

Internationalization at Home in Moroccan EFL Teacher Education: Virtual Exchange as a Pathway to Intercultural Literacy

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ABSTRACT

This article examines virtual exchange as a practical form of Internationalization at Home in Moroccan EFL teacher education and its potential to build intercultural literacy among future teachers. Drawing on a qualitative conceptual design informed by a narrative review of the literature, the paper connects studies on internationalization, virtual exchange, and intercultural learning. The study argues that virtual exchange is more than a simple digital substitute for physical mobility, but a structured, guided, and reflective pedagogical mechanism. The article proposes a conceptual pathway in which curriculum-embedded virtual exchange operationalizes Internationalization at Home and creates conditions for developing intercultural literacy.

Keywords: EFL teacher education, intercultural literacy, intercultural pedagogy, internationalization at home, virtual exchange

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INTRODUCTION

Internationalization has become one of the defining agendas of contemporary higher education, but the term no longer refers only to student mobility, institutional partnerships, or cross-border recruitment. Over time, the field has moved toward a broader understanding of how universities integrate international, intercultural, and global dimensions into teaching and learning. In this regard, Knight's (2004, 2012) work remains foundational, however, subsequent scholarship has shown that internationalization isn't a simple, neutral or settled concept, it rather carries competing academic, institutional, and policy meanings, and its educational value depends less on rhetoric than on what students actually encounter in the curriculum.

One of the clearest tensions in the literature concerns the historical dominance of mobility-centered internationalization. For many institutions, internationalization has long been measured through indicators such as outbound mobility, incoming students, institutional branding, cross border collaborations, or recruitment capacity. In essence, these practices indeed have value, but they also benefit only a limited number of students and often reproduce inequities linked to class, language proficiency, visa regimes, geography, and institutional privilege (Beelen & Jones, 2015; de Wit & Jones, 2018). As a result, a substantial body of scholarship now argues that any serious account of internationalization must move beyond 'how institutions become globally visible', to 'how all students encounter international and intercultural learning within the curriculum itself' (Leask, 2015; de Wit & Leask, 2015).

This shift is especially significant in teacher education and, more specifically, in EFL teacher education. Future teachers of English are expected to teach language as a social practice, not merely as grammar and vocabulary. They must therefore be prepared to interpret cultural perspectives, negotiate meaning across differences, and mediate between ways of seeing the world. In Byram's (1997) model, language education is inseparable from intercultural competence because communication requires attitudes of openness, knowledge of social groups, skills of interpretation and relation, and critical cultural awareness. Deardorff (2006) similarly stresses that effective intercultural engagement depends on both internal dispositions and externally visible interactional capacities. Thus, for teacher education, this means that intercultural literacy should be treated as a core formation outcome, not as an optional supplement attached to international activities.

The problem is that many teacher education systems still offer limited access to mobility-based forms of internationalization. In such contexts, the promise of international learning remains unevenly distributed. This is where inclusive models become pedagogically important. If international and intercultural learning are treated as core curricular responsibilities rather than

exceptional opportunities, then universities can begin to extend those benefits beyond the small number of students who have the ability to travel.

Within this broader reorientation, virtual exchange has emerged as one of the most promising pedagogical mechanisms for enacting internationalization in inclusive ways. Here, O'Dowd (2018) describes virtual exchange as the sustained, technology-enabled engagement of groups of learners under the guidance of educators or facilitators. The significance of this definition lies in how it distinguishes virtual exchange from casual online contact. Virtual exchange isn't simply digital communication across borders. Instead, it's structured, curricular, dialogic, and reflective. Research in language education further shows that, when well designed, it can support intercultural learning, collaboration, language development, and critical digital literacy (Hauck, 2019; Dooly & Vinagre, 2021).

