Multimodality in Digital Collaboration: Exploring eTwinning in ITE for Enhancing Pre-Service Teachers' Communication and Pedagogical Design

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ABSTRACT

This paper investigates how multimodality functions within eTwinning projects in Initial Teacher Education (ITE) and how these practices prepare pre-service English language teachers for digitally connected and intercultural classrooms. The objectives of the study are to clarify how multimodal meaning-making is enacted through eTwinning collaboration, to analyze the support that eTwinning ITE Ambassadors and teacher educators provide, and to propose strategies for embedding multimodal project work into higher education curricula. This paper follows a conceptual and exploratory research design, drawing on social semiotics, sociocultural theory, and intercultural communicative competence. Through policy reports, peer reviewed studies and documented cases from European institutions it identifies patterns, challenges, and opportunities in current practice. It is shown that eTwinning projects generate rich multimodal artefacts, such as digital stories, infographics, virtual exhibitions, and collaborative videos. These tasks foster digital literacy, creativity, and intercultural awareness, and they give pre-service teachers hands on experience with tools and communication practices common in contemporary ELT. This paper further concludes that ITE Ambassadors and teacher educators play a decisive scaffolding role as they train students in multimodal tools, support pedagogical design, mediate intercultural communication, and help integrate eTwinning into course structures. Despite clear benefits, certain challenges do persist, including uneven digital competence, limited institutional support, superficial uses of multimodality, and restrictive curricula. The paper concludes that eTwinning offers a strong framework for integrating multimodal, collaborative, and intercultural pedagogy into teacher preparation. Lasting impact, however, depends on systematic curriculum integration, clear assessment criteria, and institutional recognition of ITE Ambassador and teacher educator roles. The study outlines future research needs and provides practical recommendations for strengthening multimodal eTwinning implementation in ITE.

Keywords: eTwinning; multimodality; initial teacher education; digital literacy; innovative pedagogy

INTRODUCTION

The integration of digital technologies into teacher education has transformed how pre-service teachers learn, communicate, and prepare for professional practice. Within the field of English Language Teaching (ELT), these changes are particularly significant, since language itself is inherently multimodal and communicative, and the digital era has expanded both the modes and contexts in which the English language is used. For teacher educators and pre-service teachers alike, the challenge is not only to master technological tools but also to develop the pedagogical vision required to employ them meaningfully in classrooms that are increasingly diverse, intercultural, and digitally connected.

Against this backdrop, eTwinning, the European Commission's platform for school networking and collaborative projects, has emerged as a powerful mechanism for promoting digital collaboration, intercultural learning, and professional development across Europe. Since its launch in 2005, eTwinning has enabled teachers and students to participate in cross-border projects, fostering both digital literacy and cultural awareness (Gilleran 2019). While traditionally associated with primary and secondary schools, its integration

into Initial Teacher Education (ITE) has gained momentum in recent years, aiming to equip pre-service teachers with the competences required for 21st-century teaching (European Commission 2023b). A central element of this process is the work of eTwinning ITE Ambassadors, experienced teacher educators and academics who embed eTwinning in higher education (HE), mentor student teachers, and support teacher educators in designing eTwinning-based activities. The Ambassadors' role extends beyond promotion, i.e. they act as pedagogical guides who model collaborative practices, foster professional networking, and encourage reflective approaches to digital pedagogy (Belic Malinić 2025). Yet despite their growing prominence, limited scholarly attention has been paid to their contribution, particularly in relation to multimodality, or the use of multiple semiotic resources such as text, image, sound, gesture, and digital media to construct meaning (Kress 2010; Jewitt 2014).

Multimodality is especially relevant to ELT and ITE. Research shows that multimodal approaches deepen communicative competence, enhance creativity, and enable learners to express meaning through diverse representational forms (Kalantzis and Cope 2020; Jewitt 2014). In collaborative environments such as eTwinning, multimodality is not a supplement but a central practice: projects frequently involve digital storytelling, collaborative videos, infographics, and virtual exhibitions, among other things, each requiring the integration of multimodal literacies. Understanding how eTwinning supports such practices in ITE, and how Ambassadors and teacher educators scaffold them, is therefore crucial for ELT practitioners.

Despite this relevance, gaps remain. Research has mainly addressed eTwinning's impact on professional development (Huertas-Abril et al. 2025), its integration into ITE (Napal-Fraile et al. 2024; Tosi 2023), and student teachers' experiences with collaboration (Gülbay 2018). Yet few studies explicitly explore multimodality in eTwinning-based ITE, and fewer still analyze the Ambassador's and teacher educator's role. Furthermore, while countries such as Italy, Spain, and Turkey feature prominently in research, smaller contexts, such as North Macedonia, remain underrepresented.

This paper addresses these gaps by examining the intersection of multimodality, eTwinning, and ITE. Framed within the European context, it synthesises existing scholarship while offering practice-oriented recommendations. Its aims are threefold: to conceptualise the role of multimodality in eTwinning-based collaboration for pre-service ELT teachers; to analyze the Ambassador's and teacher educator's role in scaffolding multimodal practices in HE; and to propose strategies for embedding multimodal eTwinning projects in ITE curricula. The study's significance lies in its contribution to both scholarship and practice: for researchers, it highlights an underexplored nexus and future directions for inquiry; for practitioners, it offers a framework for designing multimodal, collaborative projects that prepare student teachers to create inclusive, intercultural, and technologically enriched classrooms.

