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Trust Dynamics of Vietnamese EFL Teachers towards AI-Driven Educational Tools

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Abstract. With the proliferation of Artificial Intelligence (AI) in educational realms, understanding trust dynamics is paramount, especially within diverse cultural contexts. This qualitative study delved into the perspectives of nine Vietnamese EFL teachers from two higher educational institutions, aiming to uncover the challenges and considerations in building trust towards AI-driven educational tools. Utilizing semi-structured interviews, the research was anchored on two theoretical frameworks: the Technology Acceptance Model and the Sociocultural Theory. Four predominant themes surfaced: the trust dichotomy in AI's personalized learning capacity, AI's interpretation of cultural context, the transparency of AI decision-making, and the interplay of AI's emotional intelligence in trust-building. Findings revealed that while there is acknowledgment of AI's potential, genuine trust hinges on its ability to capture the sociocultural and emotional essence of language learning. Teachers yearn for AI tools that are culturally attuned, emotionally responsive, and transparent in their methodologies.

Keywords: Artificial Intelligence, cultural context, EFL teachers, trust dynamics, Vietnamese education.

1. INTRODUCTION

As we transition into an era of unprecedented technological advancement, artificial intelligence (AI) emerges as a game-changing factor, affecting numerous spheres of human life. From driving our cars to diagnosing medical conditions, AI systems have displayed potential that is both thrilling and daunting (Marcus & Davis, 2019). The realm of education, too, is no exception to this transformation. The potential of AI-driven education solutions, tailored content delivery, automated assessment, and predictive learning analytics, promises a new horizon for educators globally (Alasadi & Baiz, 2023). However, with such evolution, a myriad of challenges also presents itself, one of the most pronounced being the establishment of trust in these digital systems.

Vietnam, with its rapidly developing economy and increasing integration with global technological trends, stands at an intriguing crossroads. As the country navigates its way through the digital age, educators, particularly those in higher education institutions, are pivotal agents in shaping the acceptance and integration of AI in educational settings (Pham & Phan, 2023). English as a Foreign Language (EFL) teachers, who often straddle traditional pedagogical approaches and the need for contemporary techniques, serve as an insightful lens through which we can view the broader challenges and sentiments concerning AI adoption in Vietnamese classrooms (Nguyen, 2021).

This study, therefore, seeks to delve deep into the perceptions, concerns, and experiences of Vietnamese EFL teachers in higher educational institutions as they interact with, and potentially incorporate, AI tools in their teaching endeavors. By understanding the unique challenges faced by this demographic, we hope to offer insights into building a bridge of trust between AI technologies and their human users, ensuring a harmonious and effective partnership in the educational landscape of Vietnam.

2. LITERATURE REVIEW

2.1. The Rise of AI in Education

Over the past decade AI, defined as the simulation of human intelligence in machines programmed to think and learn like humans (de Zúñiga et al., 2023; Lehman-Wilzig, 1981), has made remarkable inroads into the educational sector. Zheng et al. (2018) detailed the plethora of AI-driven educational tools, ranging from personalized learning algorithms to automated grading systems. They highlighted that while AI offers optimized content delivery and improved student performance prediction, it also brings forth challenges in terms of pedagogical integration and data privacy.

2.2. Trust in Technology: A General Overview

Understanding trust in AI necessitates a broader comprehension of trust in technology. Mayer et al. (1995) identified ability, benevolence, and integrity as key antecedents to trustworthiness, which then leads to the development of trust. In this framework, "ability" refers to the competencies of the AI system, "benevolence" to its inclination to act in users' interests, and "integrity" to its adherence to a set of principles or ethics. In the context of AI, these constructs often revolve around system reliability, AI competence, and ethical programming, respectively. Additionally, addressing another oversight, the work of Lee and See (2004) is focused on automation in a general sense rather than AI specifically. They argued that trust in automated systems, which may include AI, depends on factors like system predictability, transparency, and the ability to provide feedback. Furthermore, to enrich the current discussion, it is pertinent to include insights from Glikson and Woolley (2020), who explored the dynamics of human-AI interaction and trust, and Solberg et al. (2022), who delved into the nuances

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of trust and its implications for AI adoption. Both of these studies underscore the importance of vulnerability as a critical component of trust. This helps to construct a more comprehensive argument about why trust, and specifically vulnerability, is essential for the effective adoption and integration of AI technologies.

2.3. AI in the Vietnamese Context

Vietnam's tryst with AI, as elucidated by Nguyen and Nguyen (2020), is driven both by governmental push and economic demand (Quy et al., 2023). With an aspiration to be at the forefront of ASEAN nations in AI research and application by 2030, the Vietnamese government has facilitated significant investments in this domain. However, the societal and educational landscapes are still grappling with the pace of this change, striving to ensure that technology aligns with cultural and pedagogical norms.