The Moroccan context gives this discussion particular urgency. Moroccan higher education policy has increasingly emphasized international cooperation, quality enhancement, and digital transformation, and official communication around the Pacte ESRI 2030 that explicitly identifies digital transformation, regulatory adaptation, and partnership mobilization as levers for the transformation of the higher education and research ecosystem (Ministry of Higher Education, Scientific Research and Innovation, Morocco, n.d.). Recent studies on Moroccan higher education likewise points to digital transformation as a strategic priority, while also indicating that there is an uneven implementation and the need to connect digital reform to actual pedagogical practice (El Ferouali & Ouhadi, 2024). Yet access to outward mobility remains uneven, particularly in public higher education. This challenge has increasingly been addressed in Moroccan scholarship. Boustar (2024) argues that Collaborative Online International Learning (COIL) can help internationalize teaching practices in Moroccan universities while building students' cross-cultural awareness, dialogue, and intercultural competence. In the same vein, Oubit and El Farahi (2024) show that participation in international exchange programs contributes to Moroccan teachers' personal, professional, and intercultural development, including language awareness, intercultural understanding, and teaching effectiveness. These studies suggest that, in Morocco, internationalization is most effective when it's translated into structured pedagogical practice rather than left at the level of institutional aspiration. All this makes Morocco a more relevant context for examining how internationalization can be realized through at home pedagogies rather than through travel alone.

This paper argues that virtual exchange can be conceptualized as a practical and pedagogically robust form of Internationalization at Home in Moroccan EFL teacher education and that its value lies not only in widening access to international contact but also in supporting the development of intercultural literacy among future teachers. The paper doesn't merely review internationalization, Internationalization at Home, and virtual exchange as separate

themes. Its contribution is threefold. First, it brings these bodies of literature into a single argument centered on teacher education. Second, it situates that argument in the Moroccan higher education context, where digital transformation and internationalization are policy priorities but mobility remains unequally distributed. Third, it advances the claim that the strongest rationale for virtual exchange in teacher education isn't technological convenience but curricular and intercultural formation. In this sense, the paper seeks to move the discussion from mere institutional aspiration to pedagogical design.

The article proceeds as follows. It first revisits the evolution of internationalization in higher education. It then examines Internationalization at Home as an inclusive framework and analyses virtual exchange as a pedagogical mechanism. This is followed by a thematic synthesis of the literature and a discussion that integrates these strands within the Moroccan EFL teacher education context.

LITERATURE REVIEW

Internationalization has become a key priority in contemporary higher education, with a meaning that now extends beyond mobility, partnerships, and cross-border recruitment. Early conceptualizations, especially those of Knight (2004, 2012), framed internationalization as a process of integrating international and intercultural dimensions into higher education. However, later studies have emphasized that internationalization isn't a fixed or neutral concept, but rather a concept shaped by institutional priorities, policy contexts, and competing interpretations. Its educational value, therefore, depends less on institutional visibility and more on what students actually encounter within and learn from the curriculum.

A central tension in the literature concerns the historical dominance of mobility-centered internationalization. While student mobility has long been treated as a primary indicator of internationalization, scholars increasingly argue that this model has limited advantages as it only benefits a limited number of students and accentuates inequalities related to socioeconomic status, language proficiency, and access to resources. In response, the field has opted for more inclusive approaches that prioritize access and equity. This shift is particularly evident in the work of Leask (2015), who emphasizes the importance of embedding international and intercultural dimensions within the curriculum itself rather than relying on external, occasional opportunities.

Within this broader reorientation, Internationalization at Home has emerged as a key framework. It is defined by Beelen and Jones (2015) as the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments. This definition highlights three core principles, namely the intentional design,

curricular integration, and most importantly, inclusivity. This inclusive orientation is further supported by Aydın (2021), who connects Internationalization at Home with technological development and changing patterns of higher education internationalization, suggesting that digital environments can expand international and intercultural learning beyond physical mobility. Internationalization at Home, thus, shifts the focus of internationalization from exceptional mobility experiences to everyday pedagogical practice, making it more relevant in contexts where access to study abroad remains limited.

Recent Moroccan studies strengthen this argument by showing that internationalization in higher education cannot be reduced to mobility or symbolic global visibility. Writing from a Moroccan angle, Adoui and Seilstad (2025) call for Moroccan higher education to be understood from its own internationalization priorities and realities, rather than solely through imported models. This perspective supports the need to examine how international and intercultural learning can be embedded within local teacher education programs rather than outsourced to mobility alone. This logic of argument is reinforced by recent Moroccan related work on Internationalization at Home, which stresses that post-COVID higher education must move beyond the assumption that internationalization is primarily achieved through mobility and instead create systematic local opportunities through which non/less-mobile students can develop global and intercultural competencies (Menouni et al., 2024).

