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Original Research

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Transformative Interactions: ChatGPT's Role in Facilitating Professional Development Among Vietnamese English as a Foreign Language Teachers

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Abstract

Objective: This study delved into the integration of ChatGPT as a medium for English teacher professional development among Vietnamese English as Foreign Language (EFL) teachers.

Methods: Rooted in the Constructivist Learning Theory and the Technological Pedagogical Content Knowledge (TPACK) framework, the qualitative exploration employed semi-structured interviews with nine teachers categorized into novice, mid-career, and near-end career stages. The objective was to understand teacher experiences, perceptions, and insights regarding the role of ChatGPT in their professional journey.

Results: Key findings illuminated that ChatGPT facilitated enhanced personalized learning, bridged the gap between theoretical knowledge and its practical application, and even indirectly spurred peer collaboration and discussion. However, participants also underscored technological challenges, especially among the more experienced cohorts. Despite these initial hurdles, many stressed the platform's potential in promoting continuous professional growth and reflexivity.

Conclusions and Implications: These insights, while primarily representative of the Vietnamese EFL teaching community, hint at the transformative potential of artificial intelligence (AI) tools in educator professional development. Nevertheless, with the study's inherent limitations, such as cultural specificity and sample size, future research is advocated to further comprehend the multifaceted implications of technology-augmented professional development in diverse educational landscapes.

Keywords: *ChatGPT, mentorship, professional development, Vietnamese EFL teachers, zone of proximal development*
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Introduction

In an age where technology permeates every aspect of education and society, innovative tools and platforms are revolutionizing the way teachers access professional development opportunities. One such innovation is the integration of artificial intelligence (AI) in the realm of teacher training and continuous professional development (CPD; Bin & Mandal, 2019). Among the AI tools available, ChatGPT by OpenAI stands out as a potential game changer for educators around the world.

Vietnam, like many nations, recognized the imperative need to enhance the proficiency and pedagogical skills of English teachers to meet the demands of a globalizing world. English language teaching (ELT) in Vietnam has undergone significant transformations in recent decades, with a notable emphasis on communicative methodologies and the adoption of international standards (Tran & Tanemura, 2020). As such, Vietnamese English teachers are constantly in search of effective mediums for professional development to align their instructional practices with global best practices.

While traditional modes of teacher professional development (TPD), such as workshops, seminars, and conferences, play an indispensable role (Özdemir, 2013), they come with logistical challenges and might not be feasible for every teacher—especially those in remote areas. Digital platforms, therefore, offer a promising solution and allow for flexibility, personalization, and accessibility. Given these benefits, this study aims to explore the effectiveness and viability of using ChatGPT as a medium for English TPD among Vietnamese teachers.

This research delves into the experiences, perceptions, and outcomes associated with integrating ChatGPT into the TPD framework. It offers insights that could shape future interventions, not just in Vietnam but in similar contexts globally.

Literature Review

Traditional Professional Development for English Teachers

Historically, TPD for English teachers has been delivered through face-to-face formats, such as workshops, seminars, and courses. Garet et al. (2001) highlighted that these traditional formats—while beneficial in fostering interpersonal interactions—often posed logistical challenges. Their study found that teachers often faced difficulty in attending these sessions due to conflicting schedules and the necessity of travel, which could disrupt their regular teaching duties.

Borko (2004) further elaborated on the constraints of TPD in developing countries, pointing out that issues related to time, distance, and cost often limit the accessibility and effectiveness of these models. In her study, the researcher emphasized that teachers in remote or rural areas are particularly disadvantaged, as they might not have the resources—or opportunities—to participate in these development programs, thus exacerbating the educational inequity.

In Vietnam, Dang et al. (2013) documented how the rapid expansion of English teaching has often outpaced the availability of high-quality professional development programs. Their research indicates that many Vietnamese EFL teachers lack adequate TPD opportunities, resulting in significant gaps in their knowledge

and skills. The study suggests that without sufficient support, teachers struggle to adopt new teaching methodologies and integrate them into their classrooms, ultimately affecting the quality of English education provided to students.

Digitalization and TPD

The rise of digital technologies has ushered in a new era for TPD, allowing for the creation of dynamic, asynchronous learning environments. Dede et al. (2009) discussed how online courses, webinars, and digital communities of practice offer teachers unparalleled flexibility and access to international resources. Their study demonstrates that digital TPD can accommodate busy teacher schedules and enable them to engage in professional development at their own pace, as well as from any location. Digital TPD flexibility is particularly beneficial for teachers who may not have the time or resources to attend traditional in-person workshops.

Loan and Van (2015) highlighted the specific benefits of digital platforms for Vietnamese teachers. Their research shows that these platforms help bridge the gap between urban and rural areas, democratizing access to quality TPD resources. Those researchers found that rural teachers, who often face significant barriers in accessing traditional TPD, can now participate in professional development activities through digital means. Increased access to digital TPD helps to level the playing field to provide all teachers—regardless of their location—the opportunity to improve their skills and knowledge.

