



Student-teachers' performances in microteaching theory and practicum in Federal College of Education (Technical), Umuze, Anambra State, Nigeria

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KEY WORDS

Microteaching, Theory, Practicum, Gender differences

ABSTRACT

This study compared the performances of student-teachers in the two microteaching components: theory and practicum in Federal Colleges of Education (Technical), Umuze, Anambra State, Nigeria. Four research questions were answered in the study. The study adopted a survey design of the ex post facto type, and a total of 121 student-teachers formed the sample. Data were collected using a structured performance assessment checklist and institutional records of theory and practicum scores. Descriptive statistics such as mean and standard deviation were used to determine the levels of performance, while t-test and Pearson correlation analyses were employed to test differences and relationships between variables. Findings revealed that student-teachers demonstrated a moderate level of performance in microteaching theory but performed better in microteaching practicum. While a significant difference existed between performance in theory and practicum, with higher mean scores in the practicum component, there was no significant relationship between theory and practicum performance, suggesting a weak linkage between conceptual understanding and practical application. Additionally, the study found no significant gender differences in both theory and practicum performances. It was concluded that student-teachers tend to exhibit stronger competence in practical teaching tasks than in theoretical understanding. The study recommended stronger integration between microteaching theory and practicum, enhanced mentoring and feedback systems, among others, in teacher education programmes.

1. Introduction

Microteaching, a carefully scaled, low-risk teaching episode used to train and assess pre-service teachers remains a central technique in contemporary teacher education. This is because it allows student-teachers to practise discrete instructional skills and receive structured feedback before entering full classroom contexts. Recent syntheses and empirical studies continue to report positive effects of microteaching on discrete teaching skills and preparatory confidence, while also noting variation in how microteaching is implemented across institutions (Abubakar & Hassan, 2018; Liliia, Inna, Juanjo & Odiel, 2025). Despite clear benefits, a persistent theory–practice gap is reported in initial teacher education: student-teachers often demonstrate sound declarative knowledge of pedagogical principles in coursework or microteaching theory tasks, but they struggle to integrate and enact multiple competencies simultaneously in authentic practicum settings (Adeyemi, 2021). Recent work frames this gap as not merely a curricular mismatch but also an ecological and institutional issue requiring attention to placement quality, mentoring, and opportunities for repeated, scaffolded practice (Jenssen & Haara, 2024).

Interest in this area has continued to grow among education researchers in the recent time. Johnson and Kefas (2024) determined the effectiveness of microteaching practicum to teaching practice exercise in Colleges of Education in Plateau State, Nigeria using ex-post facto research

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design and revealed that the experiences of microteaching and its effectiveness improved the performance of the pre-service teachers at the teaching practice exercise and the actual teaching profession. Gambariet *al* (2024) investigated the impact of micro-teaching skills on college of education student-teachers' performance in teaching Biology during teaching practice in Kwara State, Nigeria. The study revealed that microteaching has an impact on the performance of Biology student-teachers in teaching practice exercise. The study also revealed that there is impact of microteaching on teaching practice scores of Biology students irrespective of gender (male and female) in colleges of education in Kwara State. Fakokunde *et al.*(2024) compared student- teachers' scores in micro-teaching and teaching practice for three sessions ranging from 2019/2020 to 2021/2022 academic sessions for micro-teaching and 2020/2021 to 2022/2023 academic sessions for teaching practice. The results showed that students performed well in both micro-teaching and teaching practice with micro-teaching scores on the higher side. It also revealed a positive relationship between student-teachers' performance in micro-teaching and teaching practice across the sessions.

Gender influence on performances has also been reported. Okeke (2021) determined gender differences in microteaching achievement of Nigerian education students and found no significant difference. Ogunyemi (2021), Usman and Sadiq (2022) and Achor, and Nwachukwu, (2018) also recorded similar findings. None of the studies however, compared student-teachers' performances in the theoretical and practical components of microteaching, nor the likely moderating influence of gender on the performances. Given this evidence, a comparative study that measures student-teachers' performances in microteaching theory and practicum is timely and policy-relevant. This study therefore investigated the performances of student-teachers in microteaching theory and practicum.