Virtual exchange has been increasingly recognized as one of the most effective pedagogical mechanisms for operationalizing Internationalization at Home. As noted in the introduction, virtual exchange is defined as the sustained, technology-enabled communication and collaboration between groups of learners in different geographical locations under the guidance of educators or facilitators (O'Dowd, 2018). This definition differentiates between virtual exchange and other informal online interactions by emphasizing structure, duration, and pedagogical mediation. Well-designed virtual exchange can support intercultural learning, collaborative engagement, and critical digital literacy, particularly when it includes guided interaction and reflective activities. Evidence from Moroccan literature also points in this direction. Boustar (2024) describes a COIL based project linking Moroccan and American classes and argues that such structured telecollaborative work can enhance cross-cultural awareness and deepen students' understanding of cultural difference. In the same way, Qasserras (2024), in a study of Moroccan English educators involved in virtual exchange, reports gains in cultural awareness and teaching practices, while also showing that time constraints, technical issues, and communication difficulties can limit implementation.

The educational value of virtual exchange is closely linked to the development of intercultural literacy. Building on the work of Byram (1997), Deardorff (2006), and Heyward (2002), intercultural literacy can be understood as a multidimensional capacity that extends beyond awareness of cultural difference.

It involves the ability to interpret and negotiate meanings, reflect critically on one's own assumptions, communicate across perspectives, and engage ethically in diverse contexts. This broader understanding positions intercultural literacy as a core educational outcome in language and teacher education rather than a peripheral skill. In this regard, Mukhpulova et al.'s (2025) study of future teachers highlights the importance of intercultural communicative competence for future teachers' professional development and shows how it's directly connected to language learning, tolerance, cultural intelligence, motivation, and communication skills, further stressing the need for such competence in teacher education.

Despite these developments, important gaps remain in how these concepts are integrated in practice, particularly within specific educational contexts. While the literature on Internationalization at Home, virtual exchange, and intercultural learning has expanded significantly, fewer studies bring these strands together within the field of EFL teacher education, and even fewer examine their relevance in contexts such as Morocco, where internationalization and digital transformation are policy priorities but access to mobility remains limited and uneven. This gap points to the need for a more integrated and context-sensitive approach that can connect inclusive internationalization, pedagogical design, and intercultural outcomes within teacher preparation programs.

RESEARCH METHOD

This article adopts a qualitative conceptual research design informed by a narrative review of the literature. Rather than simply collecting primary empirical data, the study draws on existing scholarship to examine and connect three interrelated strands, namely Internationalization at Home, virtual exchange, and intercultural literacy in EFL teacher education. The purpose of this approach isn't to produce an exhaustive systematic review of available studies, but rather to develop a theoretically grounded and pedagogically relevant synthesis that can support an integrated conceptual framework for Moroccan EFL teacher education.

The choice of a narrative review stems from the broad and interdisciplinary problem situated at the intersection of higher education internationalization, language teacher education, intercultural learning, and digital pedagogy. In this case, the value of the review doesn't lie only in summarizing existing work, but also in interpreting relationships across bodies of literature that are often discussed separately. The methodology therefore supports the article's broader goal of bringing these strands together into dialogue and of proposing a coherent pedagogical pathway rather than reporting measurable outcomes from a single intervention.

The literature selection followed a purposive and iterative process. Relevant sources were identified through browsing academic databases including ERIC, Scopus, and Google Scholar, through searching relevant keywords,

alongside key books, edited volumes, and policy texts frequently cited in the field. To strengthen coverage, the search process also involved backward and forward citation tracking, which helped identify both foundational works and more recent contributions relevant to the topic.

The selection of sources was guided by three main considerations: relevance to the article's core constructs, focus on higher education and teacher education contexts, and attention to issues of access, inclusion, and digital transformation. Although the review was not geographically limited, particular value was still given to studies that helped situate the discussion within Moroccan higher education or comparable contexts marked by uneven access to physical mobility.

