

# Language Teachers in the Digital Era: Addressing Emotional and Pedagogical Challenges in Technology-Enhanced Learning Environments

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## ABSTRACT

The rapid integration of digital platforms in education has reshaped language teaching and learning, intertwining technology with emotional dynamics. In this paper, we explore the critical competencies language teachers need to navigate the digital era, addressing the guiding question: *What knowledge and skills do language teachers need to thrive in an age of rapid digital transformation?* We propose that educators must master a trifecta of competencies: (1) *technological proficiency* to effectively integrate tools like virtual reality (VR), gamified learning, and interactive platforms; (2) *emotional intelligence* to foster authentic connections in digital spaces; and (3) *content knowledge* to deliver accurate, contextually relevant language instruction. The discussion is organized into five interconnected sections. First, we define and explore digital pedagogy, emphasizing its potential to transform language education. Second, we examine digital stress and burnout and offer strategies to foster sustainable teaching practices. Third, we highlight the importance of EI, particularly digital EI (dEI), in building effective teacher-student relationships. Fourth, we investigate the interplay of innovation and emotion in technology-enhanced learning environments (TELEs). Finally, we provide actionable recommendations to ensure language education remains human-centered and equitable. We conclude this paper by underscoring the need for teacher preparation programs to integrate social-emotional learning (SEL) practices into digital pedagogies to equip educators for the complexities of education in the present world.

**Keywords:** Digital Pedagogy; Emotional Intelligence (EI); Technology-Enhanced Learning Environments (TELEs); Social-Emotional Learning (SEL); Teacher Preparation.

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## 1. Introduction

The ascendance of digital platforms in education has transformed learning dynamics, ushering in an era in which emotions are intricately intertwined with digital interfaces. In response to this, the fields of applied linguistics and language education have evolved to embrace online modalities—from language apps to virtual classrooms—to gain a deeper understanding of the affective dimensions (with)in these spaces. Building upon the affective turn highlighted by scholars like Pavlenko (2013), there is an emergent necessity to explore the emotional realities within the digital realms of language education, especially for language teachers, as they represent the vanguard of pedagogical innovations and are instrumental in (re)shaping the emotional landscape of these digital spaces. While publications on the emotional intricacies of non-virtual language teaching and learning exist (e.g., Martínez Agudo, 2018), digital platforms and technologies present emotional terrain that remains relatively uncharted. Given the growing centrality of virtual environments, a deeper exploration of the intersection between digital education and language education is, thus, both timely and necessary.

The expansion of digital education, particularly accelerated by the global COVID-19 pandemic, has transformed language teaching and learning. With the sudden migration to online platforms, educators are required to adapt rapidly to new technologies and virtual classrooms, which have now become integral to modern education. As noted by Li (2022), the rapid shift to online classes—during and after the pandemic—has led to the creation of digital learning communities and the development of digital learning skills, which are considered crucial aspects of modern education. Similarly, various scholars (Salama & Hinton, 2023) discuss how digital tools, such as interactive technologies and educational apps, have become indispensable, enhancing the teaching process and making learning more accessible and aligned with the digital age. The rapid growth of digital teaching is part of a wider shift toward embedding technology in everyday educational practice, with online and hybrid formats now becoming a lasting and regular part of how teachers deliver instruction (Salama & Hinton, 2023). At the same time, digital spaces present distinct challenges to the emotional dynamics of teaching and learning, and these challenges become especially evident in classroom practice.

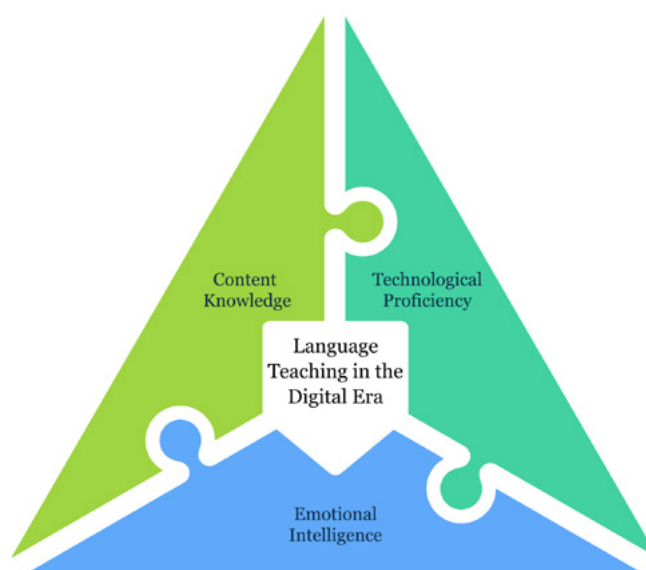
A real-life example of these distinct challenges can be found in the context of Poland, where Luis Javier (first author) teaches English and Spanish to multilingual learners in online, hybrid, and face-to-face formats. While teaching Spanish classes, which are primarily online, the digital divide poses a tangible challenge that affects both the emotional and pedagogical dynamics of language learning. For instance, during a recent online session, many students opted not to use their cameras due to connectivity issues or personal comfort, which is a common occurrence in the virtual classrooms I manage, despite an order issued by the University Rector requiring cameras to be on at all times. As the teacher, I do not feel comfortable forcing students to turn on their cameras, acknowledging that their decision to turn off their cameras is personal and has a reason. At the same time, this absence of visual cues severely limits my ability to gauge students' reactions and engagement levels in real time, something that I find to be a fundamental aspect of effective language instruction. It also restricts students' ability to perceive non-verbal cues from their classmates, such as facial expressions and gestures, which are vital for understanding the emotional context of language nuances being taught.

