

Bridging the Theory–Practice Gap in Teacher Education: Impact of Experiential Learning and Mentorship on Teaching Effectiveness Among NCE Students in Nigeria

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Abstract

This study examined the impact of experiential learning and mentorship on teaching effectiveness among pre-service teachers in Colleges of Education in Nigeria. The purpose was to determine how practice-based training and structured mentoring improve pedagogical competence and instructional effectiveness. Specifically, the study investigated five research questions focusing on experiential learning, mentorship influence, combined effects, specific teaching skills development, and the relationship between mentorship and teaching effectiveness. A quasi-experimental pre-test and post-test design was adopted. The population comprised 420 NCE III students from five Schools in a Federal College of Education in Lagos State. A sample of 210 students was selected using stratified and simple random sampling techniques. Data were collected using researcher-developed instruments including the Teaching Effectiveness Questionnaire, Mentorship Experience Scale, and Observation Checklist. The instruments were validated by experts in measurement and evaluation, educational psychology, and teacher education, while reliability was established through pilot testing using Cronbach Alpha. Data were analyzed using descriptive statistics and inferential statistics including t-test and Pearson correlation. Findings revealed significant improvements in teaching effectiveness following exposure to experiential learning and mentorship. The combined effect of both interventions was stronger than individual effects. The study concluded that bridging theory and practice through structured experiential and mentoring systems enhances teacher preparation. It was recommended that teacher education programmes integrate sustained mentorship and experiential learning into their curriculum.

Keywords: Experiential learning, Mentorship, Pedagogical competence, Teaching effectiveness, Teacher education.

I. Introduction

Teacher education has remained a critical pillar in the development of functional education systems, particularly in developing countries where the quality of classroom instruction is largely dependent on the competence of pre-service teachers. In recent years, there has been increasing concern about the persistent gap between theoretical knowledge acquired in teacher training institutions and the practical realities of classroom teaching. This gap often results in graduates who are academically sound but lack sufficient pedagogical competence for effective classroom delivery (Darling-Hammond, 2021; UNESCO, 2022).

One of the major challenges confronting teacher education programmes globally is the inability to adequately integrate theory with practice. Many pre-service teachers acquire extensive theoretical knowledge without corresponding opportunities for meaningful classroom application. This disconnect undermines their readiness for real teaching situations and contributes to low instructional effectiveness during teaching practice. Studies have shown that structured practical engagement is essential for translating pedagogical theories into classroom realities (Allen & Wright, 2020; Grossman, 2021).

Experiential learning has been widely recognized as an effective approach for bridging the gap between theory and practice in education. It emphasizes learning through direct experience, reflection, and application, thereby enabling pre-service teachers to actively construct knowledge through practice-based activities such as microteaching, simulations, and teaching practice exercises. This

approach enhances retention, skill acquisition, and instructional confidence among teacher trainees (Kolb, 2019; Kolb & Kolb, 2020).

Mentorship plays a significant role in shaping the professional growth and instructional competence of pre-service teachers. Through mentorship, student teachers receive guidance, feedback, and modelling from experienced educators, which helps them refine their teaching strategies and classroom management skills. Effective mentoring relationships also support emotional resilience and professional socialization into the teaching profession (Hobson & Malderez, 2019; Ingersoll & Strong, 2020).

Teaching effectiveness is a multidimensional construct that encompasses lesson planning, instructional delivery, classroom management, assessment strategies, and learner engagement. Improving these competencies requires structured training that combines experiential learning with continuous professional support. Research indicates that when pre-service teachers are exposed to practice-oriented training environments, their teaching effectiveness improves significantly, leading to better classroom outcomes (Schön, 2020; Tondeur et al., 2021).

In Nigeria, Colleges of Education continue to face challenges in producing adequately prepared teachers due to insufficient integration of mentorship and experiential learning into teacher training programmes. As a result, many graduates experience difficulties during teaching practice and early career teaching. This study therefore seeks to examine how experiential learning and mentorship can bridge the theory–practice gap and improve teaching effectiveness among pre-service teachers in Nigerian Colleges of Education (Adeniji & Ogunyemi, 2023; OECD, 2021).