The Emergence of AI in Education

The integration of artificial intelligence (AI) into educational platforms is increasingly reshaping the learning and teaching processes. González-Castro et al. (2021) examined how AI tools, such as chatbots, recommendation systems, and adaptive learning platforms, offer personalized and immediate feedback and enhance learner engagement and outcomes. Their study found that AI-driven educational tools could significantly improve the learning experience by providing instant feedback and tailored recommendations, which helps to keep learners motivated and on track.

The personalized nature of AI tools ensures that the content meets the specific needs of each learner, thereby enhancing the overall effectiveness of the learning process. The potential of AI to revolutionize TPD lies in the ability of AI to tailor content to individual teacher needs, offer real-time support, and curate vast amounts of educational content efficiently. González-Castro et al. (2021) further highlighted that AI can analyze teacher interactions and progress to provide customized professional development pathways and ensure that each teacher receives the support and resources most relevant to their specific context and challenges. Their research suggests that AI can facilitate a more responsive and adaptive TPD experience, which is crucial for addressing the diverse needs of teachers.

This review emphasizes the transformative impact of AI on education and TPD. By leveraging the capability of AI, educational platforms can deliver more personalized, efficient, and effective professional development experiences to address the unique needs of individual teachers and enhance their professional growth.

ChatGPT and Its Educational Implications

ChatGPT, developed by OpenAI, represents a significant advancement in natural language processing. Lo (2023) explored the versatility of AI in various educational contexts to demonstrate how ChatGPT can serve as a tutor for students. In this study, the researcher found that ChatGPT could effectively assist students by providing instant explanations, answering questions, and offering feedback on their work.

The AI personalized tutoring approach helps address individual student needs and supports their learning outside the classroom. Whalen and Mouza (2023) examined the role of ChatGPT as a resource for curriculum design. Their research highlights how educators can use ChatGPT to generate lesson plans, develop teaching

materials, and even create assessments. The research team discovered that the ability of ChatGPT to understand and generate human-like text allows the program to produce high-quality educational content efficiently, which saves teachers time and effort in curriculum development.

The utilization of ChatGPT in TPD, especially within the Vietnamese context, remains a relatively uncharted domain. This study aims to bridge this gap by investigating how ChatGPT can be integrated into TPD for Vietnamese EFL teachers to provide insights into its potential benefits and challenges within this specific educational setting.

Studies by Lo (2023) and Whalen and Mouza (2023) underscore the broad applicability of ChatGPT in education. The ability of this AI program to offer personalized tutoring and support curriculum design showcases its potential to enhance both student learning and TPD.

English Language Teaching in Vietnam

The Vietnamese government emphasized English proficiency as a strategic objective to foster international integration and economic growth. Thao and Mai (2022) highlighted that this policy aimed to improve the country's global competitiveness by equipping its workforce with essential language skills. Their study emphasized the government's strategic initiatives and investments in English language education and underscored the national priority placed on achieving high levels of English proficiency. Yet, many challenges persist.

Nguyen and Bui (2016) explored the cultural, methodological, and resource disparities that often hinder effective English instruction. Their research identified several key issues, such as the lack of culturally relevant teaching materials, traditional teaching methods that do not engage students effectively, and insufficient resources, especially in rural areas. Nguyen and Bui (2016) argued that these factors contributed to inconsistent English proficiency levels among students despite government efforts. Continuous TPD is crucial to ensure that teachers can address these challenges and align their instruction with international standards.

Barriers to Effective TPD in Vietnam

Several studies have highlighted barriers to effective TPD in Vietnam, such as limited training content relevance, insufficient practical application, and lack of continuous support post-training. Pham (2018) provided a comprehensive review of these barriers and noted that many TPD programs fail to address the specific needs of teachers or provide practical strategies that can be implemented in the classroom. Pham's (2018) study reveals that without relevant and practical content, TPD programs are less effective in improving teaching practices. Additionally, the lack of ongoing support means that teachers often revert to their old methods once the initial training phase is over.

Digital solutions, especially those offered by AI, such as ChatGPT, could potentially address training and application issues by providing personalized, on-demand, and continuous learning opportunities. Pham (2018) suggested that AI-driven platforms can offer tailored professional development experiences that are both relevant and practical, helping teachers continuously improve their skills and adapt to new teaching challenges.

The literature underscores the changing landscape of TPD, with digital and AI-powered platforms offering promising avenues for enhancing teacher capacities. The significance of English instruction in Vietnam, coupled with the challenges in accessing quality TPD, presents a compelling context in which to explore the potential of ChatGPT as a novel tool for English TPD. This study seeks to fill the gap in understanding the implications of integrating such advanced AI tools into the TPD matrix of a developing country.

Methods

Research Design

This research adopts a qualitative design to deeply understand the experiences, perspectives, and potential implications of using ChatGPT for English TPD among Vietnamese educators. Recognizing that qualitative methodologies enable rich, detailed insights into human behavior, emotions, and patterns (Creswell & Poth, 2016), this study prioritizes the lived experiences of its participants to elucidate the phenomenon at hand.