CONCEPTUAL AND THEORETICAL BACKGROUND

Multimodality in education

The concept of multimodality has become increasingly central to discussions of pedagogy in the digital age. Rooted in social semiotics (Kress 2010; Jewitt 2014), multimodality refers to the idea that meaning is constructed not only through language but also through a range of semiotic resources, including images, gestures, sounds, spatial arrangements, and digital media. The so-called "multimodal turn" (Jewitt 2014) recognises that language is almost always co-deployed with other semiotic systems, and that meaning is made multimodally through the orchestration of these diverse resources. Within education, multimodality highlights the diverse ways in which learners engage with and represent knowledge. For language education, it is particularly significant, as teachers must attend not only to written and spoken language but also to visual, auditory, and interactive dimensions of communication. As Kalantzis and Cope (2020) note, 21st-century literacy is inherently multimodal, requiring learners to interpret and produce hybrid texts that combine words, visuals, audio, and interactive features. In this sense, multimodality is not an optional extension but a fundamental dimension of communicative competence.

In practice, multimodal pedagogy involves the design of tasks and environments in which learners actively combine modes to construct meaning. Examples include digital storytelling projects that integrate narrative,

images, and music; collaborative infographics that present research visually; or podcasts and video essays that combine spoken commentary with visual evidence. Such practices resonate strongly with constructivist and socio-cultural theories of learning, which emphasise active knowledge construction and socially mediated interaction (Vygotsky 1978). The rise of digital technologies has expanded opportunities for multimodal meaning-making: online platforms easily allow the integration of text, video, audio, and interactive features, making multimodality the norm rather than the exception. Yet, as Laurillard (2012) cautions, technology alone does not ensure learning; what matters is the pedagogical design underpinning its use. Hampel and Stickler (2015) likewise stress that online collaboration requires careful orchestration of interaction patterns, scaffolding mechanisms, and tools to enable co-construction of knowledge. Similarly, Cannelli (2021) emphasises that teachers should provide students with multimodal contexts, such as blogs, podcasts, and interactive webpages, that foster proficiency in digital communication, intercultural interaction, and mediation.

Within HE, digital collaborative projects play a powerful role in developing professional skills for pre-service teachers. They encourage future educators to experience the pedagogical affordances of technology first-hand, to plan collaboratively, and to reflect critically on intercultural and multimodal communication as this will be their imminent future. Importantly, the integration of multimodality into ELT cannot be separated from the goal of fostering intercultural communicative competence (ICC). Defined by Byram (1997) as the ability to interact effectively and appropriately with people from different cultural backgrounds, ICC has long been a core objective of language education. In digital contexts, ICC is extended: learners must interpret and produce meaning across diverse semiotic modes and in intercultural online environments. Multimodality enhances ICC by offering multiple channels for expressing identity, perspective, and culture (Kramsch 1993; Moeller and Nugent 2014). Digital storytelling, for instance, allows learners to weave language together with images and background music that reflect cultural values; collaborative infographics require negotiation of both content and visual form; and videoconferencing demands attention not only to words but also to gesture, tone, and visual cues.

From a teacher education perspective, exposing pre-service teachers to multimodal and intercultural collaboration is essential. As Dooly and Sadler (2016) note, future teachers must be prepared to design tasks that transcend the traditional text-based and teacher-centred classroom and to facilitate learning experiences that reflect the complex communicative realities of the 21st century. In this sense, multimodality is not merely a pedagogical trend but a foundational principle for rethinking ELT in HE.

eTwinning as a framework for digital multimodal collaboration in HE

eTwinning provides a unique context in which multimodality and digital collaboration converge. Established in 2005 under the European Commission's eLearning programme and being fully integrated into the European Union's Lifelong Learning Programme since 2007, eTwinning enables schools and teachers across Europe to collaborate on projects using an online platform. Teachers design projects, connect with partners from the same country or preferably from a different country, and facilitate student collaboration, often resulting in rich multimodal outputs or artefacts, such as joint blogs, digital posters, short films, and online exhibitions.

From a theoretical perspective, eTwinning aligns with socio-constructivist and connectivist frameworks. Socio-constructivism emphasises learning as a socially situated activity, in which knowledge is co-constructed through interaction (Vygotsky 1978). Connectivism, as articulated by Siemens (2005), highlights the role of networks and digital tools in shaping contemporary learning. eTwinning projects, which depend on networking, collaboration, and digital production, exemplify both frameworks.

In HE, for pre-service teachers, participation in eTwinning offers two overlapping benefits. First, it provides direct experience of digital collaborative pedagogy, allowing them to freely experiment with task design, assessment, and classroom integration. Second, it fosters the development of multimodal literacies, as projects routinely require integration of text, visuals, sound, and interactive elements. These experiences not only enhance digital and intercultural competences but also prepare pre-service teachers to replicate similar practices in their future classrooms.

