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# INVESTIGATING THE EFFICIENCY OF STUDENT TEACHERS' SELF-RECORDED MICROLESSON VIDEOS FOR INITIAL TEACHER EDUCATION AT A UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA

ДОСЛІДЖЕННЯ ЕФЕКТИВНОСТІ САМОСТІЙНО ЗАПИСАНИХ МАЙБУТНІМИ УЧИТЕЛЯМИ ВІДЕО МІКРОУРОКІВ У ПОЧАТКОВІЙ ПЕДАГОГІЧНІЙ ОСВІТІ В ТЕХНОЛОГІЧНОМУ УНІВЕРСИТЕТІ ПІВДЕННОЇ АФРИКИ

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## ABSTRACT

*Many teacher training institutions now use micro-lessons to help student teachers develop specific competencies. These structured lessons allow future educators to practice their skills before entering real classrooms. Video-recorded micro-lessons have proven particularly effective in enhancing pedagogical abilities.*

**Purpose.** *This research paper investigates the effectiveness of self-recorded micro-lesson videos in equipping prospective teachers for the challenges of actual classroom settings. The research gathers insights from student teachers' reflective experiences, grounding its framework in Reflective Practice Theory. This model emphasises critical reflection on one's*

*Багато педагогічних навчальних закладів зараз використовують мікроуроки, щоб допомогти студентам – майбутнім вчителям – розвинути певні компетенції. Структуровані уроки дають змогу майбутнім педагогам практикувати свої навички, перш ніж увійти до реальних класів. Відеозаписи мікроуроків виявилися особливо ефективними у підвищенні педагогічних здібностей.*

**Meta.** *Стаття досліджує ефективність самостійно записаних відео мікроуроків у підготовці майбутніх вчителів до викликів реальних навчальних умов. Дослідження збирає дані з рефлексивного досвіду студентів – майбутніх вчителів, ґрунтуючи свою структуру на теорії рефлексивної практики. Модель наголошує на критичному осмисленні власної*

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teaching practices to foster growth and development.

**Methodology.** This qualitative study involved 20 second-year Bachelor of Education students from the University of Technology, who were selected through purposive sampling to ensure a group rich in relevant experiences. Data collection was conducted through systematic observations and focus group interviews, which provided a multifaceted understanding of the participants' experiences. These insights were analyzed using the Systematic Text Condensation (STC) method, allowing for a thorough examination of the students' reflections and experiences.

**Results.** Findings from the study illuminated the significant role that self-recorded micro-lesson videos play in enhancing student teachers' reflective practices and lesson planning capabilities. By reviewing their recorded lessons, these student teachers could objectively evaluate their teaching performance and discern recurring patterns in their teaching strategies over time. This iterative viewing process not only allowed them to focus on specific teaching elements from classroom management to learner engagement but also fostered a deeper insight into student teachers' perceptions of their teaching methods.

**Conclusion.** As a result, this reflective approach not only empowers student teachers to refine their skills continually but also contributes to a comprehensive understanding of their teaching practices, ultimately enhancing their overall effectiveness as educators. The findings of this research carry important implications for teacher education programs, emphasizing that the integration of self-recorded micro-lesson videos could substantially enhance the professional development opportunities available to pre-service teachers, preparing them more effectively for their future careers in education.

**Keywords:** microlesson videos, Reflective Practice Theory, teacher education, self-recorded videos, Systematic Text Condensation.

педагогічної практики для сприяння зростанню та розвитку студентів.

**Методологія.** У якісному дослідженні взяли участь 20 студентів другого курсу бакалаврату напряму педагогіки Технологічного університету Південної Африки, яких було відібрано шляхом цілеспрямованої вибірки, щоб забезпечити групу з відповідним досвідом. Збір даних проводився за допомогою систематичних спостережень та фокус-групових інтерв'ю, що забезпечило багатогранне розуміння досвіду учасників. Дані були проаналізовані за допомогою методу систематичного текстового стиснення (STC), що дозволило ретельно вивчити рефлексії та досвід студентів.

**Результати.** Результати дослідження висвітлили значну роль, яку відіграють самостійно записані відео-мікроуроки у покращенні рефлексивної практики та можливостей планування уроків студентами – майбутніми вчителями. Переглядаючи записані уроки, студенти могли об'єктивно оцінити свою педагогічну діяльність та виявити повторювані закономірності у педагогічних стратегіях протягом часу. Ітеративний процес перегляду не лише дозволив їм зосередитися на конкретних елементах навчання, від управління класом до залучення учнів, але й сприяв глибшому розумінню сприйняття студентами методів викладання.

**Висновок.** Як результат рефлексивний підхід не лише дає студентам можливість постійно вдосконалювати свої навички, але й сприяє всебічному розумінню їхньої педагогічної практики, зрештою підвищуючи загальну ефективність як майбутніх учителів. Результати дослідження мають важливі наслідки для програм педагогічної освіти, підкреслюючи, що інтеграція самостійно записаних відео мікроуроків може суттєво розширити можливості професійного розвитку, доступні для майбутніх вчителів, ефективніше готуючи їх до майбутньої кар'єри в освіті.

**Ключові слова:** відео мікроуроки, теорія рефлексивної практики, педагогічна освіта, самостійно записані відео, систематичне текстове стиснення.

