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Intergenerational Learning and Mentoring in Early Childhood Education: Perspectives, Challenges, and a Conceptual Model for Professional Development

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ABSTRACT: This article proposes a reflection on intergenerational learning dynamics in early childhood education, in a context where the ageing of the Portuguese teaching workforce contrasts with the delayed entry of new professionals. An integrative review of studies published between 2018 and 2025 highlights that interaction between senior and early-career educators fosters the transmission of experiential knowledge, pedagogical innovation, and the development of digital competencies.
Four models of practice are identified: traditional mentoring, reciprocal mentoring, intergenerational communities of practice, and organizational arrangements involving the redistribution of days off. The findings point to mutual benefits for professional identity and well-being, but also to barriers such as the lack of formal recognition of informal mentoring and the limited coordination between differentiated schedules.
A replicable research protocol is also presented, which may guide future studies in the Portuguese context, contributing to the recognition of teaching as an intergenerational profession.

KEYWORDS: early childhood education; professional development; intergenerational learning; mentoring; experiential knowledge

INTRODUCTION

Over the past two decades, teaching has undergone demographic, social, and professional transformations that have reshaped working conditions and teacher development. In Portugal and other European countries, the teaching workforce is ageing, with many professionals over the age of 50 (European Commission/EACEA/Eurydice, 2021), while the entry of younger teachers has declined, associated with the decreasing attractiveness of the profession (Thomas Dotta et al., 2025). This generational gap reflects differences in values, practices, and working conditions between older and younger educators (Batista et al., 2024).

Intergenerational arrangements—such as mentoring programmes, induction processes, learning communities, and collaborative mechanisms—have shown potential to renew practices, preserve experiential knowledge, and foster collaborative professional identities (Brücknerová & Novotný, 2017; Kowalczuk-Walędziak et al., 2022; Lopes & Thomas Dotta, 2024).

Understanding intergenerationality in early childhood education, where pedagogical practice requires close attention to child development and teamwork, is particularly relevant. This article presents an integrative review (2015–2025) on intergenerational learning and mentoring, aiming to identify existing evidence, synthesise contributions and challenges, propose a conceptual model adapted to the Portuguese context, and present a replicable research protocol. It seeks to contribute to the discussion of teaching as an intergenerational profession.

1. THEORETICAL FRAMEWORK: INTERGENERATIONALITY IN TEACHING

This theoretical framework addresses intergenerationality in teaching as both an analytical concept and a professional practice, articulating contributions from the literature on experiential knowledge, mentoring, induction, and collaborative learning, with particular attention to early childhood education contexts.

1.1. Accumulated Knowledge, Teaching as a Collective Trajectory, and the Potential of Intergenerationality

Teaching is a cumulative and socially situated practice, in which educators build pedagogical, relational, contextual, and experiential knowledge over decades of professional experience. This professional capital, particularly among more experienced educators, constitutes a "living archive" of consolidated knowledge, encompassing successful practices, contextual understandings, and institutional memory. Retirement without structured mechanisms for knowledge transfer represents a significant risk of losing accumulated expertise and pedagogical continuity (Akiri & Dori, 2021; Xu et al., 2022).

At the same time, early-career educators enter the profession with distinct literacies, including digital competencies, collaborative methodologies, and the ability to adapt to emerging educational and social demands. The coexistence of different generations creates potential for complementarity:

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the accumulated experience of veteran educators can be combined with the innovation and flexibility of newcomers, fostering pedagogical renewal, professional updating, and the dynamisation of practices (Akiri & Dori, 2021; Xu et al., 2022).

This perspective underpins the concept of "intergenerational teaching," understood as a collective and non-linear trajectory shaped by mutual learning, knowledge exchange, and structured collaboration across generations. Formal mentoring programmes and communities of practice emerge as key mechanisms to operationalise this intergenerationality, enabling both tacit and explicit knowledge to be systematically shared, thereby strengthening professional development and teacher identity (Akiri & Dori, 2021; Darling-Hammond, 2021; Xu et al., 2022).

Although research specifically focused on intergenerationality in early childhood education remains limited, studies on mentoring, collaborative learning, and continuous professional development indicate that these approaches contribute to career sustainability, pedagogical innovation, and a balance between experiential and emerging forms of knowledge (Darling-Hammond, 2021; Xu et al., 2022). In contexts such as Portugal, characterised by an ageing teaching workforce and delayed entry of new professionals, recognising and structuring teaching as an intergenerational practice becomes a strategic resource for maintaining educational quality and strengthening school communities (OECD, 2025).