The analysis was conducted through a thematic synthesis of the selected literature. After the sources were reviewed, recurring concepts, patterns, and lines of argument were identified across the three focal areas of the study. Particular attention was paid to how the literature conceptualized (1) Internationalization at Home as an inclusive curricular framework, (2) virtual exchange as a pedagogical mechanism, and (3) intercultural literacy as a multidimensional educational outcome. This thematic process didn't aim merely to group studies by topic. Rather, it was used to identify the relationships among the three strands and to examine how they could be brought together within a single pedagogical argument. Here, the analysis moved beyond description toward conceptual integration. Internationalization at Home was examined as the broader educational orientation, virtual exchange as the practical and pedagogical means through which that orientation can be applied, and intercultural literacy as the central educational outcome emerging from such a configuration. This analytical movement ultimately informed the conceptual model proposed later in the paper.

FINDINGS: THEMATIC ANALYSIS OF THE LITERATURE

Internationalization at Home as an Inclusive Framework

Internationalization at Home shifts the focus of internationalization away from mobility and toward curricular inclusion within the homeland. In this sense, Internationalization at Home emerges as a response to the limitations of mobility-centered internationalization, which tends to be a privilege accessed by a very limited number of students, the thing that further accentuates and stresses inequalities linked to class, language proficiency, and access to resources (Beelen & Jones, 2015; de Wit & Jones, 2018). Collectively, these studies indicate a broader reorientation in the literature toward the centrality of the curriculum in internationalization.

As emphasized previously by Leask (2015), internationalization of the curriculum involves the inclusion of international, intercultural, and global

dimensions in the content, learning outcomes, teaching methods, and assessment. This perspective shifts internationalization from external opportunities to internal pedagogical design and positions it as a responsibility that concerns all students rather than a minority who can participate in mobility. At the same time, these contributions suggest that Internationalization at Home cannot be reduced to the simple inclusion of international content. De Wit and Leask (2015) emphasize that the curriculum must be central to internationalization, while Almeida et al. (2018) demonstrate that understandings of Internationalization at Home vary across higher education contexts. In general, these studies indicate that the effectiveness of this framework depends on how it's actually implemented in practice, particularly in relation to pedagogy, learning outcomes, and student engagement. In this way, a weak version of Internationalization at Home may be limited to the superficial inclusion of international content, whereas a stronger version requires dialogic learning, critical engagement with difference, and curricular redesign.

Virtual Exchange as a Pedagogical Mechanism

Building on O'Dowd (2018) definition of virtual exchange, this concept is distinguished from informal online contact by its structured and pedagogical nature. Here, virtual exchange emerges as more than a digital interaction, but as a form of guided and curriculum-embedded engagement. This indicates that the educational value of virtual exchange depends largely on its pedagogical design. Dooly and Vinagre (2021) show that virtual exchange can support intercultural learning, collaboration, and language development when it's effectively structured, while Hauck (2019) emphasizes its role in developing critical digital literacy, especially when learners engage actively in reflective practices around communication and digitally mediated interaction.

Further studies clarify the mechanisms through which virtual exchange supports learning. For instance, O'Dowd (2021) reports that students often experience shifts in their understanding of communication, cultural difference, and stereotypes through participation in virtual exchange. In the same way, Machwate et al. (2021) identify increased cultural awareness alongside improvements in language and digital skills in a Moroccan-German exchange. Symeonidis and Impedovo (2023) highlight the importance of partnership, collaborative tasks, and synchronous interaction in teacher education contexts, while Yang (2020) highlights the role of reflective journals in supporting intercultural and pedagogical development. Taniguchi and Macknish (2026) also suggest that structured online intercultural interaction, supported by reflection and instructional guidance, can strengthen learners' cultural self-awareness and empathy. In conclusion, through these studies, it can be interpreted that virtual exchange becomes educationally meaningful when it includes sustained interaction, collaboration, and guided reflection rather than random online contact.

