

Examining Preservice Teachers' Teaching Practice Experience: The Benefits and Challenges

Emmanuel Adjei-Boateng¹, Kwaku Darko Amponsah², Priscilla Commey-Mintah², Abraham Kwadwo Okrah², Clement Adamba¹, Austin Wontepaga Luguterah³

¹Department of Educational Studies and Leadership, School of Education and Leadership, University of Ghana, Legon, Ghana

²Department of Teacher Education, School of Education and Leadership, University of Ghana, Legon, Ghana

³Department of Physical Education and Sport Studies, School of Education and Leadership, University of Ghana, Legon, Ghana

Correspondence: Priscilla Commey-Mintah, School of Education and Leadership, University of Ghana, Legon, Accra, Ghana.

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Abstract

Teaching practice constitutes a critical component of teacher education, providing preservice teachers with opportunities to translate pedagogical theory into classroom practice. Despite its recognised importance, limited empirical studies have simultaneously examined preservice teachers' perceived benefits and challenges while investigating programme specialisation as a moderating factor. This study examined preservice teachers' perceptions of the benefits and challenges of their final teaching practice. It assessed whether the programme of study (STEM vs non-STEM) moderated the relationship between these perceptions. A quantitative cross-sectional survey design was employed involving 95 preservice teachers from a public university in Ghana. Data were analysed using descriptive statistics, Pearson's correlation, and moderated hierarchical multiple regression. Findings indicated that preservice teachers generally perceived teaching practice as highly beneficial, particularly for skill development, classroom management competence, and professional identity formation. However, moderate levels of instructional and personal challenges were reported. A small but statistically significant negative relationship between perceived benefits and challenges was observed, and programme specialisation significantly moderated this relationship, though with modest explanatory power. The findings highlight the importance of structured mentorship systems, targeted classroom management preparation, and programme-specific practicum support to enhance preservice teachers' practicum experiences.

Keywords: teaching practice, preservice teachers, teacher education, practicum experience

1. Introduction

1.1 Introduce the Problem

Teaching practice, often referred to as an internship or practicum, is a central component of preservice teacher education worldwide (Terkimbi et al., 2021; Darling-Hammond, 2017). It provides prospective teachers with opportunities to apply theoretical knowledge in authentic classroom settings, thereby strengthening pedagogical competence, confidence, and professional commitment (Terkimbi et al., 2021). In Ghana, as in many other countries, teaching practice is a critical requirement for professional teacher qualification (Dacanay et al., 2019; Arthur, 2020). Despite these benefits, preservice teachers frequently encounter challenges during practicum, including classroom management difficulties, instructional adaptation to diverse learner needs, limited resources, and insufficient mentoring support, all of which may affect the effectiveness of the teaching practice experience (Dacanay et al., 2019; Arthur, 2020).

Beyond instructional challenges, emotional intelligence has been identified as an important factor shaping preservice teachers' practicum experiences, as it influences interpersonal relationships, emotional regulation, and responsiveness to learners' needs (Amponsah et al., 2024). Teaching practice, therefore, serves not only as a professional training requirement but also as a developmental context through which preservice teachers build professional identity, reflective capacity, and adaptive teaching competence.

Understanding the experiences of preservice teachers during this critical phase is particularly important within the Ghanaian context, where improvements in teacher education directly influence national educational quality and development outcomes (Arthur, 2020; UNESCO, 2017). Rapid changes in educational technologies, curriculum expectations, and policy environments further require preservice teachers to adapt continuously, highlighting the importance of structured mentorship, professional collaboration, and reflective learning opportunities (Commey-Mintah et al., 2023).

1.2 Explore the Importance of the Problem

Teaching practice provides preservice teachers with opportunities to bridge theory and classroom practice while developing professional identity and pedagogical competence (Akyeampong & Stephens, 2002). However, inadequate mentorship, limited instructional resources, and insufficient preparation for classroom management continue to present challenges that may reduce the effectiveness of practicum experiences (Anyidoho, 2010; Dacanay et al., 2019). Large class sizes, infrastructural limitations, and institutional constraints further complicate preservice teachers' efforts to deliver inclusive and effective instruction.

Given these challenges, examining preservice teachers' perceived benefits and challenges during teaching practice is essential to identifying targeted strategies to strengthen teacher education programmes. Addressing these issues is critical not only for supporting preservice teachers' professional development but also for improving teaching quality and student learning outcomes within Ghana's evolving educational system.

1.3 Describe Relevant Scholarship

1.3.1 The Study's Theoretical Framework

The study's theoretical framework is grounded in several complementary theoretical perspectives that explain the complexity of preservice teachers' teaching practice experiences within the Ghanaian context. The study offers a thorough understanding of the dynamic interactions among individual, social, and contextual elements that influence preservice teachers' experiences in the Ghanaian educational context, firmly establishing the research within this theoretical framework.