Statement of the Problem

In teacher education, microteaching serves as a vital component of teacher preparation, designed to help student-teachers acquire essential teaching skills in a controlled environment before proceeding to real classroom practice. However, many education stakeholders have continued to express concern about the disparity between student-teachers' mastery of microteaching theory and their actual performance during practicum. Evidence from observation and reports from teacher educators in Nigeria suggest that while some student-teachers demonstrate a sound grasp of theoretical principles, they often struggle to apply these principles effectively during practicum. Conversely, others perform relatively better in practical teaching but lack adequate theoretical understanding of instructional concepts, lesson planning, and evaluation procedures.

This imbalance raises questions about the effectiveness of teacher preparation programmes in integrating theory and practice for holistic professional competence. Moreover, gender has been identified as a potential factor influencing academic performance, with conflicting results from previous studies. Some research reports indicate that female student-teachers outperform their male counterparts in education-related courses (Eze, 2021), while others reveal no significant difference (Ogunyemi & Adediran, 2022). Such inconsistencies necessitate further empirical verification within the context of microteaching, where both cognitive and psychomotor skills are essential.

Therefore, this study empirically determined whether a significant relationship exists between student-teachers' performance in microteaching theory and practicum, and whether gender differences play any role in such performance outcomes.

Research Purposes

The main purpose of this study is to determine the difference as well as relationship between the microteaching theory and practicum achievements of student-teachers in Federal College of Education (Technical), Umunze, Anambra State, Nigeria. Specifically, the study sought to:

1. Compare the performance of student-teachers in microteaching theory and microteaching practicum.
2. Examine the relationship between performance in microteaching theory and practicum.
3. Determine whether there is a significant difference in performance based on gender in both microteaching theory and practicum.
4. Determine whether there is a significant relationship in students-teachers' microteaching theory and practicum performances based on gender.

Research Questions

The following research questions guided the study:

1. Is there a significant difference between student-teachers' achievement in microteaching theory and practicum?
2. Is there a significant relationship between student-teachers' achievements in microteaching theory and performance in practicum?
3. Do male and female student-teachers differ significantly in their achievement in microteaching theory?
4. Do male and female student-teachers differ significantly in their achievement in microteaching practicum?

Method

The study adopted a survey design of the ex post facto type. According to Nworgu (2015), a descriptive survey is suitable when the goal is to describe characteristics of a population or phenomenon systematically and factually, while the ex post facto element applied because data for the study already existed in time. Hence, the design enabled the researcher to compare performance outcomes without manipulating variables. The study was conducted in Federal Colleges of Education (Technical), Umunze, Anambra State, Nigeria. This institution was chosen because it offers microteaching as compulsory course under the code: EDU 225. The population of the study consisted of 121 year three student-teachers enrolled in the Continuing Education Programme of the College during the 2024/2025 academic session. Total enumeration was employed considering the manageable size of the population (Cohen, Manion, & Morrison, 2018). Two main instruments were used for data collection (Microteaching Theory Score Record (MTSR) and Microteaching Practicum Assessment Form (MPAF). Performance was rated to the maximum of 50% in each instrument. Data were collected in two phases: Document review which involved students' official scores in microteaching theory collected from departmental examination records and practicum scores obtained from practicum supervisors using the Microteaching Practicum Assessment Form (MPAF).

Data were analysed using both descriptive and inferential statistical techniques, with the aid of the Statistical Package for the Social Sciences (SPSS, version 25.0). Mean and frequency were used to describe the performance levels of student-teachers in microteaching theory and practicum. Paired sample t-test determined significant differences between microteaching theory and practicum scores. Independent sample t-test tested for gender differences in theory and practicum performances. Pearson's correlation coefficient (r) determined the relationship between performances in theory and practicum. All hypotheses were tested at a 0.05 level of significance. Participants' performance information was kept confidential, and all data used for analysis were coded to protect identities.

Research Question One: Is there a significant difference between student-teachers' achievement in microteaching theory and practicum?

Table 1: Significant difference between student-teachers' performances in microteaching theory and practicum

Test Value = 0					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Practicum Scores	59.749	120	.000	35.61983	34.4395	36.8002
Theory Scores	43.289	120	.000	30.73554	29.3298	32.1413

Table 1 presents the results comparing student-teachers' mean performance scores in microteaching theory and practicum. The findings reveal that both the theory ($t = 43.289$, $p < .001$) and practicum ($t = 59.749$, $p < .001$) scores are statistically significant at the 0.05 level. This indicates that the mean scores for both variables are significantly different from zero, reflecting that the student-teachers achieved substantial performance levels in both areas. However, comparing the mean scores shows that student-teachers performed significantly better in the microteaching practicum (Mean = 35.62) than in the theory component (Mean = 30.74).