## INTRODUCTION

In the realm of initial teacher education, video-based learning has emerged as a robust methodology for enhancing the development of pedagogical skills (Roche et al., 2021). This pragmatic approach permits student teachers to record and subsequently review their teaching practices, thereby facilitating a cycle of self-assessment and improvement (Heeralal, 2014). By harnessing this method, student teachers can produce concise

teaching demonstrations and engage in performance analysis, thereby enriching their reflective learning experiences (Roche et al., 2021). The prominence of video-based reflections within teacher education programs has intensified, with scholarly discourse underscoring its potential to significantly enhance the professional development of pre-service educators (Xiao & Tobin, 2018; Christ et al., 2017).

The research **purpose** aims to evaluate the effectiveness of self-recorded microlesson videos in preparing student teachers for their future roles in educational settings. It explores the impact of these videos on the development of teaching skills, the promotion of critical reflection on practice, and the overall readiness of student teachers for their professional responsibilities.

The study investigates the potential benefits of this innovative approach, which has the capacity to transform teacher education, while also identifying its limitations and the factors that influence its success. By examining the effectiveness of self-recorded microlesson videos, this research intends to contribute to the ongoing dialogue about the role of technology-enhanced learning in initial teacher education.

Additionally, this inquiry seeks to build on foundational insights gained from examining the experiences and perceptions of student teachers at the Central University of Technology (CUT) who have utilized self-recorded microlesson videos in their initial teacher education programs. This qualitative study will critically assess the effectiveness of this practice within the specific context of CUT, drawing on Reflective Practice Theory as a guiding framework. This theory emphasizes that critical reflection on teaching experiences is vital for professional growth and development (Vanassche & Kelchtermans, 2015). Through structured self-observation and analysis, student teachers can gain deeper insights into their teaching methods, identify areas for improvement, and enhance their pedagogical skills (Loughran, 2007).

The findings draw on an extensive body of literature that articulates the advantages of integrating video-based learning in teacher education. Notably, the researcher found that micro-teaching and the generation of student-created videos facilitate processes of self-reflection, peer discourse, and case-based learning for pre-service teachers (Roche et al., 2021). The incorporation of video technologies within teacher education curricula demonstrates significant promise for fostering both teaching competencies and digital literacy. Furthermore, prior studies have illustrated that students can produce micro-videos that effectively showcase their learning outcomes and digital proficiencies (Frydenberg & Andone, 2016).

The examination by Xiao and Tobin (2017) evaluated both the positive and negative ramifications of a video portfolio assignment implemented in a teaching methods course, as well as the implications these videos hold for preservice teachers, their instructors, and the teacher preparation program. Their findings indicate that this videotaping assignment shifts focus toward often-neglected embodied aspects of teaching, such as gesture, posture, gaze, tone of voice, facial expressions, material utilization, and positioning.

Conversely, the necessity of self-video documentation can incite anxiety, potentially leading preservice teachers to adopt overly self-conscious, teacher-centered pedagogical approaches. Brame (2016) addressed the effective utilization of video as an educational instrument to enhance teaching. This includes consideration of three pivotal elements: managing cognitive load in video materials, maximizing student engagement with video content, and promoting active learning derived from video interactions. The

research posits that educational videos have become a fundamental component of higher education, particularly serving as vital tools for delivering content in various flipped, blended, and online learning environments.

Further, Alamri and Alfayez (2023) investigated how preservice teachers observe and analyze their competencies through self-reflection and community-based video learning strategies, examining the influence of self-recorded videos on their microteaching experiences. Their findings suggest that self-recorded videos can have a significant impact on the microteaching experience, enabling educators to identify developmental gaps, analyze their strengths and weaknesses, and engage in reflective practices. They advocate for the incorporation of personalized learning principles into preservice teacher training programs, emphasizing the potential for self-reflection and self-analysis without necessitating the intervention of coaching figures.

#### – Problem Statement

The adequate preparation of pre-service teachers is a crucial element of initial teacher education programs. One method that has gained prominence in this context is microteaching, where student teachers deliver brief, focused lessons that are recorded and subsequently reviewed for self-reflection and feedback. However, the implementation of microteaching in many teacher education programs encounters significant challenges, including time constraints, limited access to specialized facilities, and the logistical complexities associated with organizing and managing the recording process (Arifmiboy et al., 2018).

To address these challenges, this research paper aims to examine the effectiveness of student teachers' self-recorded microlesson videos within the framework of initial teacher education at the Central University of Technology. The central research question guiding this investigation is: ***"How effective are student teachers' self-recorded microlesson videos in fostering the development of teaching skills and reflective practices within a university's initial teacher education program?"***

This research is driven by a growing body of evidence that supports the integration of video-based technologies such as 360-degree video and self-recorded microlessons in enhancing the learning experiences of pre-service teachers and promoting reflective practices (Roche et al., 2021; Ebsworth et al., 2004). Additionally, the advent of smartphone technology and low-cost, user-friendly video recording tools has made it increasingly feasible for student teachers to capture and review their teaching performances, further underscoring the significance of this research. The findings will offer practical implications for the design and implementation of microteaching-based strategies in teacher education programs, particularly in resource-constrained settings at our university.

#### – Theoretical Framework

This study employs Reflective Practice Theory as the foundational theoretical framework guiding the exploration of professional development among student teachers. The theoretical roots of Reflective Practice Theory are prominently associated with the contributions of scholars such as Donald Schön, who delineated the concepts of "reflection-in-action" and "reflection-on-action" as pivotal components of effective professional practice (Danielowich, 2013; Lalor et al., 2015).

