Micro-Teaching as a Bridge Between Theory and Practice in Teacher Education: Student Interns' Perspectives

Chra Idris Hadi Salih [1], and Sami Hussein Hakeem Barzani [1]

[1] English Language Teaching Department, Faculty of Education, Tishk International University, Erbil, Iraq.
Correspondence: Sami Hussein Hakeem Barzani, English Language Teaching Department, Faculty of Education, Tishk International University, Erbil, Iraq.
Email: sami.hussein@tiu.edu.iq

Doi: https://doi.org/10.23918/ijsses.v12i4p3

Abstract: Teaching is a complex profession that requires more than solid theoretical knowledge. This knowledge is vital when it is transferred into practice. The present investigation tackles the role of micro-teaching in transferring theoretical knowledge into practice in authentic settings. To do so, a quantitative research design was used in which data were collected using a 28-item questionnaire. Using a purposive sampling method, 63 fourth-year student interns (43 female, 20 male) in the Faculty of Education in a private university comprised the study participants. The questionnaire addressed four themes: Bridging Theory and Practice, Instructional and Classroom Management Skills, Reflective Teaching and Professional Growth, and Technology-Enhanced Teaching. The collected data were analyzed statistically using SPSS. Interestingly, the findings revealed positive responses across all four domains. These positive responses directed towards the effectiveness of micro-teaching included turning theoretical knowledge into practice, improving their classroom management and instructional skills, encourage reflective practices, as well as the use of technology in teaching. Moreover, no notable difference in students' responses was found regarding gender-based perceptions. The findings highlight the significance and effectiveness of micro-teaching in teacher preparation programs; thus, the study, based on the finding, suggests the integration of micro-teaching in the curricula of teacher education programs.

Keywords: Micro-Teaching, Teacher Education, Student Interns, Theory and Practice

1. Introduction

Teaching practice is an important aspect that equips future teachers with the challenges of learning in the classroom. The gap between theoretical knowledge, learned in pre-service training, and its implementation in real teaching situations is one of the most enduring problems in this area (Allen & Ryan, 1968; Kpanja, 2001). Despite the importance of theoretical knowledge, the professional preparation of teachers cannot be guaranteed. In other words, without practical engagement prospective teachers, to a good extent, will not be able to address the needs of diverse and dynamic classrooms (Amobi, 2005; Zeichner, 2010). The urge to deal with this challenge has given rise to the implementation of different approaches, and micro-teaching can be considered as one of the most familiar and efficient pedagogical methods of connecting theory and practice. Micro-teaching, as a class exercise, was invented by Professor Dwight Allen and his students at Stanford University in the early 1960s.

Received: 03.09.2025
Accepted: 13.12.2025
Barzani, S., & Salih, C. I. H. (2025). Micro-Teaching as a Bridge Between Theory and Practice in Teacher Education: Student Interns' Perspectives. *International Journal of Social Sciences & Educational Studies*, 12(4), 44-59.

This exercise is designed in a way that gives the students the chance of practicing the accumulated theoretical knowledge (Allen & Ryan, 1968). Through this model the participants can present brief and concentrated lessons, get instant responses from colleagues and supervisors and practice through reflection to improve future performance. By doing so, micro-teaching creates a kind of safe environment of learning, shielded by the high stakes of the real classrooms setting, where trial and error of teaching methods, the subject delivery and classroom control methodologies are actively encouraged (Mergler and Tangen, 2010).

This class activity, in contrast to full-scale teaching, makes the content and the contextual framework less complicated. The instructional material is also narrowed down and limited to focus on a single or two instructional abilities, and the environment is minimized to a small group of peers as opposed to a full classroom of students (Benton-Kupper, 2001). This will equip prospective teachers with lesson planning, instructional delivery, questioning techniques, classroom management, and assessment. Additionally, as suggested by Remesh (2013), through such intensive training, student-teachers are likely to internalize pedagogical competencies more efficiently and gain confidence before they start in their real teaching placements.

Micro-teaching should not be considered as an effective strategy only for training. Its effectiveness also pertains to reflective practice (Fernandez, 2010; Mannathoko, 2013). By providing organized feedback, self-reflection, and peer review, the process of reflection enables future teachers to critically review their instructional choices, harmonize their pedagogical behaviors with existing theory, and develop a professional perception of themselves. Therefore, micro-teaching is used as a formative assessment tool and a professional development tool. It helps student-teachers to become reflective practitioners and not just theory learners. Although the advantages of micro-teaching are well-known, its effectiveness is not ensured. Its success is based on thorough implementation, the development of realistic simulation, the delivery of positive feedback, and the integration with the overall goals of the program (Mannathoko, 2013; Amobi, 2005). Student-teachers' views and perceptions also matter in regard to its effectiveness. Ultimately, to be effective as a medium of transferring theory and practice, micro-teaching should be incorporated into a strictly designed teacher-education program that focuses on both learning skills and the appreciation of reflection.