Research Question Two: Is there a significant relationship between performance in microteaching theory and performance in practicum?

Table 2: Significant relationship between performances in microteaching theory and performance in practicum?

Correlations			
		Practicum Scores	Theory Scores
Practicum Scores	Pearson Correlation	1	-.023
	Sig. (2-tailed)		.800
	N	121	121
Theory Scores	Pearson Correlation	-.023	1
	Sig. (2-tailed)	.800	
	N	121	121

Table 2 shows the Pearson correlation analysis between student-teachers' performances in microteaching theory and practicum. The result reveals a very weak negative correlation ($r = -0.023$, $p = 0.800$) between the two variables. The p-value (.800) is greater than 0.05, indicating that the relationship is not statistically significant. This means that student-teachers' performance in microteaching theory does not significantly predict or relate to their performance in microteaching practicum.

Research Question Three: Do male and female student-teachers differ significantly in their performance in microteaching theory?

Table 3: Significant difference in male and female student-teachers' performances in microteaching theory

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower Upper
Theory Scores	Equal variances assumed	.004	.951	-.225	118	.822	-.48571	2.15617	-4.75551 3.78408
	Equal variances not assumed			-.225	18.204	.825	-.48571	2.16194	-5.02413 4.05270

Table 3 presents the result conducted to determine whether there is a significant difference between male and female student-teachers' performance in microteaching theory. The t-test

value ($t = -0.225$, $df = 118$, $p = 0.822$) indicates that there is no statistically significant difference between male and female student-teachers' mean scores in microteaching theory, since the p-value is greater than 0.05.

Research Question Four: Do male and female student-teacher differ significantly in their performance in microteaching practicum?

Table 4: Significant difference in male and female student-teachers performance in microteaching practicum

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Practicum Scores	Equal variances assumed	.229	.633	.597	118	.552	1.08571	1.81922	-2.51684	4.68827
	Equal variances not assumed			.618	18.675	.544	1.08571	1.75600	-2.59396	4.76539

Table 4 presents the result of an independent samples t-test conducted to determine whether there is a significant difference between male and female student-teachers' performance in microteaching practicum. The t-test result ($t = 0.597$, $df = 118$, $p = 0.552$) shows that there is no statistically significant difference between male and female student-teachers' mean scores in microteaching practicum, since the p-value is greater than 0.05.

Discussion of Findings

1. Difference between Performance in Microteaching Theory and Practicum (Table 1)

Table 1 revealed a significant difference between student-teachers' performance in microteaching theory and practicum, with higher mean scores recorded in practicum. This suggests that student-teachers demonstrated better teaching performance in practical situations than theoretical understanding. This finding corroborates the study of Abubakar and Hassan (2018), who found a significant gap between theoretical mastery and classroom practice among pre-service teachers in Northern Nigeria. Similarly, Okwilagwe and Ayeni (2019) reported that students often perform better in microteaching practicum because practical sessions provide clearer contextualization of concepts. However, the finding contrasts with Adeyemi (2021), who found no significant difference between theory and practicum performance in a similar study in Southwest Nigeria, attributing the outcome to effective integration of theory and practice through continuous microteaching supervision. Overall, the present finding implies that while microteaching practicum enhances applied teaching competence, the theoretical component may require pedagogical reform to strengthen conceptual grounding and integration.

2. Relationship between Performance in Microteaching Theory and Practicum (Table 2)

The correlation analysis in Table 2 indicated a very weak and non-significant negative relationship ($r = -0.023$, $p = 0.800$) between theory and practicum scores. This suggests that student-teachers' performance in theory did not significantly relate to their performance in practicum. This finding is consistent with Okoli (2019) and Ofojebe and Nwosu (2022), who both reported weak relationships between theoretical understanding and practical teaching performance among education students in Anambra State. They attributed this disconnection to inadequate linkage between classroom instruction and field-based practice, as well as limited opportunities for reflective integration. In contrast, Adebayo and Omotayo (2020) found a

moderate positive relationship between theory and practicum performance, arguing that effective mentoring and consistent feedback can bridge the gap. The current result, therefore, reinforces the need for stronger pedagogical alignment between the theoretical and practical dimensions of microteaching in teacher education programmes.