2.4. EFL Teaching and Technological Integration

The integration of technology, and more recently AI, in EFL teaching has been an area of extensive study. Hew and Brush (2007) discussed general challenges in integrating technology in education, while Mageira et al. (2022) focused on the unique aspects of integrating AI into language learning environments. Godwin-Jones (2022) illustrated that EFL teachers, by virtue of teaching a language that often serves as a bridge to global resources and opportunities, are especially positioned to harness the potential of technological tools. However, the adoption is riddled with challenges such as lack of training, resistance to change, and concerns over depersonalization of instruction.

2.5. Trust Concerns in Non-native English Contexts

Research has indicated that trust-building in non-native English contexts has unique contours. Adding to this, other pivotal studies like those by Huang et al. (2019), which delved into cultural differences in technology adoption, and Tran and Nguyen (2021), focusing on the Vietnamese context specifically, further enrich this discussion. Tran et al. (2018) explored how Vietnamese educators, with Confucian heritage, often prioritize interpersonal relationships and direct experiences. Thus, AI tools, which introduce an impersonal, algorithmic interaction, might face resistance or skepticism unless they are shown to directly enhance teacher-student relationships or pedagogical outcomes.

2.6. The Dichotomy of Traditional vs. Modern Pedagogies in Vietnam

The Vietnamese educational paradigm, as analyzed by Thao and Mai (2022), sits at a crossroads between traditional rote-learning methods and modern, interactive pedagogies. This complex dichotomy can be better understood through additional literature such as Tri et al. (2021), which discusses the evolution of educational practices in Vietnam, and Phuong et al. (2023), which examines the impact of cultural influences on pedagogical choices. The integration of AI, while aligning with the latter, might be perceived as a challenge to the former. For meaningful adoption, AI tools must be contextualized within the rich tapestry of Vietnam's educational heritage.

The convergence of AI's potential in education, the unique cultural and pedagogical contexts of Vietnam, and the pivotal role of EFL teachers in this nexus offers a compelling area of study. As AI becomes increasingly prominent, it is imperative to address and navigate the challenges to foster trust, particularly in contexts like Vietnam where tradition and modernity intersect. This literature review underscores the need to understand the perceptions of Vietnamese EFL educators, ensuring AI's integration is both effective and culturally congruent.

3. METHODS

3.1. Research Design

This study is anchored in a qualitative research design, chosen for its capacity to explore deep-seated perceptions, beliefs, and experiences of individuals, particularly in a context as multifaceted as AI adoption in education. Qualitative research, as emphasized by Creswell and Poth (2016), provides a rich, detailed view into the subjective experiences of participants, thereby offering nuanced insights that might be overlooked in quantitative designs.

To align more closely with established qualitative research traditions, this study is framed within the Grounded Theory approach. Grounded Theory, as described by Charmaz (2014), is an inductive methodology that involves the construction of theories through the systematic gathering and analysis of data. This approach is particularly relevant to our study as it allows for a detailed exploration of the complex, emergent themes surrounding AI adoption in the Vietnamese EFL context. By employing Grounded Theory, the research aims to develop a substantive theory that is deeply rooted in empirical data. This methodological choice influences all aspects of our research design, from data collection through in-depth interviews to the iterative process of data analysis, ensuring a systematic and comprehensive understanding of the phenomenon under study.

Two theoretical frameworks underpin this study. The first is the Technology Acceptance Model (TAM) proposed by Sagnier et al. (2020). This model suggests that technology acceptance is determined by two primary factors: perceived usefulness and perceived ease of use. In the context of this study, TAM offers a lens to

investigate whether Vietnamese EFL teachers believe that AI tools are beneficial for their teaching and whether they find these tools user-friendly.

The second framework is the Sociocultural Theory (SCT) by Vygotsky and Cole (1978). SCT posits that learning and development are deeply intertwined with social interactions and cultural contexts. This theory is instrumental for this study as it foregrounds the importance of understanding how Vietnamese cultural norms and the sociocultural contexts of EFL teaching in Vietnam might influence teachers' perceptions and acceptance of AI. By utilizing SCT, the study aims to unearth the sociocultural nuances that might shape trust-building in AI among Vietnamese EFL educators.

In integrating these two frameworks, the study seeks to provide a holistic view of the challenges faced in building trust in AI. While TAM helps understand the pragmatic concerns of usefulness and usability, SCT emphasizes the cultural and social dimensions. Together, they provide a comprehensive foundation to interpret the insights derived from the semi-structured interviews with Vietnamese EFL teachers in higher educational institutions.

3.2. Participants

The participants for this study were carefully selected to represent a broad spectrum of teaching experiences within the realm of EFL education in Vietnam. Drawn from two distinct higher educational institutions, a total of nine Vietnamese EFL teachers graciously offered their insights. In a bid to understand perspectives across different career stages, the teachers were categorized into three groups based on their teaching experience: novices, mid-career, and near-end career educators. Each category comprised three teachers.