The successful integration of eTwinning in ITE does not occur spontaneously, but rather it requires advocacy, guidance, and professional scaffolding. This is where the role of eTwinning ITE Ambassadors and teacher educators becomes critical. Ambassadors are experienced teachers or academics in HE who are formally designated to promote eTwinning within HE institutions, mentor pre-service teachers, and collaborate with teacher educators to embed eTwinning activities into curricula (European Commission 2023b). They serve as mediators between policy and practice. On the one hand, they interpret European policy initiatives for local contexts, ensuring alignment with national curricula and HE priorities. On the other hand, they work closely with student teachers, modeling how to design and implement collaborative projects, and providing hands-on training in multimodal and digital tools (Belic Malinić 2025). Their dual role makes them key agents in translating the potential of eTwinning into actual practice within universities.

Regarding multimodality, both eTwinning ITE Ambassadors and teacher educators occupy a crucial scaffolding role. While pre-service teachers typically possess basic digital skills, they frequently lack the pedagogical vision and principled objectives necessary to design tasks that integrate multiple semiotic modes in meaningful and authentic ways. Ambassadors and teacher educators therefore provide not only technical training but also opportunities for critical reflection, guiding future teachers to move beyond superficial uses of visual elements or technology. In doing so, they encourage student teachers to consider how multimodal designs shape processes of learning, communication, and intercultural understanding. The case of North Macedonia offers a relevant illustration. Although relatively new to eTwinning in ITE, the two principal state universities (Ss Cyril and Methodius in Skopje, and Goce Delcev in Štip) have adopted and embedded eTwinning projects within teacher education courses and participated in European-level ITE initiatives since 2019 and 2024, respectively, with an ITE Ambassador from the former University. This highlights both the opportunities and the challenges of integrating eTwinning into a national HE system where the majority of teacher educators remain hesitant or disengaged, yet where the potential for fostering intercultural collaboration is considerable.

While the theoretical foundations of multimodality, digital collaboration, and intercultural competence are well established, their intersection within eTwinning-based ITE remains underexplored. Existing studies highlight the benefits of eTwinning for teacher education (Napal-Fraile et al. 2024; Tosi 2023) and document Ambassadors' contributions to professional development (Belic Malinić 2025; Huertas-Abril et al. 2025), however, systematic investigation into how multimodality is enacted, scaffolded, and reflected upon within eTwinning ITE projects is much more limited.

This gap is particularly evident in the ELT field. Although multimodal pedagogy has been widely discussed in language education (Jewitt 2014; Kalantzis and Cope 2020), little attention has been paid to how ELT pre-service teachers engage in multimodal collaboration through platforms like eTwinning, and how ITE Ambassadors and teacher educators guide this engagement. Moreover, the diversity of European contexts, with smaller states like North Macedonia still emerging in the literature, requires further exploration to understand how eTwinning practices adapt to different HE environments. This paper positions itself at this intersection, aiming to articulate both the theoretical rationale and the practical pathways for integrating multimodal eTwinning projects into ELT teacher education.

LITERATURE REVIEW

eTwinning in HE

Although eTwinning was originally designed as a networking initiative for schools, its extension into HE, particularly in the domain of ITE, represents one of the most significant developments of recent years. As the European Commission (2019b) notes, the platform has evolved from a project-based tool for school partnerships into a professional development space for teachers at all career stages. For HE institutions, eTwinning offers a structured yet flexible way of embedding international collaboration, intercultural dialogue, and digital pedagogy into curricula.

The European Commission's 2023 Monitoring Report on the Impact of eTwinning on ITE highlights the scale of this development. Over 400 HE institutions across Europe have now integrated eTwinning into their teacher

education programmes (European Commission 2023b). The rationale is clear: exposing pre-service teachers to collaborative, intercultural, and digitally mediated pedagogies better prepares them for the realities of 21st-century classrooms.

Several empirical studies support this trajectory. Napal-Fraile et al. (2024), in a study of pre-service science teachers in Spain, Italy, and Poland, found that participation in eTwinning projects enhanced digital competence, teamwork skills, and openness to intercultural collaboration. Gülbay (2018) similarly showed how the Teacher Training Institutes pilot programme enabled more than 500 undergraduates to join cross-border projects, which they perceived as beneficial for professional development and future practice. Beyond Europe, Basantes (2025) reported that adapting eTwinning in Latin America improved pre-service teachers' communicative competence in English and fostered intercultural sensitivity. From a European standpoint, Paz-Albo and López Cirugeda (2017) argued that eTwinning represents a future-oriented framework for initial teacher training but warned that sustainability depends solely on embedding it institutionally rather than relying on individual initiative.

Despite such evidence, challenges remain. The EVALUATE Group (2019), examining virtual exchange more broadly, identified barriers such as limited institutional support, inadequate digital infrastructure, and variability in teacher educators' readiness to use collaborative tools. These issues are directly relevant to eTwinning. As Paz-Albo and López Cirugeda (2017) emphasise, unless eTwinning aligns systematically with curricular objectives, its impact risks remaining peripheral.

