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An Investigation into NCE Student's Subject Matter Knowledge and its Influence on Perceived Teaching Practice Performance Among Final Year Students of Jigawa State College of Education Gumel

By

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Abstract

The study "An Investigation of NCE student's subject matter knowledge and its influence on perceived teaching practice performance among final year students of Jigawa State College of Education Gumel," is part of the 2026 Institutional based research of Jigawa State College of Education Gumel, under Tetfund 2026 intervention year. The study was motivated by concerns that some student-teachers demonstrate inadequate confidence and effectiveness during teaching practice due to insufficient mastery of their teaching subjects. The research examined the structure of teaching practice, the role of supervision, challenges encountered by student-teachers, and the relationship between supervision and teaching performance. A mixed-method research design was adopted, involving a population of 1,605 final-year students, from which 306 respondents were selected through stratified sampling. Data were collected using a questionnaire and analyzed using descriptive statistics and SPSS. The findings revealed that the teaching practice programme was generally well organized and effective. Supervision was found to have a positive impact on student-teachers' performance by improving lesson delivery, confidence, and professional competence. The study also identified major challenges faced during teaching practice, including financial constraints, inadequate teaching materials, and large class sizes. Furthermore, a significant relationship was found between supervision and teaching practice performance. The study concluded that strong subject matter knowledge and effective supervision are essential for improving student-teachers' performance during teaching practice. It therefore recommended that enhanced supervisory support, adequate instructional resources, and measures to address challenges affecting student-teachers in the field.

Keywords: Subject Matter Knowledge; Teaching Practice Performance; Pre-service Teachers; Nigeria Certificate in Education (NCE); Teacher Education; Teaching Competence; Jigawa State College of Education Gumel; Final Year Students

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Introduction

Teaching Practice is an integral component of teacher education programmes designed to provide student-teachers with the opportunity to apply theoretical knowledge in real classroom situations. It serves as a bridge between theory and practice by exposing prospective teachers to the realities of the teaching profession. Through teaching practice, student-teachers acquire professional experience, improve their instructional competencies, and develop confidence in classroom teaching.

Teaching practice also provides teacher educators, supervisors, and educational managers with an opportunity to assess the effectiveness of teacher education programmes and determine the professional readiness of student-teachers. It is therefore regarded as one of the most important stages in teacher preparation.

Statement of the problem

Teaching practice (TP) is commonly featured of any teacher education program that ends up providing graduates with research cognized certificate. It's practical use of teaching methods and strategies that the students-teachers learned in the college. During teaching practice student teachers is allowed to try art of teaching before getting into the real world of teaching profession (Ebrahim et'al, 2017). Teaching practice goes beyond just knowing what and how to teach, however the purpose of teaching is to develop several competencies in the trainee teachers which include interpersonal, pedagogical, intercultural and psychological competencies

Despite extensive coursework in pedagogy, many student-teachers demonstrate weak classroom performance during teaching practice. Problems include poor lesson planning, ineffective delivery, classroom management issues, and low learner outcomes.

Research objectives

- To assess student-teachers perceptions of the teaching practice structure
- To examine the impact of supervision on teaching practice performance
- To identify challenges that affect successful teaching practice
- To determine the relationshipbetween supervision quality and student-teachers' performance

Research Questions

- What is student-teacher's perceptions of the teaching practice structure?
- What is the impact of supervision on teaching practice performance?
- What challenges do student-teachers during teaching practice?
- What is the relationship between supervision quality and student-teachers performance?

Research Hypothesis

There is no significant relationship between supervision and student-teachers performance

Research design

The study was employed mixed method. The targeted population was one thousand six hundred and one (1,605) final year students of jigawa state college of education Gumel. Three hundred and six (306) students were selected using stratified sampling technique to serve as the sample. The qualitativedata will be collected using questionnaire. The research

questions were answered and analyzed using simple percentage and frequency distributions. The research hypothesis was tested and the result was analyzed using statistical software package for social science SSPS

Philosophy of Teaching Practice

The philosophy of teaching practice is based on the belief that effective teacher education must combine theoretical knowledge with practical classroom experience. It aims to produce competent, skilled, and professionally qualified teachers capable of managing classroom activities and facilitating meaningful learning experiences. Teaching practice enables student-teachers to translate educational theories, principles, and teaching methods into actual classroom practice under professional supervision.