From personal experience, I have learned that the absence of these cues can lead to misunderstandings and reduced participation, thereby ultimately impacting the quality of communication and learning. This example is just one of many that highlight the realities and challenges teachers and students face in today's language education.

As this transition from non-digital to digital platforms continues, both teachers and students face new emotional challenges that reshape the learning experience. The shift to virtual environments disrupts the physical proximity and spontaneous interactions that are fundamental to classroom dynamics, often resulting in feelings of isolation, anxiety, and disconnection (Liu & Lin, 2024). Teachers, in particular, face the dual pressure of mastering new digital tools while continuing to provide emotional support to students who are also navigating these changes (Fernández-Batanero et al., 2021). Teachers may feel increasingly detached without the typical face-to-face cues that help them gauge students' engagement and emotional well-being, making it difficult to foster a cohesive and emotionally supportive learning environment. These emotional realities demand innovative strategies for managing emotional labor in online spaces and underscore the importance of emotional intelligence (EI) and resilience in creating nurturing and effective digital classrooms. A clear understanding of how emotions manifest in digital language learning environments is, therefore, essential for teachers who want to design effective practices that improve learning outcomes and protect the well-being of both educators and students.

In this theoretical paper, we address a pressing question: *What knowledge and skills do language teachers need to thrive in today's rapidly evolving digital era?* To answer this question, we explore the complex demands teachers encounter at the intersection of pedagogy, technology, and emotional engagement. We argue that responding effectively to these demands requires a trifecta of interrelated competencies: technological proficiency, emotional intelligence, and content knowledge (see Figure 1). Together, these competencies form the foundation for effective and human-centered digital language teaching. Although all three competencies are essential, this paper places particular emphasis on technological proficiency and emotional intelligence, as these dimensions demand renewed attention in digitally mediated language education. Content knowledge remains foundational and well established in the field, yet its role in the digital era depends on how it works in concert with technological and emotional competencies.

To elaborate this argument, our discussion unfolds across five interconnected sections: (1) digital pedagogy, where we explore its transformative potential and practical implementation strategies; (2) navigating digital stress and burnout, where we highlight stressors and sustainable solutions for educators; (3) emotional intelligence and digital spaces, where we focus on the critical role of EI and digital emotional intelligence (dEI) in fostering effective teacher-student interactions; (4) balancing innovation and emotion, where we delve into the implications of technology-enhanced learning environments (TELEs) for both academic outcomes and emotional well-being; and (5) final thoughts, where we offer a call to action for a human-centered approach in language education.



**Figure 1.** The interrelated competencies— technological proficiency, emotional intelligence, and content knowledge—proposed for language teaching in the digital era.

Before proceeding, we clarify three points. First, in this paper, we advocate for the integration of specific competencies and practices while rejecting a one-size-fits-all approach. Rather, we emphasize context-sensitive implementation that reflects the diverse cultural, institutional, and technological environments in which educators work. Second, while we highlight the acquisition of practical competencies as essential for navigating TELEs, we recognize that meaningful educational change also requires a shift in how we think, both as practitioners and as a field. We view these mindset transformations as complementary to the development of knowledge and skills that equip educators to respond critically and adaptively to the demands of digital education. Third, we firmly reject the notion that teachers are passive subjects. As practitioners with first-hand experience across contexts—from Kindergarten to higher education to community-based and international initiatives—we deeply value the expertise, agency, and creativity that practitioners bring to educational innovation. In this paper, we aim to support and empower our teacher community by offering adaptable recommendations that align with lived realities and immediate teaching contexts in Poland, Uzbekistan, and Pakistan.

## 2. Digital Pedagogy and the Trifecta in Practice

We begin by exploring digital pedagogy, the dimension of our trifecta most closely associated with technological proficiency. Digital pedagogy generally refers to the integration of technology to enhance and diversify learning experiences. It is described as making educational experiences multimodal and involves “the pedagogical use of digital technologies” (Väätäjä & Ruokamo, 2021, p. 2). Further, digital pedagogy is seen as a transformative process that reshapes teaching practices in order to improve student learning. Selwyn (2021) adds depth by

arguing that digital pedagogy “should not simply involve the adoption of new technologies, but rather an intentional rethinking of how teaching and learning are structured, facilitated, and assessed in the digital age” (p. 93)—a view that underscores how technological proficiency must operate alongside strong content knowledge and emotional intelligence. Technological proficiency, in this sense, refers not merely to tool adoption but to the intentional and pedagogically grounded integration of digital resources into language teaching that responds to students’ learning needs and classroom realities.