A. Statement of the Problem

Despite sustained efforts to improve teacher education in Nigeria, there remains a persistent gap between the theoretical knowledge acquired in Colleges of Education and the practical competencies required for effective classroom teaching. Many pre-service teachers often demonstrate adequate understanding of pedagogical concepts during coursework but struggle to translate these concepts into effective instructional practices during teaching practice exercises. This disconnect raises concerns about the adequacy of existing training approaches in preparing classroom-ready teachers. Furthermore, while experiential learning and mentorship are widely acknowledged as effective strategies for improving professional competence, their integration within teacher education programmes in many Nigerian Colleges of Education remains inconsistent and unstructured. Consequently, graduates often enter the teaching profession with limited instructional confidence, weak classroom management skills, and underdeveloped professional identity. It is against this background that this study investigates the impact of experiential learning and mentorship on teaching effectiveness among pre-service teachers in Nigerian Colleges of Education.

B. Purpose of the Study

The purpose of this study was to examine the effectiveness of experiential learning and mentorship in bridging the theory–practice gap and enhancing teaching effectiveness among pre-service teachers in Colleges of Education in Nigeria. Specifically, the study sought to determine how structured practice-based learning experiences and guided mentoring support influence pedagogical competence, instructional delivery, and professional development of student teachers.

C. Objectives of the Study

The study was guided by the following objectives:

1. To determine the effect of experiential learning on teaching effectiveness among pre-service teachers in Colleges of Education.
2. To examine the influence of mentorship on teaching effectiveness among pre-service teachers.
3. To assess the combined effect of experiential learning and mentorship on teaching effectiveness.
4. To identify the aspects of teaching effectiveness most improved through experiential learning activities.

5. To determine the relationship between mentorship support and teaching effectiveness among pre-service teachers.

D. Research Questions

The following research questions guided the study:

1. What is the effect of experiential learning on teaching effectiveness among pre-service teachers?
2. How does mentorship influence teaching effectiveness among pre-service teachers?
3. What is the combined effect of experiential learning and mentorship on teaching effectiveness?
4. What aspects of teaching effectiveness are most improved through experiential learning activities?
5. What relationship exists between mentorship support and teaching effectiveness among pre-service teachers?

E. Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. **H01:** There is no significant effect of experiential learning on teaching effectiveness among pre-service teachers in Colleges of Education.
2. **H02:** There is no significant effect of mentorship on teaching effectiveness among pre-service teachers in Colleges of Education.
3. **H03:** There is no significant relationship between mentorship support and teaching effectiveness among pre-service teachers.

II. Research Design

The study adopted a quasi-experimental pre-test–post-test research design involving a non-randomized group of pre-service teachers in Colleges of Education. This design was considered appropriate because the study involved the implementation of an intervention programme—comprising experiential learning activities and structured mentorship—which was expected to influence teaching effectiveness among participants. Since intact classes of NCE III students were used without random assignment, the quasi-experimental approach provided a realistic and ethically sound framework for examining cause-and-effect relationships within an educational setting. The design further allowed for the measurement of participants' teaching effectiveness before and after exposure to the intervention, thereby enabling the researcher to determine the extent of improvement attributable to the programme. By comparing pre-test and post-test scores, the study was able to assess changes in pedagogical performance, instructional delivery, and classroom management competencies. This approach was particularly suitable for teacher education research in institutional contexts where full experimental control is often impracticable due to academic schedules and administrative constraints.

A. Population of the Study

The population of this study comprised all 420 NCE III pre-service teachers in the Federal College of Education (Technical), Akoka, Lagos State. This level of students was considered appropriate because they were at the terminal stage of their teacher education programme and were actively engaged in Teaching Practice, where issues of pedagogical competence, classroom performance, and professional identity development are most visible and assessable. The population was drawn across the five Schools in the College, namely: School of Education with 140 students, School of Sciences with 85 students, School of Technical Education with 60 students, School of Vocational Education with 55 students, and School of Business Education with 80 students, giving a total of 420 students. The inclusion of all NCE III students was deliberate, as it allowed the study to capture the full range of experiences across disciplines and ensured that no subgroup within the cohort was excluded from the intervention. This comprehensive coverage strengthened the authenticity of the findings and provided a holistic understanding of pre-service teacher preparation within the institution.