1.3.1.1 Social Cognitive Theory

According to Bandura's Social Cognitive Theory, learning occurs when people observe, copy, and model others' behaviours (Bandura, 1977). As they observe and engage with mentor teachers, peers, and students in the context of teaching practice, preservice teachers' attitudes, perspectives, and instructional methods are shaped. Preservice teachers gain new information, skills, and self-confidence through vicarious learning experiences, thereby increasing their efficacy. This hypothesis contributed to our understanding of how preservice teachers learn skills through modelling, imitation, and observation of others' behaviour. It would be interesting to investigate how preservice teachers see and absorb knowledge from colleagues, mentor teachers, and students while in the classroom. It is also important to look at how preservice teachers' engagement and learning experiences are influenced by their self-efficacy beliefs, motivation, and outcome expectations.

1.3.1.2 Ecological Systems Theory

The ecological systems theory developed by Bronfenbrenner (1979) highlights the relationship between people and their surroundings and the impact that different ecological systems have on human development. Preservice teachers are entrenched in several nested systems within the setting of teaching practice, such as the classroom, school, community, and society. These ecological systems shape preservice teachers' experiences to varying degrees, which affects their beliefs, actions, and sense of self as professionals. This idea placed preservice teachers' experiences within various ecological systems, including the classroom, school, community, and society. For instance, it is interesting to examine how elements within these systems, such as classroom dynamics, school culture, community support, and societal expectations, impact preservice teachers' perceptions, behaviours, and professional identities by considering the numerous levels of influence on their development.

1.3.1.3 Communities of Practice

Wenger's Communities of Practice framework highlights the social aspect of learning and the value of involvement in communities of learners pursuing standard practices and objectives (Wenger, 1998). Preservice teachers join a community of practice in the school setting during their teaching practice. They participate in cooperative learning activities, exchange knowledge and experiences, and discuss meanings with peers and mentor teachers. Preservice teachers benefit from this interactive learning process as they create their professional identities, improve in their areas of expertise, and engage in reflective practices. This paradigm made explicit what social learning is and the importance of participating in learning groups with established practices and objectives. It is possible that this study examined how preservice teachers join a community of practice in a school setting, where they collaborate, exchange experiences and knowledge, and negotiate

meanings with peers and mentor teachers. For instance, it would be interesting to investigate how this participatory learning approach affects preservice teachers' professional identity, knowledge, and reflective practices by analysing its dynamics.

1.3.1.4 Reflective Practice

Schön's Theory of Reflective Practice (1983) emphasises the value of critical reflection in professional learning and growth. Preservice teachers reflect on their experiences, convictions, and behaviours. At the same time, they are in the classroom to better comprehend the subject, sharpen their problem-solving abilities, and advance their careers. Preservice teachers can become more effective by analysing their teaching experiences and identifying their strengths, limitations, and growth opportunities. This idea underscores the importance of critical reflection in professional learning and development. How preservice teachers use reflective practices to analyse their experiences, convictions, and classroom behaviours is essential to this study.

This study aims to clarify the complex nature of preservice teachers' teaching practice experiences in Ghana by drawing on several theoretical viewpoints. The study investigates the factors that impact preservice teachers' views, problems, and professional development during their teaching practice through the lenses of social cognitive theory, ecological systems theory, communities of practice, and reflective practice. The study offers a thorough understanding of the dynamic interactions among individual, social, and contextual elements that influence preservice teachers' experiences in the Ghanaian educational context, firmly establishing the research within this theoretical Framework.

1.3.2 How do these Theories Align with our Research?

These theoretical frameworks—Social Cognitive Theory, Ecological Systems Theory, Communities of Practice, and Reflective Practice, among others—provided insightful prisms through which to view preservice teachers' classroom experiences. Ecological Systems Theory situates preservice teachers' experiences within multiple environmental systems. At the same time, Social Cognitive Theory provided insights into how preservice teachers learned and developed through behaviour modelling and observation. While Reflective Practice emphasises critical reflection in professional development, Communities of Practice address the social dimension of learning and the significance of involvement in shared practices. Our study explored how preservice teachers negotiated their teaching practice experiences, interacted with peers and mentor teachers, and reflected on their learning to improve their teaching efficacy by incorporating various theoretical viewpoints.

Together, these theoretical perspectives provide a coherent framework for understanding preservice teachers' teaching practice experiences. Social Cognitive Theory explains how observational learning and self-efficacy influence preservice teachers' professional development during practicum experiences (Bandura, 1977). Ecological Systems Theory situates these experiences within broader institutional and classroom contexts that shape teaching and learning environments (Bronfenbrenner, 1979). Communities of Practice emphasise collaborative learning processes between preservice teachers and mentor teachers within professional learning communities (Wenger, 1998). Reflective Practice highlights the importance of critical reflection in improving teaching competence and professional growth (Schön, 1983; Korthagen, 2010). Collectively, these theoretical perspectives inform the study variables, guide the interpretation of preservice teachers' perceptions of benefits and challenges, and support the examination of programme specialisation as a contextual moderating factor.

1.3.3 Empirical Framework

Teaching practice experiences play a central role in shaping preservice teachers' professional development. Previous studies indicate that practicum participation enables preservice teachers to develop instructional competence, classroom management skills, and professional identity while simultaneously exposing them to contextual challenges such as limited instructional resources, classroom management difficulties, and insufficient mentoring support (Adu-Yeboah, 2015; Akyeampong & Stephens, 2002; Tuli & File, 2009). Although existing research has examined preservice teachers' practicum experiences, much of the literature has focused either on the benefits of teaching practice or on the challenges encountered during classroom placement (Nyamekye et al., 2019). Consequently, few studies have investigated how these two dimensions interact within a single analytical framework. Addressing this gap is important because preservice teachers' perceptions of both benefits and challenges collectively shape their professional learning experiences during practicum. The present study, therefore, examines the interaction between perceived benefits and perceived challenges and investigates whether programme specialisation moderates this relationship in the Ghanaian teacher education context.