1.2. Mentoring, Induction, and Intergenerational Learning: Evidence on Competencies, Benefits, and Challenges

Recent studies indicate that structured support programmes for early-career teachers foster professional, personal, and social development. Akiri and Dori (2021) found that a three-tier mentoring system—individual, group-based, and networked—contributed to the growth of both novice and experienced teachers, suggesting that mentors also benefit from transmitting knowledge.

Xu et al. (2022) showed that mentoring is associated with the transfer of tacit knowledge from veteran to novice teachers, mediated by "job crafting" practices. This confirms that the transmission of experiential knowledge can be systematised and can effectively impact teacher development.

However, the effectiveness of mentoring depends on an adequate organisational structure: a sufficient number of mentors, appropriate preparation and training, institutional recognition of the mentoring role, and dedicated time for mentoring activities. Without these conditions, mentoring tends to be episodic, informal, and less effective, thereby undermining the sustainability of intergenerational learning.

1.3. Potential of Intergenerationality and Implications for Teaching and Early Childhood Education Contexts

Intergenerationality—understood as the coexistence, collaboration, and mentoring among teachers from different generations—offers several potential benefits for professional development, educational quality, and the sustainability of the profession:

- Structured mentoring promotes the development of competencies and strengthens leadership, collaborative environments, and pedagogical innovation (Mori, 2024).
- Bidirectional mentoring networks enable younger teachers to introduce innovative methodologies and emerging literacies, also benefiting more experienced colleagues (Raberger et al., 2024).
- Mentoring programmes with a reflective component enhance self-efficacy, professional identity, and teacher satisfaction—key factors for retention and quality in teaching (Krishna et al., 2024).
- Communities of practice and collaborative networks facilitate knowledge sharing, adaptation to curricular changes, pedagogical innovation, and the integration of new methodologies and technologies (Batista et al., 2024).

In early childhood education, these potentialities allow for: the transmission of consolidated knowledge (routines, contextual knowledge, care practices); the integration of emerging literacies brought by younger teachers; support for the adaptation of newcomers, preventing professional isolation; and the development of sustainable, collaborative, and resilient professional communities.

Based on this theoretical framework and the empirical evidence on intergenerationality, mentoring, and collaborative learning, the study presents the methodology adopted to explore how these dynamics are enacted in practice within Portuguese early childhood education contexts.

2. METHODOLOGY

The integrative review follows Whittemore and Knafl (2005), allowing for the inclusion and synthesis of quantitative, qualitative, mixed-method, and theoretical studies on mentoring and intergenerationality in early childhood education.

2.1. Aim and Research Questions; Inclusion and Exclusion Criteria

The main aim of this study was to map recent scientific production (2015–2025) on intergenerational learning and mentoring in early childhood education contexts, in order to support the development of a conceptual model adapted to the Portuguese context and to outline a replicable research protocol.

The research questions guiding this review were:

- How does the literature describe intergenerational interactions among early childhood educators?
- What contributions—such as benefits, learning outcomes, and professional transformations—are attributed to these interactions?
- What tensions, obstacles, or challenges are associated with intergenerational practices?
- What gaps and opportunities for future research emerge, particularly in the Portuguese context?

Inclusion criteria:

- Publications between 2015 and 2025;
- Empirical or theoretical/conceptual studies;
- Central focus on intergenerationality, mentoring/induction, and teacher professional development;
- Context: early childhood education;
- Peer-reviewed articles indexed in recognised databases or published in academic open-access journals.

Exclusion criteria:

- Publications prior to 2015;

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- Studies outside the early childhood education context;
- Non-peer-reviewed articles or studies with insufficient methodological quality;
- Opinion-based texts without relevant empirical grounding;
- Publications in languages other than Portuguese or English.

This set of criteria ensures a clear, systematic, and replicable selection process, contributing to methodological transparency and consistency.

2.2. Research Procedures and Study Selection

The search strategy followed established good practices for integrative and systematic reviews in educational research, as outlined by Hannah Snyder (2019). The databases consulted included Scopus, Web of Science, ERIC, Education Research Complete, PsycINFO, SciELO, and Google Scholar.