The rapid normalization of digital teaching has marked a significant shift in contemporary educational practice. As [Bozkurt \(2019\)](#) notes, one of the foundational strengths of digital pedagogy lies in its ability to transcend the limitations of physical classrooms and facilitate distance learning. Today, widespread internet access connects learners across geographical and cultural boundaries, expanding opportunities for multilingual and multicultural engagement. For language education in particular, this connectivity allows teachers to incorporate diverse linguistic resources, authentic materials, and global perspectives into their classrooms. However, these developments also require critical reflection. [Selwyn \(2022\)](#) calls for a reassessment of how educational technologies are employed and advocates for more human-centered approaches that ensure technology serves as an enabler rather than a detractor from the human dimensions of teaching and learning. For teachers, this means moving beyond access and efficiency toward intentional and reflective practice that balances innovation with emotional awareness and pedagogical purpose.

Technology integration has reshaped daily life and educational practice. In this evolving landscape, digital pedagogy transforms instructional tools and also influences the broader conditions that shape how teaching and learning take place. However, the use of digital technologies requires careful attention to human values and emotional awareness in the classroom. The systems that structure virtual learning environments are not neutral; they reflect the social, cultural, and economic contexts in which they are created and used. [Selwyn \(2021\)](#) argues that without critical examination, digital pedagogy may unintentionally reproduce existing social hierarchies and inequities, a concern reflected in [Kiyota’s \(2022\)](#) study. [McMillan Cottom \(2020\)](#) further shows how digital systems can mirror and intensify divisions along lines of race, class, and access. For language teachers, this means that decisions about technology carry ethical weight. A critical approach to digital pedagogy is therefore essential to ensure that technology promotes equity, inclusion, and meaningful human connection rather than reinforcing existing disparities.

The imperative for criticality in the era of digital pedagogy becomes evident as we navigate the complexities of post-digital education.<sup>1</sup> As [Fawns \(2023\)](#) elucidates, the new educational landscape in the era of digitalization blurs the traditional boundaries between disciplines such as pure and social sciences, and introduces complexities that demand sustained critical reflection. This blurring of disciplinary lines, combined with rapid technological expansion, calls for

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<sup>1</sup> Post-digital education refers to an educational paradigm that integrates digital technologies seamlessly into teaching and learning, emphasizing their ubiquitous, embedded, and normalized presence in everyday educational practices ([Knox, 2019](#)).

careful consideration of how digital tools are used in classroom practice. Such reflection must move beyond simple tool adoption and consider the broader effects these technologies have on teaching, learning, and classroom relationships. [Lunevich \(2022\)](#) builds on this idea, advocating for deeper engagement with digital tools to ensure they enhance rather than disrupt the learning process. [Lunevich \(2022\)](#) also suggests that by understanding the full spectrum of digital pedagogy's impact, educators can better navigate its challenges, particularly when striving to protect core educational goals amid rapid technological change. In this way, sustained critical engagement helps prevent common risks associated with poorly planned digital implementation, including surface-level learning and weakened interpersonal connections in virtual environments.

While the advent and progression of technology offer significant advancements in language education through tools such as language-learning apps and writing assistants, they also present challenges that must be carefully managed. For instance, the integration of artificial intelligence (AI) and virtual reality has transformed teaching by automating repetitive tasks, allowing educators to focus on more critical pedagogical engagements ([Mustafa et al., 2024](#)). However, this shift has sparked concerns within the academic community about the diminishing role of human educators and the potential for technology to supplant traditional teaching roles. [Selwyn \(2021\)](#) highlights that, despite the benefits offered by technology, there is growing apprehension about the alienation between students and teachers. Moreover, he suggests a need for strategies to ensure that technology supports, rather than undermines, the essential human qualities of empathy, understanding, and emotional connectivity in educational settings.

We contend that integrating technology into the classroom is crucial for both students and teachers, as technological proficiency has become indispensable across all disciplines and in everyday life. At the same time, it is increasingly important to nurture the human competencies that technology cannot replicate—namely, EI. Without EI, increased technological complexity may inadvertently heighten cognitive overload, weaken relational trust, and amplify feelings of alienation in digital classrooms. In this way, EI functions as a regulatory mechanism that ensures technological proficiency enhances rather than destabilizes pedagogical quality. When technological proficiency is anchored in EI, digital innovation becomes a catalyst for growth rather than fragmentation, enabling students to develop both the technical fluency and socio-emotional resilience needed to meet the demands of our complex world. This dual focus, we believe, will prepare students and teachers to succeed both academically and in all facets of life ([Pentón Herrera, 2025](#)).