Intercultural Literacy as a Multidimensional Outcome

Intercultural literacy emerges in the literature as a multidimensional educational outcome that extends beyond awareness of cultural difference. Drawing on Heyward (2002), Deardorff (2006), and Byram et al. (2002), it can be understood as a modern competency that includes knowledge, attitudes, interpretation, mediation, identity, and ethical engagement. This perspective situates intercultural literacy as a complex and integrated capacity rather than a single skill.

Several contributions suggest that intercultural literacy develops through interconnected dimensions. Hanvey (1975) conceptualizes intercultural awareness as a skill that progresses through levels, moving from surface observation toward deeper understanding. Altan (2018) frames intercultural sensitivity in terms of openness and positive engagement with difference, while Deardorff (2006) emphasizes the interaction between internal dispositions and external communicative capacities. In a similar vein, Zerrik and Guamguami (2025) interpret intercultural literacy as an integrated construct that brings together intercultural awareness, understanding, and competence, arguing that these dimensions shouldn't be treated in isolation. These perspectives indicate that intercultural literacy is a broader construct that connects knowledge, reflection, communication, and engagement.

The literature further highlights the importance of interpretation and reflection in intercultural learning. Byram et al. (2002) link language education to critical cultural awareness and the analysis of representations and stereotypes, while the Council of Europe (2020) emphasizes mediation, online interaction, and plurilingual competence. UNESCO (2013) and OECD (2019) situate intercultural development within a wider ethical and civic framework that stresses dialogue, respect, and responsible engagement in diverse societies. These contributions indicate that intercultural literacy isn't necessarily limited to the acquisition of cultural knowledge, but it rather involves the ability to interpret meaning, reflect critically, communicate across difference, and engage ethically.

The Moroccan Context and Pedagogical Relevance

Generally, these strands acquire particular relevance within the Moroccan context. Policy discourse surrounding the Pacte ESRI 2030 emphasizes digital transformation, international cooperation, and the modernization of higher education (Ministry of Higher Education, Scientific Research and Innovation, Morocco, n.d.; Ministère de l'Enseignement Supérieur, de la Recherche Scientifique et de l'Innovation, 2022, 2023). El Ferouali and Ouhadi (2024) similarly identify digital transformation as a strategic priority while stressing uneven implementation across institutions. At the same time, digital

transformation shouldn't be assumed to produce educational internationalization automatically, as its pedagogical value depends on how it is translated into curriculum and learning design.

Within EFL education, Bekou and Ben Mhamed (2023) highlight the increasing visibility of English in Morocco, while Makaoui and Mazari (2024) and Youfi and Brigui (2024) emphasize the growing importance of intercultural competence in Moroccan classrooms. These studies indicate that intercultural learning is increasingly recognized as a key educational objective, although it still requires stronger pedagogical integration.

In this context, virtual exchange emerges as a particularly relevant curricular mechanism for supporting international and intercultural learning without relying on physical mobility. Evidence from a German/Moroccan exchange shows that telecollaborative course design can support the simultaneous development of intercultural, linguistic, and digital competencies, suggesting that virtual exchange can function as a substantive pedagogical model rather than a simple compensatory alternative to study abroad (Machwate et al., 2021). Moroccan literature on collaborative online environments similarly indicates that digitally mediated interaction can create significant opportunities for participation, exchange, and learner engagement in EFL higher education (Laachir, 2019). More broadly, Moroccan scholarship also suggests that international exchange has pedagogical value beyond student mobility, since teachers who participate in exchange programs report development in language awareness, instructional strategies, ICT use, leadership, and cultural competence (Oubit & El Farahi, 2024). These studies, then, suggest that in the Moroccan context, the value of internationalization lies less in mobility alone than in the creation of structured pedagogical opportunities through which intercultural and professional learning can take place.

DISCUSSION

This discussion brings together the preceding analysis by positioning Internationalization at Home, virtual exchange, and intercultural literacy as mutually reinforcing dimensions of a single pedagogical pathway. Rather than treating these concepts as separate strands, the argument developed here suggests that they are most effective when understood in relation to one another within teacher education. In this sense, the discussion moves beyond synthesis to propose an integrated pedagogical framework for Moroccan EFL teacher education. This approach is particularly appropriate given the conceptual fragmentation identified in the literature, as it allows for the integration of multiple strands into a coherent analytical framework.

