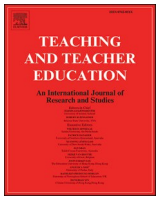
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Research paper

Relationships between institutional support, research accessibility and teachers' perceived need for scientific advancement: Domain-specific professional interest as a modest mediator

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ABSTRACT

Despite efforts to promote evidence-based education, teachers' engagement with research remains limited and shaped by institutional, professional and motivational factors. This study explored the perceptions of 780 Spanish teachers across educational levels regarding the relationship between research and teaching practice. Institutional support, research accessibility, interest in professional development and the perceived need for scientific advancement were examined through a structural equation model with latent variables (SEM-LV). Results indicate that, although teachers report positive attitudes towards professional learning and scientific advancement, they experience limited institutional support and difficulties in accessing, understanding and contextualising educational research. Domain-specific interest may help explain a modest indirect association between research accessibility and the perceived need for scientific advancement. Furthermore, teachers reported high interest in research-based professional learning addressing educational challenges such as school climate, diversity and bullying prevention. Findings suggest that access to research may be insufficient unless evidence is relevant, useful and contextually grounded.

1. Introduction

Over the past decades, there has been a growing interest in incorporating educational practices grounded in scientific evidence—an orientation endorsed by supranational organisations (Caena, 2014; Tripney et al., 2014). Within the European context, education policies have increasingly emphasised the importance of disseminating, accessing, and transferring scientific knowledge (European Commission, 2013). However, despite this global policy momentum, tensions have emerged regarding the practical application of such principles within educational settings. Studies have revealed a wide variety of understandings related to concepts of school improvement, indicating that approaches to implementing evidence-based education may differ according to the conceptual framework adopted (Biesta, 2010; Cain, 2015; Levin, 2013). Consequently, evidence-informed education requires addressing multiple contextual and professional conditions that affect both teachers and school leaders (Bryan & Burstow, 2017; Schenke et al., 2016).

Evidence-based practices entail integrating reliable research findings into both policy decisions and the daily educational actions designed and implemented on the basis of available scientific discoveries (Davies, 1999; Slavin, 2020). Given the current proliferation of information, educators increasingly need accurate and objective knowledge on which to ground their decisions (Olmos-Rueda & Pattier, 2023). Several studies have shown that many teachers primarily construct their professional knowledge through experiential learning derived from classroom practice (Nelson & Campbell, 2017; Van Schaik et al., 2018), rather than through engagement with empirical evidence.

In response, scholars have proposed models that integrate multiple perspectives into educational decision-making. For instance, Newton et al. (2020) advocate a pragmatic model for the use of scientific evidence in education. According to these authors, decision-making should take into account three key elements: (1) relevant, applicable, and useful evidence addressing a real problem or need; (2) the experience and professional knowledge of educators; and (3) the local context of the school. Considering these dimensions, educational decision-making aims to balance insights derived from science, professional expertise, and contextual realities.

Educational research and teaching practice should therefore be understood as interconnected and bidirectional processes. While research

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provides data and knowledge that can inform teaching, practice allows for the implementation and contextualisation of such evidence in real classrooms through specific methodologies and activities (Olmos-Rueda & Pattier, 2023). Nonetheless, translating research findings into forms that are both comprehensible and applicable to the broader educational community remains a significant challenge (Fitzgerald et al., 2025; Reis-Jorge, 2007). This challenge is not limited to the dissemination of research findings. It also concerns the institutional, professional and motivational conditions that enable teachers to access, interpret and recognise research as relevant to their own practice (Van Schaik et al., 2018). To this end, collaborative environments between universities and schools could be established to motivate, support, and empower teachers to participate actively in research processes (Basa & Ramos, 2025). These environments are especially important because teachers' engagement with research is built at the intersection of support structures, conditions of access to scientific knowledge, and professional interests that allow research to be perceived as relevant to educational improvement (Akcaoglu et al., 2023; Hillmayr, Thomm et al., 2024; Jurkowski & Abramczyk, 2024).

2. Literature review

2.1. Institutional conditions and leadership for evidence-informed engagement

Teachers' engagement with educational research cannot be explained solely through individual attitudes or personal willingness. The literature increasingly shows that the use of evidence in teaching is shaped by the interaction between professional agency and the institutional conditions that make research visible, accessible and useable in everyday school practice (Van Schaik et al., 2018). At the system level, teachers often remain passive recipients of top-down decisions with little communication about underpinning evidence (Joram et al., 2020; Olmos-Rueda & Pattier, 2023). Educational administrations play a crucial role and should move from hierarchical, unidirectional policy to dynamic, multilocal, adaptable approaches (Maguire et al., 2019; Martínez et al., 2021). Trust-enabling conditions require structural resources, sustained funding, and long-term frameworks (Penuel et al., 2017; Thongpaeng et al., 2024).

These institutional conditions are particularly relevant because access to research is rarely a purely individual matter. Teachers may value educational evidence, but their ability to consult, interpret and relate it to professional decision-making depends on whether educational systems provide time, training, databases, professional networks, dissemination channels and recognition for evidence-informed work (Brown et al., 2022; Van Schaik et al., 2018). When such support is limited, research can remain formally available but professionally distant from teachers' everyday work. By contrast, institutional support can reduce structural barriers and create the conditions under which research becomes more reachable, understandable and connected to school needs (Farley-Ripple, 2024; Hillmayr, Thomm et al., 2024; Rickinson et al., 2022).

Beyond institutional structures, school leadership also plays a pivotal role. Principals who cultivate research-oriented cultures enhance analytical capacity and create conditions for informed decision-making, organisational learning, and safe, equitable environments (Farley-Ripple, 2024; Khalifa et al., 2016; Lundqvist & Westerlund, 2022; Prenger et al., 2022). Leadership is therefore relevant for creating organisational climates in which teachers can discuss research, question its relevance, relate findings to local realities and connect evidence with collective improvement processes (Bryan & Burstow, 2017; Jurkowski & Abramczyk, 2024). Complementing this institutional role, teacher associations can also serve as intermediaries in the dialogue between educators and policymakers, although their influence often remains limited and channelled through union frameworks; removing barriers to teacher participation is therefore vital (Heineke et al., 2015; Ortiz-Mallegas et al., 2025).

From this perspective, institutional support operates as a condition that can make research access more than a technical possibility. It can transform access into a professional opportunity by providing the organisational conditions needed for teachers to encounter research, understand its relevance and relate it to their own professional decision-making (Brown et al., 2022; Hillmayr, Thomm et al., 2024).

2.2. Research accessibility, contextual relevance and teachers' engagement with evidence

Research in education is often more valued than used (Farley-Ripple, 2024), partly because teachers lack time, resources, and institutional support to apply evidence in practice (Diery et al., 2020; Hillmayr, Thomm et al., 2024; van Schaik et al., 2018). Yet teachers are key agents of change when granted responsibility, participation, and leadership opportunities that enable positive school climates and curriculum improvement (Lee et al., 2023).

Against this backdrop, evidence-informed teaching is widely recognised as a lever for improving instruction and learning (Bathgate et al., 2019), because empirical studies provide actionable knowledge for implementation and evaluation (Perines & Campaña, 2019). To address this discrepancy, it is essential to identify the main barriers that limit teachers' access to, understanding of, and engagement with educational research.