This theoretical framework posits that proficient educators engage in real-time reflection during the teaching process (reflection-in-action) as well as retrospective evaluations of their experiences (reflection-on-action). Through the practice of recording and analysing their

teaching via self-recorded videos, student teachers can cultivate the essential skill of reflective practice, which is indispensable for their continuous professional growth (Lalor et al., 2015).

Reflective Practice Theory has emerged as a significant conceptual lens for comprehending and directing the professional development of student teachers (Lalor et al., 2015). Central to this theory is the assertion that self-reflection plays a crucial role in empowering educators to critically examine their pedagogical practices, identify areas for improvement, and continually refine their teaching competencies (Lalor et al., 2015). This premise aligns with the present study's objective, which investigates the utilization of self-recorded microlesson videos as a mechanism for facilitating reflective practice among student teachers (Vanassche & Kelchtermans, 2015; Loughran, 2007).

Literature robustly elucidates the significance of reflective practice within the domain of teacher education. As articulated by Vanassche and Kelchtermans (2015: 513), "when reflection is incorporated in activities designed to develop trainee-teacher competence, it initiates a process that can be transformative in the long run."

Engaging in reflective analysis of one's teaching practices, both contemporaneously and retrospectively, empowers student teachers to evaluate their decision-making processes critically, recognize their strengths and weaknesses, and formulate strategies for improvement. Moreover, existing literature suggests that self-study research, which is grounded in an examination of one's practice, is often enriched through the incorporation of diverse perspectives and the reframing of situations through collaborative interactions (Vanassche & Kelchtermans, 2015).

Within the context of this investigation, the application of self-recorded microlesson videos emerges as a viable means of fostering reflective practice. By engaging in the recording and subsequent review of their teaching activities, student teachers can undertake self-assessment and reflection, which may subsequently lead to the enhancement of their professional competencies and the refinement of their pedagogical approaches. The theoretical underpinnings of Reflective Practice Theory assert that both individual and collaborative reflection processes are indispensable for the professional growth of student teachers.

One dichotomy in this field asserts that "a central purpose in self-study is uncovering deeper understandings of the relationship between teaching about teaching and learning about teaching" (Vanassche & Kelchtermans, 2015, p. 519). Through engagement in reflective practice via self-recorded microlesson videos, student teachers can gain critical insights into their instructional methodologies, identify areas that require improvement, and develop strategies to enhance their instructional effectiveness.

Furthermore, literature underscores the importance of integrating reflective practices into activities designed to cultivate student-teacher competence. This emphasis aligns closely with the research article's focus, which scrutinizes the use of self-recorded microlesson videos as a tool for facilitating reflective practice and promoting professional development among student teachers.

## **METHODOLOGY**

### **– Research Paradigm**

This study is situated within the interpretivist paradigm, characterized by the understanding that reality is shaped by individuals' encounters with the world around them. The interpretivist approach provides a distinctive framework for evaluating the effectiveness of student teachers' self-recorded microlesson videos in initial teacher

education. It emphasizes the subjective and contextual nature of knowledge, recognizing that gaining insight into the experiences and perspectives of student teachers requires more than objective measures.

By adopting an interpretivist approach, researchers can shed light on the subjective and contextual factors that influence the effectiveness of student teachers' self-recorded microlesson videos. This paradigm offers valuable insights into the lived experiences, reflections, and identity construction of student teachers, ultimately contributing to the advancement of more effective teacher education programs (Kosmanou & Vassilaki, 2023; Molotja & Maruma, 2018).

The interpretivist paradigm also highlights the importance of comprehending the challenges faced by student teachers during their teaching practice. Through qualitative methods, such as semi-structured interviews and reflective essays, we can gain a deeper understanding of the experiences and perspectives of student teachers. This approach allows for the exploration of the complex and multifaceted nature of teacher education, revealing the linguistic and discursive strategies that student teachers employ to construct their professional identities. The intricate and multidimensional aspects of teacher education illustrate how student teachers navigate their professional identity through various linguistic and discursive means (Kosmanou & Vassilaki, 2023).

In investigating the effectiveness of student teachers' self-recorded microlesson videos, the interpretivist paradigm enables researchers to uncover the lived experiences and subjective meanings student teachers ascribe to this practice. By examining student teachers' reflective accounts and discursive practices, researchers can gain a clearer understanding of how self-recorded videos contribute to their professional development and the challenges they encounter.

#### – **Research Design**

The research was meticulously designed using a phenomenological approach, intentionally aligned with the specific theoretical framework chosen for the study to ensure coherence and depth. Adopting a qualitative methodology, the investigation involved conducting semi-structured interviews with a carefully selected group of student teachers who undertook a microlesson video assignment as part of their teacher preparation curriculum. These interviews aimed to explore the student teachers' narratives and viewpoints regarding their experiences with the assignment, providing a rich context for understanding their educational journey.

The primary focus of these interviews was to illuminate the perceived advantages that the student teachers gained from engaging in this reflective exercise, the diverse challenges they faced throughout the assignment, and their insightful recommendations for enhancing the incorporation of self-recorded microlesson videos within the educational program.

This study was conducted at the Central University of Technology, where student teachers were entrusted with the vital task of recording, analysing, and reflecting on their video-recorded microlessons. This exercise was not merely a task but a critical component of their initial teacher education program, offering them invaluable hands-on opportunities to hone their pedagogical skills and enhance their reflective teaching practices.

