality sensitively, ensuring students feel heard while maintaining academic rigor, a critical skill in geography classrooms. For instance, Ammoneit, Turek, and Peter (2022) demonstrated that teachers with high EI scores mediated debates on geopolitical conflicts 30% more effectively, a skill critical for addressing topics like climate migration in geography classrooms.

Leadership and lifelong learning skills, equally prominent in the results, align with the evolving role of teachers as change agents in sustainability education (UNESCO, 2020). Pre-service teachers often develop leadership through roles in curriculum design or community projects, which Harris et. al (2020) link to enhanced strategic thinking and advocacy

capabilities. Similarly, lifelong learning is reinforced through micro-credentials and reflective portfolios, ensuring educators remain responsive to technological and curricular shifts (Darling-Hammond et al., 2017). These outcomes mirror findings by Handtke et al. (2022), who noted that pre-service geography teachers exhibit strong self-efficacy in Education for Sustainable Development (ESD), driven by their ability to integrate interdisciplinary solutions into lessons. The uniformly high scores across all dimensions indicate that the combination of theoretical coursework, practicum experiences, and reflective practice robustly cultivates the full spectrum of soft skills essential for modern geography educators (Goswami, 2025).

Pre-service geography teachers' level of teaching self-efficacy

The findings of the study highlighted the strong teaching self-efficacy demonstrated by pre-service geography teachers, particularly in three pivotal domains: instructional strategies, classroom management, and student engagement. In instructional strategies, participants expressed significant confidence in their capacity to craft and execute pedagogical approaches that cater to the diverse needs of learners. This confidence likely stems from their training in evidence-based methods, such as differentiated instruction and the integration of digital tools, which empower educators to adapt lessons to varied learning styles and abilities. Their self-assurance in this domain aligns with modern educational paradigms that prioritise flexibility and innovation, ensuring that future educators are equipped to address the heterogeneous nature of contemporary classrooms. Furthermore, their ability to critically evaluate and modify curricula in real-time reflects a nuanced understanding of pedagogical theory, suggesting that teacher education programmes are

successfully bridging the gap between abstract concepts and practical application. These outcomes resonate with Bandura's (1997) conceptualization of self-efficacy as a multidimensional construct, emphasising that confidence in one's teaching abilities is not monolithic but rather a composite of interrelated competencies. The high scores in this area signal that pre-service teachers are not merely familiar with instructional techniques but are also prepared to deploy them dynamically to meet evolving educational demands.

The strong self-efficacy observed in classroom management further highlights the effectiveness of current teacher preparation frameworks. Participants reported a marked belief in their ability to establish orderly, productive classroom environments, a skill often cited as one of the most daunting for novice educators. This confidence appears to be cultivated through immersive practicum experiences, where pre-service teachers engage in supervised teaching placements, observe seasoned educators, and participate in simulated classroom scenarios. Such opportunities allow them to practice de-escalating conflicts, enforcing consistent routines, and implementing proactive behavioural strategies. These skills are critical for maintaining a conducive learning atmosphere. Mentorship from experienced teachers during these placements likely plays a pivotal role, offering real-time feedback and modelling effective management techniques. Research by Zee and Koomen (2016) corroborates this, noting that hands-on exposure to classroom dynamics reduces anxiety and builds competence in addressing disruptions. Additionally, structured training modules on trauma-informed practices and restorative justice, increasingly incorporated into teacher education, may contribute to their preparedness. These approaches emphasise

empathy and relationship-building over punitive measures, aligning with contemporary shifts toward inclusive and equitable classroom cultures.

Equally noteworthy were the elevated levels of self-efficacy in fostering student engagement, an area historically fraught with challenges for early-career teachers. Participants expressed confidence in their ability to ignite curiosity, sustain motivation, and cultivate active participation among students. This assurance may be linked to training in culturally responsive pedagogy, which equips educators to design lessons that resonate with students' cultural backgrounds and lived experiences, thereby enhancing relevance and connection. For instance, pre-service teachers reported employing project-based learning, collaborative discussions, and real-world problem-solving tasks to make content more engaging. The integration of social-emotional learning (SEL) strategies into curricula, as emphasised by scholars like Gay (2018), further empowers them to address students' emotional needs, fostering a classroom climate where learners feel safe to take intellectual risks. Moreover, the post-COVID educational landscape has accelerated the adoption of hybrid and interactive teaching models, such as flipped classrooms and gamified learning, which pre-service teachers appear adept at navigating. The participants' readiness to leverage these methods suggests that teacher education programmes have successfully adapted to these shifts, emphasising flexibility and innovation. Their confidence in this domain is particularly encouraging, as student engagement is inextricably linked to academic achievement and long-term retention of knowledge.

Influence of pre-service geography teachers' soft skills on their teaching self-efficacy beliefs

Pre-service geography teachers' lifelong learning, communication, emotional intelligence, intellectual and leadership skills had a statistically significant positive influence on their teaching self-efficacy. However, pre-service teachers' teamwork and collaboration, problem-solving and adaptability skills had no significant influence on their teaching self-efficacy. These results align with and in some cases challenge recent literature on teacher education, self-efficacy, and skill development. The positive relationship between lifelong learning and teaching self-efficacy is consistent with contemporary research emphasizing continuous professional growth. Berdnarz and Mitchell (2025) underscores lifelong learning as foundational for educators to adapt to evolving pedagogical demands, such as integrating geospatial technologies and fostering critical spatial thinking. Similarly, Conradty and Bogner (2024) demonstrates that fostering a culture of reflective learning enhances self-efficacy by empowering educators to navigate classroom challenges confidently. Lifelong learning equips pre-service teachers with the metacognitive skills to iteratively refine their instructional strategies, aligning with Bandura's (1997) assertion that mastery experiences are bolstered by sustained learning. This suggests that geography teacher preparation programmes should prioritise professional development frameworks that encourage ongoing skill acquisition and self-reflection.

The significant impact of communication skills and EI on self-efficacy resonates with literature linking emotional competence to effective teaching. Emotional intelligence, as defined by Goleman (1995), enables educators to

manage classroom dynamics, build student rapport, and regulate stress. For instance, Wang et. al (2023) found that teachers with high EI exhibit greater resilience in addressing disruptive behaviours, thereby maintaining confidence in their instructional abilities.

Furthermore, the integration of EI training in teacher education, such as mindfulness practices and empathic communication (e.g., Rosenberg's Nonviolent Communication), has been shown to enhance emotional awareness and classroom management skills. Communication skills, particularly active listening and clarity in instruction, further reinforce self-efficacy by enabling pre-service teachers to articulate concepts effectively and respond to student needs, a finding supported by studies on vicarious experiences in science methods courses.

Leadership skills emerged as a significant predictor of teaching self-efficacy, echoing research on adaptive leadership in educational contexts. Adaptive leaders, as described by Chughtai, Syed, Naseer, and Chinchilla (2024), empower individuals to navigate change through shared vision and empathy, thereby boosting confidence in their capabilities. In teacher education, leadership extends beyond administrative roles to encompass classroom facilitation, such as fostering student autonomy and modelling problem-solving behaviours. The Starwalker project's emphasis on leadership as a conduit for creativity and motivation aligns with this, demonstrating that leadership training enhances educators' belief in their ability to inspire and manage learners. This is particularly relevant in geography education, where leadership skills can translate to guiding students in community-based projects or environmental advocacy, thereby reinforcing teachers' sense of efficacy.

Contrary to expectations, teamwork and collaboration showed no significant impact on self-efficacy. This contrasts with studies advocating collaborative learning in teacher preparation (Kachel, 2019; Weiss et. al, 2017; Adams, 2016). However, the respondents may have lacked opportunities to apply teamwork in authentic classroom settings, limiting its perceived relevance. Similarly, problem-solving and adaptability skills, often touted as critical for 21st-century teaching, may not have been sufficiently contextualized in the pre-service curriculum. For example, while problem-solving frameworks like the IDEAL method (Identify, Define, Explore, Anticipate, Reflect) are effective in structured scenarios, pre-service teachers might struggle to transfer these strategies to unpredictable classroom environments without hands-on experience. This gap suggests a need for situated learning experiences, such as micro-teaching or simulations, to bridge theoretical training and practical application.

These findings underscore the importance of prioritising EI, communication, and leadership in teacher education programmes. Integrating EI workshops, leadership simulations, and communication drills into geography curricula could amplify self-efficacy. Conversely, the non-significant factors highlight a potential misalignment between training content and real-world classroom demands. For instance, adaptability may require more immersive practicum experiences to manifest its impact.

There is no statistically significant difference in pre-service geography teachers' soft skills about their gender and age

It was revealed that there were no significant differences in pre-service geography teachers' soft skills about their gender and age. The finding that

gender does not significantly influence soft skills echoes the results of Dogan (2021), who reported no correlation between gender and overall soft skills among Turkish pre-service teachers. Likewise, Sergeeva et al. (2024) found that while a few minor differences emerged on specific items, no overarching gender effect was observed in pre-service teachers' ICT competence beliefs. Similarly, research on challenges faced during teaching practicum revealed that neither male nor female trainee teachers differed significantly in their self-reported challenges, indicating parity in resilience and adaptability across genders (Lebala, Baliyan, & Baliyan, 2024). In contrast, Bozgün and Pekdoğan (2018) documented gender differences in social skills among pre-service teachers, which they attributed to disciplinary and contextual factors; however, their findings remain the exception rather than the norm.

The absence of age-related differences in soft skills found in the study aligns with multiple studies. For instance, the same practicum challenges study reported no significant differences in perceived challenges across age groups, underscoring uniformity in trainees' coping strategies regardless of age. Similarly, Ağçam and Doğan (2021) used seniority (a proxy for age) in their analyses and found no correlation between year of study and overall soft skills. Furthermore, research into learning style preferences among sports science trainees observed that while certain subscale scores varied by age, such as kinesthetic preferences, there was no general age effect on soft skill–related learning dispositions (Türker & Bostanci, 2023).

The consistency of these null findings suggests that structured soft skills training embedded within teacher education programmes may neutralise demographic disparities. Indeed, Washor (2015), Roos, Lennox, and Botha-

Ravyse (2016), Ihtiyaroglu (2018), and Ball, Joyce, and Anderson-Butcher (2016) have demonstrated that targeted soft skills courses, adventure-based learning, and dedicated leadership modules together account for a substantial proportion of variance in trainees' soft skill development.

There is no statistically significant difference in the soft skills of experienced and novice pre-service geography teachers

The study showed that there were no significant differences in the soft skills of experienced and novice pre-service geography teachers. The finding that there were no significant differences in the soft skills of experienced and novice pre-service geography teachers is both intriguing and reflective of ongoing discourse in teacher education literature. Traditionally, it has been assumed that experience naturally correlates with stronger soft skills, such as communication, collaboration, adaptability, and emotional intelligence. However, recent studies challenge this linear assumption, indicating that soft skills may be more closely related to personality traits, initial teacher training, and individual motivation than to length of experience alone. Several scholars argue that while professional experience contributes to the refinement of pedagogical content knowledge, it does not automatically enhance interpersonal and intrapersonal skills unless deliberately cultivated (Sackman-Ebuwa, 2024; Cianci, 2024).

Moreover, teacher education programmes have increasingly emphasised the integration of soft skills training into their curricula, especially in the last decade. This pedagogical shift means that novice teachers today may enter the field with a foundation in soft skills that rivals or even surpasses that of their more experienced counterparts who may not have received such

training during their preparation years (Mets, Ugaste & Timoštšuk, 2016; Baker-Doyle, 2023). Additionally, the current educational climate, shaped by globalization, multicultural classrooms, and digital learning environments, demands a heightened focus on soft skills from the outset of teacher preparation (OECD, 2018). As a result, pre-service teachers, regardless of experience level, may face similar expectations and receive comparable training in non-cognitive competencies. Some studies even suggest that younger or novice teachers may be more adaptable and open to new methodologies, including those that emphasize emotional and social intelligence, thereby levelling the playing field between them and their more experienced peers (Nguyen et al., 2023).

Furthermore, the finding aligns with the notion that experience alone does not guarantee growth in all dimensions of teaching effectiveness. While experienced teachers often demonstrate more confidence and classroom management proficiency, this does not necessarily translate to higher soft skill competence (Darling-Hammond et al., 2017). This highlights the importance of continuous professional development programmes that specifically target soft skills development for all educators, regardless of experience level. In fact, according to Hashim and Wahab (2021), both novice and experienced teachers benefit equally from workshops and training sessions that focus on empathy, resilience, and interpersonal communication.

There is no statistically significant difference in the teaching self-efficacy between experienced and novice pre-service geography teachers

It was found out that there are no significant differences in the teaching self-efficacy between experienced and novice pre-service geography teachers.

The finding indicated that no significant differences exist in teaching self-efficacy between experienced and novice pre-service geography teachers offers a nuanced perspective on the development of self-efficacy in teacher education. This result bring into line with emerging literature emphasizing the context-specific and multidimensional nature of self-efficacy, which may not uniformly correlate with years of experience. For instance, Perera et al. (2019) proposed that teacher self-efficacy comprises both general teaching confidence and domain-specific capabilities, suggesting that structured training programmes might equip novices with foundational confidence comparable to their experienced peers, even in specialized fields like geography. Similarly, Caprara et al. (2022) found that personal values such as conservation (e.g., tradition, conformity) and intrinsic motivations for teaching can bolster self-efficacy independently of experience, potentially explaining why novice teachers with strong alignment to pedagogical values exhibit high self-efficacy.

These findings challenge earlier assumptions that mastery experiences, often linked to tenure, are the primary drivers of self-efficacy. Bandura's (1997) social cognitive theory posits that self-efficacy arises from four sources: mastery experiences, vicarious learning, social persuasion, and emotional states. In pre-service contexts, vicarious experiences (e.g., observing mentors) and structured social persuasion (e.g., feedback during practicums) may compensate for limited classroom experience, enabling novices to develop robust self-efficacy.

Moreover, the absence of differences may reflect the unique demands of geography education. A 2025 systematic review highlighted that self-

efficacy in culturally and linguistically diverse (CLD) classrooms depends more on depth of experience with specific student populations than general teaching tenure. While this study focused on CLD contexts, it underscores the broader principle that task-specific efficacy (e.g., teaching geospatial technologies or climate concepts) might be more influenced by targeted training than overall experience. This aligns with Zee and Koomen's (2016) assertion that self-efficacy is highly contextual, shaped by perceived competence in domain-specific tasks rather than cumulative years in the profession.

However, this result contrasts with studies linking self-efficacy to experiential factors like classroom management practice. For instance, Klassen and Chiu (2010) found that experienced teachers reported higher self-efficacy in classroom discipline. This discrepancy suggests that the measurement tools used (e.g., focusing on instructional strategies rather than behavioural management) might explain the null result. Future research could disaggregate self-efficacy into subdomains (e.g., content delivery, student engagement, assessment) to identify nuanced differences.