Considering these factors, the current paper aims at examining the attitude of student interns towards micro-teaching in the context of professional preparation. Investigating the experiences and perceptions of these pre-service teachers concerning micro-teaching, the study intends to add to the existing literature on the best practices of teacher training and help to find the ways in which the concept of micro-teaching can be improved to address the needs of the 21st century classroom.

2. Research Questions

1. What are the views and perceptions of Kurdish EFL student interns regarding the role of micro-teaching as a tool for teacher preparation?
2. To what extent does micro-teaching prepare them for real classroom teaching, particularly in enhancing their skills in theory–practice integration, classroom management, professional growth, and technology use?

3. Are there any significant differences regarding the perceptions of male and female Kurdish EFL student interns towards micro-teaching?

3. Literature Review

3.1 Practice-Based Teacher Preparation

The concept of practice-based teacher preparation could be simply understood as experiential learning to enable students, through certain activities, to turn theoretical knowledge into practical one in authentic settings. Thus, this model of teacher preparation very much differs from the traditional models that focus attention on theory. Practice-based approaches rather focus on real-world teaching experiences. The advocates of the model suggest that through such activities student-teachers could develop essential pedagogical skills that are required for authentic educational settings (Grossman, 2018). This approach is anchored in several foundational educational theories. The current methodology is based on several education theories. The sociocultural learning theory of Vygotsky (1978) emphasizes that knowledge is a process built on social interactions in meaningful contexts and in doing so, the theory underlines that learning is a process that is mediated by social interactions and not by individual thought. Similarly, the situated learning theory (1991) of Lave and Wenger holds that the best learning happens through the active engagement of students in real world situations and that learning through immersion into classroom situations is a more effective process in helping students develop teaching competencies than studying theory passively.

Additionally, as suggested by Darling-Hammond (2021), practice-based training must include peer teaching activities, supervised microteaching sessions and professional internships. Through such practices student teachers would have the opportunity to apply theoretical concepts into practice, experiment numerous teaching methods, as well as receive constructive criticism because it is a repeated cycle of preparation, instruction, evaluation, and improvement. Correspondingly, the definition of reflective practice suggested by Schön (1983) is a key component of this approach. In addition to promoting professional development and adaptive competence by encouraging teachers to regularly reflect on their classroom experiences, it also enables student teachers to evaluate their instructional efficiency and cautiously put theory into practice (Zeichner, 2012).

Moreover, the significance of “embodied participation” and “habitual practice” in teacher preparation programs have been stressed by Grossman et al. (2009). The model states that if a continues engagement in practical teaching activities is observed by experienced educators it would result in the improvement and success of professional competence and confidence.

Thus, considering all the above concepts, it could be summed up that to prepare teachers who are knowledgeable, reflective, and ready to the multifaceted demands of modern classrooms, practice-based teacher education offers a comprehensive basis that links research-based pedagogical notions with immersive, real-world experiences. Therefore, this study is grounded on the practice-based teacher preparation paradigm, which emphasizes experiential learning, reflective practice, and iterative skill development. Its main aim is to investigate how microteaching supports student interns in integrating theory and practice.

3.2 Micro-Teaching as a Bridging Gap Between Theory and Practice

Microteaching emerged in the 1960s as an innovative teacher training technique, pioneered at Stanford University by Dwight Allen and his colleagues (Allen & Ryan, 1969). The emergence of microteaching was a response to the complexity of the nature of teacher programs. It basically aims to prepare and equip novice teachers for real classroom settings. This was mainly done by breaking down the multifaceted teaching process into smaller, manageable segments. As suggested by Amobi, (2005), due to the controlled and supportive nature of approach, pre-service teachers can focus intensively on specific instructional skills; therefore, this will facilitate skill acquisition and confidence building. From the emergence the approach was limited to the involvement of student teachers in presenting short lessons to small peer groups, followed by immediate, focused feedback. This cyclical process of teaching, feedback, and reflection provided a structured platform for iterative learning and self-improvement, marking a significant departure from traditional, lecture-based teacher education (Allen & Ryan, 1969; Brent & Thomson, 1996).

However, as stated by Kumaravadivelu (2006), the approach has been greatly developed, especially with the recent technological advancement. The use of video recordings in microteaching has radically altered reflective practice by allowing the trainees to analyze their own delivery of teaching, classroom interactions and non-verbal communication. Such a method of self-observation encourages more critical thinking and self-regulation, which are the most important attributes of professional development. The peer assessment also improves the process of learning as it exposes the trainees to the multiplicity of views and promotes group criticism (Borg, 2004). To this end, microteaching progressively evolves as a practical paradigm which effectively addresses the gap between the theoretical teaching and its practical application. It helps student teachers to refine their pedagogical techniques in a controlled environment, reducing the risk and stress of using the techniques in a real classroom setting, and mimicking the conditions of a real teaching environment in a lower-stress environment (Remesh, 2013). Thus, to provide the teachers with the confidence and competence needed to fulfill the complex and changing needs of modern classrooms, the practice and analysis by reflection cycle inherent in microteaching is essential (Darling-Hammond, 2017).