Building on this, uptake depends first on accessibility. Many teachers are unaware of, or unsure how to locate, research (Camahalan & Naparan, 2022; Thomm, Sälzer et al., 2021). Informal online sources are common, but meaningful appropriation requires contextual relevance (Hillmayr, Reinhold et al., 2024) and clear, applicable presentation, which fosters trust in academic sources (Schmidt et al., 2022). Confidence is further undermined by limited training in research design and interpretation (Farley-Ripple, 2024).

However, accessibility should be understood in a broad sense, beyond the physical availability of studies or the existence of open databases. In evidence-informed teaching, it involves research being written in a comprehensible way, teachers having the tools to interpret it, the evidence addressing recognisable classroom problems, and findings being adaptable to specific educational contexts (Cain, 2015; Schmidt et al., 2022; <link id=bib_thomm_et_al_2021b>Thomm, Sälzer, et al., 2021; </link>).

Second, uptake depends on contextual applicability. Research is adopted when understandable, relevant, and adaptable (Admiraal, 2024; Olmos-Rueda & Pattier, 2023), especially when it offers practical exemplars (Gorard et al., 2020; Joram et al., 2020). Teachers frequently judge findings misaligned with local needs (Sjölund et al., 2022); assuming universal applicability without adaptation limits effectiveness (Hordern & Brooks, 2023). Many struggle to translate results into practice (Georgiou et al., 2023), but engage more when research tackles concrete, everyday problems (Booher et al., 2020). This aspect is particularly relevant because the value of educational research for teachers depends on its capacity to engage with schools' real needs, guide professional reflection and generate useful knowledge for improving practice (Cain, 2015; Neal et al., 2018). Thus, scientific advancement becomes more meaningful when it helps reduce the distance between research and schools and positions educational usefulness, collaboration and contextualisation as central criteria in knowledge production. Third, comprehension matters. Technical language and limited methodological knowledge constrain interpretation (Atkinson et al., 2021), and even accessible studies may be seen as irrelevant (<link id=bib_thomm_et_al_2021b>Thomm, Sälzer, et al., 2021; </link>).

This distinction is important because accessibility does not, in itself, foster engagement with research or strengthen teachers' perception that further scientific advancement is needed. Teachers may be able to access research and still perceive it as distant, overly technical or insufficiently connected to their professional concerns (Cain, 2015; Hillmayr, Thomm

et al., 2024). Conversely, when accessible evidence resonates with teachers' interests and learning priorities, it can stimulate a more active engagement with research-based professional development (Akcaoglu et al., 2023; Hidi & Renninger, 2006). Thus, accessibility becomes educationally relevant when it is connected to the professional meanings teachers attribute to research.

Accordingly, the theoretical link between research accessibility and the perceived need for scientific advancement requires a motivational explanation grounded in theories of interest development. From Dewey's (1913) perspective, interest is not a passive preference, but an active form of engagement that connects individuals with an object of knowledge, directs attention and sustains effort over time. Hidi and Renninger's (2006) model further explains that interest develops when an object is perceived as meaningful, useful and connected to personal goals or concerns. Similarly, Krapp's (2002) person-object theory of interest emphasises that interest emerges from the relationship between individuals and specific domains or objects of knowledge, rather than from exposure alone. Applied to teachers' engagement with educational research, this perspective suggests that access to evidence is unlikely, by itself, to generate a stronger perceived need for scientific advancement. Accessible research must first acquire professional meaning for teachers. This is more likely to occur when evidence resonates with their training priorities, classroom concerns and professional goals, as also suggested by studies on teachers' interest and motivation in professional development (Akcaoglu et al., 2023; Zhang et al., 2021). Professional interest may therefore be understood as a motivational pathway through which accessible evidence becomes connected to teachers' learning priorities and to their recognition of the need for further, useful and contextually relevant educational knowledge.

2.3. *Professional interest, learning priorities and the perceived need for scientific advancement*

Teachers' research disposition, understood as their interest in learning and inquiry to enhance teaching, constitutes a key foundation for sustained engagement with educational research (Haug & Mork, 2021). Within this framework, professional interest is relevant because it helps explain why teachers are more likely to engage with research-based learning opportunities when these are connected to their professional purposes, classroom challenges and perceived possibilities for educational improvement. Teachers' engagement in research-related activities is therefore shaped by the interaction between personal, social and institutional factors, including school-level conditions, opportunities for professional learning and the relevance attributed to evidence (Akcaoglu et al., 2023; Ames & Archer, 1988; Gan et al., 2018; Kwakman, 2003; Liu et al., 2018; Zhang et al., 2021).

In this regard, research-focused professional development (PD) plays a crucial role in nurturing teachers' research engagement. It develops technical skills and positive attitudes, strengthens problem-solving and knowledge transfer, and sustains motivation (Admiraal, 2024; Böttcher-Oschmann et al., 2021). Effective provision combines research access, time, funding, and collaboration with researchers (Leat et al., 2015; Hillmayr, Thomm et al., 2024). Nevertheless, research skills may not translate into higher performance unless they are accompanied by supportive programmes and enabling contexts (Camahalan & Naparan, 2022). Research-focused professional development can therefore help evidence become connected to the questions, tensions and priorities that shape teachers' professional decision-making. This is crucial because access to research does not, by itself, lead teachers to recognise the need for further scientific advancement. Research may be available, understandable and methodologically sound, but it is more likely to be perceived as necessary for educational improvement when it connects with teachers' professional interests and unresolved classroom concerns (Cooper et al., 2017; Guskey, 2002; Haug & Mork, 2021; Rickinson et al., 2022; Sims et al., 2023).

Building upon this foundation, teachers' research interests often mirror the everyday challenges they encounter in their classrooms. One recurring priority concerns classroom climate and bullying prevention, as both are central to fostering inclusive and collaborative environments (La Salle-Finley et al., 2024; Pozo-Rico et al., 2023; Álvarez-García et al., 2024). A second area of sustained interest involves the prevention of school failure and early school leaving, which remains a pressing challenge across European education systems. Teachers recognise factors such as absenteeism, learning difficulties, and academic disengagement, yet often lack the tools to address them effectively. Targeted, evidence-based, and context-sensitive training is therefore essential to support at-risk students (OECD, 2023; Pellegrini et al., 2025). Furthermore, teachers show a growing commitment to inclusive education and communication with families. Short, practice-oriented training experiences, co-teaching, and Universal Design for Learning (UDL) approaches enhance their ability to meet diverse learning needs (Baek et al., 2024; Petersson-Bloom et al., 2023). At the same time, teachers express the need for stronger skills to conduct effective tutoring, manage difficult conversations, and engage with culturally diverse families through digital and interpersonal channels (Graham-Clay, 2024; Zulauf-McCurdy, McManus, Golez, & Fettig, 2024). When research resonates with teachers' lived experiences, their collaboration with universities and research teams strengthens, fostering a shared culture of evidence-informed improvement and continuous professional growth (Basa & Ramos, 2025; Coburn & Penuel, 2016; Sjölund et al., 2022).

These professional priorities help explain why interest can strengthen teachers' perceived need for scientific advancement in education. When teachers identify persistent challenges in their own practice, they are more likely to recognise the limits of existing knowledge and the importance of producing research that responds to real school needs (Cooper et al., 2017; Neal et al., 2018). In this way, interest in professional learning can foster an orientation towards scientific advancement as a practical and collaborative condition for improving teaching and addressing complex educational problems (Admiraal, 2024; Coburn & Penuel, 2016; Olmos-Rueda & Pattier, 2023; Sjölund et al., 2022).