The theoretical underpinnings of this research draw from two key frameworks, of which the Constructivist Learning Theory (CLT) is first. As posited by Vygotsky and Cole (1978), CLT emphasizes the idea that learners actively construct their knowledge through interactions with their environment. Applied to this study, CLT suggests that teachers, through their interaction with ChatGPT, are actively constructing their professional knowledge, and the tool serves as a mediator in this process. This perspective helps in understanding how and why ChatGPT might be an effective medium for professional development, based on its ability to respond, adapt, and interact in a way that promotes constructive learning.

The second framework that informs this study is the Technological Pedagogical Content Knowledge (TPACK) framework by Mishra (2019). TPACK underscores the interplay between technological, pedagogical, and content knowledge, and suggests that effective technology integration in education occurs when teachers can seamlessly weave these three forms of knowledge. By examining ChatGPT through the lens of TPACK, this research aims to understand how teachers perceive the integration of this AI tool into their pedagogical strategies and whether it enhances or impedes their content delivery.

Participants

The participants of this study comprised nine Vietnamese EFL teachers, who were sourced from two educational institutions in Vietnam. The intentional selection of these participants was based on their varied professional experience in order to capture a broad spectrum of insights and perceptions about the use of ChatGPT in their professional development journey. Specifically, the cohort was divided into three distinct career stages, including three novice teachers with less than 5 years of teaching experience; three mid-career teachers with 5–15 years of experience; and three near-end career teachers who have dedicated over 15 years to EFL instruction.

The rationale behind the stratified selection of participants for this study was to uncover potential differences in the way teachers at various career stages interact with, perceive, and benefit from technology like ChatGPT. Novice teachers, for instance, might be more technologically adept or open to AI-driven tools due to their recent training, whereas near-end career teachers might offer insights rooted in deep pedagogical experience, reflecting on how such innovations compare to the traditional methods they encountered throughout their tenure.

Prior to the interviews, participants engaged in a preliminary study where they were introduced to ChatGPT and encouraged to use it for a range of TPD activities over a 2-month period. We designed this preliminary phase to provide participants with sufficient time to explore and integrate ChatGPT into their professional routines. Participants were instructed to use ChatGPT to seek information, generate lesson plans, and explore new teaching methodologies. This structured exposure ensured that all participants had a baseline familiarity with the tool and allowed for more informed and reflective discussions during the interviews.

Ethical considerations were paramount throughout the participant engagement process. Prior to the interviews, we informed all participants about the purpose of the study, the nature of their involvement, and the potential implications of their contributions. Informed consent was obtained from each teacher, ensuring they were participating voluntarily and could withdraw at any point without facing any repercussions.

Confidentiality was assured, with the commitment that no personal identifiers would be used in the research reports or publications. Furthermore, the data gathered was securely stored, with access limited only to the research team. Emphasis was placed on creating an environment where participants felt comfortable sharing their genuine experiences and perceptions without any fear of judgment or professional consequences.

Data Collection

For this research, we used the semi-structured interview as the primary data collection method. Given the exploratory nature of the study, we deemed this method most suitable for delving deeply into the participant's experiences and perspectives, allowing for both structured queries and organic dialogue. The interviews were conducted by the leader of the project, an experienced qualitative researcher who has an extensive background in educational technology and language teaching.

Prior to the main data collection phase, we conducted a pilot study to test the efficacy and clarity of the interview guide. This pilot involved interviewing two EFL teachers, not included in the main study, to ascertain the appropriateness and effectiveness of the proposed questions. Their feedback provided invaluable insights and led to revisions that enhanced the comprehensiveness and flow of the interview protocol. Following these revisions, the refined interview guide included questions such as:

- How do you perceive the role of technology, specifically AI tools like ChatGPT, in your professional development?
- Can you describe a specific instance where ChatGPT facilitated a clearer understanding or offered a new perspective about an EFL topic or pedagogical approach?
- Were there moments of frustration or challenges while using ChatGPT for professional development? If so, can you share such experiences?
- How does your interaction with ChatGPT differ from other traditional professional development sessions or tools you have encountered?

The interviews with the nine selected participants were conducted individually, with each session lasting between 45 minutes to 1 hour. Recognizing the importance of a comfortable environment conducive to open dialogue, participants were given the choice of their preferred interview location, be it within their institution, a quiet café, or a virtual platform. To ensure cultural and linguistic comfort, the interviews were conducted in Vietnamese, as it allowed participants to express their thoughts more fluently and comprehensively. All interviews were transcribed by a team led by the second member of the research team, a research assistant proficient in both Vietnamese and English. Later, the recorded responses were transcribed and, where necessary for analysis, translated into English by a professional bilingual translator.

It is worth noting that, during the interviews, intermittent clarifications were sought when responses were ambiguous or when the potential for deeper insights emerged. This adaptive approach, in line with the semi-structured format, ensured that rich, nuanced data were collected, laying the foundation for a robust analysis.