How, then, can language educators navigate these complexities to harness the full potential of digital pedagogy while addressing its challenges? Instead of relying solely on traditional classroom methods, such as rote memorization or the mechanical use of technology, educators can adopt strategies that prioritize interaction, cultural relevance, and emotional connection—elements particularly significant in language education. For example, storytelling apps like Storybird or video platforms such as Flip (formerly Flipgrid) can enable students to narrate personal experiences in the target language, helping to build speaking confidence and reduce language anxiety. Students can use Storybird to create illustrated narratives and develop their

writing skills, or Flip to record and share short video responses, which encourages oral fluency and peer interaction. Similarly, reflective exercises could involve tools like Padlet or Google Docs, where students assess the strengths and limitations of language learning apps they have used, such as Duolingo or Memrise. This reflective process fosters metacognition and critical engagement, enabling learners to identify learning strategies that work best for their personal language development (Farrell, 2022). Ultimately, reimagining digital pedagogy through interactive, reflective, and emotionally engaging practices enables language educators to empower their students to excel socially, emotionally, and linguistically—skills essential for thriving in today's increasingly connected and complex world.

### 3. Digital Stress and Burnout: When the Trifecta Falls Out of Balance

While technological proficiency is essential in contemporary language education, its rapid expansion can produce unintended emotional and cognitive consequences. This section, therefore, examines how imbalances within the trifecta—particularly when technological proficiency expands without parallel development of emotional intelligence, and when institutional support fails to keep pace—can lead to digital stress and burnout.

Among the various challenges found in contemporary publications, digital stress and burnout have garnered increasing attention (Fernández-Arias et al., 2024). Digital stress is characterized by the psychological strain from prolonged digital engagement, manifesting as irritability and difficulty concentrating (Reinecke et al., 2017). Over time, if this stress is not effectively managed, it can escalate to digital burnout. Digital burnout occurs as a result of chronic emotional and interpersonal stressors in digital work environments. It is characterized by overwhelming exhaustion, feelings of cynicism about one's tasks, and a sense of reduced personal efficacy within professional contexts. When educators are expected to continuously expand their technological proficiency without parallel development of EI and sustainable institutional practices, the result may be chronic strain rather than pedagogical innovation. These stressors are not simply incidental consequences of digital expansion; rather, they reflect instances in which technological proficiency advances without corresponding attention to emotional regulation and sustainable institutional support.

In the digital age, the demarcation between work and personal life often becomes obscured, creating a stressor known as blurred boundaries. This phenomenon is exacerbated by the ubiquity of digital devices that tether educators to their work responsibilities beyond traditional hours, leading to a perpetual state of work-related engagement (Derks & Bakker, 2014). Such conditions can disrupt personal downtime, essential for psychological recovery and long-term well-being (Sonnentag et al., 2010). To combat this, it is recommended to establish clear digital boundaries, especially in the teaching profession, where educators and school administrators often experience stress at more than double the rate of other working adults (Steiner et al., 2022). Educators can benefit from structured guidelines that delineate work hours and restrict after-hours communication, thus preserving personal time, although we know this is easier said than done. To accomplish this, it is vital for institutions to enforce practices that support work-life balance, such as setting expectations for email response times

and promoting the use of 'do not disturb' features on communication platforms. When schools and educators put these strategies into practice, they can protect personal time, ease stress, and guard against digital burnout.

Another significant challenge for educators is information overload, a condition resulting from the need to process more information than one can manage effectively, leading to impaired decision-making and increased stress (Eppler & Mengis, 2004). As Arnold et al. (2023) emphasize, "the ongoing digitalization of the work world and the growing use of information and communication technologies" exacerbate this issue (p. 1). Educators are particularly susceptible to information overload as they must sift through extensive social, academic, and digital content, including social issues, new teaching methods, and administrative tasks, to name a few. To manage such endeavors, educators should prioritize information and use digital tools to effectively organize and access educational content. Platforms like Teams, Moodle, or Google Classroom allow educators to streamline course materials and communications, potentially reducing the cognitive load of managing multiple information streams. Similarly, customizable notification settings on platforms like Slack and digital aggregators such as Feedly could further decrease cognitive load by streamlining communication and administrative tasks. Additionally, integrating 'digital detox' sessions that include non-digital activities such as nature walks or mindfulness practices can restore mental clarity and reduce stress, helping to balance the demands of a digital-heavy lifestyle (Chang et al., 2024).

In addition to managing information overload, educators must also address the stress associated with constant digital upskilling. Today's rapidly evolving technological landscape demands that educators be digitally competent and continually update their skills, which can be overwhelming and anxiety-inducing (Avila-Sánchez et al., 2024). This relentless pace can lead to feelings of inadequacy and stress, often referred to as 'techno-stress,' particularly among those less familiar with emerging technologies (Pagán-Garbín et al., 2024). Stress may also generate a fear of missing out on emerging technologies and reduce educators' capacity to integrate new tools into their teaching practice. Additionally, with the rapid expansion of the digital world, educators may experience a profound sense of loss when they rely on minimal technology in their teaching (Orlando, 2014). In this context, the phrase, '*The more, the merrier*,' seems insufficient to address the pressures of digital integration, thereby further exacerbating our anxieties. While fostering a growth mindset can help educators reframe these challenges as opportunities for learning and personal development (Pentón Herrera, 2025), institutional support is essential. Providing flexible professional development opportunities, such as self-paced online courses and technology mentoring programs, can empower educators to enhance their skills without undue pressure. Additionally, simplifying technological tools and ensuring they are user-friendly can reduce the cognitive load associated with digital learning.