Internationalization at Home provides the broader conceptual orientation by emphasizing the integration of international and intercultural dimensions into

the curriculum for all students, particularly those who don't have the privilege to participate in actual mobility (Beelen & Jones, 2015). Within this framework, virtual exchange functions as a practical mechanism through which such integration can be operationalized in locally situated programs (O'Dowd, 2018; Garcés & O'Dowd, 2020). When embedded in coursework and supported by facilitation, collaborative task design, and structured reflection, virtual exchange creates conditions that allow international and intercultural learning to take place within domestic educational settings. This is consistent with recent evidence on digital approaches to intercultural competence in higher education, which suggests that course-embedded digital internationalization can support intercultural competence development when it's connected to intentional pedagogy, access, and equity considerations (Naranjo-Toro et al., 2026).

The analysis of the literature further stresses the fact that the educational value of virtual exchange doesn't only involve allowing contact across borders, but also the pedagogical processes it activates. Sustained interaction with people from different cultural contexts, engagement with multiple perspectives, and collaborative meaning-making all contribute to deeper forms of learning. These processes are further strengthened by guided reflection, which allows participants to interpret their experiences, question assumptions, and develop a strong critical understanding of communication and cultural differences (Machwate et al., 2021; O'Dowd, 2021; Yang, 2020). This point is also supported by broader research on international learning, which suggests that even relatively brief but intentionally structured intercultural experiences can contribute to areas such as cultural engagement, diversity openness, ambiguity tolerance, and global competence (Chieffo et al., 2026).

Within this pedagogical framework, intercultural literacy emerges as a desirable outcome. As discussed earlier, intercultural literacy extends beyond awareness of difference to include interpretation, communication, mediation, identity, and ethical engagement (Heyward, 2002; Deardorff, 2006; Byram et al., 2002). The relationship between virtual exchange and intercultural literacy is therefore not automatic, but depends on the presence of structured interaction, collaboration, and reflection. These elements create the conditions under which learners can engage with difference in ways that are effective, critical, and developmentally significant.

This relationship is particularly relevant in EFL teacher education, where the learning process has a dual dimension. Student teachers participate in virtual exchange as learners, but they also experience it as a form of pedagogical practice that they may later adapt in their own teaching. Research shows that telecollaboration in teacher education can support intercultural competence, techno-pedagogical skills, and instructional design capacity (Emir & Yangın-Ekşi, 2024; Symeonidis & Impedovo, 2023). Thus, virtual exchange contributes not only to student learning, but also to professional formation.

In the Moroccan context, this integrated perspective offers a particularly relevant response to current educational challenges. While internationalization and digital transformation are increasingly emphasized in policy discourse, access to mobility remains limited and uneven. Internationalization at Home addresses this limitation by shifting attention toward the curriculum, while virtual exchange provides a realistic and scalable mechanism for implementing this shift in practice. When aligned with intercultural literacy as an educational goal, this pathway allows teacher education programs to connect broader policy priorities with concrete pedagogical practices. This point has a critical dimension as well. Recent Morocco-focused studies warn against equating internationalization with visibility, branding, or mobility rhetoric alone, arguing that institutional claims often exceed actual pedagogical transformation and that more substantive forms of internationalization remain necessary (Adoui, 2024). From a broader Global South perspective, Moroccan higher education can't therefore be understood simply through imported internationalization models, but must also be assessed in relation to inclusivity, decoloniality, and the unequal social effects of higher education reform (Rarhoui, 2025). This matches Heleta and Chasi's (2023) argument about how uncritically importing Global North definitions of internationalization risks reproducing Eurocentric priorities while obscuring the historical and socio-economic realities that should shape reform in African settings.

In general, the value of virtual exchange in Moroccan EFL teacher education lies not in its technological convenience, but in its ability to transform at home learning environments into sites of international, intercultural, and pedagogical formation. By linking Internationalization at Home, virtual exchange, and intercultural literacy within a coherent framework, the study moves beyond fragmented approaches and proposes a more integrated model for inclusive internationalization in teacher education.