3.3 Practical Advantages of Microteaching

3.3.1 Skill Development and Enhancement

Among the notable advantages of microteaching, the capacity of growth and improvement of discrete teaching skills is primary. Allen & Ryan, 1969; Remesh (2013) indicate that classroom management, formative assessment, effective questioning, and clear explanations are fundamentals in the process of teaching. Therefore, the use of microteaching helps educators focus on these core competencies. The flexible and friendly nature of microteaching, focused feedback from peers and instructors makes it possible to quickly identify and address instructional challenges. This nurtures experimentation and reflective practice in a low-stakes, encouraging setting (Brent & Thomson, 1996). Additionally, the significance of microteaching as a class practice is highlighted by cognitive load theory. It suggests that teachers can upsurge their competency more effectively without feeling overburdened by working one or two specific skills at a time (Sweller, 1988). Likewise, as stated by Borg (2004) due to the adaptability of

microteaching across a range of subjects and educational levels, pre-service teachers find it more relevant which finally results in the development of the skills learnt. The idea has been further supported by Hattie, (2009). Cooperative peer interactions promote the exchange of creative pedagogical ideas and approaches and thus expand each participant's instructional repertoire, further enhance this development. Kumaravadivelu (2006) elaborates on this and suggests that the adaptability of microteaching in which it allows the integration of video recordings, allows for self-evaluation of elements like classroom presence, interaction patterns, and nonverbal communication that are challenging to evaluate in real times.

Eventually, it could be stated that microteaching could effectively frame the acquisition of intricate skills by breaking down instruction into smaller, more manageable parts in a supervised setting. This classroom practice also advances student learning outcomes by developing the proficiency required for real classroom performance (Darling-Hammond, 2017).

3.3.2 Anxiety Reduction and Confidence Building

The issue of anxiety is a well-documented phenomenon and a subject of long debate among novice educators. There is a consensus regarding the negative impact on teacher preparation programs (Kyriacou, 2001). Therefore, to address the issue educators have been working and applying various methods, approaches and class activities. One of the documented activities that positively helps is microteaching. This model addresses the challenge by providing a setting where student teachers can apply and rehearse teaching without the pressures inherent in real classroom (Passi & Lalita, 1976).

In this regard, Fernandez & Robinson (2006) states that since microteaching is a short and focused teaching and it followed by constructive feedback it helps reduce performance anxiety. This is mainly by normalizing mistakes as part of the learning process and emphasizing incremental progress. This gradual exposure also enables teachers to build self-efficacy. Bandura (1997) acknowledges self-efficacy as crucial for sustained motivation and performance which are principal for teachers. Moreover, repeated opportunities for practice foster familiarity with instructional tasks and classroom management, which further diminishes anxiety by increasing preparedness. Positive reinforcement from mentors and peers during microteaching sessions contributes to the gradual formation of professional confidence, enabling student teachers to approach real classroom settings with greater assurance and composure (Brent & Thomson, 1996).

3.3.3 Constructive Feedback and Guidance

Like the above-mentioned competencies, constructive feedback and guidance are primary in preparing future teachers. This feedback would be more effective if given timely, specific, and actionable. Microteaching is a model that exemplifies this principle by embedding feedback directly into the teaching cycle (Hattie & Timperley, 2007). The nature of the model allows student teachers to receive feedback from supervisors, mentors, and peers after each session of practice. Using the given feedback student teachers can identify their strengths and highlight areas that need improvement in which it ultimately facilitates professional growth (Brent & Thomson, 1996).

Though the amount of feedback matters, the more the better (Maurer, 1994). Yet, it should be noted that clarity, support, and balance are also characteristics of effective feedback in microteaching settings.

Therefore, good solutions should be acknowledged first, followed by a gentle discussion of difficulties. Schön, (1987) suggest that feedback should be provided in a way that do not cause discouragement. In this line, an environment should be set that welcomes feedback. Therefore, using microteaching as an activity will maintain motivation while promoting continuous improvement by creating a positive learning environment. Additionally, microteaching creates and promotes a culture of cooperation among participants, where the exchange of best practices and thoughtful discussion enhances the group's educational process (Borg, 2004). The value and significance of social contact and self-directed learning in professional growth are highlighted in adult learning theories in which it emphasizes consistency with this continuous cycle of feedback and reflection (Knowles, Holton, & Swanson, 2015).