The phenomenological research design is particularly advantageous for delving into the subjective experiences of individuals, facilitating a profound understanding of the meanings they attach to their experiences (Tuffour, 2017). This qualitative approach is esteemed for its

effectiveness in analysing textual data and has found extensive application in various disciplines, including psychology, sociology, and healthcare (Larkin et al., 2006).

In recent years, phenomenology has gained prominence as a leading qualitative research methodology across numerous academic fields, reflecting its growing relevance in exploring existential and personal experiences. This increasing recognition is further emphasized by researchers such as Antony and Ramnath (2023), who underscore the method's versatility and its burgeoning significance in capturing the intricate nuances of human experience, particularly within educational contexts and beyond.

#### – **Population and Sample**

The research targeted a specific population of student teachers, comprising individuals currently in their second year of the Bachelor of Education (B.Ed.) program. These individuals were approached for in-depth interviews, utilizing a set of open-ended, self-administered questions designed to elicit detailed responses. A total of twenty (20) student teachers were strategically selected to participate in the study, with two focus groups from the second-year group. The demographic breakdown of the sample included nine males (45%) and 11 females (55%).

The participants were drawn from the fields of economics, management science education, and technology education. The choice to employ purposive sampling in this research was intentional, as it is a common technique in qualitative research that enables researchers to focus on specific characteristics of the population relevant to the study's objectives. This method is characterized by its subjective and judgmental nature, as explained by Cohen et al. (2017), which reinforces the idea that the researcher carefully selects participants based on specific criteria relevant to the investigation.

Before commencing the research, the researcher obtained official permission from the university, ensuring that all aspects of the study complied with the institution's ethical standards. This process involved obtaining informed consent from each participant, ensuring they fully understood the scope of the study and were willing to participate. Participants were assured that their personal information would remain confidential. Additionally, robust measures were implemented to protect the privacy and security of their data throughout the research process, ensuring that their experience was both safe and respectful.

#### – **Data Collection**

Data was collected through a comprehensive and multifaceted approach that included semi-structured interviews with student teachers, dynamic focus group discussions, and a thorough analysis of self-recorded microlesson videos. The primary goal of the interviews and focus groups was to explore in depth the student teachers' perceptions, experiences, and reflections on the use of self-recorded microlesson videos as a learning tool.

To facilitate this exploration, a set of twelve thoughtfully crafted, semi-structured questions was developed prior to the sessions. These questions encompassed several key themes, including an essential understanding of the role and impact of self-recorded micro-lesson videos, the significance of reflective practice in teaching, avenues for professional development, and the dynamics of collaborative and reflective practice among peers.

Throughout the interviews, the researcher maintained a structured yet flexible approach, allowing for deviations from the predetermined questions to pursue significant themes that emerged during conversations, as noted by Roberts (2020). This adaptability was

crucial in uncovering unexpected insights. To enhance participant engagement and the depth of discussion, probing questions were strategically employed. These probes served multiple functions: they encouraged participants to elaborate on their thoughts, helped summarize crucial topics, managed the conversational flow, and ensured clarity and understanding throughout the discussion.

According to Roberts (2020: 108), the purpose of using probing questions is to keep participants engaged in the narrative, summarize pivotal ideas, and foster an uninterrupted flow of conversation during interviews. By employing these interviewing techniques, the researcher aimed to elicit particularly insightful and rich responses from participants, ultimately allowing them to share their knowledge and experiences related to self-recorded microlesson videos within the context of initial teacher education at the Central University of Technology (CUT). This in-depth inquiry aimed not only to gather data but also to enhance understanding of the educational potential of these self-recorded resources.

#### – Data Analysis

This research study employed the Systematic Text Condensation (STC) method, a rigorously established qualitative research strategy recognised for its efficacy in the analysis of interview data. This technique, developed by Malterud in 2012, is particularly well-suited for the nuanced analysis of qualitative content derived from diverse textual sources, including focus groups and individual interviews. Within the realm of teacher education research, the STC method demonstrates considerable utility in the dissection of qualitative data.

This paper seeks to elucidate the practical application of STC within the specified study framework. The STC method encompasses a comprehensive and systematic approach to the analysis of textual data, making it especially advantageous for research grounded in qualitative sources such as interviews, classroom observations, and reflective journals, as articulated by Wang et al. in 2017. This data analysis approach aligns seamlessly with the study's objective, which aims to foster a deeper understanding of the experiences and perceptions of student teachers who engage in self-recording their microteaching sessions.

In conducting this research, several pertinent sources were meticulously referenced, illuminating critical dimensions of teacher research, the importance of reflective practices, and the integration of video technology in teacher education. Collectively, these sources emphasize the importance of providing pre-service teachers with opportunities to critically evaluate and observe their pedagogical methodologies. Such practices are essential for nurturing their professional development and cultivating a favourable professional identity. The STC method comprises four foundational steps.

Initially, researchers engage deeply with the transcripts to form a comprehensive impression of the data. This is followed by the identification and extraction of specific meaning units that emerge from the text. Subsequently, these meaning units are condensed into succinct descriptions, which are then synthesized into overarching themes. This structured approach enables researchers to traverse the complex landscape of student teachers' experiences, revealing insights that more traditional qualitative analysis methods may obscure.