B. Sample Size and Sampling Technique

The study adopted a census (total enumeration) approach, where the entire population of 420 NCE III students were used as the sample. No sampling was carried out because the population size was manageable and suitable for complete inclusion. All students from the School of Education (140), School of Sciences (85), School of Technical Education (60), School of Vocational Education (55), and School of Business Education (80) participated fully in the study. This approach ensured that every participant experienced the experiential learning and mentorship intervention, while also contributing data for analysis. The decision to use total enumeration was also informed by the quasi-experimental nature of the study, which required intact group participation to accurately measure changes in teaching effectiveness before and after the intervention. This method eliminated sampling bias, improved representativeness, and enhanced the reliability of the results obtained from the study.

C. Instruments For Data Collection

The main instrument used for data collection in this study was the Experiential Learning and Mentorship Teaching Effectiveness Questionnaire (ELMTEQ), which was researcher-developed to measure the impact of experiential learning and mentorship on teaching effectiveness among pre-service teachers. The instrument was structured into five sections (A–E). Section A contained respondents' biodata with 6 items covering gender, age, school, programme of study, teaching practice status, and level. Section B contained 8 items on experiential learning activities (microteaching, simulations, and classroom practice). Section C contained 8 items on mentorship support and quality. Section D contained 10 items on teaching effectiveness (lesson planning, classroom management, instructional delivery, and assessment). Section E contained 6 items on reflective learning and professional growth. All items in Sections B–E were designed on a 4-point Likert scale format of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1), aligned with the research questions guiding the study.

D. Validity and Reliability of the Instrument

The instrument consisted of a total of 38 items and was validated through face and content validity procedures. It was developed by the researcher and reviewed by three experts in Educational Measurement and Evaluation, Curriculum Studies, and Teacher Education from the Faculty of Education. These experts assessed the instrument for clarity, relevance, appropriateness of language, and alignment with the research objectives and questions. Their suggestions led to the rewarding of some items and removal of ambiguous statements, thereby strengthening both content and construct validity.

To establish reliability, the instrument was pilot tested using 20 NCE III students drawn from a similar institution but not included in the main study. These participants were selected using a simple random sampling technique across five programme areas to ensure diversity. Data obtained from the pilot study were analyzed using the Cronbach's Alpha reliability coefficient method to determine internal consistency. The overall reliability coefficient obtained was 0.89, indicating a high level of internal consistency. This confirmed that the instrument was reliable, stable, and suitable for use in the main study.

E. Procedure for Data Collection

Data for this study were collected using a 38-item structured questionnaire titled Experiential Learning and Mentorship Teaching Effectiveness Questionnaire (ELMTEQ). The instrument was administered to all 420 NCE III pre-service teachers in the Federal College of Education (Technical), Akoka, Lagos State. Both direct face-to-face administration and supervised classroom-based distribution methods were employed by the researchers to ensure maximum participation and proper completion of the instrument. Prior to administration, participants were briefed on the purpose of the study and assured of confidentiality of their responses.

The data collection exercise lasted for a period of eight (8) weeks, during which the questionnaire was administered as both pre-test and post-test. Out of the 420 copies of the

questionnaire distributed, a total of 382 copies were properly completed and retrieved, representing a return rate of approximately 91%. The distribution of the retrieved instruments across the Schools showed that School of Education returned 128 copies, School of Sciences 78 copies, School of Technical Education 56 copies, School of Vocational Education 49 copies, and School of Business Education 71 copies. All retrieved copies were carefully checked for completeness, coded, and prepared for statistical analysis.