Objectives of Teaching Practice

The objectives of teaching practice include the following:

- To expose student-teachers to real-life classroom experiences under the supervision of professional teachers.
- To provide opportunities for student-teachers to translate educational theories into classroom practice.
- To help student-teachers identify their strengths and weaknesses in teaching and improve professionally.
- To familiarize student-teachers with the school environment as their future workplace.
- To assist student-teachers in acquiring professional skills, competencies, and teaching experience.
- To develop positive attitudes toward the teaching profession.
- To assess the professional competence and readiness of student-teachers for full-time teaching.

Preparation of Staff and Students for Teaching Practice

Effective teaching practice requires adequate preparation of both supervisors and student-teachers. Orientation and induction workshops are usually organized before the commencement of the exercise to familiarize participants with the procedures, expectations, supervision techniques, and assessment methods involved in teaching practice.

Qualified lecturers with professional teaching credentials are expected to supervise student-teachers to ensure proper mentorship, guidance, and evaluation during the exercise.

Structure of Teaching Practice Supervision

Teaching practice supervision plays a significant role in the professional development of student-teachers. Effective supervision involves collaboration among supervisors, cooperating teachers, and student-teachers. This relationship is often referred to as the “teaching practice triad.”

Traditionally, supervisors visited schools mainly to observe lessons and award marks. However, modern supervision emphasizes mentorship, guidance, constructive feedback, and professional support. Supervisors are expected to assist student-teachers in lesson planning, classroom management, instructional delivery, and professional conduct.

The cooperating or host teacher also plays an important role by providing daily guidance, mentorship, and support to the student-teacher throughout the teaching practice period. The collaborative effort of supervisors, host teachers, and student-teachers contributes greatly to the success of teaching practice programmes.

Roles of Supervisors During Teaching Practice

Supervisors perform several important roles during teaching practice. These include:

- Observing and assessing classroom teaching.
- Providing constructive feedback to student-teachers.
- Guiding student-teachers on lesson planning and instructional delivery.
- Assisting student-teachers in improving classroom management skills.
- Encouraging professional growth and confidence.
- Identifying areas of strength and weakness for improvement.
- Serving as mentors and professional role models.
- Effective supervision creates a supportive learning environment that promotes the professional development of student-teachers.

Teaching Practice Performance

Teaching practice performance refers to the level of effectiveness demonstrated by student-teachers during classroom teaching exercises conducted under supervision. It involves the practical application of pedagogical knowledge, subject matter knowledge, and professional teaching skills.

Teaching practice performance is commonly evaluated based on the following competencies:

- Lesson planning and preparation.
- Mastery of subject matter.
- Lesson presentation and instructional delivery.
- Classroom management.
- Communication skills.
- Use of instructional materials.
- Teacher-student interaction.
- Evaluation of learners' progress.
- Professional attitude and ethics.

A student-teacher with good teaching practice performance is expected to demonstrate competence in these areas and show readiness for professional teaching responsibilities.

Subject Matter Knowledge and Teaching Practice Performance

Subject matter knowledge refers to the teacher's understanding and mastery of the concepts, principles, facts, and content of the subject being taught. It is an essential component of effective teaching because teachers with adequate content knowledge can explain lessons

clearly, answer learners' questions confidently, and facilitate meaningful learning experiences.

Literature reviewed indicates that subject matter knowledge has a positive influence on teaching practice performance. According to Lee Shulman (1986), effective teaching requires both mastery of subject content and the ability to present the content appropriately to learners. Student-teachers with strong subject matter knowledge tend to demonstrate better instructional delivery, improved confidence, and effective classroom interaction during teaching practice.