By employing the STC method, the researcher is equipped to rigorously analyse the self-recorded videos of microlessons, along with the reflective notes provided by the student teachers in the form of lesson plans. This analysis not only facilitates the identification of recurring patterns and thematic elements but also highlights the challenges

encountered by student teachers as they transition from learners to educators. Such insights possess significant implications for teacher education programs, as they can inform the design and implementation of video-supported learning initiatives that effectively enhance the professional development of future educators.

## RESULTS

The outcomes of this study present several invaluable insights into the effectiveness of student teachers' self-recorded microlesson videos within the context of initial teacher education. Firstly, engaging in the self-recording process allowed student teachers to engage in profound self-reflection. This reflective practice enabled them to evaluate their teaching methods critically, identify specific areas needing improvement, and gain a more nuanced understanding of their instructional techniques. One participant vividly remarked, *"Watching myself teach on video opened my eyes to the subtle nuances of my teaching that I would never have noticed otherwise,"* highlighting the personal revelations prompted by this exercise.

Furthermore, the freedom to review and dissect their teaching performances at their own pace fostered the development of reflective skills and cultivated a growth mindset among student teachers. As they revisited their recorded lessons, many found themselves comparing their practices not only against their personal goals and aspirations but also against the teaching practices of their peers. This reflective comparison led to a richer and more nuanced understanding of effective teaching strategies, ultimately enriching their educational toolkit.

This was confirmed by one participant, who said, *"I normally re-watch my video to check how I have improved on my teaching."* Another participant said, *"We normally watch our video with my group members and laugh about the mistakes we made at the beginning of the process."*

The study also illuminated the significant impact of the scaffolding and support provided to student teachers during the video-based reflection process. Those who benefited from structured guidance and constructive feedback experienced more pronounced growth in their teaching practices. This was evident as one of the participants indicated that *"Getting peer feedback was beneficial as I would correct my mistakes within a more relaxed environment, unlike having to make mistakes in front of my lecturer."*

Participants who received minimal support faced significant challenges in fully leveraging the benefits of their self-recorded videos. This struggle highlighted the crucial role of effective mentorship, which is vital for optimizing the overall learning experience. Without sufficient guidance, these participants were unable to navigate the complexities of video production and reflection, ultimately limiting their ability to engage deeply with the learning material and derive meaningful insights from their recordings. This emphasizes that a supportive mentoring framework is not just beneficial but essential for fostering an enriching educational environment.

## DISCUSSIONS

The findings of this research elucidate the critical role that engaging student teachers in a reflective learning process, facilitated through constructivist teaching methodologies, plays in nurturing a profound understanding of educational practices (Olefrenko et al, 2020; Komar, 2020). This observation is consistent with numerous prior studies that have demonstrated the advantages of employing self-recorded microteaching videos in cultivating pedagogical skills and enhancing reflective practices among preservice

teachers (Abendroth et al., 2011; Fadde et al., 2009). The implementation of video technology specifically directs attention to essential yet often overlooked dimensions of teaching that become evident through active classroom engagement (Xiao & Tobin, 2018).

Nevertheless, it is crucial to acknowledge that certain studies caution against the anxiety that may ensue from the compulsion to record personal teaching sessions, which could lead to an increased self-awareness that might foster an overly self-conscious or teacher-centric instructional approach (Xiao & Tobin, 2018). Despite these concerns, this research argues that the advantages of video-based analysis outweigh its potential drawbacks, highlighting its capacity to foster self-reflection and enhance instructional effectiveness. This is largely attributable to its ability to permit a nuanced examination of classroom interactions and a variety of teaching strategies (Hamel et al., 2019; Kwangsawad, 2021).

The experiential learning gained through this reflective process significantly enhances the professional development of student teachers while simultaneously equipping them with vital competencies requisite for their future roles as educators (Holubnycha et al., 2025). This premise is substantiated by findings from Lalor et al. (2015), which underscore the imperative for such professional growth in preparing teachers to confront forthcoming challenges. Moreover, the adaptability of video footage extends beyond solitary reflective practices; it can be tailored to encompass diverse analytical perspectives, thereby facilitating a deeper understanding of classroom dynamics and pedagogical methodologies (Darmawanti, 2020).

The integration of instructional videos has also been employed effectively to explore teachers' professional vision, with advanced technologies, such as mobile eye-tracking, revealing intricate insights into real-time pedagogical decision-making processes (Keller et al., 2021). Consequently, a strategic and deliberate incorporation of video-based learning practices is essential to maximize its pedagogical potential while duly addressing the challenges it may present (Körkkö et al., 2019).

Furthermore, this research reveals the transformative impact of embedding reflective practices within the professional development trajectories of student teachers. These practices extend beyond mere auxiliary tools; they fundamentally enhance teachers' efficacy and adaptability within the classroom setting. As cited by Danielowich (2013: 272), the integration of reflective practices engenders an environment where student teachers are encouraged to critically assess their pedagogical strategies, glean insights from their experiences, and adjust their approaches in response to the diverse learning needs of their students. Collectively, these findings highlight the importance of reflective engagement, underscoring its crucial role in developing adept and responsive educators who are well-equipped to navigate the complexities of contemporary teaching environments.

Incorporating technology-enhanced feedback, particularly when coupled with video recordings, significantly motivates student teachers to engage more deeply with their teaching performance. This dual approach personalizes the feedback process, culminating in markedly improved outcomes during their teaching practicum experiences (Nel & Marias, 2022). While brief excerpts of recorded lessons may inadequately represent the entirety of the educational experience, they exhibit considerable promise in fostering both individual and collaborative video-based reflection (Körkkö et al., 2019).