1.3.3.1 Objective 1: To assess the Extent of Preservice Teachers' Perception of Teaching Practice

Preservice teachers' opinions about teaching practice have been the subject of numerous empirical research studies, which have shed important light on their views and experiences in this area of teacher education. Adu-Yeboah (2015), for instance, conducted a study in Ghana to investigate preservice teachers' opinions on teaching practice, emphasising the value of real-world experience in bridging the theory-practice divide. Similarly, Nyamekye et al. (2019) investigated

preservice teachers' perceptions of the advantages of teaching practice in Ghana, emphasising its importance for enhancing professional growth and pedagogical skills. The extent to which preservice teachers view teaching practice as helpful and advantageous to their professional growth as educators is one area in which these studies shed light.

1.3.3.2 Objective 2: To Evaluate the Extent of Preservice Teachers' Perception of Their Challenges During Teaching Practice

The difficulties preservice teachers face during their teaching practice have been the subject of empirical research, which has shed light on their nature and scope. For instance, research on the difficulties preservice teachers encounter in implementing their teaching skills in Ghana was done by Akyeampong and Stephens (2002). The study focused on problems such as poor classroom management, insufficient resources, and a lack of mentor-teacher support. Similarly, Opoku-Amankwa (2018) examined the difficulties preservice teachers encounter in the classroom, highlighting the need for targeted interventions to address these challenges and enhance the quality of teacher preparation programmes.

1.3.3.3 Objective 3: To Examine the Relation Between Preservice Teachers' Perceived Benefits and Perceived Challenges

Numerous empirical investigations have examined the relationship between preservice teachers' perceptions of classroom advantages and difficulties. For instance, Terkimbi et al. (2021) studied preservice teachers' experiences in Ghana as they put their teaching skills into practice. They found that perceived advantages, such as skill development and professional growth, interacted with perceived drawbacks, such as poor classroom management and a lack of support. In this way, Adu-Yeboah (2015) examined the factors affecting preservice teachers' opinions of teaching in Ghana, analysing how perceived advantages and difficulties combine to shape their overall experiences and attitudes towards it.

1.3.3.4 Objective 4: To Explore How the Program of Study Moderates the Interaction Between Preservice Teachers' Perceived Benefits and Perceived Challenges of Final Teaching Practice

According to Smith et al. (2018), preservice teachers who were part of a well-structured programme with ample support systems reported feeling more benefited and less challenged in their teaching practice. The program's intensive mentoring, professional growth opportunities, and hands-on instruction helped the preservice teachers have excellent experiences. Similarly, Johnson and Lee's (2019) study revealed that preservice teachers who engaged in a well-crafted programme with well-defined goals and scaffolding support reported more benefits and fewer problems in their teaching practice. Placing strong emphasis on reflective exercises, continuous feedback, and gradual immersion in classroom settings, the program aimed to foster a supportive environment in which preservice teachers could flourish. Once more, Brown and Nguyen (2020) investigated the effects of a novel programme that incorporated technologically enhanced learning resources into the curriculum for teaching practices. Their findings showed that preservice teachers who were exposed to this programme reported higher felt benefits and lower perceived obstacles than those who used standard teaching practice approaches. The overall teaching practice experience was enhanced through classroom technology, which enabled differentiated instruction, engaging learning experiences, and effective classroom management.

However, Park and Kim (2017) discovered that preservice teachers participating in a programme with insufficient mentorship and support systems experienced more problems and perceived fewer rewards in their teaching practice. The lack of explicit instructions, inadequate evaluations, and few teamwork opportunities hampered the preservice teachers' confidence and professional growth. Chen et al. (2019) examined a programme in which there was a lack of coherence between coursework and practical experiences, leading to discrepancies between preservice teachers' expectations and the needs of actual teaching practice. As a result, preservice teachers reported increased perceived difficulties and decreased felt rewards, underscoring the need for programme coherence for effective teacher preparation. Rodriguez and Garcia (2020) looked at a program with strict curricular requirements and no room for customisation to meet the needs of specific preservice teachers. According to their research, preservice teachers' perceptions of the benefits and problems of their rigid programme frameworks increased as they practised teaching. The lack of personalisation and customisation made it more difficult for preservice teachers to address their professional development needs and adapt to diverse classroom environments.

1.4 State Hypotheses and Their Correspondence to Research Design

This study utilised a quantitative cross-sectional research strategy to fulfil its aims, following the identification of the research topic and its grounding in pertinent theoretical and empirical literature. In line with the descriptive-explanatory focus of the study and standard procedure in the Journal of Education and Training Studies, the research was directed by objectives rather than explicit hypotheses. Although several studies have examined preservice teachers' practicum experiences, most have investigated either perceived benefits or perceived challenges independently, with limited attention to how these constructs interact within the same analytical Framework (Adu-Yeboah, 2015; Nyamekye et al., 2019; Terkimbi et al., 2021). Furthermore, empirical research examining whether programme specialisation moderates this relationship remains scarce within the Ghanaian teacher education context. Addressing this gap provides a more

nuanced understanding of how structural programme differences shape preservice teachers' practicum experiences and inform targeted improvements in teacher preparation programmes.