Conceptual Model

Based on this synthesis, this study proposes a conceptual model that positions virtual exchange as the pedagogical mechanism through which Internationalization at Home can be operationalized to support the development of intercultural literacy in Moroccan EFL teacher education. Rather than presenting these elements as separate or linear stages, the model conceptualizes their relationship as an interconnected pedagogical process shaped by interaction, reflection, and curriculum design.

Internationalization at Home provides the broader curricular orientation by seeking to integrate international and intercultural learning within domestic educational settings and to extend such opportunities to students who don't have the opportunity or the means to participate in physical mobility (Beelen & Jones, 2015). As indicated in the preceding analysis, this framework shifts the focus of

internationalization from mobility toward curriculum-based inclusion. Within this orientation, virtual exchange functions as a practical mechanism through which international and intercultural engagement can be organized in locally situated programs (O'Dowd, 2018; Garcés & O'Dowd, 2020).

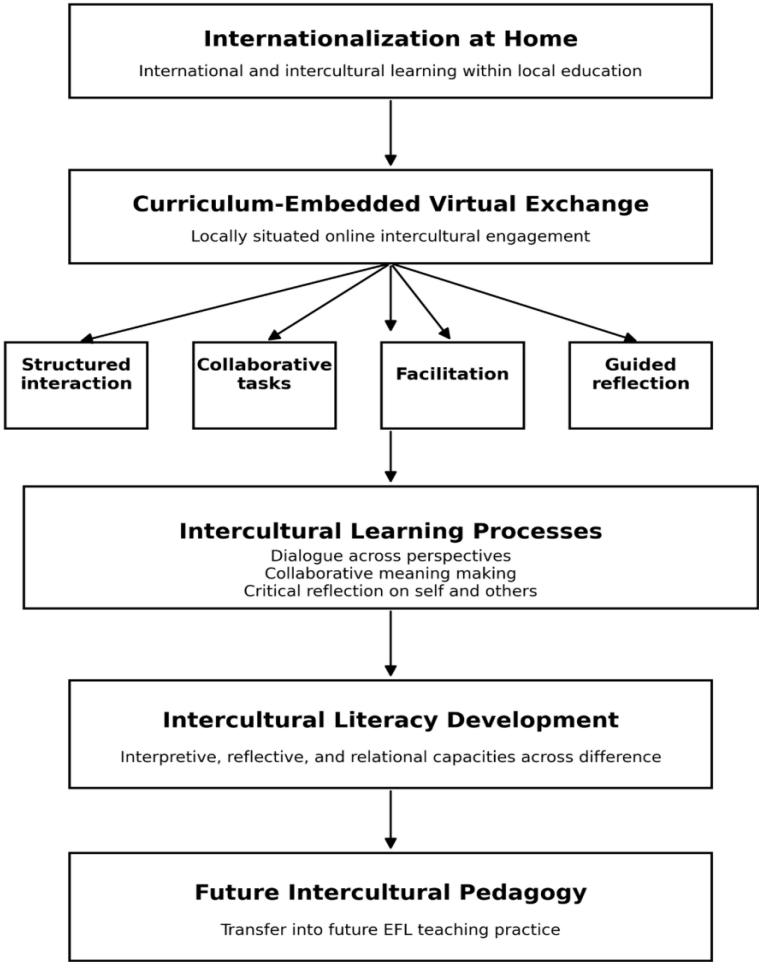
This further indicates that the effectiveness of virtual exchange depends on its pedagogical structuring. When embedded into coursework and supported by facilitation, collaborative task design, and structured reflection, it creates the conditions through which intercultural literacy can develop. These conditions include sustained interaction with others from different cultural contexts, dialogic engagement with multiple perspectives, collaborative meaning-making, and critical reflection on both the self and others (Machwate et al., 2021; O'Dowd, 2021; Yang, 2020).