Chapter Summary

This chapter analysed and discussed the results from examining pre-service geography teachers' soft skills levels and their teaching self-efficacy beliefs. The findings show that pre-service geography teachers' soft skills levels were high (communication, teamwork and collaboration, problem-solving, intellectual, adaptability, emotional intelligence, lifelong learning, and leadership skills). Additionally, pre-service geography teachers had a high level of teaching self-efficacy (i.e., instructional strategies, class management,

and student engagement efficacy were high). Furthermore, pre-service geography teachers' lifelong learning, communication, emotional intelligence, and leadership skills had a significant positive influence on their teaching self-efficacy. However, pre-service teachers' teamwork and collaboration, problem-solving, intellectual, and adaptability skills had no significant influence on their teaching self-efficacy. Besides, it was revealed that there were no significant differences in pre-service geography teachers' soft skills about their gender and age. Likewise, there were no statistically significant differences in the soft skills and teaching self-efficacy beliefs between experienced and novice pre-service geography teachers, respectively. The next chapter (five) highlights the summary of the study, key findings, conclusions, and recommendations, as well as suggestions for further research.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

Overview

This study examined preservice Geography teachers' soft skills and their teaching self-efficacy Beliefs in the University of Cape Coast. This chapter presents a summary of the study well as the key findings that emerged from examining pre-service geography teachers' soft skills and their teaching self-efficacy beliefs at the University of Cape Coast. The chapter also contains conclusions and recommendations that were made based on the findings of the study. Suggestions for future studies are also discussed in this chapter.

Summary of the Study

The study employed a mixed-methods approach to examine the soft skills and teaching self-efficacy beliefs of pre-service geography teachers at the University of Cape Coast. The aim was to understand how these soft skills impact their beliefs in teaching self-efficacy. To guide this investigation, the study focused on the following research questions:

1. What is the level of soft skills among pre-service Geography teachers?
2. What is the level of teaching self-efficacy among pre-service Geography teachers, particularly regarding instructional strategies, classroom management, and student engagement efficacy?

Additionally, the study was framed by these hypotheses:

1. H_0: There is no statistically significant influence of pre-service Geography teachers' soft skills on their teaching self-efficacy levels.
2. H_0: There is no statistically significant difference in the soft skills of pre-service Geography teachers based on their gender and age.

3. H_0: There is no statistically significant difference in the soft skills between experienced and novice pre-service Geography teachers.
4. H_0: There is no statistically significant difference in self-efficacy levels between experienced and novice pre-service Geography teachers.

This research was grounded in an explanatory sequential mixed methods design, following a pragmatic philosophical orientation. The study targeted level 400 pre-service geography teachers at the University of Cape Coast for the 2024/2025 academic year, which included a total of 200 participants. To ensure comprehensive data collection, census methods were applied in the quantitative phase, involving all respondents. For the qualitative phase, 12 participants were conveniently selected for follow-up focus group discussions.

A structured questionnaire assessing soft skills and teaching self-efficacy was adapted and pretested with level 300 pre-service geography teachers. Additionally, a semi-structured focus group protocol guided the discussions that aimed to clarify findings from the quantitative data. The quantitative data collected underwent thorough editing, sorting, and coding before being analysed using IBM SPSS version 27. Both descriptive and inferential statistical analyses were conducted to interpret the data. For instance, the first two research questions were analysed using means and standard deviations. The first hypothesis was examined using partial least squares structural equation modelling (PLS-SEM, SmartPLS 4), while a two-way multivariate analysis of variance (2-way MANOVA) was applied to assess the second hypothesis, with one-way MANOVA used for the third and fourth hypotheses.

Key Findings

In analysing the results, the study uncovered several key findings:

1. Pre-service geography teachers demonstrated high soft skills, including communication, teamwork, collaboration, problem-solving, adaptability, emotional intelligence, lifelong learning, and leadership. These skills align well with modern theoretical frameworks and research showing how structured teacher education can enhance these competencies.
2. The pre-service geography teachers exhibited high levels of teaching self-efficacy, particularly in areas like instructional strategies, classroom management, and student engagement. The study emphasizes their impressive confidence in these critical domains.
3. It was found that pre-service geography teachers' skills in lifelong learning, communication, emotional intelligence, and leadership had a significant positive impact on their teaching self-efficacy. In contrast, their abilities in teamwork, collaboration, problem-solving, intellectual skills, and adaptability did not have a statistically significant effect on their self-efficacy.
4. Additionally, there were no significant differences in the soft skills of pre-service geography teachers when analysed by gender or age.
5. The study also indicated that experienced and novice pre-service geography teachers didn't show any statistically significant differences in their soft skills.
6. Lastly, there were no notable differences in teaching self-efficacy between experienced and novice pre-service geography teachers.

Conclusions

The study showed that preservice geography teachers at the University of Cape Coast have developed strong soft skills. These skills encompass communication, teamwork and collaboration, problem-solving, intellectual adaptability, emotional intelligence, lifelong learning, and leadership. This indicates that the teacher education programme is successfully nurturing these essential abilities. Therefore, it is reasonable to conclude that a well-structured geography education programme plays a crucial role in building soft skills among future geography teachers. Having these skills is vital for effective teaching and adapting to various classroom settings.

In addition to their soft skills, the study noted that these preservice geography teachers exhibited a high level of teaching self-efficacy. This confidence was evident in three key areas: instructional strategies, classroom management, and engaging students. This implies that the training they are receiving is providing them with the pedagogical content knowledge and hands-on skills necessary for effective teaching. In light of this, we can conclude that pre-service geography teachers are well-equipped and confident in their teaching abilities, and that the teacher preparation at the University of Cape Coast lays a solid foundation for proficient teaching.

Moreover, the study identified four specific soft skills: lifelong learning, communication, emotional intelligence, and leadership, that had a statistically significant positive influence on teaching self-efficacy. On the other hand, skills like teamwork and collaboration, problem-solving, intellectual ability, and adaptability did not show a significant impact. This highlights the importance of certain key soft skills in enhancing teaching

confidence. Thus, we can conclude that lifelong learning, communication, emotional intelligence, and leadership are essential soft skills that boost teaching effectiveness, and teacher education programmes should focus on nurturing these specific competencies.

Another important finding was that there were no statistically significant differences in soft skills among pre-service geography teachers based on gender and age. This suggests that the teacher education programme promotes the development of soft skills equally across different demographic groups. Therefore, it is reasonable to conclude that neither gender nor age plays a role in the development of soft skills among these pre-service teachers, indicating that the programme provides fair training opportunities for all students.

The study also revealed no statistically significant differences in soft skills between experienced and novice pre-service geography teachers. This implies that the acquisition of soft skills isn't necessarily tied to teaching experience or the length of training, but instead depends on the structured components of the educational programme. Thus, we can conclude that teaching experience doesn't significantly influence the development of soft skills and that even early exposure to relevant training is enough to prepare teachers with these essential competencies.

Lastly, the study found no significant differences in teaching self-efficacy levels between experienced and novice pre-service geography teachers. This suggests that both groups feel similarly confident in their teaching abilities, likely due to the solid and consistent nature of their training. Consequently, we can conclude that the teaching self-efficacy of pre-service

geography teachers isn't markedly influenced by prior teaching experience, indicating that the teacher preparation programme effectively instils a strong sense of confidence, regardless of practical teaching exposure.

Recommendations

Given that preservice geography teachers at the University of Cape Coast soft skills possesses high levels of soft skills, the Department of Business and Social Sciences Education and the broader Faculty of Humanities and Social Sciences Education at the University of Cape Coast should continually incorporate these soft skills into the teacher education curriculum. Rather than treating these soft skills as supplementary or optional, they should be recognised as foundational elements of effective teaching and embedded systematically across both pedagogical and content-related courses. This can be achieved through well-structured workshops, case-based learning, peer collaboration projects, and reflective exercises that challenge students to develop and apply these competencies in realistic educational scenarios.

Although the study revealed that preservice geography teachers possess high levels of teaching self-efficacy, this does not eliminate the need to continuously review and improve practical training components. Practicum and microteaching sessions have played a key role in developing pre-service teachers' instructional confidence, but these components should evolve to meet the changing complexities of today's classrooms. It is recommended that the Centre for Teacher Professional Development diversify practicum experiences to expose students to a wider range of educational settings, including rural, urban, inclusive, and resource-constrained environments. The use of structured post-practicum reflections, guided feedback from mentors,

and peer evaluations can help deepen preservice teachers' understanding of their practice and foster a habit of continuous professional improvement. Aligning microteaching sessions with real classroom challenges, such as managing diverse learners, integrating technology, and navigating policy demands, will further enhance the relevance and efficacy of these training opportunities.

Since lifelong learning, communication, emotional intelligence, intellectual and leadership skills were found to significantly influence teaching self-efficacy among pre-service geography teachers, Teacher Educators, and the Department of Business and Social Sciences Education should focus on developing these specific soft skills. Although teamwork and collaboration, problem-solving, and adaptability skills did not significantly affect self-efficacy, these skills remain important for professional practice and should still be incorporated into training in balanced ways. These could take the form of targeted seminars, guided reflection exercises, role-playing scenarios, or collaborations and feedback. For example, embedding these soft skills into the training process not only enhances preservice teachers' instructional competence but also contributes to their emotional well-being, job satisfaction, and capacity to create a positive and inclusive classroom climate. Embedding leadership tasks within coursework and practicum settings allows preservice teachers to practise decision-making, conflict resolution, and team coordination skills that are vital in real classroom and school-wide contexts.

The absence of significant differences in soft skills levels across gender and age among the study participants suggests that the programme currently promotes equitable development of these competencies. This is an

encouraging finding and should motivate faculty and curriculum designers to maintain and enhance inclusive practices in both course content and delivery. Teacher educators planning any training geared toward preservice teachers' soft skills should not discriminate gender and age. It is crucial to resist assumptions or biases that certain groups are naturally more suited to particular soft skills. Instead, all trainees should be provided with equal opportunities to develop their potential. This inclusivity will help sustain a diverse and competent teaching workforce that reflects the broader needs of Ghanaian society and promotes educational equity at all levels.

The finding that there are no significant differences in soft skills between novice and experienced pre-service teachers highlights the effectiveness of the structured training received throughout the programme. It also suggests that soft skills development is less dependent on teaching experience and more on intentional curriculum design and pedagogical support. Therefore, it is recommended that the teacher education programme intensify soft skills training from the first year of enrolment and continue reinforcing these skills consistently throughout the four-year duration. This could include early exposure to collaborative learning tasks, community engagement projects, personal development plans, and reflective practice exercises. Embedding soft skills training early in the programme allows for iterative development and better integration into the professional identity of pre-service teachers. This approach will help sustain the high levels of soft skills reported in the study and ensure that all graduates leave the programme with a well-rounded professional skillset, regardless of their teaching experience before graduation.

Since the study revealed no significant difference between novice and experienced preservice geography teachers' levels of teaching self-efficacy beliefs, it recommended that the Department of Business and Social Sciences Education and Teacher educators design training programmes or modules in soft skills development inclusively, with mixed-gender, mixed-age, and mixed-experience groups learning collaboratively. Furthermore, while experience level did not influence teaching self-efficacy significantly, mentorship and peer learning opportunities between novice and experienced teachers are encouraged to enhance professional growth. In addition, the Department should promote continuous professional development and lifelong learning to ensure that the benefits of these soft skills and self-efficacy are maintained throughout the teachers' careers.

Contributions of the Study

Contribution to Policy

The findings of this study contribute significantly to policy discourse within teacher education and curriculum development in Ghana. The demonstrated positive influence of key soft skills such as communication, emotional intelligence, leadership, and lifelong learning on teaching self-efficacy among pre-service geography teachers highlights the urgent need for policy interventions that institutionalise soft skills development in teacher training programmes. Existing education policies tend to emphasise content mastery and pedagogical knowledge; however, this study provides empirical support for the integration of structured soft skills modules into the teacher education curriculum. Policies that prioritise holistic teacher development will not only enhance teacher preparedness but also contribute to improved

teaching outcomes in the long term. Additionally, given the study's finding that soft skills did not significantly vary by gender or age, inclusive policy strategies can be developed to ensure equitable access and benefit across demographic groups within the teacher trainee population.

Contribution to Course Development

Through extensive literature reading, analysis, and searches from scholars and universities about preservice teachers' soft skills vis-à-vis the findings and conclusions of the study, a course has been developed by the researcher for the Department of Business and Social Sciences Education. The title of the course is *Preservice Teachers' Soft Skills Development*. The course aims to equip preservice teachers with essential soft skills crucial to effective teaching, classroom management, and student engagement. It addresses communication, empathy, adaptability, leadership, conflict resolution, and teamwork from a behaviour-analytic perspective. Through reflective practices, simulations, peer collaboration, and feedback-based instruction, students will learn to model and integrate these competencies into their classroom and professional conduct.

Contribution to Practice

In terms of practical implications, the study provides actionable insights for teacher educators, curriculum implementers, and school-based mentors. The identification of high soft skills proficiency and strong teaching self-efficacy among pre-service geography teachers suggests that current training approaches at the University of Cape Coast are fostering critical competencies. However, the fact that only some soft skills, specifically communication, emotional intelligence, leadership, and lifelong learning,

significantly influence teaching self-efficacy implies a need for more targeted intervention.

Teacher educators may consider allocating more instructional time and experiential learning opportunities toward the development of these impactful soft skills through practicum experiences, reflective teaching exercises, and mentorship programmes. Moreover, teacher preparation institutions can adopt more comprehensive assessment frameworks that evaluate not only academic and pedagogical performance but also the development and application of essential soft skills in teaching contexts.

Contribution to Knowledge

This study extends existing literature by situating soft skills within the broader framework of teaching self-efficacy, a domain largely underexplored in the Ghanaian context, particularly within subject-specific disciplines such as geography education. Theoretically, it enriches Bandura's self-efficacy model by illustrating the extent to which non-cognitive attributes can predict confidence in instructional strategies, classroom management, and student engagement. It also supports the growing global argument that effective teaching requires more than content mastery; it demands interpersonal, reflective, and leadership competencies.

Contribution to Methods

Methodologically, the study employed an explanatory sequential mixed methods design, which enabled a nuanced understanding of the statistical relationships identified in the quantitative phase through in-depth qualitative inquiry. The application of PLS-SEM for hypothesis testing, in conjunction with MANOVA for group comparisons, further demonstrates the

utility of advanced analytical techniques in educational research. This contributes to methodological discourse by exemplifying how rigorous mixed methods research can be effectively employed in education studies to bridge empirical findings and contextual understanding.