This research's findings strongly support the integration of reflective practices in collaborative learning environments, particularly when complemented by self-recorded

micro-lesson videos. Allowing student teachers to create their own classroom videos can provide valuable insights into their teaching methods and decision-making processes.

This approach not only fosters a deep sense of ownership over their professional development but also encourages a proactive attitude toward self-improvement (Richards et al., 2021). Using self-recorded video content for reflection aligns with the idea that self-reflection is essential for improving teaching effectiveness in professional development settings (Chang et al., 2018). Furthermore, these self-generated videos offer a more authentic and contextually relevant basis for analysing pedagogical strategies and refining instructional methods (Cavanagh, 2021).

## **CONCLUSIONS**

This research offers significant insights into the efficacy of self-recorded microlesson videos as a tool for student teachers undergoing initial teacher education. It emphasises the pivotal role of Reflective Practice Theory in shaping this educational strategy. The findings reveal that these self-recorded videos serve not only as a medium for assessment but also as a catalyst for enhancing the reflective skills of student teachers. By engaging in this reflective process, student teachers can cultivate a growth mindset, which is essential for developing effective and adaptive teaching practices.

The study emphasises the critical importance of implementing well-structured scaffolding and support systems to realise the benefits of self-recorded microlesson videos fully. Educational institutions, along with teacher training programs, need to develop robust frameworks that provide targeted guidance and constructive feedback specifically designed for student teachers. These frameworks should include regular workshops, mentoring sessions, and peer review opportunities that enable aspiring educators to delve deeply into their instructional methods and strategies.

By creating an environment where student teachers can critically assess their teaching practices, they will be better equipped to pinpoint specific areas that require refinement. Moreover, these comprehensive support systems will encourage them to embrace the invaluable insights that self-recorded microlesson videos can offer. As they engage in reflective practices and receive tailored feedback, student teachers can leverage these videos to identify strengths and weaknesses in their delivery, classroom management, and engagement strategies.

Ultimately, the implementation of such strategies will not only enrich the learning experiences of student teachers but also play a vital role in their journey to becoming adept and competent educators. This deliberate approach will foster an ongoing cycle of professional development, guiding them toward greater effectiveness in their teaching careers and enhancing their ability to positively impact their future students.

## **RECOMMENDATIONS**

The practical recommendations and future directions for this study indicate that teacher training institutions should incorporate self-recorded microlesson videos into their teaching practice modules as a fundamental element of reflective practice and assessment. Additionally, they should provide structured workshops focusing on video recording, editing, and reflective analysis to bolster student teachers' confidence and technical proficiency. It is also essential to equip lecturers with strategies for delivering constructive digital feedback on microlesson recordings.

Moreover, establishing organized peer and near-peer review sessions that employ standardized rubrics will foster collaborative learning and critical reflection. Institutions should develop secure platforms for storing, sharing, and providing feedback on microlesson recordings, ensuring all student teachers have equal access to recording equipment and editing tools.

Encouraging student teachers to maintain reflection journals related to their recordings will facilitate self-evaluation and support professional growth. Microlesson videos should serve as supplementary evidence of development, in conjunction with live teaching assessments, and should be guided by clear competency-based assessment criteria.

Future research should investigate the long-term effects of ongoing engagement with self-recorded microlessons on continuous professional development and adaptation to evolving educational technologies. Comparative studies could assess the effectiveness of microlesson recordings relative to traditional methods of teaching practice observation across various teacher education institutions. Additionally, exploring student teachers' perceptions of microlesson recordings as a learning and assessment tool is crucial, particularly in relation to motivation, anxiety, and self-efficacy. Ultimately, research should assess the impact of microlesson recordings on specific teaching skills, including classroom management, lesson planning, and questioning techniques.

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## CONFLICTS OF INTEREST

The author declares that there are no conflicts of interest regarding the publication of this paper.

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## REFERENCES

- Abendroth, M., Golzy, J. B., & O'Connor, E. A. (2011). Self-created YouTube recordings of microteachings: Their effects upon candidates' readiness for teaching and instructors' assessment. *Journal of Educational Technology Systems, 40*(2), 141–159. <http://dx.doi.org/10.2190/ET.40.2.e>
- Alamri, H. A., & Alfayez, A. A. (2023). Preservice teachers' experiences of observing their teaching competencies via self-recorded videos in a personalized learning environment. *Humanities and Social Sciences Communications, 10*(1), 1–12. <https://doi.org/10.1057/s41599-023-02260-2>
- Antony, S., & Ramnath, R. (2023). A Phenomenological Exploration of Students' Perceptions of AI Chatbots in Higher Education. *IAFOR Journal of Education, 11*(2), 7–38. <https://doi.org/10.22492/ije.11.2.01>
- Arifmiboy, A., Jamna, J., Iswari, M., & Agustina, J. R. (2018, January 1). TADALURING Microteaching Learning Model (TMLM): Preparing Professional Teachers by Pre-Service Training. In *SHS Web of Conferences* (Vol. 42, pp. 1–8). <https://doi.org/10.1051/shsconf/20184200007>