Even so, teachers' beliefs frequently outweigh the scientific merit of studies, leading them to dismiss evidence that challenges established views while embracing research that reinforces their professional identity or mirrors the practices of respected colleagues (Brown et al., 2022; Chinn & Brewer, 1993; Schmidt et al., 2022; Thomm, Gold et al., 2021). Moreover, persistent constraints—such as limited time, scarce resources, and overly generic materials—further restrict participation and contextual relevance. Simply providing access to research seldom ensures meaningful implementation or sustained engagement (Joram et al., 2020; Pizà-Mir et al., 2023; Rickinson et al., 2022).

Therefore, schools need collaborative spaces to share, interpret, and use research, prioritising social impact over purely competitive academic outputs (Díez-Gutiérrez, 2020; Georgiou et al., 2023). Trust-based partnerships and co-design with researchers increase relevance, sustainability, and teachers' research competences (Basa & Ramos, 2025; Hillmayr, Thomm et al., 2024). Dissemination infrastructures are equally crucial for bridging research and practice. Many studies remain invisible because of the scarcity of institutional platforms, collaborative forums, and specialised journals that enable teachers to access and discuss findings. This limited visibility restricts professional engagement with evidence, underscoring the need for stronger open-access policies and systematic strategies to promote the sharing of educational research (Admiraal, 2024; Biesta, 2007; Leat et al., 2015; Rickinson et al., 2022).

Finally, although numerous conceptual models have been proposed to promote evidence mobilisation in education (Brown, 2014; Lingard, 2013; Rickinson et al., 2022), their empirical validation remains limited (Gorard et al., 2020). This situation has often been compared to medicine before the evidence-based era, when professional practice relied more on intuition than on verified data—highlighting the urgent need to consolidate and test effective transfer frameworks (Goldacre, 2013; Slavin, 2002). Moreover, current evaluation regimes tend to privilege quantitative, outcome-oriented studies, transforming research

into a bureaucratic exercise rather than a process of professional learning and reflection. Academic incentive structures further favour publication prestige over classroom relevance, thereby weakening collaboration between schools and universities (Admiraal, 2024; Hordern & Brooks, 2023; Sjölund et al., 2022).

Educational research operates amid contextual diversity and social complexity (Berliner, 2002). Generalisability is therefore conditional and must be critically examined (Biesta, 2007; Cain, 2015). Crucially, variation can be generative, informing principled adaptation of theory to practice and enabling continuous improvement (Simplicio et al., 2020). Teachers should thus be regarded as reflective professionals capable of producing knowledge from practice itself (Perines & Campaña, 2019).

Taken together, the literature reviewed here supports a coherent theoretical sequence linking the four dimensions examined in the present study. Institutional support provides the structural conditions that can reduce barriers and make research more accessible to teachers (Brown et al., 2022; Hillmayr, Thomm et al., 2024; Van Schaik et al., 2018). Accessibility, however, is unlikely by itself to strengthen the perceived need for scientific advancement unless evidence becomes professionally meaningful (Cain, 2015; Hidi & Renninger, 2006; Krapp, 2002). In this process, domain-specific professional interest operates as the motivational mechanism through which accessible evidence becomes connected to teachers' learning priorities, classroom concerns and professional goals (Akcaoglu et al., 2023; Dewey & Wheeler, 1913; <link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>). From this perspective, the perceived need for further scientific advancement extends beyond mere exposure to research. It arises from the interaction between institutional conditions that facilitate access, accessible and useable evidence, and professional interest that gives such evidence educational meaning and practical value (Admiraal, 2024; Cooper et al., 2017; Neal et al., 2018).

In light of this background, this study provides an original empirical and conceptual contribution by analysing teachers' perceptions of institutional support, access to and understanding of research, and the perceived need for scientific advancement. Based on data from a large sample of Spanish teachers, it also examines how interest in professional development mediates these relationships. Unlike previous research, this study integrates structural (administrative), personal (training interest), and thematic factors, demonstrating that research perceived as contextually relevant—addressing issues such as school climate, diversity, bullying prevention, and communication with families—is more likely to be valued and applied. The main contribution of this work lies in showing that thematic and contextual relevance constitutes the key link between educational evidence and classroom practice.

3. Method

3.1. Participants

A total of 780 teachers from the Spanish education system participated, representing educational levels from Early Childhood Education to Higher Education. Participants were recruited through non-probability convenience sampling, as questionnaire dissemination depended on educational centres and institutions agreeing to share it with their teaching staff and on teachers' voluntary participation. They were informed about the study aims, the voluntary nature of participation and data protection regulations. The questionnaire was administered online through Qualtrics. Participants' contextual and sociodemographic characteristics are presented in Table 1.

The sample was predominantly female (70.6%; N = 551), and the largest age group comprised teachers aged 46–55 years (36.7%; N = 286), whereas those aged 21–35 years represented the smallest group (18.5%; N = 144). Most participants worked in public schools (77.7%; N = 606), and the most common socio-economic context was middle (46.2%), followed by lower-middle (38.1%) and upper-middle (15.8%). Primary Education was the most represented stage (41%; N = 320), followed by Secondary Education and Baccalaureate (31%; N = 249), Early Childhood Education (15%; N = 117), and Higher Education (12%; N = 94). Regarding teaching experience, 41.5% (N = 324) had more than 20 years, 27.6% (N = 215) had 2–10 years, 24.9% (N = 194) had 10–20 years, and 6% (N = 47) had 0–1 year.

Table 1
Sociodemographic characteristics of the participants (N = 780).

Variable	n	% of the sample
Sex		
Male	229	29.4
Female	551	70.6
Age		
21- 35 years	144	18.5
36- 45 years	197	25.3
46- 55 years	286	36.7
Over 56 years	153	19.6
Type of educational institution		
Public	606	77.7
State-subsidised private/private	174	22.3
Socioeconomic context of the school		
Upper-middle	123	15.8
Middle	360	46.2
Lower-middle	297	38.1
Educational stage		
Early Childhood Education	117	15.0
Primary Education	320	41.0
Secondary and Upper Secondary Education	249	31.9
University	94	12.1
Teaching experience (years)		
0-1 year	47	6,0
2–10 years	215	27.6
10–20 years	194	24.9
More than 20 years	324	41.5
TOTAL	**780**	**100**

3.2. Definition of variables

In order to design the questionnaire for data collection, an initial review of the existing literature was conducted regarding the variables under study. Accordingly, definitions were developed for the key underlying concepts, namely institutional support, accessibility, perceived importance of research, and interest in teacher professional development. These constructs were established on the basis of empirical evidence drawn from previous studies (Admiraal, 2024; Akcaoglu et al., 2023; Basa & Ramos, 2025; Bathgate et al., 2019; Brown & Zhang, 2016; Camahalan & Naparan, 2022; Dewey & Wheeler, 1913; Drageset et al., 2025; Hidi & Renninger, 2006; <link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>; Iglesias Martínez, 2018; Martínez et al., 2021; Perines & Campaña, 2019).