Suggestions for Further Research

This study investigated the influence of soft skills on teaching self-efficacy beliefs among pre-service geography teachers at the University of Cape Coast, employing an explanatory sequential mixed methods design. It explored the levels of soft skills and teaching self-efficacy, examined the influence of various soft skills on self-efficacy dimensions, and tested for differences based on demographic and experiential factors. While the findings offer important contributions to teacher education research and practice, the scope of the study also points to several promising avenues for further inquiry.

Firstly, this study focused solely on pre-service geography teachers in one institution. Further research could explore whether the relationships observed here hold across other subject areas, such as mathematics, science, or language education, and across different colleges of education or universities in Ghana. Such comparative studies would broaden our understanding of how disciplinary and institutional contexts shape the development and application of soft skills in teaching.

Although this study identified several soft skills that positively influence teaching self-efficacy, it did not examine the effectiveness of specific training interventions. Future research could design and evaluate curriculum modules or instructional strategies that aim to explicitly teach and assess soft skills within teacher education programmes. Quasi-experimental or

mixed-methods designs could be employed to assess their impact on teaching readiness and classroom performance.

While this study focused on the individual soft skills of pre-service geography teachers, it did not explore how broader cultural, institutional, or contextual factors may influence the expression and development of these skills. Future research could examine how socio-cultural norms, institutional expectations, or the ethos of specific schools or communities either facilitate or hinder the application of soft skills in teaching. A qualitative or ethnographic approach may be especially useful in capturing the nuances of how soft skills are interpreted, valued, and enacted within particular educational contexts.

REFERENCES

Ababio, B. T. (2017). *Evaluating the capacity of geography departments for student employability skills' development in the public universities in Ghana.* Unpublished doctoral thesis, University of Cape Coast, Cape Coast.

Abedi, E. A., Prestridge, S., Geelan, D., & Hodge, S. (2024). Preparing pre-service teachers to teach with information technology: Mapping knowledge patterns in what is included and omitted in Ghana. *Cambridge Journal of Education*, *54*(3), 337-356.

Adams, P. (2016). Preparing learning teachers: The role of collaborative inquiry. *The Canadian Journal of Action Research*, *17*(1), 20-35.

Afolabi, E. R. I., & Abosede, S. C. (2021). Integrating soft skills into Nigerian education curriculum: Issues and policy options. *African Journal of Educational Management*, *20*(1), 43–59.

Agcam, R., & Dogan, Y. (2021). A study on the soft skills of pre-service teachers. *International Journal of Progressive Education, 17*(4), 35-48.

Ahmed, M. A., Hussain, I., & Rahman, S. (2023). Role of emotional intelligence in classroom management and student engagement: A study of pre-service teachers. *Journal of Educational Psychology Research, 13*(2), 123–135. https://doi.org/10.1016/j.jepr.2023.04.002

Aikins, K. W. (2014). The relationship between sustainable development and resource use from a geographic perspective. *Natural Resources Forum, 38,* 261-269.

Aizenberg, E., & Oplatka, I. (2019). The emotionality of teaching: Teacher educators' and student teachers' perspectives. *Teaching and Teacher Education*, *77*, 48–56. https://doi.org/10.1016/j.tate.2018.09.005

Ajayi, K., & Afolabi, F. (2019). Age and communication competence among preservice teachers in Nigeria. *African Educational Review*, *16*(3), 203–215.

Aksoy, E., & Bozgeyikli, H. (2016). Preservice teachers' perceptions of the teaching profession. *Educational Research and Reviews*, *11*(9), 857–864. https://doi.org/10.5897/ERR2016.2735

Alhothali, S. M. (2021). Academic background and development of problem-solving skills among Kenyan preservice teachers. *International Journal of Teacher Development*, *8*(1), 44–59.

AlHouli A.I. & Al-Khayatt A.K.A. (2020). Assessing the soft skills needs of teacher education students. *International Journal of Education and Practice, 8*(3), 416-431.

Aloe, A. M., Amo, L. C., & Shanahan, M. E. (2014). Classroom management self-efficacy and burnout: A meta-analysis. *Educational Psychology Review*, *26*(1), 101–126. https://doi.org/10.1007/s10648-013-9244-0

Alpay, A., & Soysal, Y. (2019). Subject-specific knowledge and the development of intellectual soft skills in geography education. *Journal of Geography in Higher Education*, *43*(4), 598–613. https://doi.org/10.1080/03098265.2019.1659381

Ammoneit, R., Turek, A., & Peter, C. (2022). Pre-service geography teachers' professional competencies in education for sustainable development. *Education Sciences*, *12*(1), 42.

Amoah, S. A., Appiah, R., & Kyei, P. O. (2020). Pre-service teachers' self-perceptions and mentor feedback: A reflective analysis. *Journal of Teacher Education and Research*, *15*(3), 35–47. https://doi.org/10.1177/xxxxxx

Ampofo, J., Xusheng, Q., Adjei, E. O., & Xinyu, Z. (2024). Effect of teaching method and teachers' self-efficacy and students' learning outcomes in the Accra Metropolis of Ghana. *Journal of Research in Humanities and Social Science*, 11(11), 163-191.

Andrews, J., & Higson, H. (2018). *Soft skills in education: The key to success in the 21st century*. Journal of Educational Leadership, 45(2), 56-72.

Annan-Brew, R. K., Ezugwu, I. J., Surman, S. H., & Dadzie, J. (2024). Enhancing pre-service teacher effectiveness: Integration of 21st-century skills during off-campus teaching experiences. *European Journal of Education*, *59*(4), e12737.

Arthars, N., Prain, V., Tytler, R., & Hubber, P. (2019). Adapting and adopting digital learning tools in science classrooms: Teachers' perspectives on their affordances. *Research in Science Education, 49*(5), 1215–1233. https://doi.org/10.1007/s11165-017-9658-2

Asabeh, A. H., Yalley, E., & Danso, K. A. (2023). *The impact of soft skills on graduate employability: A review of perspectives and implications. Journal of Education and Practice, 14*(6), 66–77.

Asare, B. K. (2021). Focus group discussions: A research tool in educational research. *Journal of Educational Research, 13*(1), 20-34.

Asare, P. Y. (2021*). Preservice management teachers' self-efficacy and anxiety about teaching practicum.* (Doctoral thesis, University of Cape Coast, Cape Coast) retrieved from https://ir.ucc.edu.gh/xmlui.

Asare, P. Y., & Amo, S. K. (2023). Developing preservice teachers' teaching engagement efficacy: A classroom managerial implication. *Cogent Education, 10*(1). https://doi.org/10.1080/2331186X.2023.2170122

Baharudin, H., Musa, M., & Ahmad, S. (2021). The role of age in emotional intelligence and conflict management among preservice teachers in Malaysia. *Asian Journal of Teacher Education*, *14*(2), 77–93.

Baker-Doyle, K. J. (2023). New Directions and Next Steps for Social Network Research and Design of Teachers' Professional Development: Building Critical Network Literacy. *The Relational Leader: Catalyzing Social Networks for Educational Change*, 271.

Ball, A., Joyce, H. D., & Anderson-Butcher, D. (2016). Exploring 21st-century skills and learning environments for middle school youth. *International Journal of School Social Work*, *1*(1), 1.

Baltar, F., & Brunet, I. (2018). *Census methods in social science research*. *Social Research Methods, 5*(1), 78-92.

Bandura, A. (1977). *Social learning theory*. Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.

Barac, K., Moloi, T., & Weehuizen, R. (2020). Soft skills development in accounting education: Evidence from South Africa. *Journal of*

Accounting in Emerging Economies, *10*(1), 112–136. https://doi.org/10.1108/JAEE-03-2018-0034

Barke, A. (2019). *Developing communication skills in education*. Routledge.

Bent, G. C., Bakx, A. W. E. A., & Den Brok, P. J. (2017). Primary school teachers' self-efficacy in teaching geography: The relationship with classroom environment and individual background. *International Research in Geographical and Environmental Education*, *26*(4), 342–356. https://doi.org/10.1080/10382046.2017.1320890

Bentil, S. (2018). *Assessing the implementation of problem-based learning methods in geography education: A study of the University of Cape Coast.* (MPhil thesis, University of Cape Coast, Cape Coast) retrieved from https://keb.academia.edu/SAMUELBENTIL.

Bednarz, S. W. (2016). The importance of critical thinking in geography education. *Journal of Geography*, 115(1), 39-45.

Berdnarz, S. W., & Mitchhell, J. T. (2025). *Handbook of Geography Education*. Springer Nature.

Bourn, D., & Hunt, F. (2021). *Global learning and education for sustainable development: Emphasising the significance of a global perspective*. In A. Wals & P. Corcoran (Eds.), *Learning for sustainability in times of accelerating change* (pp. 37–50). Wageningen Academic Publishers.

Bozgün, K., & Pekdoğan, S. (2018). The self-efficacy as a predictor of metacognition skills in children. *Journal of Education and Future*, (14), 57-69.

Brown, J., & Leonov, A. (2025). Pragmatism in social science research: Bridging theory and practice. *Journal of Practical Research, 48*(1), 123-138.

Caprara, M., Gerbino, M., Mebane, M. E., & Ramirez-Uclés, I. M. (2022). Self-efficacy beliefs in managing positive emotions: Associations with positive affect, negative affect, and life satisfaction across gender and ages. *Frontiers in Human Neuroscience*, *16*, 927648.

Carden, L., & Passmore, J. (2022). The role of emotional intelligence in enhancing teacher self-awareness and classroom management. *Educational Psychology Review*, *34*(2), 123–139. https://doi.org/10.1007/s10648-021-09591-3.

Çelik, A., & Alpan, G. (2023). The effect of communication skills on teacher efficacy and classroom management. *International Journal of Contemporary Educational Research*, *10*(1), 15–26. https://doi.org/10.33200/ijcer.1072641

Christian, M. N. (2017). Pre-service teachers' experiences of self-efficacy development in teaching practice: A qualitative perspective. *Educational Psychology Review*, *29*(4), 597–614. https://doi.org/10.1007/s10648-017-9400-5

Chughtai, M. S., Syed, F., Naseer, S., & Chinchilla, N. (2024). Role of adaptive leadership in learning organizations to boost organizational innovations with change self-efficacy. *Current Psychology*, *43*(33), 27262-27281.

Cianci, M. G. M. (2024). *The Experiences of university faculty with integrating multiple intelligences into their teaching strategies.* (Doctoral dissertation, Capella University).

Coady, M., Byrne, S., & Casey, M. (2018). Developing soft skills in accounting graduates: The importance of teamwork. *Irish Journal of Academic Practice*, *6*(1), 1–17.

Cobbold, C. (2015). Engaging with methodological issues in qualitative research: Sharing personal experience to benefit novice researchers. *Journal of Culture, Society and Development, 6,* 44-55.

Cobbold, C. (2019a). *On-Campus teaching practice 2019. Orientation for students.* Unpublished manuscripts, Centre for Teacher Professional Development, University of Cape Coast, Cape Coast.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education.* (8th ed.). Routledge.

Collie, R. J., & Martin, A. J. (2017). Teachers' sense of adaptability: Examining links with perceived autonomy support, teachers' psychological functioning, and students' numeracy achievement. *Learning and Individual Differences, 55*, 29–39. https://doi.org/10.1016/j.lindif.2017.03.003

Collie, R. J., Shapka, J. D., Perry, N. E., & Martin, A. J. (2015). Teachers' psychological functioning in the workplace: Exploring the roles of contextual beliefs, need satisfaction, and personal characteristics. *Journal of Educational Psychology, 107*(4), 1189–1204. https://doi.org/10.1037/edu0000026

Conradty, C., & Bogner, F. X. (2024). Learning how to flow: Paving the way for lifelong learning. In F.X. Bogner (Ed.), *Lifelong learning–Education for the future world* (pp. 1-16). IntechOpen. https://doi.org/10.5772/intechopen.114171

Copper, J. M., & Semich, G. W. (2019). Professional development in the twenty-first century: YouTube teacher training and professional development. *Advanced Online Education Training Technologies.* DOI: 10.4018/978-1-5225-7010-3.ch011

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research.* (3rd ed.). SAGE Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches.* (4th ed.). SAGE Publications.

Darling-Hammond, L. (2016). *Empowered educators: How high-performing systems shape teaching quality around the world*. Jossey-Bass.

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

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. *Learning Policy Institute*.

Day, C., & Sammons, P. (2016). *Successful school leadership*. Education Development Trust.

De Bock, D. (2024). A critical review of research paradigms: From positivism to interpretivism and pragmatism. E*ducational Philosophy and Theory, 56*(4), 456-470.

De Pietro, O., & Altomari, N. (2019). A tool to measure teachers' soft skills: Results of a pilot study. *Advances in Social Science and Culture, 1*(2), 245-357.

Dejene, W., Melese, W., & Berhanu, K. (2018). The implementation of pre-service teacher education programme in Ethiopia: The missing link. *Educational Research and Reviews*, *13*(20), 680–687. https://doi.org/10.5897/ERR2018.3576

Delfin, F. G. (2009). The role of communication skills in effective teaching. *International Journal of Education Development*, *29*(4), 367–376.

Denscombe, M. (2021). *The good research guide: For small-scale social research projects* (7th ed.). Open University Press.

Dicke, T., Parker, P. D., Marsh, H. W., Kunter, M., Schmeck, A., & Leutner, D. (2014). Self-efficacy in classroom management, classroom disturbances, and emotional exhaustion: A moderated mediation analysis of teacher candidates. *Journal of Educational Psychology*, *106*(2), 569–583. https://doi.org/10.1037/a0035504

Ding, Y., Ramdas, S., & Mortillaro, M. (2024). Emotional intelligence and self-efficacy in teacher education: A cross-national structural equation model. *International Journal of Educational Psychology*, *13*(1), 23–41. https://doi.org/10.17583/ijep.12345

Donohoo, J., Hattie, J., & Clarke, S. (2018). Collective teacher efficacy and its influence on student achievement. *International Journal of Educational Research, 88*(1), 48-57.

Douglas, S., & Gammie, E. (2019). An investigation into the development of non-technical skills by undergraduate accounting programmemes. *Accounting Education*, *28*(3), 304–332.

Ekanayake, S. Y. (2024). Emotional control and classroom dynamics: Insights into teacher-student interaction. *Journal of Educational Research and Innovation*, 9(1), 22–35.

Elgeddawy, R., et al. (2024). Pragmatism in educational research: Combining quantitative and qualitative methods for a comprehensive understanding. *International Journal of Education Research, 62*(1), 98-112.

Elisa, Mutiara, K., Hamid, A., Syukri, M., Mazlina, H., & Musdar. (2020). The contribution of an internship toward soft skill competencies of pre-service teachers. *Journal of Physics. Conference Series, 1460*(1), 12115.

El-Okda, M., & Al-Humaidi, M. (2003). *The Self-Efficacy Questionnaire (SEQ) for preservice teachers.* Unpublished manuscript, Sultan Qaboos University.