Within the European Higher Education Area (EHEA), ITE is seen as a critical stage for embedding competences in digital pedagogy, intercultural awareness, and innovative strategies (European Commission 2023b). eTwinning contributes to these objectives by functioning, in Tosi's (2023) words, as a 'living laboratory' where pre-service teachers design and implement collaborative cross-cultural projects. Such experiences foster digital literacy, insights into intercultural classrooms, and the pedagogical use of multimodal resources. Research confirms that ITE students value these opportunities: Huertas-Abril et al (2025) discovered that student teachers benefited from authentic communication, multimodal task design, and intercultural collaboration. These findings align with wider calls for experiential, practice-based teacher education (Darling-Hammond 2017; Huertas-Abril and Muszyńska 2022).

Yet integrating eTwinning into ITE is not without obstacles. Rigid curricula often leave little space for creativity and external projects, teacher educators may lack familiarity with the platform or simply show lack of interest, and students may struggle with time management or intercultural dialogue. These challenges underscore the importance of eTwinning ITE Ambassadors, introduced to bridge policy and practice. Ambassadors, often academics, mentor pre-service teachers, support teacher educators, represent institutions at European events, and embed eTwinning into curricula (Belic Malinić 2025). In practice, they act as facilitators of multimodal pedagogy, intercultural mediators, and policy translators.

Research on ITE Ambassadors is still emerging. Belic Malinić (2025) portrays them as teacher leaders fostering professional learning communities, while Huertas-Abril et al. (2025) show that Ambassadors view eTwinning as effective for enhancing EFL skills through multimodal, collaborative tasks. Systematic evaluation still remains limited, with most studies relying on small-scale qualitative data. Questions about long-term curricular impact and institutional transformation therefore remain open.

Multimodality in eTwinning projects

The intersection of multimodality and eTwinning has attracted growing, though still limited, scholarly attention. At the school level, numerous reports describe eTwinning projects that involve multimodal outputs, such as collaborative films, digital exhibitions, and e-magazines. These outputs demonstrate how multimodality fosters creativity, engagement, and deeper learning, allowing pupils to express themselves in ways that transcend linguistic competence alone (Dooly and Sadler 2016; European Commission 2019a; 2019b; 2020; 2021a; 2022a; 2023a). At the ITE level, however, the literature remains comparatively sparse. Napal-Fraile et al. (2024) observed that pre-service teachers valued the multimodal nature of eTwinning projects, which enabled them to present science concepts through videos, visualisations, and interactive

posters. Tosi (2023) similarly emphasised that multimodal design was central to student teachers' engagement and learning. Yet neither study explored multimodality as its primary focus, leaving an analytical gap.

Within the field of ELT, multimodal approaches have long been recognised as essential for the development of communicative competence (Cannelli 2021; Jewitt 2014; Kalantzis and Cope 2020). Still, studies explicitly linking multimodality to eTwinning-based ITE in ELT remain very limited. Huertas-Abril et al. (2025) do note that Ambassadors and teacher educators often employ multimodal strategies to scaffold EFL learning but stopped short of providing detailed empirical analysis of how these strategies impact student teachers' pedagogical design.

More recently, research has highlighted the relationship between eTwinning, multimodality, and digital literacy development. Huertas-Abril and Palacios-Hidalgo (2023a) reported that student teachers participating in cross-border eTwinning projects developed stronger awareness of the pedagogical value of multimodal texts but also faced difficulties in aligning digital tools with communicative objectives. Their findings suggest that while multimodality is appreciated, it often remains under-theorised in teacher education contexts. Similarly, Huertas-Abril and Muszyńska (2022) showed how eTwinning tools facilitate social and curriculum integration through multimodal communication, stressing that pre-service teachers benefit from collaborative tasks in which they co-construct meaning using text, visuals, and audio.

In addition to digital competence, multimodality also supports the development of intercultural awareness. Huertas-Abril and Palacios-Hidalgo (2023b) found that collaborative online learning within eTwinning provided pre-service teachers with spaces for intercultural reflection mediated by multimodal resources, enabling participants to negotiate meaning across linguistic and cultural boundaries. Their findings confirm Hampel and Stickler's (2015) broader argument that multimodal tasks in online teaching environments require careful scaffolding, since students must manage a complex interplay of verbal, visual, and paralinguistic cues.

Taken together, these studies indicate that multimodality within eTwinning contributes to digital literacy, intercultural competence, and creative engagement, but also suffers from fragmented implementation. While research consistently acknowledges multimodality as a powerful affordance, it often remains a secondary theme, lacking systematic theorisation or detailed analysis. This analytical gap is particularly evident in ELT-focused ITE contexts, where multimodal practices are common but not yet comprehensively studied. This absence of systematic research in fact presents an opportunity. As Dooly and Sadler (2016) note in the broader context of virtual exchange, multimodality should not be treated as a by-product of digital projects but as a central analytical lens. Applying this lens to eTwinning ITE projects could reveal how pre-service teachers conceptualise multimodal pedagogy, how Ambassadors and teacher educators scaffold multimodal competence, and how such practices translate into classroom application.