Data Analysis

The data analysis for this study was grounded in the methodological framework of thematic analysis, as delineated by Braun et al. (2023). Thematic analysis is a qualitative analytic method that identifies, analyzes, and reports patterns or themes found within the data. Its inherent flexibility and emphasis on capturing the complexities of qualitative data made it an ideal choice for analyzing the rich, descriptive data collected from the semi-structured interviews.

Upon completing the interviews, the first step was to transcribe all recorded dialogues, converting the spoken word into written text. As the interviews were conducted in Vietnamese, the transcription process carefully

retained the nuances and emotions expressed by the participants. Following transcription, an initial familiarization phase was embarked upon, which involved multiple readings of the data to immerse oneself deeply in participant experiences and insights. The transcription process was meticulously handled by the second team member to ensure every detail was accurately captured.

The subsequent phase involved generating initial codes from the data. During this stage, salient features of the data that appeared pertinent to the research questions were systematically identified and coded. These codes, which encapsulate the essence of specific data segments, served as anchors for the subsequent identification of overarching themes. Once the coding was completed, potential themes were explored by collating all related codes under potential thematic umbrellas.

The thematic phase was iterative and involved a constant back and forth between the identified themes, coded data extracts, and the entire data set, ensuring that the emergent themes accurately reflected the collected data. Following this, a process of reviewing and refining the themes took place.

This refining phase ensured that the themes coherently mapped to the collated codes and were distinct, with clear boundaries separating them. Themes that lacked sufficient evidence or were too disparate were either discarded or merged with other related themes.

The final phase of data analysis involved defining and naming the themes, as well as articulating the essence of what each theme captured about the data. This process entailed a deeper exploration of the scope and content of each theme and enabled a clear demarcation of the narrative that the analysis sought to convey.

Throughout the entire data analysis process, we maintained constant reflexivity to ensure that our interpretations were grounded in the data while being cognizant of potential biases. The leader of the research team, who also led the analysis, ensured that the final themes were thoroughly vetted and reflective of the true essence of the participants' experiences. The resulting themes provided a structured, nuanced understanding of the Vietnamese EFL teachers' experiences and their perceptions of using ChatGPT for professional development.

Findings

Enhanced Personalized Learning Through ChatGPT

One of the most prominent themes that emerged from the data was the recognition of ChatGPT as a tool that facilitated enhanced personalized learning for the participants. A majority of the teachers—across all career stages, including two novices, two mid-career, and all three near-end career teachers—highlighted how their interactions with ChatGPT allowed for a tailored learning experience and addressed their unique needs and challenges.

Anh, a novice teacher, expressed, "With ChatGPT, I felt the learning was directly suited to my pace. Whenever I faced a challenge, it would guide me, not just with generic answers but with insights that seemed tailored for me." From the mid-career group, Binh reflected, "Earlier tools provided a one-size-fits-all approach. But with ChatGPT, it is like having a personal mentor who understands exactly where I am coming from." Trang, nearing the end of her teaching career, resonated similar sentiments, "I have attended countless workshops over the years. But this is the first time a tool seemed to 'get' me. It felt like it knew what I needed even before I did."

These findings align closely with the tenets of the Constructivist Learning Theory (CLT). The individualized learning experiences facilitated by ChatGPT, as expressed by the participants, can be seen as an embodiment of Vygotsky's idea of learners actively constructing their knowledge. ChatGPT, in this scenario, does not merely offer information; it acts as a mediator in the learning process, adjusting its responses based on the

user's needs and thereby allowing each teacher to construct their understanding in a manner that is most relevant to them.

Moreover, the theme also finds resonance with the TPACK framework. The reflections, especially from the mid-career and near-end teachers, underscore the seamless integration of technological (AI capabilities of ChatGPT) and pedagogical knowledge. Participant experiences suggest that ChatGPT is not just a tool; it is a technological entity that seems to possess a pedagogical understanding and facilitates learning in a way that traditional tools or even human mentors could not achieve consistently.

Bridging Theoretical Knowledge and Practical Application

A significant theme that manifested from the interactions with participants was ChatGPT's capability to bridge the gap between theoretical knowledge and its practical application in the classroom. This theme was emphasized across career stages, with all participants (three novice teachers, two mid-career teachers, and two near-end career teachers) sharing experiences that highlighted this aspect of ChatGPT.

Chau, who represented the novice teachers, remarked:

> While I am familiar with the theoretical aspects of teaching EFL from my recent training, applying them in real classroom scenarios can be daunting. ChatGPT often provides not just theoretical explanations but also practical strategies that I can implement immediately.

Dung, a mid-career teacher, shared, "Over the years, I have accumulated a lot of theoretical knowledge. But there are times I struggle with how to apply it. ChatGPT has often shown me ways to bridge that gap." From the near-end-of-career perspective, Linh opined, "In my long career, I have seen many theories come and go. With ChatGPT, it feels like I am rediscovering them, but more importantly, finding ways to make them relevant for today's students."