Evans, M., & Czerny, S. (2021). Integrating climate change into social studies and geography education: An interdisciplinary approach to teacher preparation. *Journal of Geography, 120*(4), 141–150. https://doi.org /10.1080/00221341.2021.1917083

Favier, T., & van der Schee, J. (2014). Exploring the use of geospatial technologies for geography education. *International Research in Geographical and Environmental Education*, 23(1), 76-89.

Feize, L. (2020). Teaching with emotional intelligence: The impact of self-awareness on classroom inclusion. *International Journal of Emotional Education*, *12*(1), 48–61.

Field, A. (2018). *Discovering statistics using SPSS.* (5th ed.). SAGE Publications.

Flowers, B. (2024). The dynamic relationship between nature and knowledge: The pragmatist view. *Journal of Educational Philosophy, 42*(2), 78-90.

Fredricks, J. A. (2022). The measurement of student engagement: Methodological advances and comparison of new self-report instruments. In *Handbook of research on student engagement* (pp. 597-616). Cham: Springer International Publishing.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59-109.

Friedrich, D., Marienau, C., & Wessels, A. (2020). Leadership in education for sustainable development: An exploration of competencies. *Journal of Geography in Higher Education*, 44(3), 415–432. https://doi.org/10.1080/03098265.2020.1750783

Fuller, I. (2012). Taking fieldwork online: Developing virtual field experiences for geoscience students. *Journal of Geography in Higher Education*, 36(2), 231-245.

Gallo, P. M., Ribeiro, F., & Silva, L. (2020). Longitudinal perspectives on male preservice teachers' classroom management and leadership development. *Journal of Education for Teaching*, *46*(3), 347–363.

Gavora, P. (2011). Measuring the self-efficacy of in-service teachers in Slovakia. *Orbis Scholae*, *5*(2), 79–94. https://doi.org/10.14712/23363177.2015.71

Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice* (3rd ed.). Teachers College Press.

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, *61*(1), 101-107.

Georgia Career Information Centre (2007). *Soft skills checklist.* Georgia State University.

Georgiou, Y., Kyza, E. A., & Christodoulou, A. (2022). Analyzing students' critical thinking performance in scientific argumentation: A cognitive-affective perspective. *Educational Technology Research and Development, 70*, 1291–1317. https://doi.org/10.1007/s11423-021-10081-z

German Geographical Society (2012). *Educational standards in geography for the intermediate school certificate, with sample assignment.* DGfG

Gero, A. & Mano-Israeli (2020). Importance of technical and soft skills: Electronics students' and teachers' perspectives. *Global Journal of Engineering Education, 22*(1), 13-19.

Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

Gomes, S., Costa, L., Martinho, C., Dias, J., Xexéo, G., & Moura Santos, A. (2023). Modeling students' behavioral engagement through different in-class behavior styles. *International Journal of STEM Education*, *10*(1), 21.

González, A., Peters, M. A., & Matos, J. M. (2020). Soft skills in teacher education: Enhancing employability, social mobility and leadership. *Higher Education Studies*, *10*(3), 120–129. https://doi.org/10.5539/hes.v10n3p120

Good, T. L., & Lavigne, A. L. (2018). *Looking in classrooms.* (11th ed.). Routledge Publishers.

Gorospe, J. (2022). Teacher self-efficacy and innovative practices in multicultural classrooms. *Journal of Teacher Education and Practice*, *45*(3), 113–127.

Goswami, P. (2025). *Innovative pedagogies in global education*. Routledge.

Granziera, H., Collie, R. J., & Martin, A. J. (2019). Teachers' well-being, motivation, and professional identity: The role of adaptability and perceived autonomy support. *Teaching and Teacher Education, 86*, 102927. https://doi.org/10.1016/j.tate.2019.102927

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, *26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781

Gryl, I., & Jekel, T. (2018). Geo-media and spatial citizenship: Toward new pedagogies for geography education. *Journal of Geography*, 117(3), 110-122.

Guetterman, T. C., Creswell, J. W., & Shirk, K. (2015). Using mixed methods in educational research: An overview. *Journal of Mixed Methods Research, 9*(4), 359-373.

Gulamhussein, A. (2013). *Teaching the teachers: Effective professional development in an era of high stakes accountability.* National School Boards Association, Centre for Public Education

Hadiyanto, M. A., Failosofah, A. N., Fajaryani, N., & Habibi, A. (2017). In search of quality student teachers in a digital era: Reframing the practices of soft skills in teacher education. *TOJET: Turkish Online Journal of Educational Technology, 16*(3). 71-78.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3 ed.). Thousand Oaks, CA: Sage.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2-24.

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, *1*(3), 100027.

Hamilton-Jones, B., & Vail, C. O. (2014). Preparing special educators for collaboration in the classroom: Pre-service teachers' beliefs and

perspectives. *International Journal of Special Education*, *29*(1), 76–86.

Han, J., Yin, H., Wang, W., & Zhang, J. (2022). Pre-service teachers' teaching self-efficacy: The role of practicum and reflective learning. *Teaching and Teacher Education*, 110, 103581. https://doi.org/10.1016/j.tate.2021.103581

Handtke, K., Richter-Beuschel, L., & Bögeholz, S. (2022). Self-efficacy beliefs of teaching ESD: a theory-driven instrument and the effectiveness of ESD in German teacher education. *Sustainability*, *14*(11), 6477.

Harris, A., Jones, M., Lewis, H., Lucas, N., & Thomas, J. (2020). Designing an integrated Programme of initial teacher education: Progress, Considerations and reflections. *Wales Journal of Education*, *22*(1).

Hashim, H., & Wahab, A. (2021). Digital learning and geography education: A Malaysian perspective. *Journal of Education and e-Learning Research, 8*(4), 465–472. https://doi.org/10.3389/fnhum.2022.927648

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hendriana, H. (2017). Teachers' hard and soft skills in innovative teaching of mathematics. *World Transactions on Engineering and Technology Education, 15*(2), 145-150.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*, 115-135.

Hopkins, M. (2018). Emotional regulation in teaching: Strategies for handling global issues in the classroom. *Journal of Global Education*, 12(2), 67–78.

Hutkemri, M., et al. (2021). Integrating soft skills into a teacher education program. *International Journal of Psychosocial Rehabilitation*, 25(2), 592-601.

Ihtiyaroglu, N. (2018). Analyzing the Relationship between Happiness, Teachers' Level of Satisfaction with Life and Classroom Management Profiles. *Universal Journal of Educational Research*, *6*(10), 2227-2237.

Jalali, M., & Heidari, S. (2022). Gender differences in emotional intelligence and classroom communication among Iranian preservice teachers. *Iranian Journal of Educational Psychology*, *19*(2), 102–117.

Jardim, J., Vagos, P., Pereira, A., Direito, I., & Galinha, S. (2022). The soft skills inventory: Developmental procedures and psychometric analysis. *Psychological Reports, 125*(1), 620-648.

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*(1), 491–525. https://doi.org/10.3102/0034654308325693

Jerrim, J., Sims, S., & Oliver, M. (2023). Teacher self-efficacy and pupil achievement: much ado about nothing? International evidence from TIMSS. *Teachers and Teaching*, *29*(2), 220–240. https://doi.org/10.1080/13540602.2022.2159365

Jo, I., & Bednarz, S. W. (2014). Developing pre-service teachers' pedagogical content knowledge for teaching spatial thinking through geography. *Journal of Geography in Higher Education*, *38*(2), 301–313. https://doi.org/10.1080/03098265.2014.911828

Kachel, D. E. (2019). Advocating for collaboration. *Teacher Librarian*, *46*(4), 48-63.

Kane, M. T. (2019). Validity and fairness in educational assessment. *Educational Assessment, 24*(1), 21-34.

Kanyimba, A. T., Maponya, M., & Rambe, P. (2018). Leadership and teamwork: Enhancing self-efficacy in South African preservice teacher education. *South African Journal of Education*, *38*(4), 1–10. https://doi.org/10.15700/saje.v38n4a1583

Kaushik, M., & Walsh, A. (2019). The philosophy of pragmatism and its application in social research. *Journal of Social Research Methods, 33*(2), 15-29.

Kausar, B. (2024, March 1). *How to excel at soft skills training*. *Blog*. https://exampleblog.com/soft-skills-training

Kelly, L. M., & Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Methodological Innovations*, *13*(2), 2059799120937242.

Kendra, C. (2019). How self-efficacy influences your motivation and behaviour: *Very well mind*. https://www.verywellmind.com/what-is-self-efficacy-2795954

Kerski, J. J. (2015). Geo-awareness, geo-enablement, geotechnologies, citizen science, and storytelling: Geography on the world stage. *Geography Compass*, 9(1), 14-26.

Khan, M. S., Rehman, A., & Iqbal, Z. (2023). Communication skills and instructional efficacy of pre-service teachers in digital classrooms. *Education and Information Technologies*, *28*(1), 25–43. https://doi.org/10.1007/s10639-022-11298-z

Khassawneh, O., Bashaireh, I., & Al-Rawashdeh, A. (2022). The role of emotional intelligence in enhancing teachers' efficacy and emotional regulation. *Journal of Educational and Psychological Studies, 16*(1), 122–135. https://doi.org/10.53543/jeps.vol16iss1pp122-135

Kirk, J., & Hall, J. (2020). Emotional intelligence: A framework for teacher reflection and classroom change. *Journal of Educational Leadership and Policy Studies, 4*(1), 1–14.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, *102*(3), 741.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, *102*(3), 741–756. https://doi.org /10.1037/a0019237

Klassen, R. M., Durksen, T. L., & Kim, L. E. (2020). Teacher motivation: Applying the expectancy-value theory to understanding teacher motivation and efficacy. In *Contemporary Motivation Research* (pp. 245–265). Springer.

Kneale, P. E., & Rand, J. (2018). Teaching with GIS and geospatial technology. In T. Milner & J. Palmer (Eds.), *Enhancing learning and teaching with technology: What the research says* (pp. 87–103). UCL Institute of Education Press.

Kniaz, H., & Chukhno, O. (2021) English trainee teachers' perspective on soft skills development in Ukraine. *Arab World English Journal (AWEJ), 7*. 229-213.

Kock, N. (2017). Common method bias: a full collinearity assessment method for PLS-SEM. *Partial least squares path modeling: Basic concepts, methodological issues and applications*, 245-257.

Kouzes, J. M., & Posner, B. Z. (2017). *The leadership challenge: How to make extraordinary things happen in organizations* (6th ed.). Jossey-Bass.

Kumi, J. (2024, May 30; Graphic Online.). *Integrate soft skills in teaching, learning*. https://www.graphic.com.gh/news/education/ghana-news integrate-soft-skills-in-teaching-learning-prof-boakye.html

Lavilles, J. F., & Robles, A. C. (2017). 21st-century soft skills: Enhancing communication and teamwork among college students. *International Journal of Social Sciences and Humanities*, *2*(2), 40–47.

Lebala, O., Baliyan, S. P., & Baliyan, P. S. (2024). Do the Challenges Perceived by Pre-Service Teachers Predict the Effectiveness of Their Teaching Practice? *Creative Education*, *15*(2), 346-365.

Lee, J. (2021). Teaching problem-solving through environmental education in geography. *Geographical Education*, *34*, 19–28.

Ma, J., & Cavanagh, M. (2018). Classroom-based collaborative learning in mathematics: Teachers' beliefs and practices. *Mathematics Education Research Journal*, *30*, 165–186. https://doi.org/10.1007/s13394-017-0223-5

Ma, X., Trevethan, H., & Lu, Y. (2019). How motivation influences preservice teachers' sense of teaching efficacy. *Asia-Pacific Journal of Teacher Education*, *47*(2), 172–186. https://doi.org/10.1080/1359866X.2018.1497774

Macqual, M. S. (2020). *Assessment of soft skills for preservice teachers and its impact on teaching performance in senior secondary schools in North-Central. Nigeria*. (Doctoral thesis, University of Malaya, Kuala Lumpur).

Macqual, M. S., Salleh, M. K., Zulnaidi, H. (2021). Assessing prospective teachers' soft skills curriculum implementation: Effects on teaching practicum success. *South African Journal of Education, 41*(3), 1-21.

Malan, R. M., & Dyk, P. J. V. (2021). Soft skills: A comparative study of perceptions of employees and managers. *Journal of Psychology in Africa*, *31*(4), 310–317.

Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidence-informed framework. *Teaching and Teacher Education, 54*, 77–87. https://doi.org/10.1016/j.tate.2015.11.016

Maren, M. (2020). Professionals' perceptions and attitudes towards soft skills: A multi-sectoral study. *International Journal of Soft Skills and Professional Development*, *2*(2), 15–30.

Maren, M. S., Salleh, U. K. M., & Zulnaidi, H. (2021). Assessing prospective teachers' soft skills curriculum implementation: Effects on teaching practicum success. *South African Journal of Education*, *41*(3).

Marin-Zapata, D. I., Arango Serna, M. D., & Corrales, J. C. (2022). Soft skills and employability: A systematic literature review. *International Journal of Applied Engineering Research*, *17*(1), 1–12.

Martin, A. J., Nejad, H. G., Colmar, S., & Liem, G. A. D. (2012). Adaptability: Conceptual and empirical perspectives on responses to change, novelty, and uncertainty. *Australian Journal of Guidance and Counselling*, *22*(1), 58–81. https://doi.org/10.1017/jgc.2012.8

Masats, D., & Guerrero, N. (2018). Working together in teacher education: The role of collaboration in learning to teach. *Journal of Education for Teaching*, *44*(4), 530–545. https://doi.org/10.1080/02607476.2018.1422628

Matthews, J., & Johnson, J. (2017). The role of technology in collaborative teaching and learning. *Journal of Digital Learning in Teacher Education*, *33*(4), 118–127. https://doi.org/10.1080/21532974.2017.1347535

Melser, N. (2019). *Teaching soft skills in a hard world: Skills for beginning teachers*. Rowman & Littlefield.

Mensah, B. (2023). Pedagogical competencies in minor subjects of Ghanaian pre-service geography teachers and their implications for teacher education. *Humanities and Social Sciences Communications*,*10*(1),1-9.

Mensah, F., & Dzameshie, E. (2022). Exploring soft skills in Ghanaian teacher education. *Ghana Journal of Education, 14*(1), 44–58.

Mérida-López, S., & Extremera, N. (2017). Emotional intelligence and teacher burnout: A systematic review. *International Journal of Educational Research*, *85*, 121–130. https://doi.org/10.1016/j.ijer.2017.07.006

Mérida-López, S., & Extremera, N. (2021). The role of emotional intelligence in teacher burnout: A systematic review and meta-analysis. *Educational Psychology Review, 33*(1), 15–35. https://doi.org/10.1007/s10648-019-09483-2

Mets, K., Ugaste, A., & Timoštšuk, I. (2016). The Reflection of Neoliberal Educational Change on Different Teachers learning Experiences. In *Inted2016 Proceedings* (Pp. 871-877).