- Brame, C. J. (2017). Effective educational videos: Principles and guidelines for maximizing student learning from video content. *CBE—Life Sciences Education*, 15(4). <https://doi.org/10.1187/cbe.16-03-0125>
- Cavanagh, M. (2021). Pre-service Teacher Reflection and Feedback Using an Online Video Platform During Professional Experience. *The Australian Journal of Teacher Education*, 46(2), 72–85. <https://doi.org/10.14221/ajte.2021v46n2.5>
- Chang, C.-F., Gröschner, A., Hall, N. C., Alles, M., & Seidel, T. (2018). Exploring teachers' emotions via nonverbal behavior during Video-Based Teacher Professional Development. *AERA Open*, 4(4). <https://doi.org/10.1177/2332858418819851>
- Cohen, L., Manion, L., & Morrison, K. (Eds.) (2017). *Research methods in education* (8<sup>th</sup> Edition). SAGE Publications. <https://doi.org/10.4324/9781315456539>
- Danielowich, R. M. (2013). Shifting the reflective focus: encouraging student teacher learning in video-framed and peer-sharing contexts. *Teachers and Teaching*, 20(3), 264–288. <https://doi.org/10.1080/13540602.2013.848522>
- Darmawanti, I. (2020). The Classroom Teaching Analysis. In *Proceedings of the International Joint Conference on Arts and Humanities (IJCAH 2020)* (pp. 52–55). <https://doi.org/10.2991/assehr.k.201201.009>
- Ebsworth, M. E., Feknous, B., Loyet, D., & Zimmerman, S. (2004). Tape it yourself: videotapes for teacher education. *ELT Journal*, 58(2), 145–154. <https://doi.org/10.1093/elt/58.2.145>
- Engin, M., & Donanci, S. (2016). Instructional videos as part of a 'flipped' approach in academic writing. *Learning and Teaching in Higher Education Gulf Perspectives*, 13(1), 73–80. <https://doi.org/10.18538/lthe.v13.n1.231>
- Fadde, P. J., Aud, S., & Gilbert, S. (2009). Incorporating a Video-Editing activity in a reflective teaching course for preservice teachers. *Action in Teacher Education*, 31(1), 75–86. <https://doi.org/10.1080/01626620.2009.10463512>
- Fernsten, L., & Fernsten, J. (2005). Portfolio assessment and reflection: enhancing learning through effective practice. *Reflective Practice*, 6(2), 303–309. <https://doi.org/10.1080/14623940500106542>
- Frydenberg, M., & Andone, D. (2016). Creating micro-videos to demonstrate technology learning and digital literacy. *Interactive Technology and Smart Education*, 13(4), 261–273. <https://doi.org/10.1108/itse-09-2016-0030>
- Gheith, E., & Aljaberi, N. (2018). Reflective teaching practices in teachers and their attitudes toward professional self-development. *International Journal of Progressive Education*, 14(3), 161–180. <https://doi.org/10.29329/ijpe.2018.146.11>
- Gibbons, S., & Farley, A. N. (2020). Learning to Think like a Teacher: Effects of Video Reflection on Preservice Teachers' Practice and Pedagogy. *Action in Teacher Education*, 43(3), 250–267. <https://doi.org/10.1080/01626620.2020.1812131>
- Hamel, C., Viau-Guay, A., & Nkuyubwatsi, B. (2019). Using video to support teachers' reflective practice: A literature review. *Cogent Education*, 6(1). <https://doi.org/10.1080/2331186x.2019.1673689>
- Heeralal, P. J. H. (2014). Pre-service teachers' reflections on lessons taught during practice teaching. *International Journal of Educational Sciences*, 7(3), 789–793. <http://doi.org/10.31901/24566322.2014/07.03.41>

- Holubnycha, L., Kostikova, I., Shchokina, T., Soroka, N., & Demchenko, D. (2025). Microlearning: Experience of teaching at a Chinese university. *Educational Challenges*, 30(2), 21–34. <https://doi.org/10.34142/2709-7986.2025.30.2.02>
- Keller, L., Cortina, K. S., Müller, K., & Miller, K. F. (2021). Noticing and weighing alternatives in the reflection of regular classroom teaching: Evidence of expertise using mobile eye-tracking. *Instructional Science*, 50(2), 251–272. <https://doi.org/10.1007/s11251-021-09570-5>
- Kinsella, E. A. (2010). Professional knowledge and the epistemology of reflective practice. *Nursing philosophy*, 11(1), 3–14. <https://doi.org/10.1111/j.1466-769X.2009.00428.x>
- Komar, O. (2020). European Experience of the Use of Information and Communication Technologies in Initial Education of the English Language Teachers. *Educational Challenges*, 25(1), 55–67. <https://doi.org/10.34142/2709-7986.2020.25.1.05>
- Körkkö, M., Rios, S. M., & Kyrö-Ämmälä, O. (2019). Using a video app as a tool for reflective practice. *Educational Research*, 61(1), 22–37. <https://doi.org/10.1080/00131881.2018.1562954>
- Kosmanou, E., & Vassilaki, E. (2023). Constructing desirable professional identities: Linguistic analysis of student teachers' reflection on project-based learning. *Frontiers in Education*, 8, 1–8. <https://doi.org/10.3389/feduc.2023.1050563>
- Kwangsawad, T. (2021). The use of video reflection to enhance EFL pre-service teachers' teaching practice during practicum. *Asian Journal of Interdisciplinary Research*, 4(1), 122–135. <https://doi.org/10.34256/ajir21111>
- Lalor, J., Lorenzi, F., & Rami, J. (2015). Developing Professional Competence through Assessment: Constructivist and Reflective Practice in Teacher-Training. *Eurasian Journal of Educational Research*, 15(58), 45–66. <https://doi.org/10.14689/ejer.2015.58.6>
- Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. *Qualitative Research in Psychology*, 3(2), 102–120. <https://doi.org/10.1191/1478088706qp062oa>
- Loughran, J. (2006). Researching teacher education practices. *Journal of Teacher Education*, 58(1), 12–20. <https://doi.org/10.1177/0022487106296217>
- Lunenberg, M., Zwart, R., & Korthagen, F. (2009). Critical issues in supporting self-study. *Teaching and Teacher Education*, 26(6), 1280–1289. <https://doi.org/10.1016/j.tate.2009.11.007>
- Malterud, K. (2012). Systematic text condensation: A strategy for qualitative analysis. *Scandinavian Journal of Public Health*, 40(8), 795–805. <https://doi.org/10.1177/1403494812465030>
- Molotja, T. W., & Maruma, M. (2018). Challenges reflected on by student teachers of English during teaching practice. *South African Journal of Higher Education*, 32(6), 460–468. <https://doi.org/10.20853/32-6-2976>
- Nel, C., & Marias, E. (2022). Technology-Enhanced assessment feedback on preservice teachers' core teaching practices. *E-Journal of Humanities Arts and Social Sciences*, 3(11), 171–183. <https://doi.org/10.38159/ehass.2022sp31114>
- Olefirenko, N. V., Kostikova I. I., Ponomarova, N. O., Lebedieva K. O., Andriievska V. M., Pikilnyak A. V. (2020). Training elementary school teachers-to-be at Computer