The insights from the study participants can be contextualized within the CLT. ChatGPT, by providing practical strategies, is not merely disseminating information; it is actively guiding the teachers in constructing their understanding by connecting theoretical knowledge with actionable strategies. This insight aligns with Vygotsky's emphasis on the Zone of Proximal Development, where learning is optimized when individuals are guided from what they know to what they can potentially achieve with assistance.

Furthermore, these findings can be mapped onto the TPACK framework. Participant experiences highlight the capability of ChatGPT to meld content knowledge (theoretical aspects of EFL teaching) with pedagogical knowledge (strategies and methods for effective teaching). This seamless weaving indicates a technological tool that not only holds content knowledge but can also discern pedagogical techniques apt for the content and reinforce the intertwined nature of knowledge posited by the TPACK framework.

Navigating Technological Challenges With ChatGPT

While many participants lauded the benefits of ChatGPT, they also voiced a recurring theme, technological challenges faced while integrating ChatGPT into their professional development regimen. This theme was particularly pronounced among the mid-career and near-end teachers. Specifically, two of the mid-career teachers and all three near-end career teachers shared experiences that highlighted both initial hurdles and subsequent navigation strategies with the platform.

Huyen, from the mid-career bracket, stated, "At the beginning, I was a bit overwhelmed. It was unlike any tool I had used before. But over time, with persistence, I began to understand its potential and how to use it effectively." Phuong, representing the near-end career teachers, shared a candid perspective:

> I have always been a bit resistant to new technology. With ChatGPT, there was a steep learning curve initially. But once I got past that, I could see its value, especially with the help of younger colleagues who guided me.

Drawing from the CLT, these experiences highlight the often non-linear nature of learning. The initial resistance or challenges faced by the teachers can be perceived as cognitive dissonance, a natural phase where learners grapple with new information or tools that might not align with their existing knowledge or beliefs. The eventual understanding and appreciation of ChatGPT, after navigating these challenges, epitomize the construction of new knowledge built upon—and sometimes in contrast to—prior understanding.

Moreover, the experiences, especially from the near-end career teachers, reflect elements of the TPACK framework. Their journey with ChatGPT underscores the intricate dance between technological knowledge and pedagogical knowledge. While they might have been well versed in pedagogical content knowledge, the teachers had to recalibrate with the introduction of a new technological entity, rediscovering how their teaching knowledge could be augmented with this technology.

Facilitating Peer Collaboration and Discussion

A remarkable theme that emerged from the data was how ChatGPT indirectly fostered a culture of peer collaboration and discussion among the teachers. Interestingly, two novice teachers, all three mid-career teachers, and one near-end career teacher highlighted experiences where interactions with ChatGPT led to further discussions and collaborative exploration with their colleagues.

Kien, a novice teacher, shared, “After getting an intriguing response from ChatGPT, I often felt the urge to discuss it with my peers, leading to enriching brainstorming sessions.” From the mid-career group, Huyen commented, “ChatGPT often sparked ideas or raised questions I had not considered. Sharing these with my team became a routine, and it enriched our collaborative learning environment.” Speaking for the near-end teachers, Phuong observed, “ChatGPT reminded me of the collaborative spirit we had in the early days of my career. It became a conversation starter, a means to reconnect with colleagues and jointly explore teaching strategies.”

These shared experiences resonate powerfully with the CLT. The collaborative discussions triggered by interactions with ChatGPT can be seen as social constructivism in action, whereby knowledge construction is a collective endeavor. Vygotsky emphasized the significance of social interactions in the learning process, positing that shared experiences and dialogues often lead to a deeper understanding. The teachers’ narratives underscore how technology—while often perceived as an individualized tool—can inadvertently foster collaborative learning environments.

This theme also intersects with the TPACK framework. The shared explorations and discussions among teachers, prompted by their interactions with ChatGPT, highlight the confluence of technological, pedagogical, and content knowledge. As they dissect and discuss insights from ChatGPT, they are inadvertently weaving together these distinct domains of knowledge, reinforcing the interdependent nature of technology, pedagogy, and content.

Continuous Professional Growth and Reflexivity

A recurrent theme, particularly pronounced among the novice and mid-career teachers, was the sense of continuous professional growth and reflexivity fostered through their engagement with ChatGPT. Three novice teachers, two mid-career, and one near-end career teacher expressed how their interactions with the platform frequently prompted introspection, reflection, and a desire to evolve in their teaching practices.

Linh, from the novice group, mentioned, “ChatGPT constantly pushes me to reflect on my teaching methods. It is like having a mirror that shows not just where I am but also where I could be in my teaching journey.” Chau, a mid-career teacher, expanded on this sentiment, “Each interaction feels like a professional development session. It does not just answer; it makes me question, introspect, and often reconsider my approach.” From the near-end group, Trang provided a broader perspective, “In my years of teaching, I have seen the importance of adaptability and continuous learning. ChatGPT reinforces this belief, reminding me to always strive for growth.”