Specifically, educational administration ("ADM") refers to the public bodies and institutions responsible for designing, implementing, and evaluating educational policies, as well as for providing structural support and professional training for teachers, with the ultimate aim of enhancing the quality of the educational system (Martínez et al., 2021).

Continuing with the concepts comprising the study variables, accessibility ("ACCE") refers to the ease and ability of teachers to access research, understand its content, and apply it in their teaching practice. Having adequate access to evidence-based information requires appropriate training in research skills and competences, sufficient time and resources, and institutional support that promotes and values this process (Camahalan & Naparan, 2022; Drageset et al., 2025; <link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>). Considering the diverse circumstances that may arise within educational settings, accessibility to research can be understood as a multidimensional condition that depends on several factors to ensure its effective integration into pedagogical practice. This complexity partly

explains the difficulties observed in the actual implementation of research in classroom contexts (Admiraal, 2024; Brown & Zhang, 2016).

The third variable under study is the perceived need for scientific advancement in education ("NEC"). In the present study, NEC refers to teachers' perception that further educational research is needed to respond more closely to real school needs and to strengthen the practical relevance of scientific knowledge for educational practice. The construct encompasses the perceived need to focus research on real educational priorities, facilitate reflection on teachers' professional needs, overcome barriers to data collection in schools, value the practical usefulness of research, and strengthen collaboration between universities and schools to promote scientific progress (Admiraal, 2024;Cooper et al., 2017; Neal et al., 2018; Olmos-Rueda & Pattier, 2023;Rickinson et al., 2022).

Finally, the variable interest in research-informed professional development related to educational challenges ("INT") was defined. Interest has been recognised as a key motivational component in learning processes (Dewey & Wheeler, 1913; Hidi & Renninger, 2006). In the present study, INT is conceptualised as a specific form of professional development interest. It focuses on research-informed training opportunities related to key educational challenges encountered in practice, such as school climate, inclusion, communication with families, school failure and bullying prevention. Therefore, INT should be understood as a domain-specific construct of professional interest, linked to teachers' interest in evidence-based knowledge on concrete educational problems (Akcaoglu et al., 2023; <link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>).

3.3. Instrument

To collect data for the variables described in the study, an ad hoc instrument was designed and administered. The development of the questionnaire was based on a thorough review of the most relevant literature to date. Once the initial version had been completed, the questionnaire underwent an expert evaluation process to ensure the adequacy, clarity, and accuracy of the items. Ten professionals from diverse disciplines, specifically education, psychology, and research methodology, participated in this validation process.

Taking into account the feedback provided by the expert panel, the instrument was refined and restructured to produce a more robust final version. The final questionnaire consisted of two main sections. The first gathered sociodemographic information, including variables such as gender, age, type of educational institution, socio-economic context of the school, educational stage, and years of teaching experience. The second section comprised the dimensions defining the latent constructs under analysis: institutional support (5 indicators), accessibility to research (7 indicators), perceived need for scientific advancement (5 indicators), and interest in research-based professional learning related to specific educational challenges (5 indicators). Each indicator was assessed using an eleven-point Likert-type scale (0–10), where 10 indicated "strongly agree" and 0 indicated "strongly disagree."

3.4. Procedure and data analysis

To test the relationships among the defined constructs, the methodology employed in this study was based on Structural Equation Modelling with Latent Variables (SEM-LV). This approach enabled the identification and estimation of relationships and effects through a combination of statistical data and causal assumptions (Alvarado et al., 2016). Within this framework, two models were proposed: a measurement model and a structural model.

The analysis explored the relationships among institutional support for research, accessibility to studies, the perceived need for scientific advancement, and interest in professional development. This methodology made it possible to examine the direct, indirect, and total effects of all the variables within the model. The estimation of the proposed models was performed using MPLUS software, version 7.4 (Muthén & Muthén, 1998–2007), applying the robust maximum likelihood estimation procedure. This approach allows the researcher to incorporate information at the outset and subsequently determine its inclusion or exclusion (Byrne, 2012). In addition, Satorra and Bentler's (1994) corrections were applied to the goodness-of-fit statistics and to the estimation of the standard errors of the parameters.

First, the measurement model of the latent dimensions was tested. In this regard, a confirmatory factor analysis was conducted to examine the relationships between the latent variables and their observed indicators. This analysis also enabled the assessment of factor loadings and the explained variance coefficients for each construct in the study. The Average Variance Extracted (AVE) coefficient was estimated, with a recommended minimum value of 0.50 (Fornell & Larcker, 1981), as well as the omega reliability coefficient (CRC), with a minimum acceptable value of 0.70 (McDonald, 2014).

Second, and in line with the study objectives, the hypothesised relationships among the variables were defined. It was established that institutional support ("ADM") exerts a direct and significant effect on accessibility to research ("ACCE"). Furthermore, research accessibility has a direct effect on both the perceived need for scientific advancement ("NEC") and interest in professional development ("INT"). In turn, teachers' interest in professional development also influences the perceived need for scientific advancement. Moreover, interest in professional development acts as a mediating variable in the relationship between accessibility and the need to conduct research. These relationships suggest that teachers' interest in research-based professional learning may help explain the association between perceived accessibility to research and the perceived need for further scientific advancement.

This relationship could be partially mediated by interest in research-based professional development, meaning that accessibility would exert both a direct effect on the perceived need and an indirect effect through interest. Alternatively, a full mediation is also possible, whereby the influence of accessibility on the perceived need is explained solely through interest, without any significant direct effect. Both possibilities were tested in the data analysis to determine which model provided the best fit to the empirical evidence.

4. Results

4.1. Descriptive statistics

Table 2 presents the results for the means and standard deviations of each indicator across the dimensions under analysis. Accordingly, the results refer to institutional support, accessibility to research, interest in professional development, and the perceived need for scientific advancement in the educational field.

Regarding the mean scores of the indicators, the results for the four dimensions, measured on a 0–10 scale, show that two dimensions have mean values above 5, while the remaining two fall below this threshold. Specifically, the overall mean score for institutional support for research was below the midpoint of the scale ($M = 4.23$), indicating that teachers perceive insufficient institutional support for research-related activities. Similarly, the mean level of the indicators relating to accessibility to research also fell below the average value of the scale ($M = 4.99$). This result highlights the considerable room for improvement in facilitating teachers' access to scientific evidence.

Higher mean scores were obtained for the remaining dimensions. In the third dimension, which addresses the perceived need for scientific advancement, the mean scores across the five indicators were relatively consistent, yielding the highest overall mean in the study ($M = 8.7$). Alongside the similarity in mean values, the corresponding standard deviations also showed a similar pattern. These results reflect the high value teachers place on scientific progress within education as a means of improving practice in schools. Finally, the mean scores for the

Table 2
Descriptive statistics and empirical measurement model.