3.3.4 Encouragement of Learner-Centered Instruction

Teaching and learning process are dynamic. This is mainly due to the nature of the process that requires improvement. Thus, this leads to the emergence of various novel teaching and learning approaches. Learner-centered approach is one of the new models that has received much attention. This approach attempts to actively engage students in their own learning process that will promote autonomy in the learning process (Weimer, 2013). However, this is easier said than done. To best build autonomy in the learning process, the use of effective class activities is principal. One strategy that best corresponds to this and permits pre-service teachers to practice this learner-centered pedagogy is through microteaching. In other words, microteaching could be considered a venue where teachers can experiment with strategies that alter the classroom vibrant from teacher-led delivery to student-centered engagement. As stated by understanding Remesh, (2013), techniques such as group work, inquiry-based learning, and personalized feedback that are fully interactive create environments where learners are more directly involved in constructing their own learning. Fernandez & Robinson (2006) further stress on that and state that opportunity to receive immediate feedback during microteaching sessions enables teachers to adapt their methods, address diverse learner needs, and foster inclusive and meaningful learning experiences.

Moreover, microteaching helps in the development of effective instructional practices, such as open-ended questioning, peer collaboration facilitation, and the provision of constructive feedback (Hattie, 2009). Thus, these kinds of activities do not only stimulate active involvement but also set the path through which students are responsible for themselves in their learning. Since microteaching is a safe and supportive setting where pre-service teachers are most likely to venture, to experiment with new approaches and to reflect on their teaching practices in a manner that supports their confidence of learner-centered teaching (Freeman, 2016). However, microteaching advocates very intensively the idea of learner-centered practices, it is not a practice devoid of challenges. Such a shift of a teacher-centered classroom towards a student-centered one may present some challenges to the pre-service teachers at first. This is mostly when they have been provided with a traditional education. The problem of time limits during microteaching could also be another challenge. This can even constrain the depth of student-centered strategies, such as inquiry-based projects or extensive group discussions. There is also the risk that without appropriate supervision, activities will turn learner-centered in nature and not in content, which would lead to superficial interaction as opposed to substantive learning. Nevertheless, these difficulties should not be perceived as barriers or impossibility. However, these difficulties demonstrate the necessity of constant

support, reflection and coaching to make sure that the learner-centered strategies used in microteaching can be used in practical classroom settings.

3.4 Relevant Empirical Studies

The success and effectiveness of microteaching have been echoed in literature across numerous fields in which it successfully connects theoretical knowledge to practical teaching education for trainees. Shulman (1987) discusses the concept of pedagogical content knowledge, highlighting the importance of understanding both the content and the methods of teaching. His research suggests that micro-teaching sessions allow teacher candidates to experiment with different instructional strategies, enabling them to better integrate theory with practice. Amobi (2005) proved microteaching let pre-service teachers develop advanced pedagogical understanding by practicing lessons repeatedly with feedback from peers according to his study. Self-efficacy within teacher candidates grows according to Mergler and Tangen (2010) because microteaching helps them understand how to apply theoretical information when teaching in controlled educational contexts. According to Saban and Coklar (2013) in their review microteaching serves as an essential gateway for reflective practice that helps teachers evaluate their methods through theoretical framework adjustments. Research conducted by Fernandez and Robinson (2006) demonstrated that pre-service teachers achieved excellent results in abstract mathematical theory to practical teaching methods through microteaching sessions. The findings from Ismail (2011) established that microteaching helps teachers build classroom management competencies by allowing candidates to utilize theoretical principles in simulated educational environments. The research by Amobi (2005) also demonstrates the crucial function of microteaching because pre-service teachers benefit from peer observations to develop better shared teaching practices. Benton-Kupper (2001) together with other studies demonstrated that microteaching provides education psychologists with real-world experiences through which teacher trainees can try various motivational approaches with support available. Additionally, Kulkarni (2011) exhibited microteaching aids for pre-service teachers to develop effective communication by improving their ability to explain complex ideas in an accessible manner. Amobi (2005) confirms that microteaching activities help prospective teachers adapt their instruction to vary across different educational settings. Professional identity is another element that is relevant to the teaching and academia profession. In this regard, Mergler and Tangen (2010) proved that pre-service teachers develop professional identity through microteaching when they connect theoretical concepts to their own instructional framework. In line with the previous reviewed studies, the study by Rao (2017) also highlights that microteaching offers pre-service teachers with an opportunity to improve their skills in a supervised environment. The findings further uncovered that micro-teaching helps bridge the gap between theoretical knowledge and practical applications by allowing students to refine their teaching strategies and receive timely feedback from peers and instructors. Focusing on the reflective practice aspect of microteaching, the results from the study by Oliviera (2018) showed that microteaching helped students to better understand and improve their teaching philosophies and methods as they reflect on their practices. Thus, this reflection helps to connect what students learn in school with how they actually teach in a real classroom. Additionally, Alsharhrani (2020) studied the importance of peer review during microteachings. The study results indicated that helpful criticism makes teachers better and helps future teachers work together. In this cooperative setting, students can practice and improve their teaching methods, which also helps them remember the theory behind teaching. Microteaching establishes experimental learning environments that allow teacher trainees

to validate assessments and enhance their pedagogical methods. In the similar line, Apriani et al. (2022) found that microteaching practices were helpful in the improvement of students' educational competencies. Lastly, to address the perceptions of learners regarding the effectiveness of microteaching in relation to internship program, Azzahra and Anugerahwati (2024) conducted a study. Similar to other findings, the results showed that the students have positive attitudes and find microteaching beneficial especially in the aspects of preparation to real classroom, improvement of teaching skills and lesson planning and inclusion of digital tools in teaching. Thus, these empirical findings depict that microteaching is a crucial component of teacher education programs.