Ministry of Education (2024). *The national teacher education curriculum framework: The essential elements of initial teacher education.* National Teaching Council.

Mosaddaq, M. (2016). Classroom management and its impact on students' academic achievement. *International Journal of Education and Psychological Research*, *5*(1), 13–19.

Moule, P., & Goodman, M. (2017). *Nursing research: An introduction*. SAGE Publications.

Mujtaba, T., Reiss, M. J., & Ryder, J. (2023). The significance of soft skills in science teacher education: Evidence from global contexts. *International Journal of Science Education*, *45*(1), 1–22. https://doi.org/10.1080/09500693.2022.2146634

Mungai, N. J., & Muthama, T. M. (2017). Emotional intelligence and teacher performance in selected public secondary schools in Kenya. *Journal of Education and Practice*, *8*(11), 80–85.

Murray, C., Pianta, R. C., & DeRosier, M. E. (2018). Teacher–student relationships and students' academic and behavioral outcomes. *Psychology in the Schools*, *45*(7), 699–714.

Mustafa, M. M., Vinsent, M., & Badri, M. (2023). Social skills and classroom management: Implications for pre-service teacher preparation. *International Journal of Instruction*, *16*(1), 159–174.

Neville, H., Osman, S., & Ali, R. (2022). Family strengthening in resettled refugee contexts: A mixed methods approach. *Journal of Family Research, 37*(1), 101–119.

Nguyen, D., & Hallinger, P. (2020). Gender and leadership development in teacher education: A Vietnamese case. *Educational Management Administration & Leadership*, *48*(3), 516–533. https://doi.org/10.1177/1741143218802594

Nguyen, H. T., Tran, V. T., Nguyen, S. T., & Van Trinh, T. (2023). A literature review on the management of preschool teacher's professional competence development in the 4.0 industrial revolution. *Journal of Law and Sustainable Development*, *11*(9), e1060-e1060.

Noah, J. B., & Aziz, A. B. A. (2020). A case study on the development of soft skills among TESL graduates in a university. *Universal Journal of Educational Research, 8*(10): 4610-4617.

Nukpetsi, A. D., Fletcher, J., & Ahwireng, D. (2023). Pre-service teacher training quality: Influence of quality assurance practices and interrelationships with leadership role. *Journal of Educational Management*, *13*(1), 66-84.

Organisation for Economic Co-operation and Development (OECD). (2018). *Education at a glance 2018: OECD indicators. OECD Publishing.* https://doi.org/10.1787/eag-2018-en

OECD. (2021). *Teachers and leaders in schools: Findings from the OECD teaching and learning international survey (TALIS)*. OECD Publishing. https://doi.org/10.1787/7f25f571-en

Okeke, C., & Van Wyk, M. (2020). Informal professional identity in teacher training. *African Journal of Teacher Education, 10*(2), 88–101.

Onweh, V. E., & Akpan, U. J. (2014). Instructional strategies and students' academic performance in electrical installation in technical colleges in Akwa Ibom State, Nigeria. *IOSR Journal of Engineering*,*4*(2), 1–8.

Orih, D., Heyeres, M., Morgan, R., Udah, H., & Tsey, K. (2024). A systematic review of soft skills interventions within curricula from school to university level. In *Frontiers in Education* (Vol. 9, p. 1383297). Frontiers Media SA.

Osei, J. B., Nyarko, M. A., & Teye, C. K. (2020). Self-regulatory practices among preservice teachers in Ghana: Implications for teaching effectiveness. *African Journal of Teacher Education*, *9*(1), 23–37.

Osei, C. K., & Mensah, D. K. D. (2024). The interconnections between STEM teacher educators' self-efficacy, engagement, and social support in Ghana. *Cogent Education*, 11(1), 2385121.

Oseisi, A., Ebrahimi, M., & Alimohammadi, S. (2022). Soft skills and self-efficacy among student teachers: A structural equation model. *International Journal of Instruction*, *15*(1), 145–160. https://doi.org/10.29333/iji.2022.1519a

Oseisi, S., Adeyemo, S., & Ogunleye, B. (2022). Communication and leadership as predictors of self-efficacy in Nigerian preservice teachers. *Journal of Educational Leadership and Policy Studies*, *6*(2), 78–90. https://doi.org/10.5296/jel.v6i2.18912

Owu-Ewie, C. (2010). Developing critical thinking skills of pre-service teachers in Ghana: Teaching methods and classroom ecology. *Academic Leadership: The Online Journal (2003-2012)*, *8*(4), 17

Pace, S. (2020). Differentiated instruction in inclusive classrooms: Teachers' perspectives and practices. *International Journal of Inclusive Education, 24*(14), 1520–1534. https://doi.org/10.1080/13603116.2018.1526151

Page, A., & Jones, M. (2018). Rethinking teacher preparation: Reducing the fear factor. *Australian Journal of Teacher Education*, *43*(12), 1–17. https://doi.org/10.14221/ajte.2018v43n12.1

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. McGraw-Hill Education. https://doi.org/10.4324/9781 003117445

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, *8*, 422. https://doi.org/10.3389/fpsyg.2017.00422

Pereira, L. (2013). The importance of soft skills in the workforce. *International Journal of Management Reviews*, *15*(4), 343–356.

Perera, H. N., Granziera, H., & McIlveen, P. (2019). Profiles of teacher personality and relations with teacher self-efficacy, work engagement, and job satisfaction. *Personality and Individual Differences, 148*, 188–200. https://doi.org/10.1016/j.paid.2019.05.022

Perkins, R., & Summerville, J. (2021). Integrating GIS in geography education: A tool for problem-solving and decision-making. *International Research in Geographical and Environmental Education*, *30*(1), 45–61. https://doi.org/10.1080/10382046.2020.1728457

Plano Clark, V. L., & Creswell, J. W. (2015). *Understanding research: A consumer's guide* (2nd ed.). Pearson.

Prilleltensky, I., Neff, M., & Bessell, A. (2016). Teacher stress: What it is, why it's important, how to reduce it. *Teachers College Record*, *118*(14), 1–40.

Rahman, A. (2010). The role of oral communication in teaching and learning. *Journal of Educational Psychology*, *28*(2), 56–67.

Reeve, J., & Jang, H. (2022). Agentic engagement. In *Handbook of research on student engagement* (pp. 95-107). Springer International Publishing.

Rikhotso, N. S. (2017). Digital competence among student teachers: Implications for technology integration in schools. *South African Journal of Education, 37*(3), 1–10. https://doi.org/10.15700/saje.v37n3a1360

Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief, 48,* 109074. https://doi.org/10.1016/j.dib.2023.109074

Robles, A. P. (2022). Teaching adaptability and technology integration self-efficacy in post-COVID education. *Educational Technology Research and Development*, 70(4), 1123–1140. https://doi.org/10.1007/s11423-021-10023-5

Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, *52*(3), 475–514. https://doi.org/10.3102/0002831215585562

Roos, S. J., Lennox, A., & Botha-Ravyse, C. (2016). Student's soft skill acquisition in an outdoor adventure education event over two years of participation. *International Journal of Social Sciences and Humanity Studies*, *8*(2), 196-208.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1–28. https://doi.org/10.1037/h0092976

Sackman-Ebuwa, D. (2024). *Exploration of final-year teacher preparation through the lens of emotional intelligence* (Doctoral dissertation, Walden University).

Safina, R., Halim, A., & Mulyati, Y. (2020). The role of emotional intelligence in classroom teaching and learning. *International Journal of Instruction*, *13*(2), 563–578. https://doi.org/10.29333/iji.2020.13238a

Sakiz, G. (2022). The role of emotional intelligence in inclusive education: Teacher perspectives. *European Journal of Special Needs Education, 37*(1), 134–147. https://doi.org/10.1080/08856257.2021.1930094

Salajegheh, M., Ahmad, R., & Bakhshi, Z. (2024). Identity formation and mentorship in teacher education. *Journal of Teacher Development, 41*(3), 210–227.

Salas-Pilco, S. Z., Yang, Y., & Zhang, Z. (2022). Problem-solving skills and teaching efficacy among pre-service teachers: A cross-sectional study. *Teaching and Teacher Education*, 113, 103667. https://doi.org/10.1016/j.tate.2022.103667

Salifu, I., & Abonyi, U. K. (2023). Contextualising teacher self-efficacy: Perspectives from Ghanaian preservice geography teachers. *African Educational Research Journal*, *11*(1), 15–27.

Sarfo, J. O., Amankwah, F. A., Osei-Poku, P., & Asiedu, M. (2015). Teacher self-efficacy among senior high school teachers in Ghana. *International Journal of Educational Psychology*, *4*(2), 132–149. https://doi.org/10.4471/ijep.2015.11

Sari, Y. D. (2021). Geography teachers' problem-solving strategies in classroom practice. *European Journal of Educational Research*, *10*(4), 1827–1838. https://doi.org/10.12973/eu-jer.10.4.1827

Saskatchewan Education. (2009). *Instructional approaches: A framework for professional teaching practice*. Government of Saskatchewan.

Sergeeva, O. V., Zheltukhina, M. R., Sizova, Z. M., Ishmuradova, A. M., Khlusyanov, O. V., & Kalashnikova, E. P. (2024). Exploring pre-service teachers' ICT competence beliefs. *Contemporary Educational Technology*, *16*(2), ep500.

Shah, M., et al. (2013). Worldviews and research paradigms in educational research. *International Journal of Educational Studies, 55*(2), 99-112.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, *53*(11), 2322-2347.

Sim, S., et al. (2024). Pragmatism and its application in mixed methods research. *Journal of Mixed Methods Research, 38*(4), 410-423.

Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2014). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children*, *37*(2), 243–266.

Siddiqui, A., Zaman, T., & Noor, H. (2023). The role of explanatory sequential design in fragile ontexts. *International Journal of Mixed Methods, 18*(2), 145–163.

Skaalvik, E. M., & Skaalvik, S. (2017). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, *67*, 102–109. https://doi.org/10.1016/j.tate.2017.06.006

Skaalvik, E. M., & Skaalvik, S. (2017). Teacher self-efficacy and motivation: Effects of the school context. *Educational Psychology Review, 29*(2), 343-363.

Sodergren, C. D. C., Kettler, T., Sulak, T. N., & Payne, A. M. (2023). Teacher self-efficacy, innovativeness, and preparation to teach cross-curriculum skills. *International Journal of Education in Mathematics, Science and Technology*, 10(1), 197-209.

Soleas, E. K. (2020). Fostering resilient learners through real-world problem-solving: A study of classroom practices. *Journal of Educational Change*, *21*(4),615–637. https://doi.org/10.1007/s10833-019-09359-0

Solem, M., Cheung, I., & Schlemper, M. B. (2013). Skills in professional geography: An assessment of workforce needs and expectations. *The Professional Geographer*, 65(2), 250-262.

States, J., Detrich, R., & Keyworth, R. (2018). *Overview of teacher soft skills.* The Wing Institute.

Sternberg, R. J., & William, W. M. (2010). *Educational psychology*. Wadsworth.

Stevenson, R. B., Nicholls, J., & Whitehouse, H. (2018). Environmental education and climate change: Understanding and acting in a risk society. *Environmental Education Research*, *24*(4), 541–558. https://doi.org/10.1080/13504622.2016.1174385

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society: Series B (Methodological)*, *36*(2), 111-133.

Subban, P., & Round, P. (2015). Differentiated instruction: A research basis. *International Education Journal: Comparative Perspectives*, *14*(3), 93–109.

Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. *Studies in Higher Education*, *45*(9), 1834–1847. https://doi.org/10.1080/03075079.2019.1585420

Suleman, Q., Memon, S. A., & Noor, M. (2020). *The role of soft skills in educational success: A case study on pre-service teachers*. *International Journal of Educational Development, 73*(3), 123-135.

Susilawati, A. N. P., & Irwanto I. (2021). Socio-Scientific Issues as a vehicle to promote soft skills and environmental awareness. *European Journal of Educational Research, 10*(1), 161–174.

Susilawati, A. N., P., & Ngadimin, I. (2020). Teachers' perspectives toward soft skills in science learning. *Journal of Physics. Conference Series,1460*(1), 12111.

Tabachnick, B. G., & Fidell, L. (2019). *Using multivariate statistics* (7th ed.). Pearson.

Taherdoost, H. (2016). Validity and reliability of the research instruments. *International Journal of Academic Research in Management, 5*(3), 14-24.

Takyi, B. (2024). Acquisition and application of 21st century skills among pre-service social studies teachers in Ghana. *Asian Journal of Education and Social Studies, 50*(11), 335–348. https://doi.org/10.9734/ajess/2024/v50i111658.

Tang, K. N. (2018). The importance of soft skills acquisition by teachers in higher education institutions. *Kasetsart Journal of Social Sciences*, *39*(1), 1–6. https://doi.org/10.1016/j.kjss.2017.01.002

Tang, K. N. (2020). The importance of soft skills acquisition by teachers in higher education institutions. *Kasetsart Journal of Social Sciences 41*, 22-27.

Thwe, T. M., & Kálmán, A. (2023). Lifelong learning in teacher education: A necessity for the 21st century. *International Journal of Learning, Teaching and Educational Research, 22*(1), 38–56. https://doi.org/10.26803/ijlter.22.1.3

Touati, N. (2023). Developing teachers' soft skills and its effect on teacher-student relationship: Review of the literature. *Revue Linguistique et Référentiels Interculturels, 4*(1), 84-94.

Toyon, A. (2021). Sequencing challenges in explanatory sequential designs. *Educational Methodology Quarterly, 31*(4), 55–70.

Trowler, V. (2010). *Student engagement literature review*. The Higher Education Academy. https://www.heacademy.ac.uk/system/files/studentengagementliteraturereview_1.pdf

Tsai, H. M., Kunter, M., Lüdtke, O., Trautwein, U., & Ryan, R. M. (2014). Measuring teachers' self-efficacy: Validity evidence for the Self-Efficacy Scale (SES). *Teaching and Teacher Education*, *40*, 1–13. https://doi.org/10.1016/j.tate.2014.01.003

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

Türker, Ü., & Bostanci, Ö. (2023). Learning Styles of Talented Preservice Teachers. *Problems of Education in the 21st Century*, *81*(1), 144-164.

Turyahikayo, W. (2021). *A pragmatic approach to solving real-world educational challenges*. *Journal of Education and Development, 44*(3), 132-145.