	M (Sd)	ADM	ACCE	NEC	INT	R^2
ADM1. Educational authorities facilitate my access to scientific knowledge.	4.52 (2.71)	0.89				0.79
ADM2. Educational authorities provide me with resources for the application of research.	4.32 (2.65)	0.93				0.86
ADM3. Educational authorities attach importance to the transfer of research findings into classrooms.	4.55 (3.98)	0.91				0.83
ADM4. Educational authorities involve teachers in the creation of research-informed policies.	3.63 (2.79)	0.84				0.71
ADM5. Educational authorities value teachers who apply research findings in their teaching.	4.14 (2.83)	0.76				0.58
ACCE1. I know how to access research studies.	5.71 (2.38)		0.64			0.41
ACCE2. Research findings are easily applicable.	5.17 (2.05)		0.72			0.52
ACCE3. I receive the latest advances in research.	4.15 (2.73)		0.77			0.59
ACCE4. I find it easy to attend training events to update my knowledge.	5.25 (2.86)		0.70			0.49
ACCE5. I consider research studies easy to understand.	5.64 (2.31)		0.65			0.42
ACCE6. My institution provides access to scientific databases.	4.37 (2.96)		0.74			0.55
ACCE7. My institution informs staff about new developments in the field of research.	4.65 (2.99)		0.73			0.53
NEC1. Focus research advances on real educational needs.	8.95 (1.50)			0.74		0.55
NEC2. Have time to reflect on what teachers need to implement.	8.76 (1.54)			0.83		0.69
NEC3. Overcome barriers to data collection in schools.	8.12 (1.92)			0.66		0.44
NEC4. Focus research evaluation on its practical usefulness.	8.87 (1.45)			0.78		0.61
NEC5. Strengthen collaboration between universities and schools to promote scientific progress.	8.80 (1.59)			0.74		0.55
INT1. I am interested in learning how to improve the classroom climate.	8.95 (1.64)				0.58	0.34
INT2. I am interested in knowing more about school failure and dropout.	7.71 (2.29)				0.63	0.40
INT3. I am interested in learning about methodology and assessment for pupils with specific educational needs.	8.79 (1.82)				0.50	0.25
INT4. I am interested in improving communication with my pupils and their families.	7.63 (2.24)				0.68	0.46
INT5. I am interested in knowing more about school bullying and cyberbullying.	7.89 (2.22)				0.79	0.62
α		0.89	0.88	0.87	0.73	
CRC		0.87	0.71	0.75	0.54	
AVE		0.76	0.50	0.56	0.30	

χ^2 [203] = 540.919 RMSEA = 0.06 CFI = 0.91 SRMR = 0.06.
Note. M = Mean; Sd = Standard deviation; ADM = Administrative support; ACCE = Accessibility; NEC = Perceived need for scientific advancement; INT = Interest in professional development; R^2 = Explained variance. Factor loadings, Cronbach's alpha (α), Composite Reliability Coefficient (CRC), and Average Variance Extracted (AVE) are reported for each construct. Model fit indices: $\chi^2(203) = 540.919$, RMSEA = 0.06, CFI = 0.91, SRMR = 0.06.

dimension related to interest in research-informed professional development associated with specific educational challenges exceeded the midpoint of the scale (M = 8.19). This result suggests that teachers display a strong disposition towards continuous learning and professional growth, particularly through training opportunities focused on concrete educational issues and aimed at the acquisition of new evidence-based knowledge. Overall, institutional support for research received the lowest average rating, followed by accessibility to research, which was close to the midpoint. In contrast, the need for educational research development and interest in professional learning achieved the highest mean scores.

A more detailed analysis of each dimension revealed that, within institutional support, the indicator with the highest score corresponded to the perception that educational administrations value the transfer of research findings to classroom practice (M = 4.55; SD = 3.98). Notably, this item also showed the highest standard deviation, suggesting substantial variability in teachers' perceptions on this aspect. Another relatively high-scoring indicator referred to the extent to which educational administrations facilitate access to scientific knowledge (M = 4.52; SD = 2.71). However, despite being the highest within this dimension, both values remain below the scale midpoint. Conversely, the lowest-rated indicator reflected teachers' perception that educational administrations take their input into account when developing evidence-based educational policies (M = 3.63; SD = 2.79).

Regarding teachers' accessibility to research, the highest-scoring indicators referred to teachers' awareness of how to access research (M = 5.71; SD = 2.38) and the perceived ease of understanding research findings (M = 5.64; SD = 2.31). In the latter case, the standard deviation was the lowest among all indicators within this dimension, indicating a higher degree of consensus among teachers regarding their ability to comprehend educational research. Conversely, the lowest-rated indicator related to the extent to which teachers receive the most recent educational research (M = 4.15; SD = 2.73).

With respect to the third dimension, the perceived need for scientific advancement in education, mean scores were higher than those for the previous dimensions. The indicators with the highest values concerned the importance of focusing research on real educational needs (M = 8.95; SD = 1.50) and of valuing, in the evaluation of research, those studies considered most useful for teachers (M = 8.87; SD = 1.45). Strengthening collaboration between universities and schools to promote scientific progress was also rated highly (M = 8.80; SD = 1.59). Notably, these items showed the lowest standard deviations in the study,

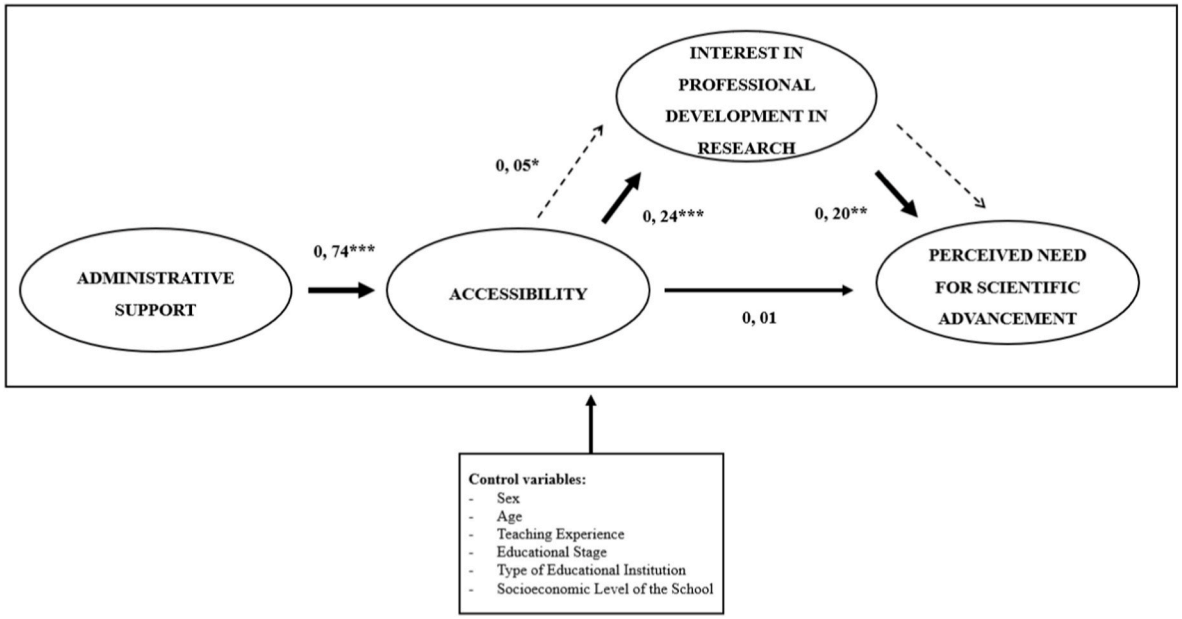


Fig. 1. Diagram of results and effects of the structural model.

indicating a strong consensus among participants. The lowest-scoring indicators in this dimension related to the availability of time for teachers to reflect on their professional needs (M = 8.76; SD = 1.54) and to overcoming obstacles in data collection within schools (M = 8.12; SD = 1.92).