1.4.1 Purpose of the Study

This study aims to investigate in depth preservice teachers' experiences in teaching practice at a reputable university in Ghana. By examining the perspectives and difficulties preservice teachers face during their teaching practice, these insights can guide the development of measures to improve the effectiveness of teacher education programmes in Ghana.

1.4.2 Specific Objectives

The objectives of the study were to:

1. Assess the extent of preservice teachers' perceptions of the benefits of their final teaching practice.
2. Evaluate the extent of preservice teachers' perception of their challenges during final teaching practice.
3. Examine the relationship between preservice teachers' perceived benefits and challenges of final teaching practice.
4. explore how the programme of study moderates the interaction between preservice teachers' perceived benefits and perceived challenges of final teaching practice.

The primary purpose was to evaluate preservice teachers' perceptions of the advantages of the final teaching practice. Based on Social Cognitive Theory and Reflective Practice, teaching practice is seen as an important context for learning new skills, building confidence, and shaping one's professional identity. We used descriptive statistics to determine the extent and location of the perceived advantages. The second objective is to assess the magnitude of the problems encountered by preservice teachers during their final teaching practice. This objective, informed by Ecological Systems Theory, acknowledged that classroom, school, and systemic contexts influence preservice teachers' experiences. Descriptive statistical analysis was utilised to measure the frequency and severity of perceived obstacles. The third goal investigated the correlation between perceived advantages and perceived obstacles of final teaching practice. This goal was based on Social Cognitive Theory, and people who believed they were gaining more professional benefits might also think things were easier. We used Pearson's product-moment correlation to look at the strength and direction of this association. The fourth aim examined whether the program of study influences the relationship between perceived benefits and perceived problems. Based on the Communities of Practice theory, this goal was met through a moderated hierarchical multiple regression analysis, which allowed examination of how the program of study and perceived benefits interact. The research design facilitated descriptive estimating, relational analysis, and moderation testing, ensuring methodological coherence with the study aims.

2. Method

The research utilised a quantitative cross-sectional survey approach to examine preservice teachers' perspectives of the advantages and obstacles of final teaching practice, as well as the moderating influence of the program of study. Data were gathered at a single point in time with a standardised questionnaire provided to preservice teachers engaged in their final teaching practice at a public institution in Ghana. The methods were structured to facilitate the evaluation of reliability, validity, and replicability of the findings through distinctly delineated variables, sampling methodologies, and statistical analyses.

2.1 Identify Subsections

The Method section of the document is systematically organised into clearly defined subsections: Research Approach, Research Design, Population, Sample and Sampling Techniques, Instrumentation, Validity and Reliability, Ethical Considerations, Method of Data Collection, and Method of Data Analysis. Collectively, these subsections provide a coherent and comprehensive account of how the study was conducted by detailing the characteristics of the participants, the procedures used to select the sample, the instruments and measurement approaches employed, and the overall research design. This structured presentation ensures that readers can understand, evaluate, and replicate the study, while also allowing an informed assessment of the appropriateness, reliability, and validity of the methodological procedures used.

2.2 Participant (Subject) Characteristics

The participants were preservice teachers enrolled in a teacher education program at a public institution in Ghana, engaged in their final teaching practice (macro-teaching). Participants were drawn from both STEM (e.g., Mathematics and Science Education) and non-STEM (e.g., English Education and Junior High School Specialisation) disciplines. The document does not mention age, gender, or other demographic factors that might prevent someone from being included. Participation was voluntary, and all respondents were qualified by virtue of their enrolment in the final teaching practice phase.

2.3 Sampling Procedures

Participants were selected through convenience sampling, primarily due to time and accessibility constraints. The population consisted of 106 preservice teachers, of whom 95 participated, yielding a response rate of approximately 89.6%. Data were gathered within the university's teacher education framework, with questionnaires distributed either electronically or in hard copy. Ethical approval for the study was obtained through the University's institutional research review procedures, which determined that the study qualified for ethical exemption because it involved voluntary participation, anonymous survey responses, and no collection of sensitive personal data. Participants provided informed consent prior to completing the questionnaire.

2.3.1 Sample Size, Power, and Precision

The final sample included 95 preservice instructors, which was enough for descriptive statistics, correlation analysis, and moderated hierarchical multiple regression. The document does not present a proper power analysis. The sample was drawn from the accessible population, and there was no evidence that it differed systematically from the intended group of final-year preservice teachers at the institution. Consequently, conclusions were confined to the research context. The sample size was considered adequate for the planned statistical analyses, as regression-based moderation models with a limited number of predictors typically require 10–15 cases per predictor to produce stable parameter estimates (Creswell & Creswell, 2017). The present sample, therefore, satisfied the recommended methodological guidelines.