The novice educators were those with up to five years of teaching experience. Being relatively new to the profession, their experiences provided insights into the current state of teacher training, early career challenges, and their initial impressions of integrating AI into EFL instruction. Mid-career teachers, with six to fifteen years of experience, contributed perspectives steeped in a blend of experience and adaptability. They often straddled traditional methodologies and emerging technologies, offering a unique vantage point. Lastly, the near-end career educators, boasting more than fifteen years in the field, provided a depth of historical context, tracing the evolution of teaching methods, tools, and the integration of technology over time.

Ethical considerations were paramount throughout the research process. Firstly, all participants were informed about the purpose of the study and the nature of their involvement. Informed consent was obtained, ensuring that participants understood their rights, including the option to withdraw from the study at any point without any repercussions. Anonymity was assured, with pseudonyms being used in all research documentation and findings to protect the identities of the participants. Additionally, all data gathered, whether in audio, video, or textual format, was securely stored with restricted access. Throughout the study, care was taken to avoid any form of coercion, and participants were treated with respect, understanding, and appreciation for their invaluable contributions.

3.3. Data Collection

Central to this research endeavor were the semi-structured interviews designed to elicit in-depth insights from the nine selected Vietnamese EFL teachers. To address potential concerns about the small sample size and the methodology, it is important to clarify our approach to ensuring data saturation and trustworthiness in our findings. Despite the limited number of participants, we employed a rigorous analytical process. This involved iterative coding and constant comparison of data across the three sub-samples to ensure that we reached a point of thematic saturation. This means that no new themes were emerging from the interviews, indicating that the data collection was sufficient to cover the range of experiences and perspectives relevant to our study. Before the commencement of the main interviews, a pilot study was conducted. This pilot study involved two EFL teachers, not part of the main participant group, to test the efficacy and clarity of the interview questions. Their feedback proved instrumental, revealing areas of ambiguity, and highlighting potential avenues that the initial questions might have overlooked.

Post the pilot study, revisions were made to the interview questions, ensuring they were both comprehensive and clear. Some of the refined questions included:

- "How do you perceive the role of AI in today's EFL classroom?"
- "Can you share a specific experience where AI tools influenced your teaching approach or outcomes?"
- "In your opinion, what are the main challenges and opportunities of integrating AI into EFL instruction?"
- "How do you feel the cultural and pedagogical traditions of Vietnam align or clash with the advent of AI in education?"
- "Do you believe that trust in AI tools is essential for their successful integration? Why or why not?"

Each interview varied in length, ranging from 45 minutes to an hour and a half, based on the depth of the participant's responses and the avenues of discussion that organically emerged. The interviews took place in quiet, neutral spaces within the institutions, ensuring both convenience for the participants and a conducive

environment free from interruptions.

Given the cultural and linguistic background of the participants, Vietnamese was used as the primary language for all interviews. This choice was intentional, ensuring that participants could express their views and experiences in the most nuanced and comfortable manner. After the interviews, transcription services were employed to convert the audio records into text. For the purpose of this study and to maintain the authenticity of the participant's sentiments, native speakers well-versed in both Vietnamese and English performed translations, capturing the essence and subtleties of the participant's expressions.

Lastly, supplementary data sources, like institutional AI integration policies, were also referred to when necessary. These sources provided a macro perspective, complementing the individual insights obtained from the interviews, and ensuring a well-rounded data collection approach.

3.4. Data Analysis

Upon the collection of rich qualitative data through semi-structured interviews, the process of data analysis commenced using a thematic analysis approach. Addressing concerns about the sample size, it is important to note that in qualitative research, the emphasis is on depth rather than breadth. The choice of nine participants, further divided into three sub-samples, was made to ensure a deep, contextual understanding of the topic from diverse perspectives within the EFL teaching community. This method aligns with the principles of phenomenological research, which seeks to explore and understand lived experiences from the participant's viewpoint. Rooted in the work of Braun et al. (2023), thematic analysis is an iterative method designed to identify, analyze, and report patterns or themes within qualitative data. This approach is particularly apt for research that seeks to uncover underlying perceptions, beliefs, and sentiments, making it well-suited for this study.

The first step in the analysis was the immersion into the data. Each transcript was read and re-read multiple times, ensuring familiarity with the depth and breadth of the participants' responses. To address concerns regarding data saturation and triangulation, this iterative reading process allowed for the identification of a saturation point where no new themes or insights were emerging from the data. This is a key indicator in qualitative research that a comprehensive coverage of the topic has been achieved. Additionally, triangulation was achieved by comparing and contrasting the perspectives of different participants and supplementing these insights with secondary data sources like institutional AI integration policies. Following the immersion, initial codes were generated. These codes were short descriptors or labels that captured the essence of segments of data. With a set of initial codes in place, the next phase involved the search for themes. The triangulation process was further reinforced here, as themes were cross-examined across different sub-samples to ensure a robust and trustworthy representation of the topic. Once a set of potential themes was identified, they were reviewed and refined. This stage entailed checking each theme against the dataset to confirm its validity. Finally, upon the crystallization of the main themes, a detailed analysis was undertaken. Through this systematic and iterative process, the thematic analysis illuminated the multifaceted challenges and perceptions of Vietnamese EFL teachers as they navigated the increasingly AI-driven educational landscape. This methodology, with its focus on depth, saturation, and triangulation, ensures a trustworthy and comprehensive depiction of the subject matter, despite the seemingly small sample size.