Finally, within the INT dimension, the highest mean scores were associated with teachers' interest in evidence-informed learning about classroom climate (M = 8.95; SD = 1.64), methodologies and assessment for pupils with specific educational needs (M = 8.79; SD = 1.82), and bullying and cyberbullying (M = 7.89; SD = 2.22). The lowest-scoring indicators referred to school failure and dropout (M = 7.71; SD = 2.29) and communication with pupils and families (M = 7.63; SD = 2.24). These results show that INT captures teachers' interest in research-based learning across several concrete pedagogical domains, which may partly explain the heterogeneity observed in the psychometric indicators of this construct.

4.2. Estimation of the measurement model

To evaluate the dimensional structure of the constructs examined in this study—administrative support, accessibility to research, perceived need for scientific advancement, and interest in professional development—a confirmatory factor analysis (CFA) model was established, corresponding to the measurement model. A latent variable was defined for each construct under analysis. The results of this model, summarised in Table 2, include the statistical estimates and goodness-of-fit indices used to assess the psychometric performance of the proposed constructs. Overall, the general model demonstrated an acceptable fit (χ^2 [203] = 540.919; RMSEA = 0.06; CFI = 0.91; SRMR = 0.06). All factor loadings were statistically significant, with the lowest values (0.50 and 0.58) associated with the latent variable related to interest in professional development. Conversely, the highest loadings (0.93 and 0.91) corresponded to indicators of the latent variable measuring administrative support. The coefficients of explained variance (R^2) were generally acceptable, as all factor loadings were both significant and sufficiently high, reaching a maximum value of 0.86. However, the INT construct showed an AVE value of 0.30 and a composite reliability value of 0.54, both below the recommended thresholds. This suggests limited convergent validity and indicates that results involving this variable should be interpreted with caution. Conceptually, this limitation may reflect the domain-specific nature of the INT indicators, which capture teachers' interest in research-informed learning across several pedagogical areas.

4.3. Estimation of the structural model

After testing the measurement model, the structural model was estimated (Fig. 1), comprising three latent variables (institutional support, accessibility, and interest in research-based professional learning related to specific educational challenges) and one latent outcome variable (perceived need for scientific advancement). The main parameter estimates and fit indices are presented in Table 3. The structural model yielded a reasonable overall fit (χ^2 [439] = 942.607, RMSEA = 0.05, CFI = 0.88, SRMR = 0.05). RMSEA and SRMR were within commonly accepted ranges, whereas the CFI value was slightly below the conventional 0.90 threshold. Taken together, these indices were considered sufficient for examining the hypothesised structural paths, although the estimates are interpreted in light of this model-fit consideration. Since the overall structural model was not rejected, the specific significance of the standardised estimates for the structural parameters involved in the hypothesised relationships was subsequently examined.

The model revealed, first, a positive and statistically significant effect of institutional support on accessibility to evidence-based studies in the educational field (0.74; $p < .001$). In turn, teachers' accessibility to educational research exerted a positive and significant effect on their interest in professional development (0.24; $p < .001$). Likewise, a positive and statistically significant effect of interest in professional development on the perceived need for scientific advancement was confirmed (0.20; $p < .01$). Furthermore, an indirect, positive, and significant effect of accessibility to research on the need for scientific advancement was observed, mediated by teachers' interest in professional development (0.05; $p < .05$). These findings suggest that greater accessibility to educational research is associated with a stronger perceived need for scientific advancement when it is connected to teachers' interest in research-based professional learning on specific educational challenges. The indirect effect was statistically significant, although limited in magnitude ($\beta = 0.05$), and should be interpreted prudently in light of the limited convergent validity and domain-specific operationalisation of

Table 3
Structural model results.

	ADM	ACCE	INT	NEC
DIRECT EFFECTS				
Sex				
Female	0.09	−0.06	0.17**	0.05
Age				
36–45 years	−0.01	−0.01	−0.03	−0.03
46–55 years	0.02	−0.03	0.06	0.03
Over 56 years	−0.01	−0.02	0.02	−0.06
Type of educational institution				
State-subsidised private/private	0.01	0.05	0.11*	0.02
Socioeconomic context of the school	−0.03			
Middle	−0.03	−0.08	−0.11	0.06
Lower-middle	−0.13	−0.06	−0.16*	0.05
Educational stage				
Primary Education	0.03	−0.04	−0.03	0.01
Secondary and Upper Secondary Education	0.04	−0.03	0.01	−0.05
University	0.01	0.01	−0.10	−0.12
Teaching experience (years)				
2–10 years	−0.12	0.03	−0.16	−0.05
10–20 years	−0.01	0.15*	−0.23**	−0.02
More than 20 years	−0.01	0.19**	−0.24**	0.03
ADM		0.74***		
ACCE			0.24***	0.01
INT				0.20**
INDIRECT EFFECTS				
ACCE				0.05*
R^2	0.04	0.60	0.15	0.08
Model fit:	χ^2 [439] = 942.607 RMSEA = 0.05 CFI = 0.88 SRMR = 0.05			

Note. Standardised regression coefficients showing the direct effects of demographic and institutional variables on Administrative Support (ADM), Accessibility (ACCE), Interest in Professional Development (INT), and Perceived Need for Scientific Advancement (NEC), as well as the indirect effect of Accessibility on Perceived Need for Scientific Advancement mediated by Interest in Professional Development. Model fit indices: $\chi^2(439) = 942.607$, RMSEA = 0.05, CFI = 0.88, SRMR = 0.05.

the INT construct. Although the explained variance of NEC was modest ($R^2 = 0.08$), the purpose of the model was not to maximise prediction, but to examine theoretically grounded relationships among institutional support, accessibility, professional interest and perceptions of scientific advancement.

Moreover, statistically significant differences were observed in some of the latent variables when considering certain control variables. Firstly, teachers working in schools located in lower to middle socio-economic contexts showed lower levels of interest in professional development than those in higher socio-economic environments (−0.16; $p < .05$). This finding highlights the influence of school context on teachers' motivation to engage in professional learning, underscoring the role of socio-economic conditions in shaping participation in continuous training programmes. Similarly, teachers employed in state-subsidised or private schools demonstrated greater willingness and interest in professional development compared to those working in public institutions.

In addition, gender differences were identified within the same dimension: female teachers exhibited significantly higher levels of engagement with professional development than their male counterparts (0.17; $p < .01$). Finally, regarding teaching experience, educators with 10–20 years and more than 20 years of experience reported a lower inclination towards professional development (−0.23; $p < .01$ and −0.24; $p < .01$, respectively) compared to less experienced teachers.

When analysing teaching experience, statistically significant differences were also found regarding teachers' accessibility to empirical studies. Consistent with the latent variable of interest, teachers with 10–20 years of experience (0.15; $p < .05$) and those with more than 20 years (0.19; $p < .01$) reported greater access to research than teachers with 0–1 year of professional experience in their schools. Finally, no statistically significant differences were observed for the variables age or educational stage, indicating that these factors did not influence the relationships examined in the model.

5. Discussion

This study examines how teachers perceive the relationship between institutional support, research accessibility, interest in research-based professional learning related to specific educational challenges, and the perceived need for scientific advancement in education. More specifically, it considers whether professional interest may help explain how structural conditions and access to research become connected to the meaning teachers attribute to educational evidence.