G. Method of Data Analysis

The data collected for this study were analyzed using both descriptive and inferential statistical techniques. Specifically, descriptive statistics such as mean and standard deviation were used to answer the research questions on the extent of improvement in pedagogical competence, mentorship influence, experiential learning outcomes, and teaching effectiveness among pre-service teachers. These statistics helped to provide a clear summary of participants' performance before and after the intervention programme.

On the other hand, the formulated hypotheses were tested using appropriate inferential statistics. The paired sample t-test was used to test hypotheses relating to differences in pre-test and post-test scores on teaching effectiveness, pedagogical competence, and professional identity. In addition, the Pearson Product Moment Correlation (PPMC) was employed to determine the relationship between pedagogical competence and professional identity among the participants. All hypotheses were tested at a 0.05 level of significance, which provided a standard basis for accepting or rejecting the null hypotheses. This combination of statistical tools ensured a robust and comprehensive analysis of both the effectiveness and relationships of the variables under study.

III. Results Presentation

Research Question One

What is the effect of experiential learning on teaching effectiveness among pre-service teachers?

TABLE 4.1: Effect Of Experiential Learning On Teaching Effectiveness (N = 382)

Item Statements	Mean ($\bar{x}$)	SD	Decision
Experiential learning improved lesson planning	3.52	0.61	Agreed
Improved classroom delivery skills	3.48	0.64	Agreed
Enhanced classroom management	3.46	0.66	Agreed
Improved instructional clarity	3.50	0.62	Agreed
Increased learner engagement	3.55	0.59	Agreed
Cluster Mean	3.50	—	Agreed

The cluster mean of 3.50 indicates that experiential learning had a strong positive effect on teaching effectiveness. Respondents agreed that hands-on activities such as microteaching and simulations significantly improved their classroom practice, particularly in learner engagement and instructional delivery.

Research Question Two

How does mentorship influence teaching effectiveness among pre-service teachers?

Table 4.2: Influence Of Mentorship On Teaching Effectiveness (N = 382)

Item Statements	Mean ($\bar{x}$)	SD	Decision
Mentorship improved teaching confidence	3.54	0.60	Agreed
Mentors improved lesson preparation skills	3.47	0.63	Agreed

Item Statements	Mean ($\bar{x}$)	SD	Decision
Mentorship improved classroom control	3.49	0.65	Agreed
Feedback from mentors improved teaching	3.51	0.61	Agreed
Mentorship improved professional behaviour	3.56	0.58	Agreed
Cluster Mean	3.51	—	Agreed

The cluster mean of 3.51 shows that mentorship significantly influenced teaching effectiveness. The highest-rated item indicates that mentorship improved professional behaviour, confirming that guided support enhances pre-service teachers' classroom performance.

Research Question Three

What is the combined effect of experiential learning and mentorship on teaching effectiveness?

Table 4.3: Combined Effect Of Experiential Learning And Mentorship (N = 382)

Item Statements	Mean ($\bar{x}$)	SD	Decision
Combined approach improved overall teaching effectiveness	3.62	0.57	Agreed
Improved lesson delivery quality	3.58	0.60	Agreed
Improved classroom management	3.55	0.61	Agreed
Increased student participation	3.53	0.63	Agreed
Strengthened teaching confidence	3.60	0.58	Agreed
Cluster Mean	3.58	—	Agreed

The cluster mean of 3.58 indicates a very strong combined effect of experiential learning and mentorship on teaching effectiveness. This suggests that when both approaches are integrated, pre-service teachers demonstrate higher instructional competence and confidence.

Research Question Four

What aspects of teaching effectiveness are most improved through experiential learning activities?

Table 4.4: Aspects Of Teaching Effectiveness Improved Through Experiential Learning (N = 382)

Teaching Effectiveness Components	Mean ($\bar{x}$)	SD	Decision
Lesson planning skills	3.53	0.61	Agreed
Instructional delivery	3.57	0.59	Agreed
Classroom management	3.49	0.64	Agreed
Use of teaching aids	3.60	0.58	Agreed
Student engagement	3.58	0.60	Agreed
Cluster Mean	3.55	—	Agreed

The cluster mean of 3.55 shows that experiential learning improved all key aspects of teaching effectiveness. The highest improvement was recorded in the use of teaching aids, indicating that practical exposure enhances instructional resource utilization.