The search string combined English-language terms related to intergenerationality, mentoring, induction, coaching, education, and early childhood, including variations such as "novice teacher" and "veteran teacher."

The initial sample comprised 134 records. After removing duplicates and screening titles and abstracts, 58 articles were selected for full-text review. Following the application of eligibility criteria, the final corpus included 42 articles. The entire process was documented using a flow diagram adapted from PRISMA, ensuring traceability and reproducibility (Page et al., 2021).

2.3. Data Extraction and Synthesis of Results

A standardised data extraction form was developed, including fields such as: reference, country/context, study type, sample characteristics, objectives, methodology, instruments, main findings related to intergenerationality/mentoring, limitations, and recommendations.

For qualitative studies, a thematic synthesis approach was applied, following Angela Harden (2008), involving line-by-line coding, the identification of descriptive themes, and the generation of analytical themes. For quantitative and mixed-method studies, numerical results were compiled and synthesised narratively, given the methodological heterogeneity, in line with the SWiM guidelines (Campbell et al., 2020) and the classical framework for narrative synthesis (Rodgers et al., 2009).

Data extraction and synthesis were conducted in two independent rounds by two researchers, followed by a critical re-evaluation of emerging categories, discussing convergences, divergences, and interpretative coherence, in line with Whittemore and Knafl (2005).

2.4. Review Limitations and Rigor Assurance

Despite its methodological breadth, this review presents limitations, including the heterogeneity of studies and the potential for publication bias. To mitigate these risks, relevant grey literature was considered when appropriate, a double independent screening process was applied, and each stage of the review was systematically documented.

Given the exploratory nature of the study and the diversity of contexts and educational policies, caution is advised when generalising the findings, particularly to the Portuguese early childhood education context.

3. RESULTS OF THE INTEGRATIVE REVIEW

The analysis of the 42 studies comprising the corpus reveals a diverse landscape, with consistent trends regarding the contributions of mentoring, intergenerational learning, and teacher support, as well as persistent weaknesses and gaps. The results are presented across three main dimensions: benefits and contributions to professional development and well-being; practices and dynamics of mentoring/intergenerationality; and limitations, challenges, and gaps in the evidence.

3.1. Benefits and Contributions to Professional Development and Well-being

Evidence indicates that well-structured mentoring and induction programmes promote significant benefits for early-career teachers, including increased self-efficacy, sense of belonging, and professional well-being, while also enhancing retention in the profession (Ingersoll & Strong, 2011). An Australian study showed that, 18 months after completing the programme, both mentors and mentees reported sustained changes in pedagogical practices, greater reflection, more structured planning, and the adoption of innovative practices, including the use of technology (Hobson et al., 2009).

Syntheses and meta-analyses focusing on induction programmes suggest that mentoring, collegial networks, extended programmes, and institutional support act as protective factors for teacher well-being, mitigating stress, professional isolation, and the risk of burnout (Keese et al., 2023; Kutsyuruba & Bezzina, 2024). Studies in early childhood education contexts further indicate that emotional care practices, attention to mental health, and mindfulness programmes—when integrated with institutional support—positively influence the quality of pedagogical interactions and teacher stability (Roeser et al., 2013).

Overall, mentoring and intergenerational learning, when structured and supported, strengthen self-efficacy and professional confidence, sense of belonging, pedagogical innovation, and emotional sustainability, while reducing the risk of burnout and attrition (Hobson et al., 2009; Ingersoll & Strong, 2011).

3.2. Practices, Dynamics, and Models of Mentoring / Intergenerationality

Systematic and critical reviews of mentoring programmes highlight essential dimensions such as the establishment of trust-based relationships, identification of mentees' needs, the facilitation of meaningful processes, consistent support, and active listening, emphasising the mentor's role as a facilitator of both professional and personal growth (Hobson et al., 2009; Ingersoll & Strong, 2011).

Hybrid mentoring practices (face-to-face and online), mentor training, and ongoing coaching strengthen the quality of support and enhance novice teachers' confidence and resilience (Dikilitas & Derin, 2018). Studies on the integration of technology indicate that mentoring can support the incorporation of digital tools, fostering pedagogical innovation and professional updating (Mumtaz, 2000).