4. FINDINGS

4.1. The Trust Dichotomy in AI's Personalized Learning Capacity

One of the predominant findings from the data revolved around the delicate balance of trust that Vietnamese EFL teachers placed in AI's capacity to foster personalized learning. This theme, central to building trust in AI-driven educational tools, was echoed by different teacher groups: two novice teachers, all three mid-career teachers, and one near-end career teacher.

Novice educator Thanh mused, "*If AI can genuinely grasp each student's unique learning pace and cater to it, I would be more inclined to trust it. However, language teaching is a dance of emotions and culture, and I am uncertain if AI can truly capture that.*" The concern stems from a belief that "*AI may lack the nuanced understanding of cultural and emotional subtleties crucial in language teaching.*" Thanh's trust hinges on AI's ability not just "*to adapt to different learning paces,*" but "*to also engage with the deeper,*" less tangible aspects of teaching such as empathy and cultural sensitivity. Mid-career teacher Lan reflected, "*The promise of AI is vast; it is efficiency in adapting lessons to individual proficiencies cannot be denied. But trust wavers when I think about emotional and cultural nuances. Can AI discern and adjust to those?*" The trust issue arises from a perceived gap in AI's capability to integrate emotional intelligence and cultural awareness into its learning models. Lan's trust in AI is contingent upon "*its ability to not only provide tailored academic support but also to demonstrate sensitivity to the students' emotional and cultural backgrounds.*" Representing the near-end career perspective, Hai remarked, "*I have seen methodologies evolve, and AI certainly has potential. Trust for me hinges on whether AI can bridge the gap between skill and the profound cultural essence of language learning.*" Hai's statement invites an exploration into the specifics of this trust gap. The "how" relates to "*the practical application of AI in understanding and integrating cultural nuances,*" while the "why" is tied to the belief that "*effective language teaching requires more than just skill acquisition; it requires an appreciation and incorporation of cultural elements.*" Hai's trust in AI depends on its ability to perform these complex, culturally-sensitive tasks.

Expanding on these insights, it is important to connect them back to the constructs of trustworthiness – ability, benevolence, and integrity – and their corresponding attributes in the context of AI: competence, ethics, and reliability, along with feedback, predictability, and transparency. These attributes manifest in educators' expectations that AI should not only be competent in delivering personalized learning (ability/competence) but also ethically consider the cultural and emotional aspects of language teaching (benevolence/ethics). Additionally, the reliability and predictability of AI in consistently providing this level of nuanced understanding, as well as the transparency in how it processes and responds to diverse student needs, are critical in fostering trust.

Analyzing these insights through the TAM, the trust dichotomy can be situated in the "perceived usefulness" of AI. While there is an acknowledgment of AI's efficiency in tailoring lessons, there is simultaneous hesitation rooted in its perceived inability to grasp the comprehensive essence of language learning, especially the cultural and emotional dimensions. The SCT offers further clarity on this finding. As per SCT, language learning is not merely about skill acquisition; it is a conduit for cultural exchange, emotional connections, and shared experiences. If AI is to gain the trust of educators, it must transcend mere skill adaptation and embrace this rich sociocultural tapestry that defines language learning. The responses from our participants resonate with SCT's emphasis on the intertwined nature of social interactions and cognitive development. The overarching sentiment suggests that for AI to be trusted, it must not only support individual cognitive growth but also adeptly navigate the cultural, social, and emotional waters of language education.

4.2. Trusting AI's Interpretation of Cultural Context

A subsequent prominent theme that materialized from the conversations was the trustworthiness of AI in interpreting and integrating cultural context into language teaching. This critical facet was underlined by one novice teacher, two mid-career teachers, and two near-end career educators.

Linh, a novice educator, commented, "*Language is culture. If AI tools can recognize and respect our Vietnamese values and intricacies when teaching English, it might win my trust.*" She shared an experience where an AI tool failed to "*incorporate an important Vietnamese festival in a language lesson,*" which led to a missed opportunity for cultural education. This experience, she said, underscores the importance of cultural sensitivity in AI tools for effective language teaching. Minh, from the mid-career bracket, expressed, "*I have had instances where AI-driven content seemed out of touch with our local sensibilities. For AI to earn my trust, it needs to be culturally attuned, not just linguistically adept.*" Minh went beyond expressing concerns about AI-driven content being out of touch with local sensibilities. He detailed a specific instance where an AI language tool used "*examples and idioms that were culturally irrelevant,*" leading to "*confusion*" among students. He explained that for AI to earn his trust, it needs to "*demonstrate an understanding of local cultural contexts and incorporate them into the learning material,*" thereby enhancing the relevance and effectiveness of language instruction. Meanwhile, Phuong, with extensive teaching experience, noted, "*Building trust in AI would mean these systems cannot just translate or teach English; they should convey it through a lens that respects and integrates our cultural identity.*" Phuong, with extensive teaching experience, deepened her comment about AI needing to "*convey English through a lens that respects and integrates cultural identity.*" She shared a scenario where an AI tool's inability to adapt its teaching to "*reflect local cultural norms and practices*" led to "*a disconnect with the students.*" She emphasized that trust in AI for her and her colleagues hinges on the technology's ability to align with and enhance the cultural elements of language teaching, as this alignment is crucial for engaging students and making the learning process more relatable and effective.