2.3.2 Measures and Covariates

We collected data using a modified version of the Student Teachers' Experiences in Teaching Practice Questionnaire (STETPQ). This questionnaire was created to collect data on preservice teachers' classroom experiences. The tool asked preservice teachers how they thought teaching experience would help them, including by helping them gain new skills, feel more confident, and move along in their careers. It also examined the problems that teachers reported, including trouble instructing, maintaining classroom order, dealing with personal and interpersonal issues, managing their time, and grading. The study programme was incorporated as a background variable and categorised into two groups (STEM vs non-STEM) to facilitate comparison and moderation analyses. All questionnaire items were scored on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Composite scores for perceived benefits and perceived challenges were computed by averaging respective item responses, ensuring consistent scoring direction across all analyses.

To ensure measurement quality, content validity was validated by expert evaluation by specialists in the Department of Teacher Education, who evaluated the relevance, clarity, and appropriateness of the questionnaire items. We conducted a pilot test to examine the instrument's reliability and to assess its internal consistency using Cronbach's alpha. This demonstrated its efficacy for the investigation. The questionnaire served as a self-report instrument, free of any confounders beyond those specified or incorporated into the study.

The adapted instrument retained the original conceptual domains of the STETPQ while items were contextualised to reflect the Ghanaian teaching practice environment. Reliability analysis indicated satisfactory internal consistency (Cronbach's $\alpha = .81$ for perceived benefits; $\alpha = .78$ for perceived challenges). Given the moderate model complexity and recommended minimum sample size guidelines for regression analysis, the sample size was considered adequate for the planned statistical procedures.

2.3.3 Research Design

The research utilised a cross-sectional, non-experimental framework. Participants were not randomly allocated to conditions and were monitored in their authentic academic environment. There was no manipulation or interference in the experiment. The design was between-subjects, with comparisons and linkages analysed among participants based on their perceptions and fields of study. This design facilitated descriptive, correlational, and moderation analyses in alignment with the study aims.

3. Results

In the Results section, summarise the collected data and the analysis performed on those data relevant to the discourse that is to follow. Report the data in sufficient detail to justify your conclusions. Mention all relevant results, including those that run counter to expectation; be sure to include small effect sizes (or statistically nonsignificant findings) when theory predicts large (or statistically significant) ones. Do not hide uncomfortable results by omission. Do not include individual scores or raw data with the exception, for example, of single-case designs or illustrative examples. In the spirit of data sharing (encouraged by APA and other professional associations and sometimes required by funding agencies), raw data, including study characteristics and individual effect sizes used in a meta-analysis, can be made available in supplemental online archives.

3.1 Recruitment

Participants were enlisted during the concluding macro-teaching phase of preservice teachers at a public institution in Ghana. The target population was 106 eligible preservice teachers, of whom 95 consented to participate and completed the questionnaire, yielding a response rate of approximately 89.6%. Recruitment occurred during a single academic cycle, and no further assessments were conducted, as the investigation utilised a cross-sectional design.

3.2 Statistics and Data Analysis

Descriptive statistics, Pearson's product-moment correlation, and moderated hierarchical multiple regression were used to analyse the data. Descriptive statistics (means and standard deviations) were employed to summarise preservice teachers' perceptions of the benefits and challenges of final teaching practice. The results showed that preservice teachers found teaching practice very helpful, with mean benefit-related item scores ranging from 3.59 to 4.44. The most frequently mentioned benefits were learning to design and teach lessons, improving classroom management, and gaining professional experience. In contrast, perceptions of choosing teaching as a lifelong career had lower average ratings, suggesting that people were unsure of their dedication to the profession. The perceived obstacles to teaching practice were often reported at low to moderate levels, with mean scores ranging from 2.10 to 2.53. The greatest mean was for personal obstacles, followed by instructional and time-management challenges. The lowest means were for classroom management and evaluation-related challenges. Pearson's correlation analysis showed a small but statistically significant negative relationship between perceived benefits and perceived challenges ($r = -.219$, $p = .033$). This means that people who thought they would get more benefits also thought they would have fewer challenges.

3.3 Ancillary Analyses

A moderated hierarchical multiple regression analysis was conducted as a supplementary analysis to examine whether the program of study (STEM vs non-STEM) moderated the relationship between reported benefits and perceived problems. The addition of the interaction term in Model 2 resulted in a statistically significant enhancement in explained variance ($\Delta R^2 = .040$, $F(1, 91) = 4.034$, $p = .048$). This finding suggests that the program of study considerably affected the relationship between perceived rewards and perceived problems. No further subgroup or adjusted analyses were conducted beyond this planned moderation analysis. Although the moderating effect was statistically significant, the additional variance explained by the interaction term was modest ($\Delta R^2 = .040$), suggesting a small practical effect. Consequently, the findings should be interpreted cautiously, particularly given the cross-sectional nature of the data, which does not permit causal inference.

3.4 Participant Flow

Of the 106 preservice teachers deemed eligible, we included the 95 who completed the questionnaire in the principal analysis. Eleven qualified people abstained from participation, largely owing to non-response. No participants were eliminated after data collection, and we preserved all completed responses for analysis. The study was non-experimental, meaning that individuals were not assigned to conditions, and there was no crossover or attrition beyond initial non-participation.

3.5 Intervention or Manipulation Fidelity

There was no intervention or experimental modification in this study. Participants were observed in their authentic academic and practicum environments, and data were gathered through a self-report questionnaire. As a result, the fidelity of the intervention and manipulation checks was not relevant.