To sum up, the literature reviewed highlights three key gaps: (1) Multimodality in eTwinning ITE remains underexplored. While multimodal outputs are common, few studies analyze them systematically, especially in ELT contexts; (2) The role of ITE Ambassadors is insufficiently theorised. Although Ambassadors are recognised as important, research rarely examines their scaffolding practices in depth as compared to teacher educators; (3) National contexts beyond major EU countries are underrepresented. Countries like North Macedonia demonstrate active involvement, though their practices are rarely documented in the scholarly literature and the reasons why the majority of teacher educators in the country remain hesitant or disengaged is yet unknown.

METHODOLOGICAL APPROACH

Research orientation and conceptual framework

This paper is conceived as a conceptual and exploratory study that combines both research-oriented and practice-oriented perspectives. It synthesises existing literature, policy documents, and case studies on eTwinning, multimodality, and ITE, while also integrating insights from practice. In doing so, it highlights concrete examples of multimodal pedagogical design enacted in HE contexts and proposes strategies for ELT practitioners. This dual orientation reflects the nature of the topic itself. On the one hand, scholarly work on

multimodality and eTwinning remains underdeveloped, requiring conceptual synthesis to define frameworks for future research. On the other hand, eTwinning is a practitioner-driven initiative: its success depends on how teacher educators, Ambassadors, and institutions adopt it in practice. Accordingly, the paper situates itself at the intersection of research and professional development, wanting to inform both academic discourse and teaching practice.

The analysis is guided by three exploratory research questions that aim to identify patterns, gaps, and future directions rather than provide definitive answers: How is multimodality conceptualised and enacted within eTwinning projects in ITE, particularly in ELT? What role do Ambassadors and teacher educators play in scaffolding multimodal practices for pre-service teachers in HE? What strategies can be proposed for integrating multimodal eTwinning projects into ITE curricula across Europe, including smaller contexts such as North Macedonia?

The paper draws on three overlapping theoretical frameworks. First, Social Semiotics and Multimodality (Kress 2010; Jewitt 2014) explain how meaning is constructed across modes and how semiotic resources are orchestrated in digital collaboration. Second, Sociocultural Theory (Vygotsky 1978) frames learning as socially mediated, highlighting scaffolding by Ambassadors and teacher educators. Third, ICC (Byram 1997) situates multimodal collaboration within the wider goal of intercultural dialogue in ELT and eTwinning.

The study engages with a wide range of secondary sources that combine policy, research, and practice, enabling triangulation across perspectives. Open access policy reports published by the European Commission document the evolution of eTwinning in general and its specific integration into ITE, positioning ITE within the broader European agenda for professional development, digital innovation, and intercultural education. Alongside policy reports, the peer-reviewed research provides growing evidence of eTwinning's pedagogical potential. Napal-Fraile et al. (2024) and Gülbay (2018) highlight its role in enhancing pre-service teachers' digital and teamwork competences, while Huertas-Abril and Muszyńska (2022) show its contribution to curriculum integration through multimodal communication. Huertas-Abril and Palacios-Hidalgo (2023a) stress the need for sustained scaffolding in developing digital literacy, and Paz-Albo and López Cirugeda (2017) caution that eTwinning must be institutionally embedded to avoid remaining peripheral. Comparative insights come from Basantes (2025), who reports improved communicative competence and intercultural sensitivity in Latin American HE contexts. Additional perspectives are offered by Dooly and Sadler (2016) on project-based multimodal learning, Darling-Hammond (2017) on global teacher education reforms, and Tosi (2023) on embedding eTwinning systematically into curricula. Together, these contributions confirm eTwinning's potential but also highlight the challenges of sustainability and institutionalisation.

Analytical strategy

The analysis follows a thematic synthesis approach, adapted for conceptual review. Sources are examined to identify recurring themes related to the research questions, such as the affordances of multimodality in eTwinning projects, pedagogical functions of Ambassadors and teacher educators in HE, challenges and opportunities specific to ITE contexts, and gaps in research and practice, particularly regarding underrepresented European contexts. This synthesis enables both conceptual contributions (clarifying how multimodality and Ambassador roles intersect) and practical implications (suggesting models and strategies for integration into ELT teacher education).

As with any conceptual review, limitations must be acknowledged. First, the absence of primary empirical data means that conclusions are interpretative rather than definitive. Future studies should include classroom observations, interviews with pre-service teachers, and systematic evaluations of projects to provide empirical grounding. Second, while the paper draws on European-level and country-specific sources, coverage is inevitably uneven: well-documented contexts such as Spain and Italy are more represented than smaller systems like North Macedonia, where published research remains limited. Third, the focus on ELT reflects the intended audience but may overlook insights from other subject areas where eTwinning is used differently. Nonetheless, these limitations do not diminish the value of the study. On the contrary, they highlight the need for precisely the kind of agenda-setting work this paper seeks to accomplish. By articulating key themes, gaps, and strategies, this paper provides a foundation for future empirical research and for immediate practical

applications in teacher education. In proposing recommendations, this paper is careful not to prescribe uniform solutions but to acknowledge the diversity of contexts, resources, and institutional cultures across Europe.