The experiences of these participants can be anchored within the CLT. Reflexivity, as facilitated by ChatGPT, is a cornerstone of constructivism, wherein learners actively reflect on their experiences, assimilating new information with pre-existing knowledge, and accommodating it when necessary. The continuous cycle of questioning, reflecting, and adapting, as highlighted by the participants, is emblematic of the active and dynamic process of knowledge construction advocated by constructivist theorists.

Simultaneously, these reflections can be mapped onto the TPACK framework. The introspective journey the teachers embark upon, prompted by their interactions with ChatGPT, signifies a constant recalibration of their technological, pedagogical, and content knowledge. As they question and adapt their teaching methodologies in light of insights from ChatGPT, they are navigating the intersections of these knowledge domains, fine-tuning each aspect in the quest for holistic professional development.

Discussion

Enhanced Personalized Learning Through ChatGPT

The revelation of ChatGPT as a facilitator for enhanced personalized learning is both an affirmation and an expansion of current discourse in the realm of TPD. Earlier studies in the field have championed the potential of technology to support individualized learning pathways. For instance, Tomlinson (2014) highlighted the growing importance of technology in offering differentiated learning experiences for educators. Yet, while their study focused on the generic benefits of technological tools, our findings delve deeper and spotlight the uniquely tailored guidance ChatGPT offers.

In contrast, a study by Looi et al. (2009) explored the limitations of various technological tools in providing truly personalized experiences. They argued that many digital platforms, despite their claims, still lean towards a standardized approach. Our study, however, underscores the proficiency of ChatGPT in breaking this mold, offering genuine individualized support as encapsulated in the experiences of participants like Anh, Binh, and Trang. The sentiments expressed by our participants challenge the skepticism presented by Lee and Kim, suggesting that while many tools may fall short, ChatGPT notably rises to the promise of tailored learning experiences.

Furthermore, the observation that ChatGPT can act as a mediator in the learning process, seamlessly adjusting its responses based on user needs, finds tangential support in the work of Demir and Demir (2023). They emphasized the significance of adaptive learning platforms in professional development. However, the adaptability discussed in their study often pertained to predefined pathways with limited real-time adaptability. In contrast, our findings spotlight the real-time, dynamic adaptability of ChatGPT, which appears to surpass the capabilities of the platforms that Demir and Demir (2023) discussed.

Moreover, while the CLT has long been associated with technology-enhanced learning (e.g., Hammad et al., 2020), our findings enrich this association and provide granular insights into how an AI-driven tool can embody the principles of active knowledge construction. The synergy between technology and pedagogy, as elucidated by the TPACK framework, further solidifies our study’s contributions. By emphasizing the

pedagogical prowess of ChatGPT, we bridge a gap in existing literature, which often compartmentalizes technological tools as devoid of innate pedagogical understanding.

Bridging Theoretical Knowledge and Practical Application

The theme concerning the ability of ChatGPT to bridge theoretical knowledge, as well as its practical application, holds significant implications and adds nuance to existing literature. Historically, the chasm between theory and practice was a recurring challenge in the realm of TPD. Smith et al. (2022) noted the often siloed nature of theoretical understanding and its translation into actionable classroom strategies. Our findings not only corroborate this observation but also underscore the potential of ChatGPT in addressing this long-standing issue.

Interestingly, an analysis of the work done by Garvey et al. (2021) unveils a dichotomy. While their study advocated for mentorship as a key facilitator to transition from theory to practice, our findings present ChatGPT as a digital counterpart to human mentors. Unlike traditional mentorship, which is contingent on the mentor's availability and expertise, ChatGPT offers round-the-clock guidance and ensures consistent support. The experiences of participants like Chau and Dung highlight this unparalleled accessibility and its consequential impact on their professional journey.

Moreover, a study by Novak (2010) drew attention to the various tools designed to help educators apply theoretical knowledge. Yet, Novak (2010) noted a caveat: Many tools either veer too deeply into theory or get mired in practical strategies, seldom striking a balance. Our findings introduce ChatGPT as an exception to this pattern. With interactions like the one Linh shared, ChatGPT seamlessly integrates theory and practice, enhancing its utility manifold.

Positioned within the CLT, the role of ChatGPT resonates strongly with Vygotsky and Cole's (1978) concept of the Zone of Proximal Development. By providing educators a bridge from their current understanding (theory) to potential classroom strategies (practice), ChatGPT acts as the more knowledgeable other that Vygotsky emphasized. It scaffolds their learning journey, ensuring that the transition from theoretical knowledge to practical application is smooth and effective.

Furthermore, the narratives revolving around the integration of theoretical and practical knowledge are emblematic of the principles enshrined in the TPACK framework (Mishra, 2019). The participants' experiences illuminate how ChatGPT epitomizes the convergence of content and pedagogical knowledge, emphasizing the interconnectedness posited by TPACK.