Within teacher education, this process extends beyond student experience to actual professional formation and impact on their future students, as they are expected to impart intercultural skills and eventually help raise a generation of global citizens. This is important because preparing learners for global citizenship requires more than transmitting knowledge about global issues, it also involves cultivating diversity awareness, empathy, solidarity, student voice, and critical classroom engagement (Rahman et al., 2025). In other words, during virtual exchange, student teachers don't only participate in intercultural interaction, they also engage with pedagogical practices that they need to effectively implement later on in their own classrooms (Emir & Yangın-Ekşi, 2024; Symeonidis & Impedovo, 2023).

The model illustrates how curriculum-embedded virtual exchange can align policy priorities, which are strongly emphasized in policy documents and public discourse in the Moroccan context but remain far from actual implementation, with pedagogical practice, while extending international and intercultural learning to a wider student population.

Figure 1 presents the conceptual model proposed in this study, illustrating how Internationalization at Home provides the overarching framework, virtual exchange functions as the pedagogical mechanism, and intercultural literacy emerges as the central educational outcome within Moroccan EFL teacher education.

Figure 1: *Conceptual Pathway Linking Internationalization at Home, Virtual Exchange, and Intercultural Literacy in Moroccan EFL Teacher Education*



CONCLUSION

This article has argued that the strongest rationale for virtual exchange in Moroccan EFL teacher education lies not in technological convenience, but in its curricular and intercultural value. By placing virtual exchange within the framework of Internationalization at Home, the discussion has shown how international and intercultural learning can be extended beyond the small minority

of mobile students and embedded within local teacher education programs. The article has also shown that intercultural literacy offers a significant educational outcome for this model, since it connects communication, reflection, mediation, and ethical engagement across difference. In the Moroccan context, where digital transformation and internationalization are increasingly emphasized but mobility remains limited, this pathway is very much needed. Seen from this perspective, the value of virtual exchange in Morocco lies not only in widening access to intercultural learning, but also in supporting a more inclusive and context-sensitive model of internationalization that moves beyond mobility-centered and Eurocentric assumptions. Virtual exchange, when carefully designed and institutionally supported, can therefore help transform teacher education into a more inclusive site of international, intercultural, and professional formation.

IMPLICATIONS

Building on the previous parts, the present arguments carry direct implications for curriculum design in Moroccan EFL teacher education. International and intercultural learning outcomes need to be integrated explicitly within teacher education programs and made available to the majority of learners who cannot participate in mobility through the formal curriculum (Beelen & Jones, 2015). Within this logic, virtual exchange should be treated as a structured component of coursework capable of embedding international and intercultural learning into local educational settings, rather than as an optional enrichment activity (O'Dowd, 2018).

Teacher educators are therefore required to design virtual exchanges that include structured interaction, collaboration, facilitation, and reflection, rather than assuming that intercultural learning will occur automatically through online contact. O'Dowd's (2021) analysis of learning outcomes across multiple exchanges shows that virtual exchange can support shifts in students' understanding of communication, difference, and stereotypes. However, such outcomes depend on the quality of task design and on the extent to which students are guided to interpret and reflect on their experience.

Preparing future EFL teachers for intercultural classrooms requires more than the integration of digital tools into existing pedagogical practices. It requires the combination of digital pedagogy with intercultural pedagogy. This suggests that virtual exchange can serve not only as a learning activity for future teachers, but also as a model of pedagogy that they may later adapt in their own classrooms.

At the institutional level, these arguments point to the need for sustained support structures if virtual exchange is to move beyond isolated initiatives and become a stable component of teacher education programs. The broader policy framing of Erasmus+ virtual exchange emphasizes moderation, curricular integration, accessibility, and recognition of participation and learning. These

elements suggest that effective implementation depends on individual initiative, as well as institutional commitment to partnerships, facilitation, digital infrastructure, and curricular recognition (European Commission, 2025).

At the professional level, this implies preparing future teachers as more than mere language instructors, but rather as mediators of meaning across cultural difference. The aim is not simply to expose student teachers to intercultural interaction, but to equip them with the necessary tools to design more dialogic, globally aware, and pedagogically inclusive learning environments in their own practice.

Disclosure Statement

The authors report there are no competing interests to declare.

AI Use Disclosure

ChatGPT by OpenAI was used to enhance clarity, improve readability, and refine language. The authors maintained full control over the content and take complete responsibility for the accuracy and integrity of this paper.

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