To close this section, we would like to recognize that, as educators continue to adapt to the demands of a technology-driven profession, another pervasive issue emerges: digital fatigue. Digital fatigue, characterized by physical, mental, and emotional exhaustion, arises from prolonged exposure to screens and constant digital engagement, leading to symptoms such as eye strain, mental exhaustion, and decreased productivity (Arcan, 2024). Educators

are particularly susceptible, as they often spend hours switching between online teaching platforms, digital devices, administrative tasks, and professional development webinars. Prolonged screen exposure undermines educators' physical and mental well-being (Arıcan, 2024). This strain, in turn, reduces teachers' capacity for meaningful engagement with students and perpetuates a cycle of fatigue and disengagement. To mitigate digital fatigue, educators can adopt intentional practices to reduce screen time and promote digital wellness. For instance, scheduled screen breaks, guided by the '20-20-20' rule—looking at something 20 feet away for 20 seconds every 20 minutes—can alleviate eye strain (American Optometric Association, n.d.). Similarly, incorporating non-digital activities, such as journaling or brainstorming on paper, provides cognitive relief from digital interfaces. Without deliberate alignment among technological proficiency, EI, and institutional support, digital innovation risks becoming a source of depletion rather than a driver of pedagogical growth.

#### 4. Emotional Intelligence in Digital Spaces: Sustaining the Trifecta

If technological proficiency enables access to digital tools, EI—enacted in digitally mediated contexts as dEI—determines how those tools are used relationally and ethically in language classrooms. In digitally mediated classrooms, the emotional toll on educators and the reduced availability of embodied cues render dEI an indispensable competency. Emotional intelligence is broadly defined as the ability to accurately perceive, understand, and manage emotions to foster intellectual growth and interpersonal connections (Mayer & Salovey, 1997). The concept gained widespread recognition through Goleman's seminal work, which highlighted how EI often plays a more significant role than the intelligence quotient (IQ) in determining success in interpersonal relationships, leadership, and emotional well-being (Goleman, 1995). While IQ focuses on cognitive abilities like reasoning, problem-solving, and memory, EI emphasizes the social and emotional dimensions of human interactions, complementing cognitive intelligence rather than competing with it. Unlike emotional literacy, which focuses primarily on identifying and articulating emotions using appropriate vocabulary, EI encompasses a broader set of skills, including emotional regulation, empathy, and the capacity to facilitate emotional well-being in oneself and others (Pentón Herrera, 2025). These competencies are especially critical in digital teaching contexts, where non-verbal cues such as body language and facial expressions are often absent or muted, making emotional understanding and regulation more complex.

Building on this foundation, recent scholarship argues that the digitalization of communication requires a more integrated conceptualization of EI. Audrin and Audrin (2023) refer to dEI as “the integration of both emotional intelligence and digital competence” (p. 1), emphasizing that it is “more than just emotional intelligence online” (p. 1). In this view, dEI reflects the capacity to navigate emotional processes within technology-mediated environments by combining emotional perception, regulation, and management with the knowledge, skills, and attitudes required for digital interaction. Importantly, dEI differs from traditional EI in that it explicitly accounts for the mediating role of digital platforms, which filter and structure emotional cues asynchronously, multimodally, and at times algorithmically (Audrin & Audrin, 2023). It also differs from digital literacy, which focuses primarily on technical, informational,

and communicative skills, and from teacher sociotechnical competence, which emphasizes the pedagogical integration of technology. Instead, dEI foregrounds the affective-relational dimension of digital interaction, positioning emotional attunement as central to effective technology-mediated language teaching.

Beyond conceptual clarification, it is important to recognize that EI—whether digital or non-digital—is often misunderstood as an innate trait rather than a skill set that can be cultivated through deliberate practice and reflection (Goleman, 1995). This misconception undermines its potential as a transformative educational goal and tool, particularly in digital spaces. Online teaching environments often present unique challenges, including feelings of disconnection (Avila-Sánchez et al., 2024; Liu & Lin, 2024). Emotionally intelligent educators can navigate these challenges by fomenting trust, transparency, and empathetic communication with their students, which are critical for maintaining engagement and motivation in virtual settings (Ertiö et al., 2024). Scholars underscore the role of EI in mitigating burnout, improving job satisfaction, and creating psychologically supportive environments (Ertiö et al., 2024; Mérida-López & Extremera, 2017). By employing emotional regulation strategies and empathetic practices, which are commonly known in the field as social-emotional learning (SEL) practices (see Pentón Herrera, 2024), educators can address issues such as cognitive overload and/or techno-overload as well as the absence of in-person interactions, paving the way for more equitable and human-centered digital education.