4. Methodology

4.1 The Study Design

The present research employed a quantitative research design. This approach was selected because it provides a systematic and objective means of addressing the research questions through the collection and analysis of numerical data. Quantitative methods are particularly suitable for identifying patterns, testing relationships, and producing findings that can be interpreted with measurable evidence.

4.2 Participant and Sampling

63 students (43 female and 20 male) comprised the study participants. The participants were comprised using a purposive sampling method. This mainly indicates that individuals are selected based on specific criteria rather than through random selection. Therefore, the criteria pertain to present study was that participants should be fourth-year university students in the Faculty of Education who were completing their internship (school experience & practice teaching).

4.3 Data Collection and Data Analysis

To collect data for the present study a 28-item questionnaire was used. The questionnaire aimed at addressing the students' views and opinions in a way that is structured and measurable; it was built on a five-point Likert scale, ranging from Strongly Disagree to Strongly Agree, which allowed respondents to express the degree of their agreement with each statement. The questionnaire items were grouped into four themes: Bridging Theory and Practice (items 1–8), Instructional and Classroom Management Skills (items 9–16), Reflective Teaching and Professional Growth (items 17–22), and Technology-Enhanced Teaching (items 23–28). This thematic organization added further clarity and guided participants in responding as well as providing a comprehensive lens for examining different aspects of their micro-teaching experience.

As to data analysis, due to the nature of collected data, they required statistical procedures. To this end, the data were analyzed using SPSS, while Microsoft Excel was also employed for organizing and initial handling of the data.

4.4 Piloting

A pilot test is principal in the confirmation of the practicality, validity as well as reliability of the data collection tools. It is basically done and tested on a smaller group of participants before administering the actual study. Therefore, through piloting the flaws, if available, of the data collection tools could be

identified. Since the questionnaire used in this study was novel and devised by the researchers, it needed a pilot test. To this end, five students were first administered the questionnaire. The feedback and responses received pointed to the areas which needed to be adjusted, especially regarding the phrasing of several items, time required to fill out the questionnaire, arrangement of themes and the general understanding of the questions. These insights were used to make the required amendments prior to the commencement of the full-scale study. Thus, the test helped to increase the validity and reliability of the study.

5. Results

Before presenting the descriptive statistics for the four thematic constructs, the internal consistency of the questionnaire items was assessed using Cronbach's Alpha. The analysis, as Table 1 shows, revealed excellent reliability across all constructs, indicating that the items within each scale consistently measure the intended dimension. Specifically, Bridging Theory & Practice (C1) showed a Cronbach's Alpha of 0.91, Instructional Skills (C2) was 0.90, Reflective & Growth (C3) was 0.89, and Technology-Enhanced Learning (C4) reached 0.92. These values demonstrate strong internal consistency, supporting the reliability of subsequent descriptive and inferential analyses.

Table 1: Reliability Analysis (Cronbach's Alpha)

Themes	Cronbach's Alpha (α)	Interpretation
C1: Bridging Theory & Practice	0.91	Excellent Reliability
C2: Instructional & Classroom Management Skills	0.90	Excellent Reliability
C3: Reflective Teaching & Professional Growth	0.89	Excellent Reliability
C4: Technology-Enhanced Teaching	0.92	Excellent Reliability

The dominant number of participants expressed a very positive opinion of the micro-teaching experience on all four themes as shown in Table 2. All mean scores Bridging Theory & Practice (M=4.10), Instructional Skills (M=4.05), Reflective Teaching and Growth (M=4.13), and Technology-Enhanced Teaching (M=4.11) are well beyond the neutral midpoint of 3.0 in the 5-point scale. This implies that students tended to agree or strongly agree with the fact that micro-teaching was advantageous, and the four themes had no major dissimilarity. The narrow gap between means (4.05 -4.13) is indicative of a stable and balanced perception of effectiveness in all dimensions. The low standard deviations (0.74-0.82) indicate that the opinions of the students were quite similar without significant disparity in opinion. This is an indication of commonality in the micro-teaching process. This was highlighted by the negative skewness values (not more than -1.0) because the findings suggest that most of the answers were centered on the positive end of the scale (Agree and Strongly Agree), with the few students having answered the questions at the neutral or negative end. That is, the good outcomes were not brought about by only a few students, but that was the general feeling of the students. Although the entire response spectrum was between low to high, most responses fell within the strong agreement category, with no doubt that students

found micro-teaching extremely effective. Combining these results, it can be concluded that microteaching activity is effective in terms of bridging theory and practice, enhancing teaching competence, developing reflection, and gaining confidence in technology use.