These findings suggest that intergenerationality, when mediated by structured practices, continuous training, and institutional support, can move beyond the traditional "experienced mentor → novice" model, evolving into a dynamic of co-construction, reciprocal learning, and pedagogical renewal aligned with contemporary demands.

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3.3. Limitations, Challenges, and Gaps in the Evidence

Despite the positive findings, several constraints limit generalisation, particularly in early childhood education. The effectiveness of mentoring is highly dependent on institutional support, committed leadership, formal structures, and adequate resources, with sporadic or improvised programmes proving less sustainable (Ingersoll & Strong, 2011).

There is a scarcity of studies focusing specifically on early childhood education or on intergenerationality as a bidirectional exchange of knowledge; most of the literature focuses on mentoring in primary/secondary education or on initial teacher education in more general terms (Aubrey, 2011; Longley, 2020). Contextual conditions—such as education systems, school cultures, resources, and policy frameworks—vary significantly, limiting the transferability of findings (OECD, 2020).

There are also risks of mentor overload and "invisible mentoring," where guidance is assumed as additional, unrecognised work, thereby compromising the sustainability of such practices (Ingersoll & Strong, 2011).

3.4. Integration of Findings: Emerging Patterns and Implications for the Proposed Model

The synthesis reveals recurring patterns that inform the development of a contextually adapted conceptual model (e.g., MIDPEI):

Structured mentoring + communities of practice → foster professional development, pedagogical innovation, and teacher well-being;

Formal and continuous institutional support → essential for sustaining mentoring and preventing burnout; informal approaches tend to be less effective;

Inclusion of the emotional/well-being dimension → mentoring should address not only pedagogical competencies but also mental health and resilience;

Generational diversity as a resource, not a barrier → intergenerationality depends on reciprocity and mutual recognition;

Contextual adaptation → policies, resources, institutional culture, and local contexts should guide intergenerational programmes; imported models require careful adaptation.

These patterns indicate that mentoring and intergenerationality in early childhood education should integrate formal structures, institutional support, collaborative practices, attention to well-being, and openness to innovation.

4. DISCUSSION

The integrative review highlights that mentoring, induction, and other forms of intergenerational support—when intentionally structured—have a positive impact on professional development, well-being, pedagogical innovation, and career sustainability, particularly in early childhood education. However, methodological and contextual gaps and challenges were also identified, reinforcing the need for adapted models such as the proposed conceptual framework.

4.1. Convergences with the Literature: Benefits and Potential of Mentoring/Intergenerationality

The findings align with recent studies emphasising the importance of structured mechanisms supporting teacher professionalisation. Systematic reviews indicate that extended induction programmes, high-quality mentoring, collegial networks, and school leadership support function as protective factors for early-career teachers' well-being (Davis, 2025; Hobson et al., 2009).

Empirical research suggests that socio-emotional competencies and teacher self-efficacy mediate the relationship between institutional support (mentoring, training, and emotional support) and reduced burnout levels, promoting greater professional stability and job satisfaction (Babić & Ivanović, 2023). Reviews of mental health interventions confirm that structured programmes combining emotional support, professional development, and reflective practices have sustained positive effects, reinforcing the potential of well-designed mentoring models (van der Gucht & Stevens, 2023).

Therefore, in early childhood education, investing in structured intergenerational models—articulating experienced and emerging knowledge, institutional support, and well-being—enhances innovation, professional belonging, and career sustainability.

4.2. Tensions, Challenges, and Critical Issues: The "Dark Side" of Mentoring/Institutionalisation

Despite these benefits, significant challenges persist. A recurrent issue is mentor overload, particularly when mentoring is not institutionally recognised, leading to "invisible mentoring": additional, unacknowledged work without formal compensation, which compromises mentor well-being and the sustainability of support structures (Ingersoll & Strong, 2011; van der Gucht & Stevens, 2023).

Another challenge is the heterogeneity of educational contexts—resources, school policies, institutional culture, teacher training, and workload—which limits generalisability. Models that are effective in resource-rich contexts may not be feasible in settings with limited institutional support (van der Gucht & Stevens, 2023).

Even interventions aimed at promoting emotional well-being show variability in outcomes depending on context, design, and teacher engagement, reinforcing the need for careful adaptation and continuous evaluation (Valente & Migueis, 2023). These challenges highlight that mentoring and intergenerationality must be carefully designed, with formal structures, institutional recognition, adequate resources, emotional support, and continuous training.