FINDINGS AND DISCUSSION

How multimodality is enacted in eTwinning projects in HE

Across Europe, eTwinning projects regularly generate multimodal artefacts, or digital products that combine linguistic, visual, auditory, and interactive modes of meaning-making. These artefacts function not as decorative additions but as pedagogical outputs, requiring pre-service teachers to reflect on how content is represented across modes. In this process, student teachers as participants gain experience in designing resources they might later employ in ELT classrooms, where multimodal learning materials are increasingly the norm. Examples include digital storytelling videos in which student teachers narrate cultural traditions while integrating images, background music, and subtitles (Huertas-Abril et al. 2025); collaboratively designed infographics and posters summarising research on language teaching methods, produced with tools such as Canva (Napal-Fraile et al. 2024); or virtual exhibitions or blogs where lesson plans, podcasts, and interactive quizzes are shared and commented on across institutions (Tosi 2023).

Beyond the artefacts themselves, eTwinning projects embody multimodality in their processes. Communication unfolds through text-based forums, video conferencing, image sharing, and collaborative editing platforms, requiring participants to navigate multiple semiotic channels simultaneously. This is the place where Ambassadors and teacher educators can demonstrate what peer feedback is and how it should be done. Hampel and Stickler (2015) argue that online collaboration demands careful orchestration of diverse communication modes, and eTwinning exemplifies this complexity. For pre-service ELT teachers, such experiences act as a pedagogical apprenticeship, reflecting the communicative demands of future classrooms where teachers must coordinate written, spoken, and visual input in both physical and online environments.

Studies highlight three recurring benefits of multimodal engagement in eTwinning. First, enhanced digital literacy: pre-service teachers gain competence in using digital tools for creating multimodal artefacts (Cannelli 2021; Napal-Fraile et al. 2024). Second, creativity and engagement: multimodal tasks motivate learners and allow for imaginative representations of content (Huertas-Abril et al. 2025). Third, intercultural dialogue: multimodal resources enable the sharing of cultural narratives in richer, more accessible ways, transcending linguistic barriers through visuals, music, and symbols (Belic Malinić 2025). For ELT, these findings confirm that multimodal project design should be positioned centrally within teacher preparation.

The role of eTwinning ITE Ambassadors and teacher educators is crucial in scaffolding such practices. Drawing on Vygotskian sociocultural theory, they can be seen as mediators supporting student teachers within their zone of proximal development (Vygotsky 1978). While many pre-service teachers are adept at social media and digital tools, they often lack experience in applying them pedagogically. Ambassadors bridge this gap by proactively providing training workshops on multimodal tools, moderating online groups where projects are shared and given feedback on, and fostering reflection on how multimodal choices shape meaning in ELT contexts. Huertas-Abril et al. (2025) note that Ambassadors frequently highlight how multimodal tasks strengthen EFL learners' listening and speaking skills, with visual support aiding comprehension. Belic Malinić (2025) further characterises Ambassadors as a form of teacher leadership, combining mentorship and advocacy. Within the domain of multimodality, this leadership entails cultivating a culture of innovation, persuading institutions and colleagues to value collaborative, multimodal pedagogy as an essential contribution to HE, where curricular reform often lags behind pedagogical innovation.

Challenges in implementing multimodality through eTwinning in ITE

Despite its potential, multimodal collaboration faces persistent technological obstacles. Unequal access to reliable internet, insufficient institutional infrastructure, and limited familiarity with digital tools can hinder participation (The EVALUATE Group 2019). These barriers are intensified in smaller or less resourced contexts, where resource constraints may be particularly acute, making the Ambassador's and teacher educator's role in providing technological and pedagogical support even more critical. Huertas-Abril and

Palacios-Hidalgo (2023a) similarly observed that pre-service teachers' uneven digital literacy limited the depth of multimodal engagement, noting that access to training in eTwinning tools was often decisive in determining whether students could design meaningful digital artefacts.

Pedagogical design represents another significant hurdle. As Laurillard (2012) has stated, effective digital pedagogy requires intentional structuring of tasks, not merely access to technological tools. Huertas-Abril and Palacios-Hidalgo (2023a) note that Ambassadors and teacher educators play a pivotal role in advancing pre-service teachers' digital literacy, though the impact is uneven across institutions, since digital competences are closely tied to the presence of mentors who scaffold the pedagogical use of multimodal resources. Of course, broader and more systematic research is required to assess how their efforts translate into lasting transformations in teacher education. In addition, pre-service teachers may struggle to design multimodal activities that are pedagogically coherent rather than merely visually attractive. In a comparative study across two universities, Huertas-Abril and Palacios-Hidalgo (ibid) found that pre-service teachers tended to privilege surface-level aesthetics, such as choosing colourful templates or images, over carefully aligning multimodal resources with communicative and linguistic objectives. Ambassadors and teacher educators frequently report similar challenges: students often approach multimodality superficially, focusing on decoration rather than meaningful integration (Huertas-Abril et al. 2025).