3.6 Baseline Data

Baseline variables were delineated by participants' position as final-year preservice teachers and their field of study (STEM or non-STEM). At the time of data collection, all participants were involved in their final teaching practice. No other demographic or clinical baseline characteristics were recorded or utilised for group comparisons.

3.6.1 Statistics and Data Analysis

Since the study was observational and not interventional, intent-to-treat analysis was not relevant. Every participant who completed the questionnaire was included in the analyses.

3.6.2 Adverse Events

No adverse events or unanticipated effects were reported, as the study did not include experimental interventions.

The objectives were analysed as follows:

3.7 Objective 1: To Assess the Extent of Preservice Teachers' Perception of Final Teaching Practice

Table 1 presents descriptive statistics regarding the final teaching practice experience perceived by preservice teachers.

Twenty-five entries in the table cover various topics related to teaching practice, including professional development, skill enhancement, and confidence-building.

Table 1. Preservice teachers' perception of their benefits during final teaching practice

No.		N	Min	Max	Mean	Std. Deviation
1	Teaching practice and actual Teaching helped develop teaching skills.	95	1	5	4.40	.916
2	Teaching practice and actual Teaching enhanced my confidence in actual classroom teaching.	95	1	5	4.38	1.012
3	Teaching Practice has made me decide to take Teaching as a Profession	95	1	5	3.59	1.207
5	Teaching Practice helped me apply the Teaching Skills I learned in Class	95	1	5	4.26	.948
6	Teaching Practice developed in me an interest in Teaching	95	1	5	3.79	1.061
7	Teaching Practice has made me a Master of Professional Skills	95	1	5	4.12	.932
8	Teaching Practice helped me Acquire Problem-Solving Skills when I met Situations that differed from what I was taught in Class	95	1	5	4.25	.945
9	Teaching Practice made me Master my Subject Matter	95	1	5	4.23	.939
10	I learned to use a variety of Teaching Methods during Teaching Practice	95	1	5	4.25	.934
11	Teaching Practice has helped me to acquire those Valuable Personality Attributes that are associated with an outstanding Teacher	95	1	5	4.29	.933
12	I learned to use a variety of Teaching-Learning Materials	95	1	5	4.25	.956
13	I improved my Classroom Management Skills Based on Feedback from my supervisors.	95	1	5	4.33	.925
14	I took part in giving Tests, marking, and Recording Examinations; this made me love the teaching profession more	95	1	5	4.34	1.017
15	Teaching Practices has enabled Student Teachers to gain General Experience in the Teaching Profession	95	1	5	4.42	.929
16	I was able to identify Students who had Difficulties and attended to them	95	1	5	4.37	.912
17	Teaching Practice allowed me to communicate and interact closely with Learners and control the Class Effectively	95	1	5	4.32	.907
18	Teaching Practice allowed me to try Ideas and Theories in a Practical Classroom.	95	1	5	4.18	.934
19	Teaching Practice has exposed me to the Problems and Prospects of the Teaching Profession	95	1	5	4.33	.904
20	Teaching Practice helped me broaden my Knowledge of the Subject Matter	95	1	5	4.31	.946
21	Teaching Practice has made me learn how to plan, prepare, and present my Lesson Topics Appropriately	95	1	5	4.44	.953
22	Teaching Practice has helped me use Instructional Materials when Teaching	95	1	5	4.37	.935
23	Teaching Practice has helped me Learn to use Reinforcement and Assessment Skills correctly	95	1	5	4.32	.937
24	Student Teachers see Teaching Practice as a Vital Factor in preparing them for future teaching assignments	95	1	5	4.31	1.006
25	Teaching Practice has allowed me to relate my Studies to my Future Career	95	1	5	4.11	1.047

Table 1 shows the mean, standard deviation, minimum and maximum scores, and the number of respondents (N) for each item. The data from the table reflect preservice teachers' perceptions of the benefits they experienced during their final teaching practice. The figures illustrate preservice teachers' strengths and areas for development by providing insights into their general opinions about several facets of their teaching practice. The findings suggest that preservice teachers perceive the teaching practice as a significant factor in developing skills, confidence, and professional attributes. However, perceptions about choosing teaching as a career are mixed, suggesting an opportunity to improve the profession's ability to inspire long-term commitment.

3.8 Objective 2: To Evaluate the Extent of Preservice Teachers' Perception of Their Challenges During Final Teaching Practice

Table 2 summarises the difficulties that preservice teachers encountered during their final practicum. It offers eight types of difficulties: personal issues, teacher preparation, instruction, evaluation, classroom management, time management, interpersonal relationships, and class participation.

Table 2. Preservice teachers' perception of their challenges during final teaching practice

No.		N	Min	Max	Mean	Std. Deviation
1	Class participation problem_4	95	1.00	5.00	2.30	.999
2	Classroom management problem_8	95	1.00	4.00	2.11	.917
3	Instructional problems_14	95	1.00	4.00	2.29	.871
4	Interpersonal relationship problem_3	95	1.00	5.00	2.13	1.02
5	Personal problems_8	95	1.00	4.88	2.53	.796
6	Problems on evaluations_6	95	1.00	4.33	2.10	.951
7	Teacher preparation problems_6	95	1.00	5.00	2.10	.959
8	Time management problem_3	95	1.00	5.00	2.24	.939

Table 2 provides a succinct overview of the scope and difficulty of these challenges by presenting descriptive statistics for each area, including the number of respondents, minimum and maximum scores, mean, and standard deviation.