In digital learning environments, dEI is a critical bridge that fosters effective teacher-student relationships, compensating for the physical and sensory distance inherent in online education (Gunasekara et al., 2022). Rather than relying on traditional in-person cues, such as facial expressions and body language, emotionally intelligent educators can use adaptive and culturally relevant communication strategies. For instance, teachers can design digital check-ins using tools like Mentimeter or Kahoot to gauge students' feelings and academic engagement. These user-friendly technological tools can create moments of low-stakes interaction, allowing participants to communicate authentically. Building on these interactions, emotionally intelligent educators can promote a sense of inclusivity and belonging by designing culturally and emotionally responsive activities and discussions. For example, using students' input from these check-ins, educators can adapt their teaching to address unique cultural or emotional perspectives, creating a classroom atmosphere that celebrates diversity and promotes mutual understanding. Indeed, when EI and technology work hand in hand, they have the potential to create virtual classrooms where every student feels valued and connected (Gunasekara et al., 2022). Nevertheless, to accomplish this, educators must be emotionally intelligent individuals capable of enacting dEI in digitally mediated interactions as well as professionals confident in their digital skills.

Another critical dimension of EI in digital education is the role of teacher charisma and effective communication, particularly in online language learning contexts. In a recent study, Suen and Hung (2024) found that an instructor's ability to convey enthusiasm, clarity, and emotional warmth through vocal tone, facial expressions, and jovial interactions significantly enhances learner engagement and motivation in the digital space. In language learning, where communication is both the medium and the objective, a teacher's emotional presence

can create a supportive atmosphere that encourages risk-taking and active participation. Non-verbal elements, such as vocal intonation and pacing, can help students grasp nuanced meanings, while visible enthusiasm and encouragement can reduce learners' anxiety about making mistakes. Furthermore, [Suen and Hung's \(2024\)](#) study also revealed that charismatic vocal delivery—marked by expressiveness and positive emotional tones—can bridge the gap created by limited social presence, fostering affective engagement and sustained attention. This dynamic interplay of emotional intelligence and charisma positions educators not only as facilitators of knowledge but also as key motivators who drive supportive connections in the virtual classroom.

How, then, can educators cultivate EI to navigate the unique challenges of digital teaching environments effectively? Building EI begins with self-awareness, in which educators reflect on their emotional triggers, communication styles, and biases to understand how these factors affect their interactions with technology and students ([Goleman, 1995](#)). Regular mindfulness practices, such as journaling or guided meditation, can help educators develop emotional regulation skills by fostering a calm, balanced mindset in stressful situations ([Mérida-López & Extremera, 2017](#)). Professional development opportunities focused on SEL strategies can equip educators with tools to enhance their empathy and active listening ([Pentón Herrera, 2024](#)). Collaborative learning opportunities, such as peer observation or co-teaching, can also encourage educators to exchange ideas about emotionally supportive teaching practices and to receive constructive feedback. Moreover, practicing intentional communication—through personalized feedback, empathetic responses, and transparent expectations—can further solidify an educator's EI in digital spaces.

A final and crucial point to consider when it comes to EI and digital spaces is the need for strategies that facilitate rich online learning interactions; that is, strategies that go beyond technical proficiency and focus on fostering engagement, collaboration, and emotional connection. Research in language education highlights the importance of interactive activities that simulate real-world communication to enhance learning outcomes and maintain motivation ([Pan, 2023](#)). For instance, using tools like Wakelet or Padlet, educators can create opportunities for students to share personal narratives, respond to peers' reflections, and collaborate on group projects. These platforms promote asynchronous and synchronous exchanges, catering to diverse learning preferences while building a sense of community. Additionally, incorporating diverse multimedia resources and interactive tasks has proven effective in keeping students emotionally engaged and cognitively invested in language learning in digital spaces ([Roseni & Muho, 2024](#)). Studies also underscore the efficacy of gamified learning environments, in which virtual reality (VR) spaces like Second Life ([Chen, 2023](#)) enable students to practice language skills in a low-pressure, interactive setting that encourages both competition and cooperation. Ultimately, fostering rich interactions in digital spaces means creating an ecosystem where students feel empowered to participate actively, collaborate authentically, and grow both linguistically and emotionally.