Table 2: Descriptive Statistics for Themes

Themes	N	Mean	Std. Deviation	Min	Max	Skewness
C1: Bridging Theory & Practice	63	4.10	0.74	1.38	5.00	-1.26
C2: Instructional & Classroom Management Skills	63	4.05	0.75	1.50	5.00	-1.08
C3: Reflective Teaching & Professional Growth	63	4.13	0.82	1.33	5.00	-1.32
C4: Technology-Enhanced Teaching	63	4.11	0.80	1.67	5.00	-1.21

One-sample t-test was carried out in order to further test whether the perception of students was significantly above a neutral point. As shown in Table 3, all the results were statistically significant ($p < .001$), which means that there was a strong consent with positive statements regarding micro-teaching related to all four constructs. Practically, these findings confirm that the positive attitude towards student interns is not a mere coincidence as these are statistically significant and meaningful results. Their high level of consistency in all four thematic areas would highlight the overall effectiveness of micro-teaching intervention in acquiring the necessary teaching skills, including the application of theoretical knowledge and learning how to teach in the classroom, as well as the use of reflection and making use of educational technology.

Table 3: One-Sample T-Tests

Themes	Mean	t-value	df	p-value	Significance
C1: Bridging Theory & Practice	4.10	11.98	62	< .001	Significant
C2: Instructional & Classroom Management Skills	4.05	11.17	62	< .001	Significant
C3: Reflective Teaching & Professional Growth	4.13	10.95	62	< .001	Significant
C4: Technology-Enhanced Teaching	4.11	11.06	62	< .001	Significant

In addition to the above findings, to investigate the difference in perceptions of students according to their gender, independent-samples comparison of the female and male student interns was done. According to Table 4 and figure 1, the mean scores in all four constructs were slightly higher in favor of the female interns. The analysis, however, found that the observed differences are not found to be significant in all the four constructs. In the case of Bridging Theory & Practice (C1), the mean of females was 4.14 and males 4.00 ($t = 0.74$, $p = 0.464$). The means on Instructional Skills (C2) were 4.10 (female) and 3.93 (male) ($t = 0.87$, $p = 0.387$). The Reflective & Growth (C3) gave 4.19 females and 3.98 males ($t = 1.02$, $p = 0.313$), and Technology-Enhanced Learning (C4) gave 4.17 females and 3.96 males ($t = 1.04$, $p = 0.301$). Overall, these findings suggest that gender had no profound impact on ratings of student interns; meaning that both males and females have had similar experiences of micro-teaching in all aspects.

Table 4: Independent-Samples t-Test Results by Gender

Construct	Gender	N	Mean	Std. Deviation	t-value	df	p-value	Significance
C1: Bridging Theory & Practice	Female	43	4.14	0.70	0.74	61	0.464	Not Sig.
	Male	20	4.00	0.83				
C2: Instructional & Classroom Management Skills	Female	43	4.10	0.72	0.87	61	0.387	Not Sig.
	Male	20	3.93	0.81				
C3: Reflective Teaching & Professional Growth	Female	43	4.19	0.78	1.02	61	0.313	Not Sig.
	Male	20	3.98	0.90				
C4: Technology-Enhanced Teaching	Female	43	4.17	0.76	1.04	61	0.301	Not Sig.
	Male	20	3.96	0.87				