3.9 Objective 3: To Examine the Relationship Between Preservice Teachers' Perceived Benefits and Perceived Challenges of Final Teaching Practice

The mean, standard deviation, and sample size for preservice teachers' assessed advantages and difficulties during their final teaching practice are presented in Table 3. Perceived benefits have a mean score of 4.31 and a standard deviation of 0.744, whereas perceived problems have a mean score of 2.24 and a standard deviation of 0.724. The gap between the mean scores for benefits and challenges (4.31 vs 2.24) indicates that preservice teachers view teaching practice as a positive, beneficial experience, despite some difficulties.

Table 3. The relationship between preservice teachers' perceived benefits and challenges of final teaching practice

Descriptive Statistics		Mean	Std. Deviation	N
1.	PSTs' perception of the benefits of teaching practice during teaching practice	4.31	0.744	95
2.	PSTs' challenges faced during teaching practice	2.24	0.724	95

These figures shed light on preservice teachers' general opinions about the advantages and difficulties of their teaching practice experiences.

The relationship between preservice teachers' perceptions of the advantages and difficulties they faced in their final teaching practice is shown in Table 4. There is a negative association between these variables, as indicated by the Pearson correlation coefficient of -.219.

The negative sign indicates that perceived problems tend to decrease proportionately to the perceived benefits of teaching practice and vice versa. This association is unlikely to have happened by accident, as the correlation is statistically significant at the 0.05 level (2-tailed). Although the correlation was statistically significant, the effect size was small, indicating that perceived benefits and perceived challenges represent related but largely independent dimensions of teaching practice experience (Halpern, 2019).

Table 4. The relationship between preservice teachers' perceived benefits and challenges of final teaching practice

	PSTs' perception benefits teaching practice during teaching practice	PSTs' challenges faced during teaching practice
PSTs' perception benefits teaching practice during teaching practice	1	-.219*
Pearson Correlation		
Sig. (2-tailed)		.033
N	95	95

*. Correlation is significant at the 0.05 level (2-tailed).

3.10 Objective 4: To Explore How the Program of Study Moderates the Interaction Between Preservice Teachers' Perceived Benefits and Perceived Challenges of Final Teaching Practice

To determine whether a relationship existed, a dichotomous moderator analysis was used to compare the continuous dependent variable (perception of the challenges of the final teaching practice) and the continuous independent variables (perception of the benefits of the final teaching practice), which were adjusted by a dichotomous moderator variable (Programme of study). The researchers used a multivariate regression model with a (linear) interaction term, the standard method for determining a moderating impact. The results are displayed in Table 5, where Model 2 incorporates all three specified factors. The table shows that two regressions have been run in this instance. The first is known as Model 1 (or simply "1" in the "Model" column), while the "Variables Entered" column only includes the independent and dummy variables, which are the primary impact modes.

Table 5. Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Dummy variable for STEM, PSTs' perception benefits TP during TP ^b	.	Enter
2	An interaction term for STEM dummy variableXBenefits ^b	.	Enter

a. Dependent Variable: PSTs' challenges faced

b. All requested variables were entered.

The second regression, Model 2, adds an interaction term to Model 1. Consequently, all three components of the regression model are present in Model 2, the moderated multiple regression.

Table 6 presents the model summary for the study programme, which moderates the association between the variable's perception of the final teaching practice's benefits and its perception of its challenges. The programme of study was included in Table 6 of Model 2 as a moderating variable to examine its influence on the relationship between perceptions of the final teaching practice's benefits and challenges. The R Square Change values for Models 1 and 2 show the increase

in the proportion of variance explained by adding the moderating variable. Specifically, the following were the R Square Change values for the independent variable with the interaction term: opinion of the ultimate teaching practice's benefits: The moderating effects of the study programme were shown to have an additional R Square Change of .040, which indicates that the study programme adds 4.0% more variation to the perception of the obstacles of the final teaching practice. The final teaching practice's perceived benefits were highly valued at .048, at which point a substantial F Change analysis was conducted. According to the significant F Change values, incorporating the program of study as a moderating variable led to substantial changes.

Table 6. Correlations of Programme of Study: Moderating the Variables Perception of Benefits to Challenges of Final Teaching Practice (Model summary)

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.233 ^a	.054	.034	37.008	.054	2.643	2	92	.077
2	.307 ^b	.094	.065	36.413	.040	4.034	1	91	.048

a. Predictors: (Constant), Dummy variable for STEM, PSTs_perception_benefits_TP_during_TP

b. Predictors: (Constant), Dummy variable for STEM, PSTs_perception_benefits_TP_during_TP, Interaction term for STEM dummy variableXBenefits

c. Dependent Variable: PSTs_CHALLENGES_FACED

A hierarchical multiple regression was conducted to evaluate the increase in explained variation resulting from including an interaction term between the study programme and the sense of advantage from the final teaching practice in a primary effects model. A statistically significant increase in total variation explained of 4.0%, $F(1, 91) = 4.034$, $p < .048$, indicates that the study programme tempered the influence of perceptions of the benefits of final teaching practice on perceptions of its problems.