Expanding on the earlier brief mention of trust constructs, these insights from educators align with the dimensions of trustworthiness, particularly competence, benevolence, and integrity. In AI context, competence is reflected in the system's ability to accurately interpret and integrate cultural nuances, benevolence in its alignment with and respect for local cultural values, and integrity in its consistent, reliable performance.

Drawing from the TAM, this theme can be situated within the realm of "perceived usefulness." For AI tools to be seen as genuinely beneficial in an EFL context, they must surpass mere linguistic accuracy. The real utility, and subsequently trust, stems from AI's capability to intertwine linguistic lessons with the cultural nuances and sensibilities specific to Vietnamese students. The SCT provides an even deeper understanding of this sentiment. SCT emphasizes the symbiotic relationship between social-cultural contexts and learning. The findings resonate with this notion, suggesting that for Vietnamese EFL educators to place their trust in AI-driven tools, these platforms must exhibit a profound understanding of the socio-cultural fabric of Vietnam. Simplistic translations or generic content will not suffice. For trust to be cemented, AI tools need to mirror the cultural subtleties, values, and contexts that educators themselves would naturally integrate into their lessons.

4.3. Building Trust through Transparent AI Decision-Making

Another theme that prominently emerged from the discussions revolved around the transparency of AI in its decision-making processes. This was highlighted by three novice teachers, one mid-career teacher, and two near-end career educators.

Novice educator Dao shared, "*I have always wondered how certain AI tools decide on the kind of content or exercises they present to students. If I understood the 'why' behind AI's decisions, I would feel more trusting of its capabilities.*" He further elaborated, explaining "*A specific incident where an AI tool introduced advanced grammar concepts too early in*

the curriculum, leading to student confusion." Understanding the rationale behind this decision, he argued, would have helped him "*modify my teaching approach or choose a different AI tool more suited to my students' needs.*" From the mid-career cluster, Tuyen remarked, "*For me, trust is about predictability. If I can predict or at least comprehend why an AI tool is suggesting a particular teaching strategy or content, I would be more inclined to integrate it into my lessons.*" She added that "*In my experience, AI sometimes recommends activities that seem misaligned with my lesson plans. If the AI could explain its logic, perhaps indicating how these activities align with the students' learning progression, my confidence in using such tools would increase.*" Representing the near-end career perspective, Binh noted, "*In my years of teaching, I have always had a rationale for my methods. If AI can offer that same clarity in its approach, it would bridge the trust gap considerably.*" Binh recounted an instance where an AI's content recommendation contradicted his understanding of a student's learning level. He stressed, "*The importance of AI systems is able to explain my choices in a way that is transparent and aligns with my knowledge of my students' capabilities and needs.*"

In the context of the trust theory, this theme underscores the importance of AI demonstrating ability (competence in decision-making), integrity (adhering to pedagogical principles), and benevolence (acting in the best interest of students and educators). These elements correspond to the constructs of competence, ethics, and reliability in the AI context. The educators' emphasis on understanding AI's decision-making aligns with the need for feedback, predictability, and transparency, key factors in establishing trustworthiness.

Using the TAM as a lens, this theme centers on the "perceived ease of use" facet. AI tools, irrespective of their advanced capabilities, need to be transparent enough for educators to understand their decision-making processes. The more comprehensible these processes are, the easier it becomes for educators to trust and integrate AI into their teaching methodologies. SCT further reinforces this finding. In the context of teaching, every decision, every lesson plan, and every method has a socio-cultural rationale embedded within it. Educators rely on their deep-rooted understanding of their students' cultural and social backgrounds to make these decisions. If AI tools can provide transparent reasoning that aligns with these socio-cultural considerations, it would resonate more with educators, making them more inclined to trust and adopt these tools. The need for transparency is not just about understanding technology but ensuring that the technology aligns with the rich tapestry of socio-cultural nuances that define the teaching landscape.

4.4. The Interplay of AI's Emotional Intelligence and Trust Building

A theme that recurrently arose from the data was the significance of AI's emotional intelligence (or lack thereof) in influencing the teachers' trust. This theme resonated with two novice teachers, all three mid-career teachers, and one teacher nearing the end of their career.