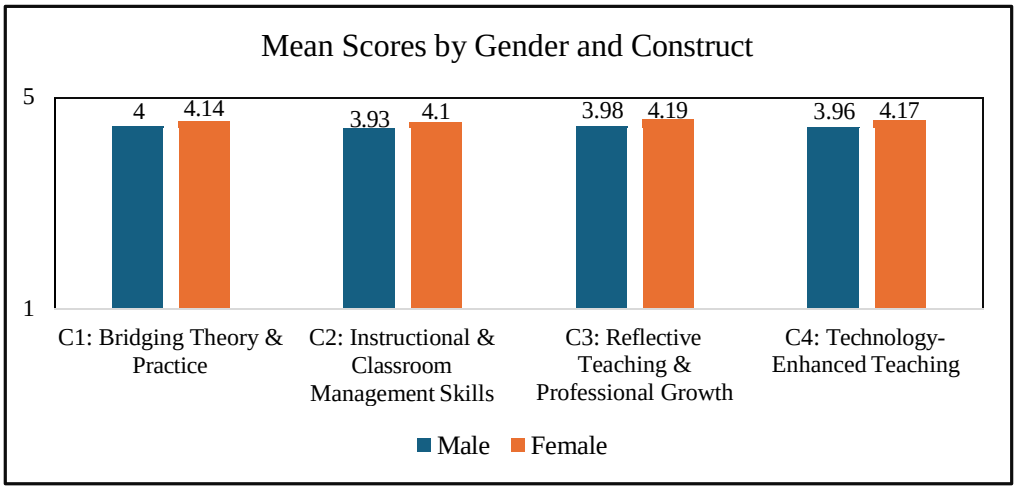

Figure 1: Gender-Based Comparison of Mean Scores

6. Discussion

The findings of this study align with a broad body of literature that highlights micro-teaching as a powerful tool in teacher education. In this line, the findings revealed overwhelmingly positive perceptions across all four measured constructs. The high scores on the Bridging Theory and Practice theme confirm the foundational purpose of micro-teaching, as established by its pioneers (Allen & Ryan, 1969). This finding is very much in line with those of Amobi (2005) and Remesh (2013), who argued that the simulated, yet authentic nature of micro-teaching provides the ideal scaffold for connecting pedagogical theory to classroom practice. Thus, based on this finding empirical evidence is provided that micro-teaching effectively fulfills its original mandate of closing the theory-practice gap.

Similarly, the good result pertaining to Instructional and Classroom Management Skills confirms such remarks of scholars as Benton-Kupper (2001) and Borg (2004) about the usefulness of simplified teaching environment in skills development. The low-stakes, narrow practice gave interns the opportunity to practice discrete skills, including lesson delivery and keeping students engaged, without the strain of a full classroom setting, which led to the reduction of anxiety and the development of self-efficacy according to Fernandez and Robinson (2006). It is only natural that the classroom management was rated slightly lower, but still positive, as the existing literature states that this is a multifaceted skill, which is to be continuously practiced, not only during one micro-teaching cycle (Ismail, 2011). Additionally, reflective Teaching and Professional Growth had the highest mean score. It is an exceptionally notable finding since it shows that the micro-teaching experience could achieve more than the promotion of technical skills; it could create a contemplative attitude. This is in direct relation to the works of Schön (1983) and Zeichner (2012) who believe that reflection is the key to connecting experience and professional learning. Equally, the research conducted by Mergler and Tangen (2010) found out that the professional identities of the interns appear to have been formed through the process of teaching, receiving immediate feedback and critical reflection upon themselves.

Besides, technology-enhanced instruction must be provided with more priorities. The responses of the interns on the issue of confidence and proficiency in the digital tools were overwhelmingly positive. This

observation also serves as a sign of the flexibility of micro-teaching and takes it to the twenty-first century needs. It confirms the fact that micro-teaching could be effectively utilized to train the teachers to work in the modern, technologically developed classroom and demonstrates that the method is an excellent means of developing Technological Pedagogical Content Knowledge (TPACK) as outlined by Koehler and Mishra (2009). The findings regarding gender were also interesting. Despite the gender difference, all participants equally benefited during the microteaching development process as shown by the absence of significant differences between the male and female interns. It seems that pedagogical model is a global and inclusive teacher development tool on its own.

Finally, the findings clearly demonstrate and establish the fact that the micro-teaching practice was highly successful given that it had the support of the majority of respondents. The results are not isolated; instead, they are well supported by the decades of empirical and theoretical research. It is also confirmed in the research that micro-teaching is a flexible process that, besides the creation of critical teaching skills, reduces anxiety, promotes self-reflection, and prepares teachers to effectively utilize and integrate technology.

7. Conclusions

This study sought to analyze the effectiveness and flexibility of microteaching strategies by analyzing the perceptions of interns on how such experiences equip them with the classroom reality. Put simply, the overall outcomes obviously demonstrate that micro-teaching is a powerful and important component of teacher education that will successfully bridge the so often discussed theory-practice gap. The paper confirms that the simulated and controlled environment of micro-teaching offers a relatively unmatched professional learning platform. Besides better practical skills, the interns came out of the experience more confident, more considerate and ready to apply technology in their teaching. Notably, these benefits were found to be gender-neutral, which denotes the extensive application of the model. The overall idea of this research is indubitable. Micro-teaching needs to be put to the center of the teacher preparation programs. It should not be a simple training activity but a core pedagogical approach that transforms the abstract knowledge into professional competence. In the case of teacher educators, it implies that they consciously create micro-teaching experiences that are closely connected to coursework and are succeeded by focused, positive feedback. In addition to the substantial short-term perceptions of effectiveness mentioned, this research also offers a variety of directions in terms of further research. Longitudinal research is needed to monitor the improvement of confidence and skill development as micro-teaching is a way of enhancing long-term teaching performance and job maintenance. Qualitative research may also provide a closer insight into which aspects of the feedback and reflection process have the greatest contribution to professional development.

In summary, the research findings are relevant to the existing body of research supporting microteaching. It is an efficient, versatile and essential approach to creating capable, confident teachers that are capable of meeting the demanding task of the classroom of the 21st century.

8. Pedagogical Recommendations

Based on the findings of the current study, the following pedagogical implications are offered:

1. Micro-teaching should be systematically integrated into teacher education curricula to help bridge theoretical knowledge with practical classroom experience.
2. Reflective practice and constructive feedback must be emphasized to promote continuous professional development among pre-service teachers.
3. The integration of digital tools in micro-teaching sessions during teacher training programs would lead to the improvement of trainees' technological confidence and classroom readiness.