Research Question Five

What relationship exists between mentorship support and teaching effectiveness among pre-service teachers?

Table 4.5: Relationship Between Mentorship Support And Teaching Effectiveness (N = 382)

Variables	Mean	SD	r-value	Remark
Mentorship Support	3.51	0.62	0.64	Significant
Teaching Effectiveness	3.50	0.60		

The result shows a strong positive relationship with an r-value of 0.64, indicating that increased mentorship support significantly enhances teaching effectiveness among pre-service teachers. This implies that effective mentoring is a key determinant of classroom performance.

A. Hypotheses Testing

Hypothesis One

H01: There is no significant effect of experiential learning on teaching effectiveness among pre-service teachers in Colleges of Education.

Table 4.6: Paired Sample T-Test Analysis Of Experiential Learning And Teaching Effectiveness (N = 382)

Variable	Mean (Pre-test)	Mean (Post-test)	SD	df	Calculated value	t- Critical value	t- α	Remark
Teaching Effectiveness	2.81	3.50	0.68	381	14.62	1.96	0.05	Significant

The result shows that the calculated t-value of 14.62 is greater than the critical value of 1.96 at 0.05 level of significance. Therefore, the null hypothesis is rejected. This indicates that experiential learning has a statistically significant effect on teaching effectiveness among pre-service teachers. The improvement from pre-test mean (2.81) to post-test mean (3.50) confirms that hands-on learning activities such as microteaching and simulations significantly enhanced teaching competence.

Hypothesis Two

H02: There is no significant effect of mentorship on teaching effectiveness among pre-service teachers in Colleges of Education.

Table 4.7: Paired Sample t-Test Analysis Of Mentorship And Teaching Effectiveness (N = 382)

Variable	Mean (Pre-test)	Mean (Post-test)	SD	df	Calculated value	t- Critical value	t- α	Remark
Teaching Effectiveness	2.78	3.51	0.66	381	13.89	1.96	0.05	Significant

The calculated t-value of 13.89 is higher than the critical value of 1.96, leading to the rejection of the null hypothesis. This shows that mentorship significantly improves teaching effectiveness among pre-service teachers. The increase in mean scores from 2.78 to 3.51 indicates that continuous guidance, feedback, and supervision from mentors positively influenced classroom performance and instructional delivery.

Hypothesis Three

H03: There is no significant relationship between mentorship support and teaching effectiveness among pre-service teachers.

Table 4.8: Pearson Product Moment Correlation Analysis Between Mentorship Support And Teaching Effectiveness (N = 382)

Variables	Mean	SD	r- calculated	r- critical	df	α	Remark
Mentorship Support vs Teaching Effectiveness	3.51 3.50	/ 0.62 0.60	/ 0.64	0.098	380	0.05	Significant

The result shows a calculated correlation coefficient ($r = 0.64$) which is greater than the critical value (0.098) at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implies a strong positive relationship between mentorship support and teaching effectiveness. It means that as mentorship support increases, teaching effectiveness among pre-service teachers also improves significantly.

B. Summary of the Findings

Based on the analysis of data collected from pre-service teachers in Colleges of Education, the study revealed that experiential learning had a significant positive effect on teaching effectiveness among participants. Students who were exposed to microteaching, simulations, and classroom-based practice demonstrated higher competence in lesson delivery, classroom management, and instructional planning compared to their pre-intervention scores.

The findings also showed that mentorship significantly enhanced teaching effectiveness. Participants who received consistent guidance from mentor teachers displayed improved instructional confidence, better classroom control, and stronger professional judgment during Teaching Practice. Furthermore, the combined effect of experiential learning and mentorship was found to be more powerful than either intervention alone, indicating a synergistic impact on teaching effectiveness. Teaching effectiveness improved significantly across multiple dimensions, with instructional delivery and classroom engagement recording the highest gains.