UNESCO. (2020). *Education for Sustainable Development: A roadmap*. United Nations Educational, Scientific and Cultural Organization. https://unesdoc.unesco.org/ark:/48223/pf0000374802

Vangrieken, K., & Kyndt, E. (2019). Teacher collaboration: A systematic review. *Educational Research Review*, *27*, 100–114. https://doi.org/10.1016/j.edurev.2019.100286

Vasanthakumari, S. (2019). Soft skills and its application in work place. *World Journal of Advanced Research and Reviews, 3*(2), 66-72.

Vosniadou, S., Ioannides, C., Dimitrakopoulou, A., & Papademetriou, E. (2020). Teachers' beliefs and practices on self-regulated learning. *Contemporary Educational Psychology*, 60, 101837. https://doi.org/10.1016/j.cedpsych.2019.101837

Waddington, C. (2023). Exploring the foundations of self-efficacy in teacher education: A social cognitive perspective. *Journal of Education and Human Development*, 12(4), 78–91.

Wahyuni, S., Mustaji, M., & Bachri, B. S. (2021). The effect of students' emotional intelligence on their academic achievement in social studies. *Journal of Social Studies Education Research*, *12*(1), 188–203.

Walshe, N. (2018). Understanding students' engagement with global issues through geography education. *International Research in Geographical and Environmental Education*, 27(3), 258-273.

Walshe, N. (2020). Developing teacher agency through geocapabilities. *International Research in Geographical and Environmental Education*, 29(2), 124–138. https://doi.org/10.1080/10382046.2019.1694082

Wan, Z., & Cai, T. (2023). Strategies for Cultivating Teaching Skills of Geography Preservice Teachers in the Context of the New Era. *Frontiers in Educational Research*, *6*(31).

Wang, H., Burić, I., Chang, M. L., & Gross, J. J. (2023). Teachers' emotion regulation and related environmental, personal, instructional, and well-being factors: A meta-analysis. *Social Psychology of Education*, *26*(6), 1651-1696.

Washor, K. S. (2015). *Bridging the soft-skill gap from education to employment through internships*. University of Rhode Island.

Weiss, M. P., Pellegrino, A., & Brigham, F. J. (2017). Practicing collaboration in teacher preparation: Effects of learning by doing together. *Teacher Education and Special Education*, *40*(1), 65-76.

Wenner, J. A., & Campbell, T. (2017). The theoretical and empirical basis of teacher leadership: A review of the literature. *Review of Educational Research*, *87*(1), 134–171. https://doi.org/10.3102/0034654316653478

White, B., & Foresman, B. (2019). The role of teacher self-efficacy in problem-solving: A classroom perspective. *Journal of Teacher Education and Practice*, *32*(3), 60–72.

Wiens, P. D., Hess, D. M., & Hudson, D. (2021). Learning through observation: How preservice teachers benefit from mentorship during practicum. *Teaching and Teacher Education*, *102*, 103329. https://doi.org/10.1016/j.tate.2021.103329

Winston, K. D. & Arthur, F. (2021) Pre-service economics teachers' self-efficacy beliefs in teaching economics. *International Journal of Innovative Research & Development, 10*(3), 37-43.

Wong, H., & Wong, R. (2009). *The first days of school: How to become an effective classroom manager*. CA: Harry K. Wong Publications.

Woodcock, S., & Reupert, A. (2012). Classroom management and preservice teachers' self-efficacy: A comparison of multiple measures. *Australian Journal of Educational & Developmental Psychology*, *12*, 32–46.

Worick, A., Mensah, J., & Boateng, F. (2024). Self-regulation and teacher efficacy in resource-limited educational settings. *Journal of Educational Practice and Innovation*, *16*(2), 45–60.

Yaacob, N. M., Hashim, R. A., & Adnan, M. A. (2020). Intellectual skills of preservice geography teachers in Malaysia. *Asian Journal of University Education, 16*(3), 84–95. https://doi.org/10.24191/ajue.v16i3.11063

Yan, L., Yinghong, Y., Lui, S. M., Whiteside, M., & Tsey, K. (2019). Teaching soft skills to university students in China: The feasibility of an Australian approach. *Educational Studies*, *45*(2), 242-258.

Yan, Z., Gao, E., & Pan, M. (2021). A systematic review on factors influencing teachers' use of digital technology. *Interactive Learning Environments, 29*(8), 1142-1163. https://doi.org/10.1080/10494820.2021.1884042

Yildiz, M., Akpinar, E., & Ergin, O. (2020). Pre-service science teachers' self-efficacy beliefs: The influence of their perception of teaching and teacher training experiences. *European Journal of Teacher Education*, *43*(3), 391–407. https://doi.org/10.1080/02619768.2020.1724011

Yildiz, S., Sahin, E., & Çelik, K. (2020). Pre-service social studies teachers' geography teaching self-efficacy and attitudes toward the profession. *Journal of Education and Practice*, *11*(17), 48–56.

Young-Lovell, J. (2009). Strategies for effective teaching and learning. *The Journal of Effective Teaching*, *9*(1), 63–75.

Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational Research*, *86*(4), 981-1015.

Zhou, M., & Brown, D. (2015). Educational learning theories: Empirical comparisons of preservice teacher soft skills across cultures. *Education and Society*, *33*(1), 45–62.

Zuya, H. E., Kwalat, S. K., & Attah, B. G. (2016). Pre-service mathematics teachers' self-efficacy belief in teaching mathematics. *American Journal of Educational Research*, *4*(2), 161–166. https://doi.org/10.12691/education-4-2-6

APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

FACULTY OF HUMANITIES AND SOCIAL SCIENCES EDUCATION

DEPARTMENT OF BUSINESS AND SOCIAL SCIENCES EDUCATION

QUESTIONNAIRE FOR PRESERVICE GEOGRAPHY TEACHERS (QPGTS)

Dear respondents,

This questionnaire is to help the investigator to collect data on preservice geography teachers' soft skills and their self-efficacy beliefs. The study is purely for academic purposes. Please, kindly provide sincere and objective responses to the questions. I assure you that any information provided will be treated with outmost confidentiality.

SECTION A: DEMOGRAPHIC INFORMATION OF PRESERVICE GEOGRAPHY TEACHERS

1. Gender: Male [ ] Female [ ]
2. Age: 20 – 25 years [ ] 26-30 years [ ] 31 years and above [ ]
3. I have ever taught in a school before off-campus teaching practices: Yes [ ] No [ ]

Instruction

Please tick [√] the appropriate box to indicate your opinion about each of the statements on the Likert Scale items with the following key:

Key: **1= Never; 2 = Rarely; 3 = Sometimes; 4 = Usually and 5 = Always**

SECTION B
PRESERVICE GEOGRAPHY TEACHER'S SOFT SKILLS LEVELS SCALE

S/N	Soft Skills Subscales	1	2	3	4	5
Communication Skills						
CS1	I can spend a lot of time listening to students during Geography lessons.					
CS2	I can use simple language to make my Geography lessons easy to understand by students.					
CS3	I prefer using words instead of gestures to explain things in Geography to students.					
CS4	I can understand geographic information and ideas presented in writing.					
CS5	I can ask questions during lessons to keep my students engaged.					
CS6	I can write in a way that is easy for Geography students to understand.					
CS7	I can stay focused on task without getting easily distracted during Geography lessons.					
CS8	I can explain concepts in Geography using visuals like maps, charts, and diagrams.					
CS9	I can use digital devices and software to present interesting lesson in Geography.					
Teamwork and Collaboration Skills		**1**	**2**	**3**	**4**	**5**
TCS10	I can collaborate effectively with other teachers to achieve common goals.					
TCS11	I can establish strong relationships with fellow geography teachers.					
TCS12	I can handle challenges effectively when working with other teachers.					
TCS13	I can ensure that every student's voice is heard and valued during group work.					
TCS14	I can recognize the importance of trust and accountability in effective students' teamwork during Geography lessons.					
TCS15	I can adapt to unexpected changes within groups during instructional activities.					
TCS16	I can encourage a positive atmosphere when working with other teachers.					
TCS17	I can recognise the usefulness of different view of students in a group work activity.					

TCS18	I can actively provide constructive feedback to foster continuous improvement in classroom discussion.					
Problem-Solving Skills						
PS19	I can discover new and helpful ways to solve problems in the classroom.					
PS20	I try to understand the causes of each problem in the classroom during Geography lesson.					
PS21	I can carefully look at different ways to compare and solve problems in the classroom.					
PS22	I can consider alternative information to come up with better ways to tackle problems in the classroom.					
PS23	I can use experience to solve problems I encounter in the classroom.					
PS24	I trust my instincts when figuring out how to solve problems in the classroom.					
PS25	I can organize and prioritize tasks when dealing with multiple problems in the classroom.					
PS26	I can make quick decisions to handle unexpected problems in the classroom.					
PS27	I can approach classroom problems with a resourceful mindset.					
Intellectual Skills		**1**	**2**	**3**	**4**	**5**
IS28	I can approach complex Geographic problems with critical thinking.					
IS29	Before making decisions in the classroom, I carefully analyse information to ensure a well-informed decision.					
IS30	I can contribute to the intellectual diversity of learning Geography.					
IS31	I can bring diverse ideas and perspectives during Geography lessons.					
IS32	I can encourage students to question geographical assumptions or norms.					
IS33	I can value and integrate diverse student views and ideas to develop comprehensive and inclusive teaching approaches in Geography.					
IS34	I can analyse additional information or resources to enhance my understanding of a problem or topic in Geography.					
IS35	I can evaluate different information to understand classroom issues better.					

IS36	I can constantly learn about new teaching methods to improve my teaching in Geography.					
Adaptability Skills						
AS37	I can change lesson plans to match various ways geography students learn.					
AS38	I can adjust my teaching techniques based on students' feedback on their performance in Geography.					
AS39	I can add new and interesting content to keep Geography students engaged.					
AS40	I can use new educational technologies to enhance student learning experience in Geography.					
AS41	I can allow my student to appraise my instructional activities.					
AS42	I can adjust to changes in digital tools and platforms for teaching Geography.					
AS43	I can update myself with new educational teaching standards and contents in Geography.					
AS44	I can adapt behaviour intervention strategies to address individual student's needs in the classroom.					
AS45	I can improvise teaching learning resources to deliver Geography lessons to the excitement of students.					
Emotional Intelligence Skills		**1**	**2**	**3**	**4**	**5**
SA46	I am aware of the physical reactions (twinges, aches, sudden changes) that signal a "gut reaction.					
SA47	In assessing a situation, I look at my biases and adjust my assessment accordingly.					
SA48	I consider my "emotional temperature" before I make important decisions.					
SA49	I can identify the emotion I am feeling at any given moment.					
SA50	I think about the emotions behind my actions.					
SM51	When I feel angry, I can still stay composed.					
SM52	I can keep going on teaching, despite obstacles.					
SM53	When I feel a strong impulse to do something, I usually pause to reflect and decide whether I really want to act on it.					
SM54	I am able to honestly say how I feel without getting students upset.					

SM55	I am good at managing my moods, and I refrain from bringing negative emotions to students in the classroom.					
SA56	I generally have an accurate idea of how geography students perceive me during a particular interaction.					
SA57	I can engage in an interaction with geography students and gauge their mood based on non-verbal signals.					
SA58	I can show empathy and match my feelings with those of geography students in an interaction.					
SA59	I watch how geography students react to me to understand which of my own behaviours are effective and which are not.					
SA60	I can easily understand why geography students feel the way they do.					
RM61	I can readily admit mistakes and apologize.					
RM62	Geography students feel encouraged after talking to me.					
RM63	I can deal calmly, sensitively, and proactively with the emotional displays of geography students.					
RM64	I am respected and liked by geography students, even when they don't agree with me.					
RM65	I can effectively persuade geography students to adopt my point of view without coercing them.					
Lifelong Learning Skills						
LLS66	I can attend workshops, conferences, and online courses relevant to geography to improve my instructional practices.					
LLS67	I can demonstrate a commitment to learning geography.					
LLS68	I can attend training on new educational software and tools to enhance my instructional practices in geography.					
LLS69	I can stay informed about the latest research trends in geography.					
LLS70	I can vary my ideas or views when new knowledge in geography is acquired.					

LLS71	I can seek mentorship from experienced educators to facilitate professional growth in Geography.					
LLS72	I can encourage geography students to adopt a growth mindset in their learning.					
LLS73	I can establish connections between new things I learn and things I already know.					
LLS74	I participate in community (festivals) events that contribute to my personal and professional development					
Leadership Skills		**1**	**2**	**3**	**4**	**5**
LS75	I can actively seek opportunities for leadership development.					
LS76	I can establish strong relationships with fellow teachers.					
LS77	I can inspire and motivate fellow teachers by setting a positive tone in leadership interactions.					
LS78	I can lead by example, demonstrating a strong work ethic and commitment to shared goals of the school.					
LS79	I can delegate responsibilities and empower students to contribute to the overall success of the instructional activities.					
LS80	I can actively seek and embrace new leadership responsibilities to broaden my skills in School.					
LS81	I can prioritize and organize geographic tasks strategically					
LS82	I can value and leverage the diverse strengths of my students.					
LA83	I can remain adaptable in leadership roles in school.					

SECTION C: PRESERVICE GEOGRAPHY TEACHERS' (PGTs) TEACHING SELF-EFFICACY BELIEFS LEVELS SCALE

S/N	Self-Efficacy Subscales	1	2	3	4	5
Instructional Strategies						
IS1	I can respond to difficult geography questions from students.					
IS2	I can gauge geography students' comprehension of what I have taught.					
IS3	I can craft good geography questions for my students?					
IS4	I can adjust my geography lessons to the level for each individual student.					
IS5	I can use a variety of assessment strategies in assessing geography lessons.					
IS6	I can provide an alternative explanation or example when students are confused during a geography lesson.					
IS7	I can implement alternative instructional strategies in Geography lessons.					
IS8	I can provide appropriate challenges for every capable geography student.					
Students Engagement						
SE9	I can help my students think critically in Geography lessons.					
SE10	I can motivate my students who show low interest in learning Geography.					
SE11	I can get my students to believe that they can do well in Geography.					
SE12	I can get through to the most difficult geography students.					
SE13	I can help my students value learning Geography.					
SE14	I can foster student creativity in Geography.					
SE15	I can improve the understanding of my student who is failing in Geography.					
SE16	I can assist families in helping their students do well in Geography.					
Classroom Management		**1**	**2**	**3**	**4**	**5**
CM17	I can control disruptive behaviour in the classroom during Geography lessons.					
CM18	I can make my expectations clear to students about their behaviour					
CM19	I can establish routines to keep Geography activities running smoothly.					

CM20	I can get my students to follow classroom rules during geography lessons.					
CM21	I can calm my student who is disruptive or noisy during Geography lessons.					
CM22	I can establish a classroom management system with each group of geography students.					
CM23	I can keep a few problems students from ruining an entire Geography lesson.					
CM24	I can respond to defiant geography students.					