One of the main contributions of the present study lies in suggesting that teachers' relationship with educational research does not appear to depend exclusively on their favourable disposition towards professional learning or scientific advancement. Brown and Zhang (2016) cautioned that favourable attitudes towards research do not necessarily lead to sustained and meaningful engagement with evidence. The present findings refine this argument by suggesting that the distance between research and practice may partly reflect a mismatch between teachers' professional priorities and the conditions through which research reaches schools. This interpretation shifts attention from an assumed lack of teacher interest towards the institutional and organisational conditions that enable evidence to become understandable, relevant and professionally meaningful (Joram et al., 2020; Farley-Ripple, 2024; Hillmayr, Thomm et al., 2024).

Within this broader interpretation, institutional support can be understood as a condition that may transform the formal availability of research into a meaningful professional opportunity. As Maguire et al. (2019) noted, educational governance structures frequently retain hierarchical and unidirectional characteristics. Teachers' limited perceived involvement in evidence-informed policy development may therefore indicate that they continue to be positioned primarily as recipients of decisions. Recognising teachers as legitimate participants in identifying what evidence is needed, how it should be communicated and how it can respond to school-level problems could strengthen the

relationship between research and practice (Coburn & Penuel, 2016; Heineke et al., 2015; Hillmayr, Thomm et al., 2024).

The association observed between institutional support and research accessibility further suggests that engagement with evidence cannot be attributed exclusively to teachers' individual competences or initiative. Cain (2015) argued that accessibility involves more than the formal availability of research, as evidence must also be understandable and relevant to professional contexts. Available time, access to scientific resources, institutional mediation and opportunities for collective interpretation may shape whether research can be connected to situated pedagogical decisions. Without these conditions, evidence may be formally available while remaining professionally distant from teachers' everyday concerns. Accessibility should therefore be understood as a situated process involving availability, comprehensibility, contextual relevance and opportunities for collaborative interpretation (Jurkowski & Abramczyk, 2024; Rickinson et al., 2022).

Teachers' strong recognition of the need for scientific advancement and their interest in evidence-informed learning also provide insights into the conditions under which research may acquire professional meaning. In line with Admiraal (2024) and Haug and Mork (2021), the findings suggest that teachers may value research more strongly when it responds to authentic educational problems and supports reflection on school practice. Strengthening research literacy should therefore involve more than developing individual skills for locating and interpreting evidence. It should be embedded within institutional cultures and professional development opportunities that provide relevant evidence, collaborative spaces and resources connected to the challenges that teachers recognise in their daily work (Brown et al., 2022; Drageset et al., 2025; Rickinson et al., 2022).

The results help clarify whether access to research is sufficient to strengthen teachers' perceived need for scientific advancement. Although previous literature has shown that interest develops when knowledge is perceived as relevant and connected to one's professional goals (Hidi & Renninger, 2006), and that research accessibility depends on conditions of comprehensibility, relevance and institutional support (<link id=bib_thomm_et_al_2021b>Thomm, Sälzer, et al., 2021; </link>; <link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>), the present study helps clarify a possible pathway through which this relationship may be understood. In the model, accessibility did not show a significant direct effect on the perceived need for scientific advancement, although it did show a direct and significant effect on teachers' training interests. In turn, this interest in evidence-based training on specific educational topics was significantly associated with the perceived need for scientific advancement, which accounts for the indirect effect of accessibility on this perceived need through professional interest. This sequence of effects suggests that access opens up a possibility, but does not necessarily generate a demand for more useful and contextualised research unless it connects with teachers' training interests and with the concerns that shape their everyday practice. In this way, domain-specific professional interest appears to play a modest but statistically significant role in connecting accessibility to teachers' perceptions of the need for scientific advancement. Given the small size of the indirect effect, the modest variance explained in NEC and the specific way INT was operationalised, this pathway should be understood as one theoretically meaningful route among other possible factors, rather than as evidence of a broad professional-interest mechanism.

In this context, the present study also points to the measures that teachers consider most relevant for promoting the development of educational research. Among these, the most prominent is the need to design research that is both useful and contextually adapted to the real needs of the classroom—an idea consistent with the recent findings of Cain (2016), Sjölund et al. (2022), and Wahlgren and Aarkrog (2021). The present results are consistent with this argument and suggest that contextual relevance is not simply a desirable feature of research dissemination, but a condition through which teachers come to perceive scientific advancement as necessary. Another important aspect highlighted in this study concerns teachers' positive views on developing collaborative research between educators and researchers. Beyond being perceived as a need, this measure represents a strategic solution to promote the creation of studies that are both suitable and applicable for teachers, as supported by various leading authors in the field (Coburn & Penuel, 2016; Newton et al., 2020; Schenke et al., 2016; Sigurðardóttir et al., 2018; Sjölund et al., 2022). Similarly, Olmos-Rueda and Pattier (2023) advocate for establishing collaborative spaces between teachers and researchers to co-create contextualised and relevant studies, thereby reducing the gap between evidence and practice. Such partnerships may therefore operate as spaces of joint problem formulation, where teachers' professional concerns help shape research questions and researchers contribute methodological and theoretical resources.

One contribution of this study lies in identifying the training interests that teachers consider most relevant for addressing, through evidence, some of the problems they recognise as most urgent in their everyday practice. The results show that teachers do not demand research-based training in general terms, but rather proposals linked to specific professional needs, such as improving school climate, addressing specific learning needs, preventing bullying and early school leaving, and strengthening communication with students and families. This contribution extends previous work that had already highlighted the importance of specific, contextualised and evidence-informed professional development (Cooper et al., 2017; Rickinson et al., 2022), by showing which concrete areas are perceived by teachers as priorities for receiving research-based knowledge, findings and tools. These priorities also coincide with current lines of research on school climate, coexistence, diversity and family–school relationships (Graham-Clay, 2024; La Salle-Finley et al., 2024; OECD, 2023; Pozo-Rico et al., 2023; Álvarez-García et al., 2024). From this perspective, the value of the study lies in suggesting that the contextual relevance of research is not limited to its potential applicability but also depends on its capacity to respond to the training concerns that teachers identify as necessary for addressing complex, relational situations that are difficult to resolve through routine experience alone. This has implications for teacher education, as professional development programmes should be organised around authentic professional problems and provide evidence, strategies and resources linked to the needs that teachers recognise in their daily practice.

In addition, the differences associated with sociodemographic variables help to show that interest in evidence-based professional development does not depend exclusively on individual dispositions, but also on the institutional and contextual conditions in which teaching practice takes place. Female teachers showed greater training interest than their male counterparts, a result that is consistent with studies reporting sex-based differences in teachers' attitudes towards professional development (Çelebi, 2021). Similarly, teachers working in publicly funded private or private schools reported greater engagement in continuous training than those working in public institutions. Beyond simply identifying differences between groups, these results suggest that institutional cultures may expand or restrict teachers' opportunities to recognise research as professionally relevant. In this regard, the literature has shown that organisational conditions influence the relationship between research, training and teaching practice (Olmos-Rueda & Pattier, 2023), although the results of this study further specify that such conditions may also shape teachers' training interest in evidence-based proposals. Therefore, teacher education should not be designed as a homogeneous offer, but as a process that is sensitive to different institutional contexts and to the professional needs that emerge within them.