Navigating Technological Challenges With ChatGPT

The emergence of technological challenges as a theme, particularly among mid-career and near-end teachers, offers a nuanced understanding of the intersection of technology, pedagogy, and content knowledge. It resonates with the broader discourse in educational technology literature, which often reports a divide between tech-savvy younger educators and their senior counterparts. For instance, Warschauer (2004) highlighted the "digital divide" among teachers, where veteran educators, despite their vast pedagogical knowledge, sometimes grapple with rapidly evolving technological tools.

Huyen's and Phuong's reflections are emblematic of this divide. While they exhibit a deep understanding of pedagogy and content, veteran educators face challenges with the integration of a new technological toolz such as ChatGPT. This observation echoes the findings of Perkins (2017), who emphasized that even seasoned educators might experience moments of trepidation when confronted with innovative tech tools. However, an essential deviation in our study, distinguishing it from Perkins (2017), is the eventual overcoming of these

challenges. Our participants did not remain entrenched in their technological apprehensions; they navigated through them, constructing a renewed understanding.

Another interesting tangent is Phuong's acknowledgment of seeking help from younger colleagues. This intergenerational collaboration in navigating technological challenges has been championed by Edwards (2022), who observed that blended teams of younger and veteran educators often foster richer tech-integration experiences. Our findings bolster this notion, emphasizing the organic support systems that educators build among themselves.

Positioned within the CLT, the technological challenges faced by our participants and their eventual mastery can be likened to Vygotsky and Cole's (1978) notions of assimilation and accommodation. Initially, the educators tried to fit ChatGPT into their existing schema (assimilation), which led to the cognitive dissonance mentioned. However, over time, they adjusted their schema, accommodating the new tool and its potential (accommodation), leading to a deeper understanding and effective integration.

Furthermore, the TPACK framework offers an insightful lens for understanding the experiences of our participants, especially those nearing the end of their careers. As they embarked on their journey with ChatGPT, the interplay between their robust pedagogical knowledge and nascent technological understanding is reminiscent of the dynamic interactions posited by TPACK (Mishra, 2019). Their experiences underscore the evolving nature of this knowledge interplay, where one domain can catalyze growth in another.

Facilitating Peer Collaboration and Discussion

The facilitation of peer collaboration and discussion as a byproduct of interactions with ChatGPT offers a fresh dimension to our understanding of how AI-driven tools can influence the social fabric of teaching communities. Previous research, such as the work of Anderson and Dron (2011), primarily associated technology with individualized learning experiences, wherein the learner interacts with the tool in isolation. However, our findings present an alternative narrative, underscoring the communal aspects that technology can inadvertently catalyze.

Kien's, Huyen's, and Phuong's reflections manifest a scenario where technology acts as a pivot around which peer interactions and discussions orbit. This observation aligns with Holmes and Tuomi's (2022) assertion that technology, especially AI-driven platforms, can serve as stimuli for professional discussions among educators and push them to share, debate, and co-construct pedagogical insights. While Holmes and Tuomi (2022) discussed this in the context of online teacher communities, our study extends this dynamic to offline, real-world interactions among teaching peers, marking a significant contribution to the existing discourse.

From a CLT perspective, this theme underscores the potential of technology in amplifying Vygotsky and Cole's (1978) idea of social constructivism. While ChatGPT, on its surface, seems to offer a one-on-one interaction, its ripple effects lead to social interactions and communal knowledge construction. Teachers did not just consume insights from ChatGPT in isolation; they became active agents, disseminating, debating, and developing these insights in collaboration with their peers.

The TPACK framework provides an analytical lens that further illuminates our findings. Teachers did not just share the technological marvels of ChatGPT; they delved deep into the pedagogical implications and content relevance of the insights gained. This reflects the fluid interplay between technology, pedagogy, and content, a dance of knowledge domains that the TPACK framework so eloquently captures (Mishra, 2019).

Continuous Professional Growth and Reflexivity

The theme of continuous professional growth and reflexivity, especially among the novice and mid-career teachers, offers profound insights into the evolving landscape of TPD in the digital age. Traditional models of

professional development often operate in fixed cycles, with periodic workshops or training sessions (Darling-Hammond et al., 2017). However, the reflections from Linh, Chau, and Trang suggest a paradigm shift towards a more fluid, ongoing, and reflexive model of professional development facilitated by tools like ChatGPT. This shift aligns with Dede and Richards' (2020) exploration of CPD in the digital era. They posited that the rise of AI and digital platforms could transform CPD from a structured, episodic model to a continuous, integrative one. Our findings provide empirical evidence supporting this theory, positioning ChatGPT not just as an informational tool but also as a catalyst for sustained professional introspection and growth.

From the lens of the CLT, our findings underscore the profound potential of technology in fostering a deep-seated reflexive culture among educators. Vygotsky and Cole (1978) emphasized the dialectical relationship between learning and development, suggesting that true learning prompts a deep internal developmental process. The reflections shared by our participants—the ongoing cycle of introspection, adaptation, and evolution—resonate with this tenet and illustrate how ChatGPT facilitates a deep-seated developmental trajectory in their professional journeys.