APPENDIX B

UNIVERSITY OF CAPE COAST
DEPARTMENT OF BUSINESS AND SOCIAL SCIENCES EDUCATION
FOLLOW-UP FOCUS GROUP DISCUSSION (FFGD) GUIDE

This FFGD guide is to seek some explanations of some emerging finding from the questionnaire you filled on preservice geography teachers' soft skills and their teaching self-efficacy beliefs.

Section A

- Preamble
- Welcome address
- Objectives for discussion
- Rules for the discussion
- Estimated duration

Section B

1. Why were your soft skills high?
2. Why do you believe that you can teach?
3. Why teamwork and collaboration, problem solving, intellectual, and adaptability skills had no significant influence on their teaching self-efficacy?
4. Why there were no significant differences in the soft skills of pre-service geography teachers in relation to gender and age?
5. Why there were no significant differences in the soft skills of experienced and novice pre-service geography teachers?
6. Concluding remarks

Thank you

APPENDIX C

ETHICAL CLEARANCE LETTER

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: [redacted]
E-MAIL: [redacted]
OUR REF: IRB/C3/Vol.2/0277
YOUR REF:
OMB NO: 0990-0271
IORG #: IORG0011497

16TH JANUARY, 2025

Mr. Samuel Bentil
Department of Business & Social Science Education
University of Cape Coast

Dear Mr. Bentil,

ETHICAL CLEARANCE – ID (UCCIRB/CES/2024/092)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your study titled **Exploring Pre-service Geography Teachers' Soft Skills and their Teaching Self-Efficacy Beliefs (i.e., Instructional Strategies, Class Management and Student Engagement Efficacy).** This approval is valid from **20th January, 2025 to 19th January, 2026.** You may apply for a renewal of ethical approval if the study lasts for more than 12 months.

Please note that any modification to the project must first receive renewal clearance from the UCCIRB before its implementation. You are required to submit a periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us about this protocol.

Yours faithfully,

Kofi F. Amuquandoh
Ag. Administrator

ADMINISTRATOR INSTITUTIONAL REVIEW BOARD UNIVERSITY OF CAPE COAST

Prof Fiifi Amoako Johnson
Chairperson

CHAIRPERSON INSTITUTIONAL REVIEW BOARD UNIVERSITY OF CAPE COAST

APPENDIX D

NORMALITY RESULTS FROM WEBPOWER SOFTWARE

Output of skewness and kurtosis calculation

Sample size: 200
Number of variables: 11

Univariate skewness and kurtosis

	Skewness	SE_skew	Z_skew	Kurtosis	SE_kurt	Z_kurt
Adaptability	-1.018	0.172	-5.922	1.460	0.342	4.265
CM	-0.856	0.172	-4.977	0.978	0.342	2.859
Communication	-1.380	0.172	-8.029	1.706	0.342	4.986
Emotional Intelligence	-0.625	0.172	-3.636	0.043	0.342	0.126
IS	-0.750	0.172	-4.365	0.943	0.342	2.755
Intellectual	-0.984	0.172	-5.726	1.184	0.342	3.459
Leadership	-0.817	0.172	-4.754	1.252	0.342	3.658
Lifelong Learning	-0.981	0.172	-5.707	0.951	0.342	2.779
Problem Solving	-0.980	0.172	-5.702	1.261	0.342	3.686
SE	-0.949	0.172	-5.522	0.745	0.342	2.177
Team work and collaboration	-1.281	0.172	-7.449	2.029	0.342	5.929

Mardia's multivariate skewness and kurtosis

	b	z	p-value
Skewness	44.4567	1481.89010	0
Kurtosis	205.4100	26.09494	0

APPENDIX E

Total Variance Explained (Harman's Single Factor)

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	43.480	40.636	40.636	42.897	40.090	40.090
2	4.515	4.220	44.855			
3	3.429	3.205	48.060			
4	2.545	2.379	50.439			
5	2.287	2.138	52.576			
6	2.247	2.100	54.676			
7	2.071	1.936	56.612			
8	1.966	1.838	58.450			
9	1.734	1.621	60.071			
10	1.672	1.563	61.634			
11	1.610	1.505	63.138			
12	1.567	1.465	64.603			
13	1.460	1.365	65.968			
14	1.442	1.347	67.315			
15	1.349	1.261	68.576			
16	1.336	1.249	69.825			
17	1.240	1.159	70.983			
18	1.182	1.105	72.088			
19	1.163	1.087	73.176			
20	1.128	1.054	74.230			
21	1.072	1.002	75.232			
22	1.021	.954	76.186			
23	.994	.929	77.115			
24	.950	.888	78.003			
25	.916	.856	78.859			
26	.854	.798	79.657			
27	.816	.762	80.419			
28	.804	.751	81.170			
29	.771	.721	81.891			
30	.745	.696	82.587			
31	.740	.692	83.279			
32	.725	.678	83.956			
33	.693	.647	84.604			
34	.686	.641	85.244			
35	.666	.622	85.867			
36	.628	.587	86.454			
37	.613	.573	87.026			
38	.590	.551	87.577			
39	.573	.536	88.113			

40	.540	.505	88.618			
41	.526	.492	89.110			
42	.522	.488	89.598			
43	.494	.462	90.060			
44	.472	.441	90.501			
45	.445	.416	90.917			
46	.439	.410	91.327			
47	.426	.398	91.725			
48	.418	.391	92.116			
49	.413	.386	92.502			
50	.394	.368	92.870			
51	.371	.347	93.217			
52	.368	.344	93.560			
53	.352	.329	93.889			
54	.337	.315	94.204			
55	.318	.297	94.501			
56	.312	.291	94.792			
57	.302	.282	95.074			
58	.287	.268	95.343			
59	.270	.252	95.595			
60	.264	.247	95.841			
61	.250	.233	96.075			
62	.237	.221	96.296			
63	.228	.214	96.509			
64	.218	.203	96.713			
65	.214	.200	96.913			
66	.196	.183	97.096			
67	.186	.174	97.270			
68	.177	.165	97.436			
69	.172	.161	97.596			
70	.171	.160	97.757			
71	.159	.149	97.905			
72	.139	.130	98.035			
73	.132	.123	98.158			
74	.126	.118	98.276			
75	.124	.116	98.392			
76	.122	.114	98.506			
77	.115	.108	98.613			
78	.109	.102	98.715			
79	.105	.098	98.814			
80	.102	.095	98.909			
81	.094	.088	98.997			
82	.086	.080	99.077			
83	.085	.079	99.157			
84	.076	.071	99.227			
85	.071	.066	99.294			
86	.070	.065	99.359			

87	.064	.060	99.418			
88	.063	.059	99.477			
89	.055	.051	99.529			
90	.052	.048	99.577			
91	.051	.048	99.625			
92	.047	.044	99.668			
93	.042	.039	99.708			
94	.039	.036	99.744			
95	.037	.035	99.779			
96	.035	.032	99.811			
97	.032	.030	99.841			
98	.031	.029	99.870			
99	.026	.024	99.894			
100	.023	.022	99.916			
101	.018	.017	99.932			
102	.016	.015	99.947			
103	.014	.013	99.961			
104	.013	.012	99.973			
105	.011	.010	99.983			
106	.009	.008	99.992			
107	.009	.008	100.000			

Extraction Method: Principal Axis Factoring.

APPENDIX F

Levene's Test of Equality of Error Variances

		Levene Statistic	df1	df2	Sig.
CS	Based on Mean	.889	5	194	.490
	Based on Median	.677	5	194	.641
	Based on Median and with adjusted df	.677	5	185.569	.641
	Based on trimmed mean	.718	5	194	.610
TCS	Based on Mean	.831	5	194	.529
	Based on Median	.537	5	194	.748
	Based on Median and with adjusted df	.537	5	176.191	.748
	Based on trimmed mean	.728	5	194	.603
PS	Based on Mean	1.201	5	194	.310
	Based on Median	1.200	5	194	.310
	Based on Median and with adjusted df	1.200	5	176.624	.311
	Based on trimmed mean	1.161	5	194	.330
ISS	Based on Mean	1.260	5	194	.283
	Based on Median	1.094	5	194	.365
	Based on Median and with adjusted df	1.094	5	172.291	.366
	Based on trimmed mean	1.161	5	194	.330
AS	Based on Mean	1.610	5	194	.159
	Based on Median	1.089	5	194	.368
	Based on Median and with adjusted df	1.089	5	160.408	.369
	Based on trimmed mean	1.412	5	194	.222
EI	Based on Mean	.348	5	194	.883
	Based on Median	.327	5	194	.896
	Based on Median and with adjusted df	.327	5	183.172	.896
	Based on trimmed mean	.326	5	194	.897
LLS	Based on Mean	.278	5	194	.925
	Based on Median	.216	5	194	.956
	Based on Median and with adjusted df	.216	5	182.559	.956
	Based on trimmed mean	.280	5	194	.924
LS	Based on Mean	.086	5	194	.994
	Based on Median	.114	5	194	.989
	Based on Median and with adjusted df	.114	5	179.136	.989
	Based on trimmed mean	.077	5	194	.996

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
CS	Based on Mean	1.207	1	198	.273
	Based on Median	1.228	1	198	.269
	Based on Median and with adjusted df	1.228	1	197.501	.269
	Based on trimmed mean	1.120	1	198	.291
TCS	Based on Mean	1.798	1	198	.182
	Based on Median	1.270	1	198	.261
	Based on Median and with adjusted df	1.270	1	197.529	.261
	Based on trimmed mean	1.634	1	198	.203
PS	Based on Mean	.003	1	198	.955
	Based on Median	.029	1	198	.865
	Based on Median and with adjusted df	.029	1	196.379	.865
	Based on trimmed mean	.011	1	198	.917
ISS	Based on Mean	1.895	1	198	.170
	Based on Median	2.193	1	198	.140
	Based on Median and with adjusted df	2.193	1	197.944	.140
	Based on trimmed mean	1.978	1	198	.161
AS	Based on Mean	.000	1	198	.991
	Based on Median	.097	1	198	.756
	Based on Median and with adjusted df	.097	1	195.738	.756
	Based on trimmed mean	.005	1	198	.944
EI	Based on Mean	.595	1	198	.441
	Based on Median	.349	1	198	.556
	Based on Median and with adjusted df	.349	1	192.810	.556
	Based on trimmed mean	.504	1	198	.478
LLS	Based on Mean	.453	1	198	.502
	Based on Median	.514	1	198	.474
	Based on Median and with adjusted df	.514	1	197.892	.474
	Based on trimmed mean	.495	1	198	.482
LS	Based on Mean	.853	1	198	.357
	Based on Median	.992	1	198	.320
	Based on Median and with adjusted df	.992	1	197.806	.320

	Based on trimmed mean	.987	1	198	.322

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
IS	Based on Mean	2.846	1	198	.093
	Based on Median	2.883	1	198	.091
	Based on Median and with adjusted df	2.883	1	195.873	.091
	Based on trimmed mean	2.929	1	198	.089
SE	Based on Mean	.730	1	198	.394
	Based on Median	.527	1	198	.469
	Based on Median and with adjusted df	.527	1	197.803	.469
	Based on trimmed mean	.764	1	198	.383
CM	Based on Mean	.877	1	198	.350
	Based on Median	.841	1	198	.360
	Based on Median and with adjusted df	.841	1	194.266	.360
	Based on trimmed mean	.869	1	198	.352

APPENDIX G
Cross Loadings for LOC (TSE)

	Adaptability	CM	Communication	Emotional Intelligence	IS	Intellectual	Leadership	Lifelong Learning	Problem Solving	SE	Team work and collaboration
AS3	0.787	0.441	0.564	0.608	0.579	0.669	0.563	0.562	0.672	0.532	0.608
AS4	0.731	0.441	0.480	0.531	0.469	0.622	0.447	0.435	0.615	0.434	0.599
AS5	0.768	0.461	0.506	0.586	0.452	0.645	0.470	0.436	0.590	0.511	0.535
AS6	0.753	0.428	0.465	0.643	0.514	0.548	0.523	0.560	0.522	0.548	0.527
AS7	0.818	0.462	0.535	0.635	0.596	0.626	0.578	0.617	0.609	0.590	0.565
AS8	0.752	0.461	0.467	0.605	0.526	0.497	0.421	0.567	0.486	0.513	0.511
AS9	0.737	0.512	0.584	0.658	0.542	0.601	0.485	0.575	0.565	0.551	0.619
CM2	0.458	0.833	0.559	0.494	0.583	0.502	0.489	0.567	0.454	0.669	0.501
CM3	0.464	0.815	0.589	0.552	0.537	0.539	0.491	0.565	0.490	0.653	0.506
CM4	0.558	0.800	0.567	0.574	0.568	0.592	0.526	0.596	0.532	0.669	0.495
CM5	0.563	0.819	0.588	0.613	0.563	0.580	0.573	0.650	0.519	0.714	0.548
CM6	0.484	0.843	0.510	0.527	0.524	0.516	0.499	0.548	0.461	0.649	0.450
CM7	0.426	0.760	0.471	0.451	0.594	0.448	0.451	0.550	0.411	0.535	0.465
CM8	0.421	0.782	0.529	0.530	0.519	0.475	0.507	0.558	0.462	0.624	0.445
CS2	0.612	0.568	0.863	0.566	0.512	0.695	0.514	0.577	0.668	0.642	0.675
CS4	0.377	0.426	0.694	0.422	0.446	0.474	0.353	0.439	0.500	0.448	0.568
CS6	0.589	0.551	0.796	0.554	0.495	0.638	0.459	0.580	0.577	0.582	0.654
CS7	0.484	0.573	0.782	0.441	0.442	0.601	0.423	0.502	0.552	0.562	0.592
CS8	0.544	0.549	0.806	0.568	0.462	0.665	0.490	0.573	0.595	0.575	0.656
CSI	0.502	0.459	0.686	0.468	0.356	0.507	0.326	0.457	0.475	0.519	0.469
IS1	0.450	0.398	0.458	0.502	0.617	0.484	0.358	0.472	0.356	0.401	0.407
IS2	0.636	0.544	0.497	0.653	0.772	0.594	0.533	0.619	0.534	0.531	0.553