However, teaching practice performance is not determined by subject matter knowledge alone. Other factors such as pedagogical skills, communication ability, classroom management, teaching methods, and supervision also contribute significantly to effective teaching performance.

Problems Faced by Student-Teachers During Teaching Practice

Student-teachers encounter several challenges during teaching practice. Some of the major problems include:

- Financial constrain
- Lack of instructional material and poor school facilities
- Large classroom size and classroom management difficulties
- Transportation problems
- Anxiety and lack of confidence
- Difficulty in lesson planning
- Language and communication barriers
- Poor relationship with school staff

Solutions to Problems Faced During Teaching Practice

Several measures can help address the challenges faced by student-teachers during teaching practice. These include:

- Providing adequate orientation and micro-teaching experiences before teaching practice.
- Ensuring regular supervision and constructive feedback.
- Encouraging mentorship and cooperation between supervisors and host teachers.
- Providing adequate instructional materials and teaching facilities.
- Training student-teachers on classroom management techniques.
- Encouraging improvisation of teaching materials using locally available resources.
- Promoting effective lesson planning and time management skills.

- Building student-teachers' confidence through continuous practice and encouragement.
- These measures will help improve the professional competence and effectiveness of student-teachers.

Answer to the research questions

The researcher answers the research questions as follows:

Research Question One:

What is student-teacher's perceptions of the teaching practice structure?

Table 1: Student-teacher's perceptions of the teaching practice structure

Student-teacher's perceptions of the teaching practice structure	Responses								Mean	Decision
	SA		A		D		SD			
	F	%	F	%	F	%	F	%		
The teaching practice period was adequate	184	60.1	107	35.0	15	4.9	0	0.0	3.5523	Accepted
The objective of teaching practice was clearly explained before the commencement	181	59.2	101	33.0	24	7.8	0	0.0	3.5131	Accepted
The teaching practice program was well organized	142	46.4	142	46.4	22	7.2	0	0.0	3.3922	Accepted
The teaching practice structure prepared me for classroom teaching	128	41.8	162	52.9	13	4.2	3	1.0	3.3562	Accepted
The teaching practice schedule was convenient and realistic	99	32.4	194	63.4	12	3.9	1	0.3	3.2778	Accepted
Adequate orientation was provided before teaching practice	164	53.6	91	29.7	45	14.7	6	2.0	3.3497	Accepted
Teaching practice guidelines were clear and easy to follow	146	47.7	133	43.5	20	6.5	7	2.3	3.3660	Accepted
The schools assigned for teaching practice were suitable learning environments	195	63.7	75	24.5	30	9.8	6	2.0	3.5000	Accepted
Grand mean									**3.4134**	**Accepted**

Decision mean = 2.50

Table 1 shows that student-teachers generally hold favorable perceptions of the teaching practice structure , with all eight items recording mean scores above the 2.50 decision

benchmark and a grand mean of 3.4134. The highest-rated items were "the schools assigned for teaching practice were suitable learning environments" ($\bar{x}$ = 3.5000) and "the teaching practice period was adequate" ($\bar{x}$ = 3.5523), where over 95% of respondents agreed or strongly agreed . The relatively lower -rated item , "the teaching practice schedule was convenient and realistic" ($\bar{x}$ = 3.2778), still recorded majority agreement, though it drew slightly more disagreement (4.2%) than other items. Overall, the results indicate that student-teachers perceive the structure, organization, orientation and scheduling of teaching practice as largely adequate and well organized.

Research Question Two:

What is the impact of supervision on teaching practice performance?