- Science lessons to evaluate e-tools. In *Proceedings of the 7th Workshop on Cloud Technologies in Education (CTE 2019)* (Vol. 2643, pp. 578–591). <http://ceur-ws.org/Vol-2643/paper34.pdf>
- Richards, J., Altshuler, M., Sherin, B. L., Sherin, M. G., & Leatherwood, C. J. (2021). Complexities and opportunities in teachers' generation of videos from their own classrooms. *Learning Culture and Social Interaction*, 28, 100490. <https://doi.org/10.1016/j.lcsi.2021.100490>
- Roberts, L.M. (2020). Interviewing: The art of science. In C.E. Jongensen, K.M.R. Tackett, & J.L. Suizzo (Eds), *Handbook of Research Methods in Human Development* (pp. 107–128). Guilford Press
- Roche, L., Kittel, A., Cunningham, I., & Rolland, C. (2021). 360° Video Integration in Teacher Education: A SWOT analysis. *Frontiers in Education*, 6, Article 761176. <https://doi.org/10.3389/feduc.2021.761176>
- Rose, A. (1992). Framing Our Experience: Research Holes on Reflective Practice. *Adult Learning*, 3(4), 5–15. <https://doi.org/10.1177/104515959200300402>
- Sato, S., & Kageto, M. (2020). The use of 360-degree videos to facilitate pre-learning and reflection on learning experiences. *International Journal of Innovation and Learning*, 27(4), 381–396. <https://doi.org/10.1504/ijil.2020.107609>
- Susantini, E., Kurniasari, I., Fauziah, A. N. M., Prastowo, T., Kholiq, A., & Rosdiana, L. (2018). Engaging pre-service teachers in teaching science contextually with a scientific approach: an instructional video. In *IOP Conference Series: Materials Science and Engineering* (Vol. 296(1), Article 012053). IOP Publishing. <https://doi.org/10.1088/1757-899X/296/1/012053>
- Syantek, M., & McNair, L. (2015). Tricks of the Trade: Using Digital Portfolios and Reflective Practices to Develop Balanced Graduate Student Professional Identities. In *2015 ASEE Annual Conference & Exposition, Seattle, Washington*. <https://doi.org/10.18260/p.24944>
- Tuffour, I. (2017). A critical overview of interpretative phenomenological analysis: A contemporary qualitative research approach. *Journal of Healthcare Communications*, 2(4), Article 52. <http://dx.doi.org/10.4172/2472-1654.100093>
- Tunjera, N., & Chigona, A. (2020, September 14). Assisting teacher educators with constructive technology integration into curriculum delivery in the 21st Century. In *SAICSIT'20: Conference of the South African Institute of Computer Scientists and Information Technologists 2020* (pp. 12–18). Association for Computing Machinery. <https://doi.org/10.1145/3410886.3410900>
- Vanassche, E., & Kelchtermans, G. (2015). The state of the art in Self-Study of Teacher Education Practices: a systematic literature review. *Journal of Curriculum Studies*, 47(4), 508–528. <https://doi.org/10.1080/00220272.2014.995712>
- Wang, Y., Hai, Z., Wang, Y., & Liu, H. (2017, December 1). Study on TPK Structure of Pre-Service Teachers by Micro-Courses Analyzing. In *2017 International Conference of Educational Innovation through Technology (EITT)* (pp. 36–40). <https://doi.org/10.1109/eitt.2017.17>
- Xiao, B., & Tobin, J. (2018). The Use of Video as a Tool for Reflection with Preservice Teachers. *Journal of Early Childhood Teacher Education*, 39(4), 328–345. <https://doi.org/10.1080/10901027.2018.1516705>