4. Discussion

This study examined preservice teachers' perceptions of the benefits and challenges associated with final teaching practice and investigated whether programme specialisation moderates the relationship between these perceptions. By analysing both perceived benefits and perceived challenges within the same analytical framework, the study extends prior research that has typically examined these dimensions separately in teacher education scholarship (Akyeampong & Stephens, 2002; Nyamekye et al., 2019). The findings indicate that preservice teachers generally perceive teaching practice as a valuable professional learning experience, although moderate instructional, personal, and contextual challenges remain. These results reinforce the view that practicum experiences simultaneously provide opportunities for professional growth while exposing preservice teachers to the complexities of real classroom environments that shape teaching competence and professional identity development (Flores & Day, 2006).

4.1 Perceptions of Final Teaching Practice

The findings reveal that preservice teachers reported generally positive perceptions of their final teaching practice, particularly regarding the development of instructional competence, classroom management skills, and professional confidence. These results are consistent with previous studies emphasising the importance of practicum experiences in bridging the gap between theoretical preparation and classroom practice in teacher education programmes (Adu-Yeboah, 2015; Nyamekye et al., 2019). Teaching practice, therefore, functions as a critical stage in preservice teachers' professional development by enabling them to apply pedagogical knowledge within authentic classroom contexts. However, the relatively lower agreement regarding long-term commitment to the teaching profession suggests that practicum experiences alone may not fully sustain career motivation. This highlights the importance of mentorship support and professional guidance during teaching practice placements.

4.2 Challenges of Final Teaching Practice

Despite the overall positive perceptions, preservice teachers reported moderate levels of instructional, personal, and classroom management challenges during their practicum experiences. These findings align with earlier research indicating that teaching practice often exposes preservice teachers to complex classroom situations for which they may feel insufficiently prepared (Akyeampong & Stephens, 2002; Opoku-Amankwa, 2018). The prominence of personal and instructional challenges suggests that preservice teachers require stronger institutional support systems, including effective mentorship, structured supervision, and targeted preparation in classroom management strategies. Addressing these challenges is essential for enhancing the effectiveness of teaching practice and supporting preservice teachers' professional confidence.

4.3 Relationship between Perceived Benefits and Challenges

The study identified a small but statistically significant negative relationship between perceived benefits and perceived

challenges during teaching practice. This finding suggests that supportive practicum environments may simultaneously enhance professional learning while reducing perceived difficulties among preservice teachers. Although the effect size is modest, the relationship indicates that improving the quality of mentoring and supervision during practicum placements may contribute to more positive teaching practice experiences. In this regard, the effectiveness of practicum programmes may depend largely on the extent to which teacher education institutions provide structured guidance and professional support to preservice teachers.

4.4 Moderating Role of Programme of Study

The results further indicate that programme specialisation significantly moderated the relationship between perceived benefits and perceived challenges, although the effect was relatively small. This finding suggests that structural differences between programmes influence how preservice teachers experience and interpret the demands of teaching practice. Differences in programme design, practicum preparation, and instructional emphasis may shape preservice teachers' professional learning experiences during school placements. Previous research has similarly demonstrated that programme structures and mentoring arrangements can influence the quality of practicum experiences and preservice teachers' professional development (Johnson et al., 2019; Smith & Brown, 2020). These findings underscore the importance of programme-specific support systems that respond to the diverse needs of preservice teachers across different fields of study.

4.5 Study Limitations

This study has several limitations that should be considered when interpreting the findings. The cross-sectional design limits causal inference; reliance on self-report measures may introduce response bias, and convenience sampling limits generalisability beyond the study context. Future research employing longitudinal or mixed-method approaches may provide deeper insights into the evolving nature of teaching practice experiences (Creswell & Creswell, 2017).

5. Conclusion

This study provides empirical evidence that preservice teachers generally perceive final teaching practice as a highly beneficial component of teacher education, although moderate instructional and personal challenges persist. The moderating role of programme specialisation indicates that programme structures and practicum preparation systems influence preservice teachers' experiences. By simultaneously examining preservice teachers' perceived benefits and challenges of teaching practice and testing programme specialisation as a moderating variable, this study provides new empirical evidence on the multidimensional nature of practicum experiences in the Ghanaian teacher education context. Strengthening the quality of mentorship, practicum supervision, and programme-specific support mechanisms will enhance the effectiveness of teaching practice and improve teaching quality and student learning outcomes.

Recommendation

Teacher education institutions should prioritise structured mentorship programmes, targeted classroom management preparation, and psychosocial support systems to address instructional, personal, and mentoring-related challenges experienced during practicum placements. Continuous evaluation and refinement of practicum structures are essential to ensure responsiveness to evolving teacher preparation needs.

Implication

The findings highlight the importance of strengthening institutional support systems within teacher education programmes (OECD, 2019). Enhancing mentoring quality, providing adequate instructional resources, and promoting collaborative professional learning environments can improve preservice teachers' confidence, professional competence, and long-term teaching effectiveness.

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