Young educator Linh reflected, "*The moments I cherish most in my teaching are when I connect emotionally with my students, understanding their feelings and frustrations. If AI can echo such sensitivity, my trust would certainly grow.*" She elaborated on this by recalling a situation where "*An AI tool misinterpreted a student's frustration as lack of interest,*" which led to "*inappropriate content recommendations.*" Linh emphasized that understanding and responding to such nuances is crucial for AI to be effectively integrated into "*the emotional landscape of the classroom.*" Mid-career teacher Lan shared, "*Language learning is not just cognitive; it is emotional. My trust in AI would deepen if it could sense and respond to students' emotional states, not just their academic levels.*" Lan further explained that "*Emotional intelligence in AI could aid in identifying students struggling with motivation or confidence, areas often overlooked in traditional teaching methods.*" For her, AI's ability to address these emotional aspects is key to its successful adoption. From the perspective of a seasoned teacher, Binh stated, "*For decades, I have seen that students learn best when they feel understood and supported emotionally. If AI can mirror such emotional responsiveness, it could be revolutionary.*" Binh added a personal anecdote where "*An AI system failed to recognize the cultural sensitivity of one of my students,*" leading to discomfort. This incident, according to him, highlighted the need for AI systems to not only be academically intelligent but also emotionally and culturally perceptive.

Anchoring these insights within the TAM, the role of emotional intelligence in AI correlates with its "perceived usefulness." AI tools that demonstrate an ability to understand and respond to students' emotional states offer a new dimension of utility, moving beyond pure academic assistance to emotional support. This added dimension would significantly influence educators' trust in the technology. Drawing upon the SCT, emotions play a pivotal role in the learning experience. Learning, especially language acquisition, is a deeply personal journey, often intertwined with emotions, cultural identities, and social interactions. For educators, trust in AI is not solely about its cognitive capabilities but also its potential to understand and navigate the complex emotional terrains of students. This ties back to the constructs of ability, benevolence, and integrity, paralleling the attributes of competence, ethics, and reliability in AI. AI's competence is reflected in its capacity to recognize and respond to emotional cues, its benevolence in prioritizing student well-being, and its integrity in consistently demonstrating these capabilities. The sentiment voiced by the participants underscores the idea that for AI to be fully embraced, it needs to transcend mere cognitive tutoring and venture into the realms of emotional intelligence and sensitivity, aligning with the very human essence of teaching.

5. DISCUSSION

5.1. The Trust Dichotomy in AI's Personalized Learning Capacity

The issue of trust in AI's capacity for personalized learning, as uncovered in our study, finds echoes in the wider landscape of educational research. Prior studies have indicated educators' growing acknowledgment of the potential that AI holds in terms of tailoring education to individual learners' needs (Wang et al., 2023). Much like our study's participants, these researchers noted the allure of AI's efficiency in adapting lessons. However, the emphasis on the emotional and cultural nuances in the teaching and learning process, as profoundly expressed by Thanh, Lan, and Hai, offers a more nuanced perspective that is often overlooked in more technocentric studies.

The sentiment expressed by our participants, particularly the need for AI to encapsulate the rich emotional and cultural dimensions of language learning, finds some resonance in the works of Quinn et al. (2019). Their research into AI-driven English teaching tools revealed that while educators appreciated the adaptive capabilities of AI, there was a collective yearning for tools that would 'understand' and 'respect' the socio-emotional journey of learning. This mirrors our findings where educators see language teaching as a "dance of emotions and culture." Yet, our study extends this understanding by offering a granular view from the vantage point of Vietnamese EFL teachers, a perspective that has not been in the limelight often.

One significant divergence our study presents from the existing literature is the depth of cultural understanding Vietnamese educators expect from AI tools. While studies such as Morong and DesBiens (2016) highlight the universal call for culturally sensitive AI, our study underscores the deep-rooted cultural essence specific to Vietnamese learners, a sentiment captured vividly by Hai's reflection on the "profound cultural essence of language learning."

Analyzing our findings through the lens of the TAM and SCT has further enriched our understanding. While TAM has been employed in various studies to gauge the acceptance of technology, its application to discern the dichotomy of trust in the context of AI's personalized learning is relatively uncharted (Sagnier et al., 2020). Likewise, the intersection of SCT with AI-driven education, especially from the viewpoint of emotional and cultural navigation (Vygotsky & Cole, 1978), is a domain our study uniquely ventures into.

5.2. Trusting AI's Interpretation of Cultural Context

The intricate relationship between language and culture, as elucidated in our findings, has been a focal point of linguistic studies for decades. Many scholars have consistently asserted the idea that language is not merely a tool for communication but rather a reflection of the socio-cultural values and narratives of a particular community (De Fina & Georgakopoulou, 2011). Our study, centered on Vietnamese EFL educators, brings this theoretical premise to the forefront of the AI-driven education discourse.