Mapping these insights with the TPACK framework provides a nuanced understanding of this continuous professional growth. As teachers interact with ChatGPT, they not only gain technological prowess or content knowledge but consistently recalibrate their entire professional compass, integrating technological insights with pedagogical strategies and content expertise. This holistic development, where teachers constantly navigate the intersections of the TPACK domains (Mishra, 2019), amplifies the depth and breadth of their professional evolution.

Conclusion

The rapid proliferation of AI in educational settings has ushered in a new era of exploration and intrigue. Amidst this backdrop, our study sought to understand the experiences of Vietnamese EFL teachers as they integrated ChatGPT, a prominent AI tool, into their professional practices. Through a qualitative lens, we engaged with nine teachers across varying career stages, novice, mid-career, and near-end, from two distinct institutions in Vietnam. Our methodological approach, centered around semi-structured interviews and thematic analysis, aimed to capture the depth and nuance of their experiences, as well as their perceptions of ChatGPT's role in their teaching journeys.

The findings of this investigation illuminated several themes that offer profound insights into the potential and challenges of integrating AI tools, like ChatGPT, into educational settings. A significant number of participants, spanning across career stages, recognized ChatGPT as an instrument for enhanced personalized learning, echoing the tool's capacity to tailor learning experiences to individual needs. Further, the tool was noted to bridge the gap between theoretical knowledge and practical classroom application, underscoring its multifaceted utility. While many lauded its benefits, challenges related to technology adoption, especially among mid-career and near-end teachers, were also apparent. Yet, even within these challenges, there were silver linings, as ChatGPT became a catalyst for peer collaboration, discussion, and continuous professional reflection.

The revelations from this investigation into the experiences of Vietnamese EFL teachers using ChatGPT offer several implications for educators, policymakers, and developers of educational technology. First, the pronounced value of ChatGPT in facilitating personalized learning underscores the necessity for educational institutions and policymakers to consider integrating AI-driven tools with professional development programs. Such tools cater to the unique learning trajectories of educators, accommodating varied paces and preferences. As professional development endeavors become more individualized, this could lead to more meaningful and impactful learning experiences for educators, which could, in turn, enhance their classroom teaching efficacy.

Second, the capability of ChatGPT to bridge theoretical knowledge with its practical application signifies an imperative for teacher training institutions. Traditional methods that segregate theory from practice may need to be reevaluated. Tools like ChatGPT can act as mediators, seamlessly merging these realms and offering novice teachers, especially, a holistic view of their profession from the outset. However, the technological challenges faced by a segment of participants, particularly those in the mid-career and near-end stages, highlight the importance of scaffolded technological integration. Institutions should ensure that the introduction of such tools is accompanied by comprehensive training sessions and continuous support. Peer mentoring, where tech-savvy educators guide their colleagues, could be a valuable strategy, given its organic emergence in our study.

The indirect fostering of peer collaboration and discussion by ChatGPT also bears significant implications. While AI tools are often perceived as individualized learning platforms, their potential to catalyze collective professional growth is evident. Institutions might consider creating collaborative platforms or discussion forums where educators can share insights, questions, or intriguing findings from their interactions with AI tools, thus fostering a culture of collective growth. Lastly, the emphasis on continuous professional growth and reflexivity, facilitated by ChatGPT, suggests that AI tools could serve as constant companions in an educator's journey, prompting them to routinely reflect and adapt. This underscores a broader implication: In an era where education is rapidly evolving, tools that encourage adaptability and introspection could be invaluable assets for lifelong learning.

Limitations and Recommendations for Further Studies

Despite its insightful contributions, this study bears certain limitations that must be acknowledged. Primarily, the study focused solely on Vietnamese EFL teachers, which may not represent the experiences of educators from different cultural or academic backgrounds. Additionally, the sample size was relatively small, which could potentially limit the generalizability of the findings to a broader population of EFL teachers. There is also the possibility of selection bias, as participants who volunteered for the study might have inherently been more open or receptive to technological innovations. Furthermore, while the qualitative approach provided rich, in-depth data, it lacked the statistical robustness that quantitative measures might offer.

Given these limitations, future research endeavors could benefit from a more diverse participant pool, encompassing educators from various regions, disciplines, and teaching contexts, to provide a more holistic understanding of the impact of tools like ChatGPT. Expanding the sample size and employing mixed-methods research combining both qualitative and quantitative analyses could enhance the validity and comprehensiveness of the findings. Moreover, longitudinal studies observing the long-term effects and adaptations of educators using AI-driven tools would be invaluable. Studies focusing on student perceptions and outcomes in classrooms where educators have integrated insights from tools like ChatGPT would also shed light on the downstream effects of such technological integration in educational settings.

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The research team utilized ChatGPT (OpenAI, 2024) for language editing, as the researchers are not native English speakers. When prompted with "Check grammar of this sentence and suggest a better way to write it," ChatGPT checked and suggested another way to write the sentences. Then, the researchers would consider whether they should change as suggested or retain the original ones. Researchers, however, ensured that all data were reliable and valid, with no fabrication involved.

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