Conflict of interest

There is no conflict of interest in this paper.

Acknowledgement

The authors would like to thank all the participants for their valuable time and contributions to this study.

References

Allen, D., & Ryan, K. (1969). *Microteaching*. Reading, MA: Addison-Wesley.

Allen, D. W., & Eve, A. W. (1968). Microteaching. *Theory into Practice, 7*(3), 181–185. https://doi.org/10.1080/00405846809542153

Amobi, F. A. (2005). Preservice teachers' reflectivity on the sequence and consequences of teaching actions in a microteaching experience. *Teacher Education Quarterly, 32*(1), 115–130.

Apriani, L., Yulianti, M., & Arismon, A. (2022). Students' Perceptions about The Effectiveness of Micro Teaching Courses Towards The Educational Competence of Kplp Students. *Halaman Olahraga Nusantara: Journal Ilmu Keolahragaan, 5*(1), 112-123.

Azzahra, S. D. & Augerahwati, M. (2024). Students' perception toward microteaching class in relation with internship program. *Journal of Language, Literature, and Arts, 4*(7), 763-779. https://doi.org/10.17977/um064v4i72024p763-779

Benton-Kupper, J. (2001). The microteaching experience: Student perspectives. *Education, 121*(4), 830-835.

Borg, W. R. (2004). *The mini course: A microteaching approach to teacher education*. New York: Macmillan.

Brent, R., & Thomson, W. S. (1996). Video-taped microteaching: Bridging the gap between theory and practice. *Teaching and Teacher Education, 12*(2), 133–144. https://doi.org/10.1080/08878739609555115

Darling-Hammond, L. (2021). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.

Fernandez, M. L. (2010). Investigating how and what prospective teachers learn through microteaching lesson study. *Teaching and Teacher Education, 26*(2), 351–362. https://doi.org/10.1016/j.tate.2009.09.012

Fernandez, M. L., & Robinson, M. (2006). Prospective teachers' perspectives on microteaching lesson study. *Education, 127*(2), 203–215.

Grossman, P. (2018). *Teaching core practices in teacher education*. Cambridge: Harvard Education Press.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice, 15*(2), 273–289. https://doi.org/10.1080/13540600902875340

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

Ismail, S. A. A. (2011). Student teachers' microteaching experiences in a pre-service English teacher education program. *Journal of Language Teaching and Research, 2*(5), 1043-1051. https://doi.org/10.4304/JLTR.2.5.1043-1051

Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education, 9*(1), 60–70.

Kpanja, E. (2001). A study of the effects of video tape recording in micro-teaching training. *British Journal of Educational Technology, 32*(4), 483–486. https://doi.org/10.1111/1467-8535.00215

Kulkarni, M. (2014). Microteaching: A vehicle for teacher training. *Journal of Education Technology in Health Sciences, 11*(1), 1-2. https://doi.org/10.18231/j.jeths.2024.001

Kumaravadivelu, B. (2006). *Understanding language teaching: From method to postmethod*. London: Routledge.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Mannathoko, M. C. (2013). Does teaching practice effectively prepare student teachers to teach creative and performing arts? The case of Botswana. *International Journal of Higher Education, 2*(2). https://doi.org/10.5430/ijhe.v2n2p115

McKnight, P. C. (1971). Microteaching in teacher training: A review of research. *Research in Education, 6*(1), 24–38. https://doi.org/10.1177/003452377100600103

Mergler, A. G., & Tangen, D. (2010). Using microteaching to enhance teacher efficacy in pre-service teachers. *Teaching Education, 21*(2), 199-210. https://doi.org/10.1080/10476210902998466

Maurer, M. M. (1994). Computer anxiety correlates and what they tell us: A literature review.Computers in Human Behavior, 10(3), 369-376. https://doi.org/10.1016/0747-5632(94)90062-0

Passi, B.K. and Lalita, M.S. (1977). *Micro-teaching in Indian Context, (Mimeo)*. Department of Education, Indore University, Indore.

Remesh, A. (2013). Microteaching, an efficient technique for learning effective teaching. *Journal of Research in Medical Sciences, 18*(2), 158–163.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. London: Basic Books.

Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.

Saban, A., & Coklar, A. N. (2013). Pre-service teachers' opinions about the micro-teaching method in teaching practice classes. *TOJET: The Turkish Online Journal of Educational Technology, 12*(2), 234-240.

VYGOTSKY, L. S. (1978). *Mind in Society: Development of Higher Psychological Processes* (M. Cole, V. Jolm-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press. https://doi.org/10.2307/j.ctvjf9vz4

Zeichner, K. (2023). Reprint: The Turn Once Again Toward Practice-Based Teacher Education. *Journal of Teacher Education, 74*(2), 171-177. https://doi.org/10.1177/00224871231161459