Curricular and institutional constraints further limit the systematic use of eTwinning in ITE. HE curricula often leave little room for external projects, and teacher educators may be reluctant to adopt eTwinning due to workload, not being paid, assessment requirements, or unfamiliarity with the platform. Without institutional recognition, Ambassadors and teacher educators may find their efforts isolated. Tosi (2023) argues that genuine integration of eTwinning requires alignment with institutional strategies and credit-bearing coursework. Huertas-Abril and Muszyńska (2022) reinforce this point, stressing that without curricular anchoring, multimodal collaboration risks remaining peripheral, as pre-service teachers already struggle to balance project demands with formal course requirements. They found that while Ambassadors and teacher educators promote the integration of multimodal eTwinning tools into both social and curricular dimensions, their influence often depends on individual initiative rather than institutional policy, highlighting a structural weakness in sustaining innovation.

Finally, intercultural communication itself can present difficulties. Misunderstandings due to culture, differing expectations, and linguistic barriers frequently arise in cross-national projects. While such moments can provide valuable learning opportunities, they require careful facilitation in order for things not to get out of control. Ambassadors and teacher educators often step in as mediators, helping students reflect on intercultural encounters and reframe challenges as part of the learning process (Belic Malinić 2025). Research confirms this dynamic: Huertas-Abril and Palacios-Hidalgo (2023b) note that although international collaboration fostered greater intercultural awareness, it also revealed tensions in negotiating communication styles and academic expectations, which demanded reflective guidance from both Ambassadors and teacher educators. In this sense, intercultural challenges cannot be considered merely obstacles but rather opportunities for fostering critical awareness, provided that scaffolding mechanisms are in place.

These findings suggest that while multimodality in eTwinning ITE offers rich potential for enhancing digital competence, creativity, and intercultural awareness, its implementation is constrained by technological inequities, pedagogical inexperience, curricular rigidity, and intercultural complexity. Addressing these challenges requires a coordinated effort at multiple levels: Ambassadors and teacher educators must scaffold both technical and reflective practice, embedding multimodal collaboration into curricula as much as they can, while institutions must provide systemic support to ensure that such projects are sustainable.

Implications for ELT practitioners in HE

For ELT practitioners, one clear implication is the need to prepare student teachers for classrooms where multimodality is the norm. Language teaching increasingly involves integrating video, audio, images, and interactive tasks, particularly in online and blended environments. eTwinning projects offer authentic practice in designing and implementing such tasks; hence Ambassadors and teacher educators can embed eTwinning activities in methodology courses in order to illustrate principles of task design, communicative competence, and intercultural awareness.

Beyond technical skills, ELT practitioners should emphasise critical reflection. Multimodality is not just about using multiple modes but about understanding how modes shape meaning, identity, and power (Jewitt 2014). Pre-service teachers should be encouraged to reflect critically on questions such as: How do visuals support or constrain language learning? How do multimodal tasks include or exclude learners from diverse backgrounds? How can multimodal projects foster intercultural understanding rather than generalising and stereotyping? Such reflection aligns with the broader goal of cultivating critical digital literacy, a competence identified as essential in European education policy (European Commission 2019b; 2021b; 2022b).

Finally, sustainability is crucial. For multimodal eTwinning projects to have lasting impact in ITE, they must be systematically integrated into curricula rather than treated as extracurricular extensions. This requires institutional recognition, credit allocation, and alignment with teacher education standards. ELT practitioners can advocate for this integration by demonstrating the alignment of multimodal eTwinning projects with learning outcomes in communicative competence, intercultural awareness, and digital pedagogy.

The findings and discussion highlight how multimodality is both an outcome and a process of eTwinning projects in ITE. Ambassadors and teacher educators play a vital role in scaffolding multimodal practices, mediating intercultural dialogue, and embedding projects into HE. However, challenges remain at technological, pedagogical, institutional, and intercultural levels. For ELT practitioners, the implications are clear: multimodal eTwinning projects offer a unique opportunity to prepare future teachers for 21st-century classrooms, but success requires collaboration, critical reflection, and systematic integration into curricula.

PRACTICAL APPLICATIONS

The findings discussed point to the transformative potential of eTwinning for multimodal pedagogy in ITE, while also underscoring the need for structured support. This section proposes practical applications for three main audiences: (1) ELT teacher educators in HE; (2) eTwinning ITE Ambassadors; and (3) institutions and policymakers. These recommendations aim to translate research insights into actionable strategies that can be embedded in curricula and professional practice.

For ELT teacher educators

One of the most effective ways to introduce student teachers to multimodal pedagogy is by embedding eTwinning projects into existing ELT methodology courses, or any other suitable university course for which a partner can be found. Rather than treating eTwinning as an extracurricular activity, projects can be aligned with existing learning outcomes such as communicative competence, intercultural awareness, and digital literacy. For example, in a course on teaching productive skills, students can design digital storytelling projects with partner institutions, integrating audio narration, visuals, and subtitles. In a language materials design course, students can create multimodal infographics or interactive quizzes for eTwinning partners. This approach situates multimodality within the disciplinary core of ELT, ensuring that pre-service teachers understand its relevance to language pedagogy.

ELT educators should couple multimodal production with critical reflection. Reflective journals, online discussion forums in which students provide peer feedback, or debriefing sessions can prompt students to consider how their multimodal choices affect communication and learning. Questions such as ‘How did visuals help convey meaning to non-native speakers?’ or ‘What challenges did you face in integrating audio and text?’ foster a critical awareness that extends beyond technical skills.