## 5. Technology-Enhanced Learning Environments: Integrating the Trifecta for Human-Centered Language Education

Building on the foundational role of EI in digital education, the increasing prevalence of TELEs in language teaching (e.g., [Casañ Pitarch, 2018](#); [Chen, 2023](#); [Weng et al., 2024](#)) underscores the critical need to extend EI-driven principles into broader frameworks of technological integration. TELEs represent the practical convergence of the trifecta: technological proficiency structures the learning environment, emotional intelligence sustains engagement and well-being within digitally mediated interaction, and content knowledge shapes instructional goals. This extension focuses on psychological capital—a construct closely tied to EI that encompasses traits such as resilience, hope, optimism, and self-efficacy. While EI equips educators and students to navigate the emotional complexities of digital spaces, TELEs provide the technological infrastructure to implement these competencies in scalable and interactive ways. Psychological capital plays a pivotal role in fostering student engagement and emotional commitment, ultimately enhancing learning outcomes ([Liu et al., 2024](#)). Technology can enhance learning by serving as a motivational driver ([Duterte, 2024](#)). However, its overuse poses concerns; excessive classroom integration can adversely affect learning outcomes, motor development, and students' ability to solve problems independently ([Carstens et al., 2021](#)). For this reason, we hold that a balanced approach to technology use in education is needed to ensure that it enhances rather than hinders developmental and educational outcomes.

Employing technology for educational purposes can evoke a broad spectrum of emotions among learners associated with their interactions on screen, ranging from excitement and curiosity to anxiety and dismay. These emotions complicate learners' experiences, as they may struggle to identify and articulate feelings that are often a blend of anticipation and apprehension. Studies on fully online learning communities (FOLC)<sup>2</sup> underscore the critical influence of both helpful and harmful emotional interactions on students' motivation and engagement (e.g., [Kiyota, 2022](#)). Scholars further emphasize the importance of paying attention to and incorporating elements such as body language and cultural nuances into online learning platforms. Recognizing these non-verbal cues can significantly enrich the learning experience, promoting greater emotional connection and understanding between students and educators in digital spaces ([Koh & Hulbert, 2023](#)).

The increasing reliance on digital tools has also brought heightened concerns about mental health among the young ([Odgers & Jensen, 2020](#)). Research indicates that excessive screen time can lead to issues ranging from sleep disturbances to increased anxiety and depression, particularly among adolescents ([Mohd Saat et al., 2024](#)). Such challenges have prompted significant debates on the appropriateness of unrestricted digital access for minors ([Livingstone & Sylwander, 2025](#)), highlighted by legislative actions like Australia's proposal to ban social media usage for individuals under the age of 16. While such restrictive measures alone may not resolve all concerns, they signify a pivotal step towards the critical importance of adopting

<sup>2</sup> Fully online learning communities, or FOLC, are virtual spaces where students and educators connect, collaborate, and build learning experiences entirely online.

educational practices, such as SEL, which prioritize the development and enhancement of social-emotional skills, including self-regulation, among young digital users (Kazanjian, 2024). Ultimately, SEL practices can be used to balance the mental health risks associated with the pervasive use of digital technologies, aiming to reduce the likelihood of dependence on digital platforms for learning and social interaction (Setia et al., 2024).

In the context of TELEs, motivation is a critical determinant of academic success, underscoring the complex interplay between external (e.g., technological tools, structured incentives, and teacher-driven prompts) and internal (e.g., personal curiosity, intrinsic interest, and self-directed goals) elements. External factors, such as innovative technological tools, often provide initial engagement and extrinsic motivation for students by offering structured incentives, including gamified tasks, progress tracking, and interactive learning features, which capture their attention and encourage participation. For instance, Pan (2023) highlights how technology in Chinese classrooms empowers students, fostering constructive learning behaviors and increased motivation. However, reliance on external motivators alone is insufficient; intrinsic motivation, rooted in learners' personal drive and curiosity, plays a fundamental role in sustaining educational growth. The relationship between external and internal motivation is deeply interdependent, emphasizing the need for a thoughtful implementation of digital learning. That is, TELEs must not only leverage the benefits of technology but also address learners' emotional and cognitive dimensions, targeting intrinsic and extrinsic motivation in tandem.

Expanding on this point, Sungheetha et al. (2023) highlight the transformative potential of emerging technologies such as Google Expeditions and touchscreen-based emotion tracking in fostering emotional engagement among learners. These tools, alongside immersive technologies such as VR and digital games, have demonstrated their ability to elicit emotional responses that enhance focus and motivation through emotional investment. VR, in particular, provides an immersive and interactive learning environment that captivates students' attention and fosters deeper cognitive engagement by allowing them to experience concepts in a hands-on, realistic manner (Chen, 2023). Similarly, for educators, VR could also be a valuable resource in addressing burnout (Ong et al., 2024). Emerging technologies have the potential to promote adaptability and emotional literacy, reducing stress and cognitive overload to create supportive digital environments for both students and teachers. When integrated thoughtfully, tools like VR and digital games exemplify how TELEs can align technological advancements with emotional well-being, addressing both the academic and affective needs of modern learners and teachers.