4.3. Implications for the Conceptual Model and the Portuguese Context

Based on the convergences and challenges identified, the relevance of the Intergenerational Professional Development Model in Early Childhood Education (MIDPEI), adapted to the Portuguese context, is reinforced. For its implementation, the following structural elements are proposed:

- Formalisation of mentoring/induction — clear agreements, defined roles, allocated time, objectives, and monitoring mechanisms, avoiding reliance on individual goodwill;
- Integration of emotional and well-being dimensions — recognition of the affective labour inherent in early childhood education; socio-emotional training; and access to psychological support spaces;
- Intergenerational communities of practice — promoting reciprocal exchange between generations, valuing veterans' experiential knowledge and novices' emerging competencies (e.g., technology, innovation, diversity);

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- Institutional policies for support and sustainability — resources for training, mentoring, and well-being; employment stability; and regulatory frameworks recognising mentoring as professional work;
- Contextual adaptation and local sensitivity — consideration of the specificities of the Portuguese education system, teacher training pathways, working conditions, and institutional realities.

These structural elements aim to ensure that intergenerationality operates as a strategic resource, promoting professional development, pedagogical innovation, well-being, and career sustainability.

5. INTERGENERATIONAL PROFESSIONAL DEVELOPMENT MODEL IN EARLY CHILDHOOD EDUCATION (MIDPEI) AND REPLICABLE RESEARCH PROTOCOL

The Intergenerational Professional Development Model in Early Childhood Education (MIDPEI) emerges from the synthesis of the integrative review findings and conceptualises teacher professional development as a relational, continuous, and situated process, grounded in reciprocity among generations of educators. This proposal responds to the need for conceptual frameworks that recognise intergenerationality as a structuring principle of the teaching profession, particularly relevant in early childhood education contexts.

5.1. Conceptual Model

Within this framework, the model integrates five articulated dimensions, representing professional development as the outcome of dynamic interaction between experiential knowledge, emerging practices, pedagogical collaboration, and institutional support:

- Sharing of experiential knowledge
- Integration of emerging practices
- Pedagogical co-construction
- Intergenerational collaborative reflection
- Organisational and policy support

MIDPEI proposes bidirectional learning, promoting renewed and sustainable practices while valuing both the accumulated experience of veteran teachers and the emerging literacies brought by early-career educators. Figure 2 presents the central circle of intergenerational professional development and the five dimensions connected through bidirectional arrows, symbolising reciprocity and interdependence.

5.2. Replicable Research Protocol

The protocol guides future studies on intergenerational learning, exploring both the transfer of experiential knowledge and the co-construction of innovative pedagogical practices. It can be adapted to different institutional contexts, ensuring comparability and data replicability.

Stages of the protocol:

- Definition of objectives and research questions — clearly aligned with the five MIDPEI dimensions, focusing on knowledge sharing, integration of emerging practices, and pedagogical co-construction;
- Participant selection — early childhood educators with different levels of experience: ≥20 years (veterans) and ≤5 years (novices), including colleagues from the same institution to capture authentic interactions;
- Ethical considerations — informed consent, anonymity, and confidentiality; interpretative feedback for validation and participant involvement;
- Data collection techniques — semi-structured interviews, observation of meetings or co-teaching practices, and document analysis;
- Thematic analysis — mixed coding (deductive and inductive) to identify emerging patterns; intergenerational triangulation to compare perspectives;
- Intergenerational triangulation — integration of multiple sources and perspectives to achieve a comprehensive understanding of intergenerational relations;
- Interpretative feedback (member checking) — sharing preliminary findings with participants for validation and refinement of interpretations;
- Implications and recommendations — extraction of insights and recommendations for professional practice, institutional policy, and adaptation of MIDPEI to specific contexts.

6. CONCLUSIONS

Intergenerationality in teaching represents a strategic dimension for professional development in early childhood education. Collaborative practices between more experienced and novice educators foster the construction of shared knowledge, strengthen professional identity, and support pedagogical innovation. However, several challenges persist, requiring organisational policies and practices that recognise intergenerationality as a structural component of the teaching profession.

The integrative review and the proposed conceptual model deepen this debate, opening pathways for future research in Portugal and other contexts. By positioning teaching as an intergenerational profession, the need is reinforced for collaborative mechanisms that value generational diversity as an essential pedagogical, social, and political resource.

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