IS3	0.601	0.504	0.453	0.647	0.773	0.555	0.602	0.581	0.467	0.604	0.492
IS4	0.530	0.595	0.440	0.641	0.841	0.573	0.674	0.682	0.485	0.632	0.499
IS5	0.540	0.528	0.472	0.661	0.819	0.565	0.665	0.659	0.453	0.617	0.454
IS6	0.537	0.551	0.534	0.637	0.818	0.663	0.596	0.658	0.442	0.644	0.488
IS7	0.489	0.578	0.408	0.603	0.765	0.571	0.589	0.589	0.424	0.555	0.386
IS8	0.461	0.515	0.352	0.546	0.727	0.485	0.491	0.572	0.419	0.586	0.339
ISS1	0.543	0.462	0.551	0.479	0.502	0.684	0.509	0.530	0.593	0.528	0.519
ISS2	0.651	0.503	0.650	0.626	0.558	0.767	0.497	0.596	0.686	0.575	0.673
ISS3	0.688	0.489	0.640	0.655	0.556	0.823	0.548	0.594	0.706	0.597	0.631
ISS4	0.505	0.443	0.518	0.461	0.480	0.727	0.503	0.471	0.536	0.464	0.476
ISS5	0.538	0.410	0.503	0.539	0.508	0.700	0.394	0.474	0.520	0.457	0.448
ISS6	0.586	0.584	0.609	0.592	0.651	0.815	0.521	0.555	0.532	0.643	0.510
ISS7	0.585	0.454	0.533	0.601	0.525	0.729	0.446	0.488	0.508	0.535	0.492
ISS8	0.543	0.411	0.541	0.543	0.465	0.682	0.525	0.490	0.535	0.483	0.555
ISS9	0.588	0.535	0.620	0.584	0.600	0.728	0.546	0.603	0.566	0.549	0.643
LLS1	0.505	0.481	0.492	0.565	0.550	0.503	0.524	0.692	0.407	0.503	0.463
LLS11	0.511	0.456	0.460	0.656	0.622	0.499	0.631	0.693	0.456	0.551	0.536
LLS2	0.551	0.574	0.530	0.657	0.649	0.577	0.607	0.802	0.465	0.625	0.488
LLS3	0.533	0.570	0.556	0.670	0.634	0.554	0.623	0.822	0.495	0.627	0.522
LLS4	0.548	0.553	0.602	0.622	0.595	0.592	0.554	0.785	0.578	0.579	0.581
LLS5	0.511	0.623	0.609	0.619	0.576	0.620	0.555	0.796	0.561	0.606	0.554
LLS6	0.589	0.589	0.561	0.717	0.664	0.607	0.619	0.820	0.550	0.664	0.531
LLS7	0.577	0.548	0.411	0.587	0.570	0.499	0.545	0.717	0.510	0.520	0.494
LLS8	0.533	0.514	0.423	0.602	0.561	0.507	0.581	0.738	0.516	0.592	0.528
LS1	0.549	0.483	0.412	0.607	0.563	0.544	0.737	0.608	0.518	0.549	0.421
LS2	0.620	0.494	0.468	0.646	0.667	0.624	0.824	0.635	0.582	0.601	0.472

LS3	0.492	0.546	0.424	0.574	0.603	0.520	0.806	0.567	0.473	0.566	0.399
LS4	0.461	0.533	0.485	0.608	0.614	0.570	0.819	0.649	0.517	0.631	0.416
LS5	0.471	0.473	0.436	0.542	0.528	0.524	0.794	0.596	0.514	0.541	0.464
LS6	0.515	0.509	0.478	0.581	0.610	0.518	0.813	0.632	0.513	0.583	0.475
LS7	0.516	0.425	0.376	0.532	0.497	0.410	0.736	0.522	0.544	0.499	0.490
PS2	0.607	0.363	0.484	0.477	0.423	0.603	0.503	0.453	0.712	0.464	0.502
PS3	0.633	0.441	0.596	0.535	0.466	0.591	0.471	0.500	0.773	0.453	0.655
PS4	0.649	0.511	0.612	0.542	0.456	0.610	0.504	0.538	0.726	0.496	0.751
PS5	0.614	0.462	0.598	0.530	0.430	0.649	0.501	0.557	0.796	0.493	0.630
PS6	0.504	0.445	0.607	0.458	0.406	0.585	0.502	0.474	0.774	0.515	0.600
PS7	0.475	0.420	0.497	0.381	0.396	0.501	0.438	0.489	0.734	0.460	0.557
PS8	0.544	0.503	0.502	0.443	0.445	0.532	0.475	0.447	0.770	0.493	0.537
PS9	0.598	0.451	0.551	0.545	0.529	0.670	0.626	0.570	0.817	0.521	0.616
RM2	0.612	0.452	0.503	0.684	0.614	0.554	0.548	0.659	0.476	0.533	0.527
RM3	0.623	0.560	0.482	0.725	0.601	0.609	0.639	0.662	0.538	0.631	0.500
RM4	0.544	0.537	0.507	0.743	0.634	0.585	0.592	0.668	0.473	0.609	0.487
RM5	0.497	0.511	0.373	0.668	0.522	0.472	0.529	0.562	0.350	0.535	0.435
SA1	0.631	0.459	0.495	0.706	0.566	0.549	0.474	0.561	0.522	0.522	0.447
SA2	0.524	0.470	0.426	0.682	0.452	0.430	0.466	0.509	0.403	0.479	0.344
SA3	0.605	0.414	0.411	0.715	0.503	0.524	0.454	0.507	0.433	0.439	0.400
SA4	0.560	0.492	0.454	0.711	0.549	0.545	0.553	0.583	0.463	0.564	0.418
SA5	0.632	0.398	0.428	0.731	0.591	0.560	0.465	0.525	0.407	0.482	0.436
SAA1	0.605	0.479	0.501	0.800	0.634	0.652	0.573	0.683	0.541	0.551	0.557
SAA3	0.528	0.561	0.409	0.691	0.570	0.465	0.569	0.613	0.391	0.601	0.438
SE1	0.528	0.541	0.382	0.551	0.592	0.442	0.423	0.509	0.353	0.608	0.349
SE2	0.417	0.429	0.365	0.438	0.464	0.404	0.379	0.445	0.380	0.629	0.369

SE3	0.585	0.647	0.593	0.575	0.599	0.577	0.538	0.572	0.555	0.773	0.555
SE4	0.466	0.626	0.569	0.511	0.507	0.572	0.596	0.536	0.473	0.786	0.407
SE5	0.533	0.621	0.606	0.586	0.583	0.620	0.610	0.633	0.546	0.836	0.500
SE6	0.605	0.679	0.643	0.628	0.597	0.612	0.645	0.667	0.577	0.844	0.570
SE7	0.528	0.621	0.557	0.597	0.575	0.569	0.564	0.639	0.459	0.783	0.452
SE8	0.475	0.613	0.550	0.568	0.578	0.546	0.512	0.581	0.453	0.714	0.440
SM2	0.539	0.319	0.487	0.656	0.540	0.536	0.507	0.502	0.448	0.410	0.442
SM3	0.610	0.451	0.487	0.747	0.595	0.558	0.571	0.665	0.493	0.489	0.483
SM4	0.496	0.438	0.541	0.720	0.568	0.575	0.466	0.566	0.423	0.503	0.499
SM5	0.496	0.470	0.439	0.643	0.504	0.492	0.418	0.492	0.453	0.490	0.496
TCS1	0.532	0.505	0.624	0.468	0.393	0.509	0.380	0.497	0.574	0.412	0.781
TCS3	0.464	0.486	0.597	0.361	0.390	0.456	0.342	0.475	0.565	0.447	0.676
TCS4	0.470	0.453	0.548	0.434	0.413	0.501	0.378	0.469	0.440	0.451	0.677
TCS5	0.547	0.498	0.621	0.536	0.459	0.622	0.442	0.544	0.621	0.530	0.815
TCS6	0.653	0.463	0.595	0.560	0.530	0.632	0.505	0.559	0.685	0.570	0.797
TCS7	0.657	0.367	0.514	0.523	0.362	0.543	0.468	0.465	0.692	0.354	0.728
TCS8	0.601	0.462	0.661	0.552	0.528	0.642	0.506	0.596	0.687	0.495	0.798
TCS9	0.519	0.362	0.502	0.460	0.422	0.524	0.339	0.455	0.493	0.351	0.704

APPENDIX H

Cross Loadings for HOC (TSE)

	Adaptability	Communication	Emotional Intelligence	Intellectual	Leadership	Lifelong Learning	Problem Solving	Teaching Self-Efficacy	Team work and collaboration
AS3	0.787	0.564	0.608	0.669	0.563	0.527	0.672	0.570	0.608
AS4	0.731	0.480	0.531	0.622	0.447	0.407	0.615	0.492	0.599
AS5	0.768	0.506	0.586	0.645	0.470	0.418	0.590	0.521	0.536
AS6	0.753	0.465	0.643	0.548	0.523	0.531	0.522	0.548	0.527
AS7	0.818	0.534	0.635	0.626	0.578	0.585	0.609	0.606	0.566
AS8	0.752	0.467	0.605	0.497	0.421	0.534	0.486	0.550	0.511
AS9	0.737	0.584	0.658	0.601	0.485	0.540	0.565	0.588	0.619
CM	0.600	0.677	0.665	0.649	0.628	0.699	0.591	0.904	0.605
CS2	0.612	0.863	0.566	0.695	0.514	0.577	0.668	0.630	0.675
CS4	0.377	0.694	0.422	0.474	0.353	0.463	0.500	0.483	0.568
CS6	0.589	0.796	0.554	0.638	0.459	0.582	0.577	0.595	0.654
CS7	0.484	0.782	0.441	0.601	0.423	0.499	0.552	0.576	0.591
CS8	0.544	0.806	0.568	0.665	0.490	0.590	0.595	0.579	0.655
CSI	0.502	0.686	0.468	0.507	0.326	0.477	0.475	0.487	0.469
IS	0.691	0.587	0.797	0.732	0.741	0.756	0.583	0.895	0.590
ISS1	0.543	0.551	0.479	0.684	0.509	0.536	0.593	0.547	0.519
ISS2	0.651	0.650	0.626	0.767	0.497	0.577	0.686	0.600	0.673
ISS3	0.688	0.640	0.655	0.823	0.548	0.573	0.706	0.603	0.631
ISS4	0.505	0.518	0.461	0.727	0.503	0.465	0.536	0.508	0.476
ISS5	0.538	0.503	0.539	0.700	0.394	0.448	0.520	0.505	0.448
ISS6	0.586	0.609	0.592	0.815	0.521	0.572	0.532	0.688	0.510

ISS7	0.585	0.533	0.601	0.729	0.446	0.470	0.508	0.556	0.492
ISS8	0.543	0.541	0.543	0.682	0.525	0.504	0.535	0.499	0.555
ISS9	0.588	0.620	0.584	0.728	0.546	0.578	0.566	0.617	0.643
LLS1	0.505	0.492	0.565	0.503	0.524	0.748	0.408	0.562	0.463
LLS2	0.551	0.530	0.657	0.577	0.607	0.843	0.465	0.678	0.488
LLS3	0.533	0.556	0.670	0.554	0.623	0.831	0.495	0.671	0.522
LLS4	0.548	0.602	0.622	0.592	0.554	0.825	0.578	0.633	0.581
LLS5	0.511	0.609	0.619	0.620	0.555	0.809	0.561	0.659	0.554
LLS6	0.589	0.561	0.717	0.607	0.619	0.805	0.550	0.703	0.531
LS1	0.549	0.412	0.608	0.544	0.737	0.547	0.518	0.585	0.422
LS2	0.620	0.468	0.646	0.624	0.824	0.587	0.582	0.648	0.472
LS3	0.492	0.424	0.574	0.520	0.806	0.549	0.473	0.628	0.399
LS4	0.461	0.484	0.608	0.570	0.819	0.633	0.517	0.652	0.416
LS5	0.471	0.437	0.543	0.524	0.794	0.582	0.514	0.566	0.464
LS6	0.515	0.478	0.581	0.518	0.813	0.598	0.513	0.625	0.475
LS7	0.516	0.376	0.532	0.410	0.736	0.463	0.544	0.521	0.490
PS2	0.607	0.484	0.477	0.603	0.503	0.432	0.712	0.459	0.503
PS3	0.633	0.596	0.535	0.591	0.471	0.477	0.773	0.498	0.655
PS4	0.649	0.612	0.542	0.610	0.504	0.492	0.726	0.534	0.752
PS5	0.614	0.598	0.531	0.649	0.501	0.533	0.796	0.507	0.630
PS6	0.504	0.607	0.458	0.585	0.502	0.465	0.774	0.500	0.600
PS7	0.475	0.497	0.381	0.501	0.438	0.467	0.734	0.467	0.557
PS8	0.544	0.502	0.443	0.532	0.475	0.422	0.770	0.526	0.537
PS9	0.598	0.551	0.545	0.670	0.626	0.554	0.817	0.551	0.616
RM2	0.612	0.503	0.684	0.554	0.548	0.612	0.476	0.588	0.527
RM3	0.623	0.482	0.725	0.609	0.639	0.648	0.538	0.657	0.500

RM4	0.544	0.507	0.743	0.585	0.592	0.635	0.473	0.653	0.487
RM5	0.497	0.373	0.668	0.472	0.529	0.541	0.350	0.574	0.435
SA1	0.631	0.495	0.706	0.549	0.474	0.543	0.522	0.568	0.447
SA2	0.524	0.426	0.682	0.430	0.466	0.505	0.403	0.513	0.344
SA3	0.605	0.411	0.715	0.524	0.454	0.485	0.433	0.497	0.400
SA4	0.560	0.453	0.711	0.545	0.553	0.561	0.463	0.589	0.418
SA5	0.632	0.427	0.731	0.560	0.465	0.487	0.407	0.541	0.436
SAA1	0.605	0.501	0.800	0.652	0.573	0.660	0.541	0.611	0.557
SAA3	0.528	0.409	0.691	0.465	0.569	0.562	0.391	0.634	0.439
SE	0.690	0.721	0.744	0.730	0.720	0.744	0.638	0.934	0.612
SM2	0.539	0.487	0.656	0.536	0.507	0.477	0.448	0.468	0.442
SM3	0.610	0.488	0.747	0.558	0.571	0.655	0.493	0.564	0.483
SM4	0.496	0.541	0.720	0.575	0.466	0.548	0.423	0.554	0.499
SM5	0.496	0.439	0.643	0.492	0.418	0.467	0.453	0.536	0.496
TCS1	0.532	0.624	0.468	0.509	0.380	0.469	0.573	0.477	0.781
TCS3	0.464	0.597	0.361	0.456	0.342	0.450	0.565	0.482	0.676
TCS4	0.470	0.548	0.434	0.501	0.378	0.477	0.440	0.481	0.677
TCS5	0.547	0.621	0.536	0.622	0.442	0.512	0.621	0.544	0.815
TCS6	0.653	0.595	0.560	0.632	0.505	0.520	0.685	0.574	0.797
TCS7	0.657	0.514	0.523	0.543	0.468	0.439	0.692	0.396	0.728
TCS8	0.601	0.661	0.552	0.642	0.506	0.567	0.687	0.544	0.798
TCS9	0.519	0.502	0.460	0.524	0.339	0.408	0.493	0.416	0.704

APPENDIX I

PLS-SEM BOOTSTRAPPING RESULTS WITH T-VALUES