Another key finding concerns the influence of socio-economic context. Teachers working in disadvantaged environments demonstrated lower interest in professional development, aligning with OECD (2023) findings that emphasise the importance of adequate institutional conditions and structural resources to sustain motivation in vulnerable

settings. This result is relevant because it suggests that professional interest is not independent from working conditions. In schools facing greater social and educational complexity, teachers may experience stronger demands while having fewer resources, less time and fewer opportunities for sustained professional learning. Therefore, policies aimed at strengthening research engagement should avoid assuming that all teachers are equally positioned to access and benefit from evidence-based professional development (OECD, 2023; Hillmayr, Thomm et al., 2024).

Finally, the results show a relevant contrast regarding teaching experience. Teachers with longer professional trajectories reported greater access to educational research, but this access did not translate into greater interest in continuous training. On the contrary, more experienced teachers tended to show lower interest in continuing to participate in professional learning processes than teachers with 0–1 year of teaching experience. This result may be related to studies suggesting that novice teachers are more likely to engage in updated training opportunities, whereas teachers with longer professional trajectories tend to rely more strongly on already consolidated professional repertoires (Richter et al., 2024; Salmerón Aroca et al., 2022; Zhang et al., 2021). It may also suggest that interest in professional learning can decline over time when training opportunities are not perceived as sufficiently meaningful, contextually relevant or supported by sustained institutional conditions. In addition, the literature on teachers' professional identity reminds us that dispositions towards change, learning and updating are not stable but are shaped throughout the professional career and in interaction with contextual conditions (Day et al., 2006). One contribution of this study is to suggest that access and interest do not necessarily evolve in the same direction across the teaching career. This idea opens up a relevant avenue for teacher education, as professional development programmes should consider intergenerational models capable of connecting the contextual knowledge and accumulated experience of veteran teachers with the stronger training disposition often observed among teachers in the early stages of their careers. From this perspective, collaborative and intergenerational approaches may support professional learning that is better aligned with different teaching trajectories (Coenders & Verhoef, 2018; Gore & Rickards, 2021).

Overall, the findings have specific implications for teacher education and professional development policies. In line with previous work on research literacy and evidence-informed teacher learning (Brown et al., 2022; Haug & Mork, 2021), initial teacher education should strengthen teachers' capacity to understand, critically analyse and discuss empirical evidence through situated tasks connected to authentic educational problems. Continuing professional development should also be organised around the professional concerns recognised by teachers, rather than responding to generic training agendas, and should provide evidence-based tools, strategies and resources linked to the problems that teachers identify as relevant in their everyday work (Cooper et al., 2017; Rickinson et al., 2022). At the same time, institutional policies should provide time, access to research resources and collaborative structures that enable teachers to interpret evidence collectively and relate it to local needs, as suggested by studies highlighting the role of resources, organisational support and contextual relevance in teachers' engagement with research (<link id=bib_hillmayr_et_al_2024b>Hillmayr, Reinhold, et al., 2024; </link>; Jegstad et al., 2022; <link id=bib_thomm_et_al_2021b>Thomm, Sälzer, et al., 2021; </link>).

From this same perspective, innovation can be understood as a collaborative process through which teachers and researchers jointly define problems, interpret evidence and design context-sensitive responses, rather than as the linear adoption of research-based recommendations. This understanding is consistent with studies that emphasise the value of research–practice partnerships and collaborative spaces for producing relevant educational knowledge (Coburn & Penuel, 2016; Olmos-Rueda & Pattier, 2023; Schenke et al., 2016; Sjölund et al., 2022). However, the present study further suggests that the distance between research and teaching practice cannot be explained solely by insufficient access to evidence. The findings suggest a more complex mechanism, whereby institutional support facilitates accessibility, accessibility may stimulate teachers' training interests, and these interests help connect access to research with the perceived need for continued scientific advancement. Therefore, bringing research closer to teachers requires more than dissemination. It requires institutional conditions, professionally meaningful evidence and teacher education spaces in which research can be interpreted in relation to real educational problems.

6. Conclusion

The results of this research yield several relevant conclusions. First, although teachers within the Spanish educational context demonstrate a positive predisposition towards evidence-based professional development and recognise the importance of research for improving educational quality, they encounter several barriers that hinder its effective implementation in their specific contexts. Teachers identify a lack of support from educational administrations and limited accessibility to educational research findings as key obstacles. These barriers negatively affect the application of scientific knowledge in classrooms, despite teachers' strong interest and willingness to engage in continuous improvement.

The analyses identified significant but modest relationships between administrative support, research accessibility, domain-specific interest in research-based professional learning, and perceptions of the need for scientific advancement. These relationships suggest that when institutional backing is strengthened and access to evidence is facilitated, teachers' attitudes towards using research in practice become more positive. Furthermore, the findings suggest that the thematic relevance of research—particularly when it addresses concrete needs such as school climate, attention to diversity, prevention of bullying and early school leaving, or communication with families—is associated with teachers' perceptions of its professional usefulness.

Nevertheless, this study presents certain limitations that should be acknowledged when considering replication or further research. Firstly, its cross-sectional design does not allow causal relationships between variables to be established, despite the use of robust and complex statistical analyses. Secondly, although the sample is large and diverse, participants were recruited through non-probabilistic convenience sampling, partly mediated by educational institutions. This may have introduced self-selection bias, as teachers and schools more interested in educational research or professional learning may have been more likely to participate. Consequently, the reported levels of professional interest and perceived need for scientific advancement may be higher than those in the broader teacher population. Thirdly, the operationalisation of INT represents another limitation. Its indicators capture teachers' interest in research-based learning across specific educational topics, so INT should be interpreted as a domain-specific professional learning interest construct. The low AVE and composite reliability values suggest that these indicators may reflect heterogeneous but related interests, meaning that the mediating role of INT should be understood within this specific conceptual scope. Fourthly, the structural model explained a modest proportion of variance in NEC ($R^2 = 0.08$), and the indirect effect through INT was limited in magnitude ($\beta = 0.05$). Accordingly, accessibility and professional interest should be understood as contributing factors, rather than as the main determinants of teachers' perceived need for scientific advancement. Finally, although the sample represents teachers from Spain, the generalisability of the findings to other international contexts with different educational systems may be limited.

Future research should therefore explore how teachers adapt evidence to their classroom practice and examine teachers' levels of critical research literacy. It would also be valuable to investigate the role of perceived self-efficacy in evidence use, a dimension that remains

underexplored. Another promising avenue for research concerns the effectiveness of hybrid and collaborative spaces for the transfer of scientific knowledge between teachers and researchers. Advancing these lines of inquiry could help to strengthen the connection between research and educational practice through more realistic, contextualised, and sustainable approaches.

CRediT authorship contribution statement

Mireya Mallén-Berdejo: Writing – original draft, Methodology, Investigation, Conceptualization. **Cecilia Latorre-Cosculluela:** Writing – original draft, Investigation, Data curation. **Alberto Quílez-Robres:** Writing – review & editing.

Ethical standard

This research has been approved by the Ethics Committee of the Government of Aragon (Spain), with approval code: PI24/058.

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Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Mireya Mallen Berdejo reports financial support was provided by Government of Aragon and FSE Aragon. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

https://drive.google.com/drive/folders/1RojD2vvEBRDZ4HY1bIZ7Ig1xhFYVJQ_n?usp=drive_link.

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