At the same time, while TELEs offer significant potential to enhance academic outcomes and experiences, scholars have pointed out enduring challenges for TELEs in teacher preparedness. For example, a study in the Philippines (Duterte, 2024) reported substantial improvements in students' learning outcomes when digital interactive tools, such as gamified quizzes and virtual simulations, were integrated into the curriculum. These tools captured students' interest while fostering deeper engagement by blending entertainment with educational content. However, these promising outcomes also revealed critical gaps in teacher preparedness. Many educators reported challenges in effectively leveraging VR as a teaching tool,

underscoring the urgent need for comprehensive teacher training about emerging technologies (Duterte, 2024). Weng et al. (2024) highlighted similar findings, demonstrating that augmented reality (AR)<sup>3</sup> and VR significantly enhanced learners' English proficiency by providing immersive, context-rich experiences, but identified noticeable gaps in professional training for teachers on how to use such tools to their full potential. Moreover, Casañ Pitarch (2018) highlights that while digital game-based learning offers numerous advantages for promoting foreign language skills and motivation, many teachers face barriers to implementation due to limited training in integrating video games effectively into their pedagogy. These examples illustrate that while TELEs offer transformative potential for language teaching and learning, their success hinges on equipping educators with the skills and resources to navigate and optimize these technologies effectively.

Ultimately, TELEs represent a significant shift in education. They offer powerful opportunities to enrich language learning and to respond to students' emotional and cognitive needs. At the same time, expectations placed on language teachers continue to grow. Yet teacher preparation programs—both pre-service and in-service—often do not evolve quickly enough to support educators in meeting these demands. As the U.S. Department of Education (2016) notes, many preparation and professional development programs lag behind in equipping teachers to manage rapid technological change, particularly the emotional pressures that accompany digitally mediated teaching. Addressing this gap is essential. Teachers need preparation that helps them navigate technological complexity while also protecting their own well-being and supporting their students' emotional development. When schools pair new technologies with social-emotional learning (SEL), teachers can create classrooms that support both academic growth and emotional well-being. Done thoughtfully, this approach benefits learners and helps teachers maintain balance in their work.

## 6. Conclusions

We would like to conclude this manuscript by returning to the guiding question posed in the introduction: *What knowledge and skills do language teachers need to thrive in the current era of rapid digital transformation?* Whether we like it or not, language education has become a technology-driven profession where pedagogy and technology intersect in complex, often unpredictable ways. To navigate this landscape successfully, language teachers must cultivate a trifecta of competencies: (1) *technological proficiency* to effectively integrate tools like VR, gamified learning, and interactive platforms; (2) *emotional intelligence* to foster authentic connections in digital spaces; and (3) *content knowledge* to deliver accurate, contextually relevant language instruction. Crucially, these competencies do not operate in isolation; rather, their dynamic interaction determines whether digital innovation leads to fragmentation or flourishing in language education. As we have shown, understanding and addressing students' emotional needs is as critical as mastering new technologies and delivering instruction

<sup>3</sup> Augmented reality (AR) overlays digital elements, such as images or sounds, onto the real world, enhancing the physical environment, while virtual reality (VR) creates a fully immersive, computer-generated environment that replaces the real world.

grounded in deep subject expertise. SEL competencies equip teachers to bridge the gap between innovation and human connection, ensuring that technology can enhance, not replace, the human and intellectual elements of language teaching.

Looking ahead, the field of language education must address several pressing challenges to harness the full potential of TELEs. First, teacher preparation programs must evolve to equip educators with a trifecta of essential competencies: technological proficiency, emotional intelligence, and content knowledge—all of which are necessary for effective digital teaching. Professional development should prioritize introducing teachers to innovative tools while also cultivating the social-emotional competencies required to navigate the unique dynamics of online spaces. Second, greater emphasis must be placed on developing EI, with a particular focus on dEI as a distinct and critical skill set. This involves fostering the ability to perceive, interpret, and manage emotions in technology-mediated interactions. Lastly, the integration of SEL practices into digital pedagogies—a topic still ripe for exploration in our field—offers significant potential for ensuring these environments remain human-centered and equitable, addressing both the academic and emotional dimensions of learning. By advancing these priorities, the field can better support teachers in creating dynamic, inclusive, localized, and emotionally responsive digital classrooms that empower students to thrive in an increasingly interconnected world.

## 7. Scope and Future Directions

This manuscript advances a theoretically grounded framework centered on a trifecta of competencies for technology-enhanced language education. As a conceptual contribution, the framework has not yet been empirically validated, and its propositions are derived from existing scholarship and practitioner-informed perspectives. The applicability of the proposed framework may therefore range across institutional, cultural, and technological contexts, particularly where access to digital infrastructure and professional development varies significantly. While this manuscript is theoretical in nature, future research could operationalize the proposed trifecta of competencies in real instructional settings. For example, teacher preparation programs might assess growth in technological proficiency, EI (including dEI), and content knowledge through mixed-method evaluation designs that combine validated scales (e.g., technostress or digital burnout measures), classroom observation protocols, and student engagement metrics. Longitudinal studies could examine how balanced development across these competencies predicts teacher well-being, student motivation, and instructional effectiveness in technology-enhanced language learning environments. Such empirical exploration would provide a valuable next step in testing and refining the framework advanced in this article.

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