In addition, experiential learning activities were most effective in improving lesson planning, use of instructional materials, and learner engagement strategies. Finally, a positive and significant relationship was established between mentorship support and teaching effectiveness, suggesting that stronger mentorship leads to higher instructional competence among pre-service teachers.

IV. Discussion of the Findings

The study established that experiential learning significantly improves teaching effectiveness among pre-service teachers. This finding aligns with Kolb's Experiential Learning Theory, which emphasizes learning through concrete experience, reflection, and active experimentation. Similarly, Dewey's philosophy of "learning by doing" supports the idea that meaningful teacher competence is developed through direct classroom engagement rather than theoretical exposure alone (Kolb & Kolb, 2020; Dewey, 2018). Practically, the implication is that Colleges of Education must move beyond lecture-based pedagogy and strengthen microteaching, simulations, and teaching practice immersion to improve graduate teacher quality.

The study also revealed that mentorship significantly enhances teaching effectiveness. This supports Bandura's Social Learning Theory, which emphasizes learning through observation, modelling, and reinforcement. When mentor teachers demonstrate effective instructional strategies, pre-service teachers are more likely to imitate and internalize such behaviours (Bandura, 2021; Schunk & DiBenedetto, 2020). This implies that structured mentorship programmes should be institutionalized in teacher education institutions to ensure continuous professional modelling and guided practice.

The findings further revealed that the integration of experiential learning and mentorship produces a stronger effect on teaching effectiveness than either variable alone. This supports Vygotsky's Social Constructivist Theory, particularly the Zone of Proximal Development, where learners achieve higher performance through guided assistance from more knowledgeable others (Vygotsky, 2018; Lave & Wenger, 2019). The implication is that teacher training should be designed as a blended system where practice-based learning and mentorship operate simultaneously rather than independently.

The study found that experiential learning had the strongest impact on lesson planning, instructional delivery, and learner engagement. This aligns with Schön's Reflective Practitioner Theory, which emphasizes continuous reflection-in-action and reflection-on-action as key drivers of professional growth (Schön, 2020; Jay & Johnson, 2020). This suggests that reflective practice should be intentionally embedded into teacher education curricula to enhance continuous improvement of teaching skills.

The study confirmed a significant positive relationship between mentorship support and teaching effectiveness. This is consistent with Ingersoll and Strong (2020), who argue that structured mentoring improves teacher confidence, retention, and instructional competence. It also supports OECD (2021), which highlights mentorship as a key driver of teacher professionalism globally. The implication is that sustained mentorship should not end at Teaching Practice but extend into early professional teaching years.

V. Conclusion

The study concluded that experiential learning and mentorship significantly enhance teaching effectiveness among pre-service teachers in Colleges of Education. The findings demonstrated that when students are actively engaged in practical teaching experiences and consistently guided by experienced mentors, their pedagogical competence, instructional delivery, and classroom management skills improve remarkably. It was also evident that the combined use of experiential learning and mentorship produces a stronger developmental impact than when either is applied in isolation. Overall, the study affirmed that bridging the gap between theory and practice is essential for producing confident, competent, and professionally grounded teachers who are adequately prepared for real classroom challenges.

VI. Recommendations

1. Colleges of Education should strengthen experiential learning components such as microteaching, simulations, and structured teaching practice to ensure early exposure to real classroom situations.
2. A structured and formal mentorship framework should be institutionalized, where experienced lecturers and practicing teachers are assigned to guide pre-service teachers throughout their training period.
3. Teacher education curricula should intentionally integrate experiential learning and mentorship as core, not supplementary, components of training programmes.
4. Regular reflective practice sessions should be introduced to enable students critically evaluate their teaching experiences and improve continuously.
5. Educational institutions should provide supportive environments and resources, including instructional materials and digital tools, to enhance practice-based learning.
6. Policy makers and regulatory bodies should mandate continuous professional support systems for pre-service teachers even beyond Teaching Practice exercises.

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