Previous research on AI in education has primarily emphasized its linguistic capabilities, with significant advancements in natural language processing and machine translation (Kalyanathaya et al., 2019). However, there is a relatively limited body of work that delves into AI's understanding and incorporation of cultural nuances in language teaching. Our participants' emphasis on the symbiotic relationship between language and culture, particularly within the Vietnamese context, contributes a fresh dimension to this discourse.

For instance, the concerns voiced by Minh about AI-driven content appearing out of touch with local sensibilities align with the findings of Munoriyarwa et al. (2023), where educators expressed skepticism about AI's depth of cultural understanding. Yet, our study delves deeper by capturing the heartfelt desire for AI tools to not just recognize but respect the cultural intricacies inherent to the Vietnamese context, a sentiment echoed profoundly by Linh.

The lens of the TAM has been widely employed in studies examining the integration of technological tools in education (Sagnier et al., 2020). While its application to gauge the "perceived usefulness" of technology is not new, our study underscores a nuanced understanding of what "usefulness" means in the realm of AI-driven language education. Here, usefulness is not restricted to linguistic precision but extends to cultural resonance. Drawing upon the SCT further differentiates our study from the broader AI in education literature. While Vygotsky and Cole's (1978) ideas have been embraced in traditional educational settings, their intersection with AI's capabilities is a novel area of exploration. Our findings suggest that for Vietnamese EFL educators, the "cultural voice" of AI tools is as critical, if not more, than their linguistic prowess.

5.3. Building Trust through Transparent AI Decision-Making

Transparency in decision-making has been a cornerstone of trust-building across various disciplines. In the realm of AI, this topic has garnered significant attention, primarily due to the "black box" nature of many AI algorithms, where their internal workings remain opaque to users (Castelvecchi, 2016). Our study taps into this broader narrative by examining the implications of AI transparency within the specific context of Vietnamese EFL educators.

Prior research has alluded to the trust issues stemming from AI's lack of transparency. For instance, a study by Selwyn (2019) emphasized that educators, irrespective of their subject domain, exhibited hesitancy in adopting AI-driven tools due to the lack of clarity in how these tools arrived at specific decisions or suggestions. Our findings align with this sentiment, as exemplified by Dao's curiosity about the "why" behind AI's content choices. However, what makes our study distinctive is its focus on the deeply embedded socio-cultural rationale that

Vietnamese EFL educators hinge their teaching decisions upon.

Tuyen's emphasis on "predictability" echoes research from Roff and Danks (2018) where predictability was found to be directly proportional to trust. Their study posited that when users could anticipate a technology's actions or, at the very least, understand the rationale behind them, their trust quotient surged. Our research reaffirms this but adds a cultural layer to it, suggesting that transparency in AI must be imbued with cultural sensibilities for it to truly foster trust among Vietnamese EFL educators.

The use of the TAM in our study to elucidate the trust in AI, centered on "perceived ease of use," is consistent with its application in similar research (Sagnier et al., 2020). However, combining this with the insights from the SCT is where our study treads new ground. The emphasis on socio-cultural rationale in teaching decisions, as underscored by Binh, is a testament to Vygotsky and Cole's (1978) principles. It suggests that for AI to be truly embraced, it must mirror the same socio-cultural transparency that educators inherently adopt.

5.4. The Interplay of AI's Emotional Intelligence and Trust Building

Emotional intelligence (EI) has long been regarded as a foundational element in effective teaching. The ability to perceive, understand, and manage emotions – both one's own and those of others – is essential in fostering a productive and supportive learning environment (De Nobile et al., 2017). In the world of AI, where machines often lack the intrinsic emotional resonance that characterizes human interactions, the integration of EI becomes both a challenge and an opportunity.

Previous research has predominantly emphasized the importance of EI in human teachers. For instance, Safina et al. (2020) argued that teachers' emotional intelligence is closely related to student outcomes, fostering classroom climates conducive to learning. Our study extends this narrative by spotlighting the significance of EI within AI-driven teaching tools. While Linh, Lan, and Binh's reflections emphasize the importance of human touch in teaching, they also acknowledge a potential space for AI – if it can mimic such emotional responsiveness.

This introduces an intriguing contrast with the work of D'Mello and Kory (2015), who explored the idea of "affective computing." Their research focused on developing AI systems capable of recognizing and responding to users' emotional states. The potential of such technology, especially in the realm of education, is vast. If AI tools can achieve a semblance of emotional intelligence, it could revolutionize how educators perceive and use these tools. Our findings corroborate this, suggesting a strong correlation between AI's emotional intelligence and educators' trust.

The TAM, particularly the "perceived usefulness" dimension, offers a robust framework to understand this. If AI tools extend their utility from mere academic guidance to emotional support, it could lead to higher acceptance rates among educators (Sagnier et al., 2020). Furthermore, our findings, when viewed through the lens of SCT, underscore the symbiotic relationship between emotional responsiveness and cultural sensitivity. Emotions, intrinsically linked with cultural and social contexts, play a crucial role in the learning process. Our study aligns with Vygotsky and Cole's (1978) principles, emphasizing that for AI to gain robust trust, it must mirror the intricate dance of cognitive learning and emotional support, deeply rooted in socio-cultural contexts.