3. Gender Difference in Student-Teachers' Performance in Microteaching Theory (Table 3)

Table 3 revealed that there was no significant difference ($p = 0.822$) between male and female student-teachers in microteaching theory performance. This suggests that both genders performed comparably in their theoretical understanding of microteaching concepts. This result agrees with Achor and Nwachukwu (2018) and Eze and Ibe (2020), who found no significant gender differences in theoretical learning outcomes among education students in Nigerian tertiary institutions. The finding supports the view that gender does not influence cognitive achievement in teacher education courses when both male and female students have equal access to learning resources and instructional support. However, Okeke (2021) found slight gender variations in theoretical performance, favouring females, and linked this to differences in study habits and diligence. Nevertheless, the current result confirms that gender equity is largely achieved in theoretical aspects of teacher training.

4. Gender Difference in Student-Teachers' Performance in Microteaching Practicum (Table 4)

Findings from Table 4 showed that there was no significant difference ($p = 0.552$) between male and female student-teachers' performance in microteaching practicum. This indicates that both genders displayed similar levels of competence during practical teaching sessions. This finding is consistent with Okoli and Iloh (2020) and Usman and Sadiq (2022), who found no gender-based difference in teaching practicum performance, attributing it to the uniform assessment criteria and shared teaching experiences during practice. Similarly, Ogunyemi (2021) reported that both male and female pre-service teachers performed equally well in teaching practice exercises due to standardized supervision and evaluation processes. This suggests that gender does not significantly influence practical teaching ability, highlighting that both male and female student-teachers possess comparable classroom management and instructional skills.

Conclusion

The study examined and compared the performances of student-teachers in microteaching theory and practicum, considering gender differences among participants. Contrary to a priori expectation, the findings revealed that students performed better in microteaching practicum than in theory. The lack of a significant relationship between performance in microteaching theory and practicum suggests a weak linkage between conceptual understanding and practical application in teacher education programmes. This gap may stem from insufficient integration of theoretical instruction with practical experiences or inadequate reflective and mentoring mechanisms. Furthermore, the study found no significant gender differences in both microteaching theory and practicum performance. This implies that both male and female student-teachers possess comparable abilities and opportunities to succeed in teacher education when exposed to similar instructional conditions.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Colleges and universities of education should design curricula that effectively link theoretical concepts with microteaching and practicum experiences.
2. Student-teachers should be encouraged to engage in reflective teaching journals and peer review after each microteaching session to bridge the gap between what is taught and what is practiced.

3. Supervisors and mentors should provide consistent, constructive feedback during practicum exercises to help student-teachers improve their pedagogical skills and confidence.
4. Institutions should invest in well-equipped microteaching laboratories with functional video recording systems, simulation tools, and teaching aids to make the practicum more interactive and realistic.
5. Teacher educators should participate in regular workshops and seminars on innovative teaching methods and assessment strategies to ensure effective delivery of both theoretical and practical aspects of microteaching.
6. Since gender was not found to influence performance, teacher education programmes should continue to promote equal learning opportunities and eliminate any implicit bias in instructional practices or evaluation.
7. Closer partnerships between teacher education institutions and basic/secondary schools will provide more authentic contexts for practicum experiences and foster the professional growth of pre-service teachers.

Contribution of the Study to Knowledge

This study makes several significant contributions to the existing body of knowledge in teacher education and instructional development, particularly within the Nigerian context and comparable developing educational systems.

1. The study provides empirical evidence that, although student-teachers perform better in practicum than in theory, there is a weak correlation between the two. This finding highlights a persistent disconnection between theoretical understanding and practical application, thereby advancing scholarly discussions on the need for curriculum integration in teacher education programmes.
2. By establishing that no significant gender differences exist in both theory and practicum performance, the study contributes to the global discourse on gender equality in teacher education. It reinforces the notion that teaching competence is not gender-dependent when equal learning opportunities are provided.
3. The study contributes context-specific data from Federal College of Education, Umunze, adding to the limited empirical literature on microteaching performance in sub-Saharan Africa. It offers localized evidence that can guide policymakers, curriculum planners, and teacher educators in reforming microteaching practices to better suit the realities of Nigerian classrooms.
4. Through the use of comparative analysis combining descriptive statistics, correlation, and t-tests, the study offers a replicable research framework that future researchers can adopt when assessing performance across theoretical and practical components of professional courses.

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