Table 2: Impact of supervision on teaching practice performance

Impact of supervision on teaching practice performance	Responses								Mean	Decision
	SA		A		D		SD			
	F	%	F	%	F	%	F	%		
Supervisors regularly observed my teaching	145	47.4	110	35.9	35	11.4	16	5.2	3.2549	Accepted
Supervisors provided useful feedback after observation	164	53.6	113	36.9	25	8.2	4	1.3	3.4281	Accepted
Supervisors improved my lesson delivery skills	145	47.4	121	39.5	34	11.1	6	2.0	3.3235	Accepted
Supervisors help me improve classroom management	124	40.5	155	50.7	20	6.5	7	2.3	3.2941	Accepted
Supervisors enhance my confidence in teaching	162	52.9	116	37.9	24	7.8	4	1.3	3.4248	Accepted
Feedback from supervisors improved my instructional methods	173	56.5	98	32.0	20	6.5	15	4.9	3.4020	Accepted
Supervisors motivated me to perform better during teaching practice	128	41.8	144	47.1	28	9.2	6	2.0	3.2876	Accepted
Supervision contributed positively to my overall teaching performance	156	51.0	136	44.4	11	3.6	3	1.0	3.4542	Accepted
Grand mean									**3.3586**	**Accepted**

Decision mean = 2.50

Table 2 reveals that supervision was perceived as having a strong positive impact on teaching practice performance, with a grand mean of 3.3586. The item "supervision contributed

positively to my overall teaching performance" recorded the highest mean ($\bar{x}$ = 3.4542, 95.4% agreement), while "supervisors regularly observed my teaching" recorded the lowest mean ($\bar{x}$ = 3.2549), still well above the decision threshold. Notably, this item also attracted the highest combined disagreement (16.6%), suggesting that regularity of supervisory visits was a comparatively weaker aspect of the supervision experience. Taken together, the findings suggest that supervisory feedback, confidence-building and improvement in lesson delivery and classroom management were consistently and positively experienced by student-teachers.

Research Question Three:

What challenges do student-teachers face during teaching practice?

Table 3: Challenges student-teachers faced during teaching practice

Challenges student-teachers faced during teaching practice	Responses								Mean	Decision
	SA		A		D		SD			
	F	%	F	%	F	%	F	%		
I experience inadequate teaching material during teaching practice	98	32.0	96	31.4	96	31.4	16	5.2	2.9020	Accepted
Large class size affect my teaching effectiveness	70	22.9	178	58.2	42	13.7	16	5.2	2.9869	Accepted
Lack of accommodation affected teaching effectiveness	72	23.5	119	38.9	90	29.4	25	8.2	2.7778	Accepted
Transportation problem affected my attendance and performance	47	15.4	83	27.1	137	44.8	39	12.7	2.4510	Rejected
Insufficient supervision was a challenge	98	32.0	82	26.8	87	28.4	39	12.7	2.7810	Accepted
Managing student behavior was difficult	57	18.6	180	58.8	45	14.7	24	7.8	2.8824	Accepted
Limited support from the cooperating teachers affected my performance	71	23.2	133	43.5	70	22.9	32	10.5	2.7941	Accepted
Financial constraints negatively affected my teaching practice experience	95	31.0	157	51.3	34	11.1	20	6.5	3.0686	Accepted
Grand mean									**2.8304**	**Accepted**

Decision mean = 2.50

Table 3 shows that student-teachers experienced a number of notable challenges during teaching practice, with a grand mean of 2.8304, above the 2.50 decision benchmark. "Financial constraints negatively affected my teaching practice experience" was rated the

most pressing challenge ($\bar{x}$ = 3.0686), followed by "large class size affects my teaching effectiveness" ($\bar{x}$ = 2.9869) and "inadequate teaching material" ($\bar{x}$ = 2.9020). The only item that fell below the decision mean was "transportation problem affected my attendance and performance" ($\bar{x}$ = 2.4510, 57.5% disagreement), indicating that transportation was comparatively less problematic for most respondents than the other listed challenges. Overall, financial hardship, large class sizes, inadequate materials and insufficient supervision emerge as the more prominent obstacles student-teachers contend with during teaching practice.

Research Question Four:

What is the relationship between supervision quality and student-teachers' performance?