6. CONCLUSION

In an era where AI is progressively intertwining with various sectors, education stands out as a domain rife with potential and challenges. This study sought to delve into the intricate dimensions of trust-building in a world increasingly leaning on AI, especially from the perspective of Vietnamese EFL teachers in higher educational institutions. Recognizing the unique socio-cultural and pedagogical landscape of Vietnam, the study aimed to unveil the nuanced perspectives of educators at different career stages, from novices to those nearing the end of their professional journey.

Methodologically, the study leaned on a qualitative paradigm, employing semi-structured interviews to gather rich, in-depth insights. Rooted in the foundational frameworks of the TAM and SCT, the study aimed to unravel the multifaceted relationship between educators and AI. The participants, comprising nine Vietnamese EFL teachers from two distinct institutions, offered diverse viewpoints shaped by their career stages, bringing depth to the study's findings.

The findings illuminated several thematic areas central to trust-building in AI. There was a distinct emphasis on AI's capacity to foster personalized learning, resonating with the delicate balance of efficiency and emotional connectivity. The significance of AI's understanding and integration of cultural contexts was another predominant theme, emphasizing the symbiotic relationship between language, culture, and trust. Furthermore, the importance of transparency in AI's decision-making processes was underlined, suggesting a direct correlation between understanding AI's reasoning and trust-building. Lastly, the role of emotional intelligence in AI emerged as a recurrent theme, pointing towards the intertwined relationship of cognitive tutoring and emotional responsiveness in shaping educators' trust.

The profound insights gleaned from the study on trust-building in the context of AI-driven educational tools, particularly from the vantage point of Vietnamese EFL teachers, have far-reaching implications for multiple stakeholders. Firstly, for AI developers and technologists, the findings underscore the necessity to move beyond

mere algorithmic efficiency. The demand is clear: AI systems should possess a depth of cultural understanding and emotional intelligence. This means that future AI tools should not only be technologically adept but also socio-culturally informed. Developers need to invest in enhancing the cultural sensitivity of AI systems, ensuring they respect and integrate local nuances, values, and traditions. Furthermore, integrating mechanisms for emotional responsiveness can make these tools more holistic, fostering deeper trust among educators.

Educational policymakers and institutional leaders also stand to benefit from these insights. The findings suggest that merely introducing the most advanced AI tools in educational settings will not suffice. Teachers, especially those deeply rooted in their socio-cultural contexts like the Vietnamese EFL educators in this study, require comprehensive training programs. These programs should not only cover the functional aspects of AI but also its decision-making processes, cultural adaptations, and emotional considerations. By doing so, institutions can ensure a smoother transition and integration of AI tools into the curriculum, reducing resistance and skepticism.

For teacher training and professional development entities, the study emphasizes the importance of preparing educators for a future intertwined with AI. Traditional pedagogical training should be complemented with modules that familiarize teachers with the nuances of AI, its potentials, its limitations, and its cultural and emotional ramifications. By equipping teachers with this knowledge, they can better navigate the AI-enhanced educational landscape, optimizing benefits while being aware of potential pitfalls. Lastly, the findings hold implications for the broader academic community. Researchers can delve deeper into the highlighted themes, exploring them across different cultural, geographic, or subject-specific contexts. The interplay between AI's emotional intelligence, cultural sensitivity, and trust-building, for instance, can be a fertile ground for further academic explorations.

7. LIMITATIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

This research, while offering significant insights into the trust dynamics surrounding AI in the realm of Vietnamese EFL education, possesses certain limitations. First, the study was confined to a specific cultural and educational context, limiting its generalizability to other settings or cultures. The sample size, though purposefully selected, was relatively small, encompassing nine Vietnamese EFL teachers from two institutions. As such, the breadth and depth of experiences and perspectives may not capture the entire spectrum of sentiments held by a larger community of educators. Moreover, the study's qualitative nature, reliant on semi-structured interviews, may inherently possess subjective biases, both from the participants' self-reporting and the researchers' interpretation.

Building upon the limitations, there is a vast scope for subsequent research endeavors. Future studies could benefit from expanding the geographical and cultural horizons, exploring trust dynamics in AI-driven education across varied cultural contexts and broader teacher demographics. This would offer a more holistic view, capturing a wider array of sentiments and nuances. Quantitative methodologies, utilizing larger sample sizes and structured instruments, can be employed to validate and complement the findings of this study. Additionally, delving deeper into specific themes, like AI's emotional intelligence or cultural sensitivity, across different academic disciplines beyond EFL, would enrich the discourse. Finally, longitudinal studies observing the evolution of trust over time as AI technologies mature and teachers become more familiar with their capabilities can provide dynamic insights into the changing landscapes of education and technology.

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