Assessment can be a barrier when integrating eTwinning into ITE. To address this aspect, teacher educators should develop assessment rubrics in advance that explicitly include and thus value multimodal competence. Criteria might include effective integration of multiple modes to achieve communicative goals, real-life application, clarity and creativity of design, and relevance of multimodal resources to target language learning objectives. Such rubrics legitimise multimodal outputs as serious academic work, reinforcing their importance within teacher education.

For eTwinning ITE Ambassadors

Ambassadors should prioritise their role as scaffolding mentors, providing technical and pedagogical support tailored to pre-service teachers. Workshops on accessible multimodal tools (e.g. Canva, Padlet) can empower students with practical skills. More importantly, Ambassadors should model how to embed these tools into pedagogical design rather than using them superficially. They are well positioned to cultivate communities of practice among student teachers, and they can encourage peer exchange of multimodal projects, provide constructive feedback, and facilitate cross-institutional networking. Such communities allow pre-service teachers to see themselves as part of a European teaching community, not just as isolated learners in a local context.

In cross-border projects, Ambassadors can guide students to move beyond surface-level cultural exchange. Structured reflection prompts, such as comparative analyses of classroom practices or collaborative creation of bilingual materials, help ensure that multimodality contributes to deeper intercultural learning. Ambassadors should also address potential challenges, including miscommunication, unequal digital skills or free-rider students, framing these as opportunities for growth. They should further focus on building partnerships with European universities, thereby ensuring that their students gain access to diverse multimodal and intercultural experiences.

For institutions and policymakers

Sustainability requires institutional recognition. Universities should formally integrate eTwinning projects into course requirements, ensuring that student participation is credit-bearing, which could be a double-edged sword as some students might be motivated purely by the credits they will receive. Institutional strategies might include signing agreements with National Support Services to align university programmes with eTwinning ITE actions, embedding eTwinning into practicum courses so that student teachers connect school placements with European collaboration, and including eTwinning experience as a criterion in assessment or end-of-the-course portfolios.

Institutions should provide formal support to Ambassadors or teacher educators, such as reduced teaching loads, recognition in promotion criteria, or dedicated budgets for workshops and dissemination. Given their leadership role in fostering multimodal pedagogy, Ambassadors should be recognized as essential to teacher education innovation.

At the policy level, ministries and agencies can strengthen the integration of multimodal eTwinning projects into ITE by ensuring that teacher education accreditation standards include competences in digital pedagogy and intercultural collaboration, and by funding national training events where Ambassadors and teacher educators share multimodal project practices with universities.

CONCLUSION

The integration of eTwinning into ITE represents a pivotal shift in how European HE prepares pre-service teachers for the demands of contemporary classrooms. This paper has examined that shift through the lens of multimodality, showing how digital collaboration on the eTwinning platform fosters new forms of communication, pedagogy, and professional identity among future ELT practitioners. Central to this process are eTwinning ITE Ambassadors and teacher educators, who scaffold multimodal practices and act as catalysts for innovation. eTwinning thus emerges as both a policy-driven initiative for teacher professional development and a practice-driven framework for multimodal pedagogy in HE.

The discussion has drawn on three interrelated theoretical frameworks – multimodality, sociocultural theory, and ICC – to illustrate how eTwinning develops digital, intercultural, and communicative competences. Importantly, multimodality is not confined to the artefacts that student teachers produce but characterises the very processes of collaboration, requiring participants to integrate linguistic, visual, auditory, and interactive resources in ways directly transferable to ELT classrooms.

The literature review identified notable gaps. While research has examined eTwinning's impact on professional development and ITE integration, systematic analysis of multimodality remains scarce. Likewise, Ambassadors are acknowledged in policy and practice, but their role in fostering multimodal pedagogy remains under-theorised. The European research landscape is also uneven, dominated by larger member states while smaller systems, such as North Macedonia, remain underrepresented. Documenting these contexts is vital for a fuller understanding of eTwinning in ITE.

For practice, the paper proposed concrete recommendations. Ambassadors and teacher educators should embed eTwinning projects within ELT methodology courses, employ clear assessment rubrics that recognise multimodal competences, and integrate reflective practice into project design. Institutions should provide structural support by embedding eTwinning in curricula, formally recognising Ambassadors, and aligning national accreditation with EU-level initiatives. These steps affirm that multimodality is a core dimension of ELT teacher education.

Three priorities for future research emerge: empirical studies of multimodality in eTwinning ITE, including classroom observation and artefact analysis; evaluation of Ambassador impact through longitudinal studies of competences and curricula; and comparative analyses across underrepresented contexts, examining how local conditions shape opportunities and challenges.

Ultimately, this paper argues that multimodality and eTwinning together provide a powerful framework for reimagining ELT education. Supported by Ambassadors, teacher educators, National Support Services, and coherent institutional strategies, eTwinning can transform ITE into a space where digital literacy, intercultural dialogue, and multimodal pedagogy are cultivated simultaneously. By embedding these practices systematically, HE can prepare pre-service teachers to meet the communicative realities of 21st-century classrooms and to foster inclusive, innovative learning environments across Europe.

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