Table 4: Relationship between supervision quality and student-teachers' performance

Relationship between supervision quality and student-teachers' performance	Responses								Mean	Decision
	SA		A		D		SD			
	F	%	F	%	F	%	F	%		
My supervisor was punctual during supervision visits	168	54.9	104	34.0	24	7.8	10	3.3	3.4052	Accepted
My supervisor demonstrated professional competence	148	48.4	152	49.7	5	1.6	1	0.3	3.4608	Accepted
My supervisor assessed my teaching fairly and objectively	185	60.5	85	27.8	22	7.2	14	4.6	3.4412	Accepted
My supervisor maintains positive and supportive attitude	124	40.5	162	52.9	18	5.9	2	0.7	3.3333	Accepted
My supervisor provided constructive suggestions for improvement	144	47.1	138	45.1	20	6.5	4	1.3	3.3791	Accepted
The quality supervision influenced my teaching effectiveness	153	50.0	124	40.5	22	7.2	7	2.3	3.3824	Accepted
Frequent supervision improves my teaching skills	136	44.4	156	51.0	14	4.6	0	0.0	3.3987	Accepted
High-quality supervision led to better teaching practice performance	190	62.1	99	32.4	12	3.9	5	1.6	3.5490	Accepted
Grand mean									**3.4187**	**Accepted**

Decision mean = 2.50

Table 4 indicates that student-teachers rated supervision quality very positively, with a grand mean of 3.4187. "High-quality supervision led to better teaching practice performance" recorded the highest mean ($\bar{x}$ = 3.5490, 94.5% agreement), and "my supervisor demonstrated professional competence" was similarly high ($\bar{x}$ = 3.4608, with only 1.9% disagreement, the

lowest disagreement recorded across the table). The comparatively lower -rated item , "my supervisor maintains positive and supportive attitude" ($\bar{x}$ = 3.3333), still reflects strong agreement. These results suggest a consistent pattern in which punctuality, professional competence, fairness, constructive feedback and frequency of supervision were all perceived by student-teachers as closely tied to improved teaching practice performance.

Research Hypothesis

There is no significant relationship between supervision and student-teachers' performance.

Table 5: Relationship between supervision and student-teachers' performance

Pearson Correlation	N	R	p-value	Decision
Supervision	306	.817	0.000	Significant
Student-teachers' performance	306			

Table 5 presents the result of Pearson Product Moment Correlation between Supervision and Student-teachers' performance. The result showed that a positive correlation was found between Supervision and student-teachers' performance (r = .817, p =0.00), indicating that supervision influences and student-teachers' performance. Therefore, hypothesis which states that there is no significant relationship between supervision and student-teachers' performance is rejected and alternative hypothesis accepted. It is therefore concluded that there is significant relationship between supervision and student-teachers' performance.

Major Findings

1. That the student-teachers perceived the teaching practice structure as generally well organized and adequate (grand mean = 3.41). Orientation, scheduling and school placement were all rated favourably, with over 95% agreement on core structural items.
2. That supervision was found to have a strong, consistently positive impact on teaching practice performance (grand mean = 3.36). Feedback, confidence-building and improved lesson delivery were the most strongly endorsed benefits, though regularity of supervisory visits was comparatively weaker.
3. That the student-teachers faced notable challenges during teaching practice (grand mean = 2.83), most prominently financial constraints, large class sizes and inadequate teaching materials. Transportation was the only challenge rated below the decision threshold, suggesting it was less widespread.
4. Supervision quality was strongly linked to perceived performance gains (grand mean = 3.42), with supervisors' professional competence and the resulting improvement in teaching practice performance rated most highly.
5. That there is significant relationship between supervision and student-teachers' performance.

Conclusion

Teaching practice remains a vital component of teacher education because it provides student-teachers with practical opportunities to apply theoretical knowledge in real classroom situations. It contributes significantly to the development of professional teaching skills, classroom competence, and confidence among prospective teachers.

The paper also established that subject matter knowledge positively influences teaching practice performance. Student-teachers with adequate mastery of subject content tend to perform better in lesson delivery, classroom interaction, and instructional effectiveness. However, effective teaching practice performance also depends on other factors such as pedagogical skills, supervision, communication ability, and classroom management.

Therefore, teacher education institutions should strengthen teaching practice supervision, improve professional mentoring, and ensure adequate preparation of student-teachers in order to produce competent and effective teachers.

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