

Evidence-Informed Educational Practice in Catalan Education: From Public Agenda to Teachers' Practice

GEORGETA ION¹, ANNA DÍAZ-VICARIO¹ AND CECILIA INÉS SUÁREZ*²

≈ Catalonia has a long tradition of school innovation movements. These have increased in recent years as public administration and private entities have initiated substantial school reforms oriented toward the use of evidence in teaching practice. As the Catalan education system is highly autonomous, not all schools have embraced the evidence-informed practice (EIP) movement, and this has created differences between schools that choose to implement a change or innovation based on scientifically demonstrated evidence and those that do not. In the present paper, we will attempt to understand the current state of the inclusion of evidence-informed practice in Catalonia and to assess teachers' perceptions of its adoption as part of their daily practice. In order to address these issues, we start by exploring the legal and structural framework grounding the implementation of evidence-informed practice in the Catalan system, and through interviews conducted in a sample of primary school leaders and teachers, we approach the organisational and individual level to explore the opportunities to implement an authentic evidence-informed practice approach in the Catalan education system.

Keywords: educational research, evidence-informed practice, research use, teachers use of evidence

1 Department of Applied Pedagogy, Universitat Autònoma de Barcelona and Center for Research and Studies for Organizational Development, Spain.

2 *Corresponding Author. Department of Applied Pedagogy, Universitat Autònoma de Barcelona and Center for Research and Studies for Organizational Development, Spain; anna.diaz@uab.cat.

Na dokazih utemeljena izobraževalna dejavnost znotraj katalonskega izobraževanja: od javne razprave do prakse učiteljev

GEORGETA ION, ANNA DÍAZ-VICARIO IN CECILIA INÉS SUÁREZ

☞ Katalonija ima dolgo tradicijo inovativnih šolskih gibanj. Te so se v zadnjih letih pomnožile, saj so javna uprava in zasebni subjekti začeli znatne šolske reforme, usmerjene v uporabo dokazov pri poučevanju. Upoštevajoč visoko raven avtonomnosti katalonskega vzgojno-izobraževalnega sistema, niso vse šole sprejele na dokazih utemeljenega izobraževalnega gibanja (EIP), kar je ustvarilo razlike med šolami, ki so se odločile, da izvedejo spremembo oz. vpeljejo novost, osnovano na znanstveno utemeljenih dokazih, in tistimi, ki se za to niso odločile. V tem prispevku bomo poskušali predstaviti trenutno stanje vključenosti tega pristopa v Kataloniji in oceniti zaznave učiteljev glede sprejetja pristopa v njihovo vsakodnevno prakso. Da bomo lahko naslovili ta vprašanja, bomo začeli z raziskovanjem pravnega in strukturnega ogrodja, ki umešča izvajanje na dokazih utemeljene dejavnosti v katalonski sistem, nato pa bomo prek intervjujev, opravljenih na vzorcu osnovnošolskih voditeljev in učiteljev, obravnavali organizacijsko in individualno raven, in to za to, da raziščemo priložnosti uresničenja avtentičnega pristopa EIP v katalonski izobraževalni sistem.

Ključne besede: izobraževalne raziskave, na dokazih utemeljena dejavnost, uporaba raziskav, raba dokazov pri učiteljih

Introduction

Evidence-informed education policy and practice is not a new approach in the international landscape. However, in recent years it has gained more visibility in Catalan educational public discourse and practice. The trend is perfectly understandable since most decision-making is increasingly global in its nature and emerges as a complex edifice of global and local rhetoric, actors, forms and strategies (Verger, 2014). The issues of education policy are no longer isolated, but cross borders and nations, actions and understandings.

In the present paper, we explore the adoption of evidence-informed practice (EIP) as an initiative encouraged recently in the Catalan educational landscape by both educational administration and private educational bodies. We first analyse different models of the adoption of evidence-informed practices in education systems in an attempt to determine differences in the Catalan models of EIP promotion. We then explore the extent to which teachers resonate with public discourse on EIP and examine their perceptions of the EIP approach regarding its adoption as part of their current teaching practice. Teachers' views will shed light on the viability of implementing education reform and how they see their role in this process.

The EIP approach is in line with educational initiatives aimed at improving education practices, either in the classroom or through more general institutional transformations. In most cases, the proposals aim to stimulate education innovation based on experience and reflection in order to address specific student needs or student-based educational challenges (Chapman & Ainscow, 2019). EIP refers to the use of academic research corroborated with experiential knowledge by educators in order to improve aspects of their teaching, decision-making, leadership or ongoing professional learning (Brown, 2020). There are strong reasons to consider EIP as a desirable approach in schools. For instance, there is a growing evidence base indicating that if teachers engage with evidence to make or change decisions, embark on innovations and experimentations, or develop new practices, this can have a positive impact on teaching and learning (e.g., Cain, 2015; Ion et al., 2020; Perines, 2018) as well as pupils' outcomes (Armstrong et al., 2020). Engaging with evidence places teachers in a process of self-reflecting inquiry to improve the rationality and justice of their own practice as well as the understanding of their actions in class (Saquipi & Vogrinc, 2020).

Nonetheless, despite this growing body of evidence and these extant imperatives, including enthusiastic efforts made by public administrations, educational institutions, universities and schools to foster EIP, it is yet to take hold in the vast majority of schools, including Catalan schools.

In order to understand the roots of these hesitations, we start our analysis by examining different EIP implementation models in an attempt to see which ones the Catalan education system has adopted (if any). We continue by giving voice to the central actors involved in EIP adoption: teachers.

Exploring models of EIP in the Catalan school system

As we have seen, there is a wide consensus on the benefits of education policy and practice informed by research. Moreover, there are a wide variety of models to implement EIP in both, involving various strategies of integration, actors and contexts. Explanatory models of research utilisation cover a wide range of scenarios, but authors discuss four major alternatives: *the science push model*, *the demand-pull model*, *the dissemination model*, and *the interaction model*. Each of these models serves to understand the factors contributing to research use (Landry et al., 2001).

The science push model emphasises the role of researchers in evidence utilisation. It focuses on aspects such as the quality and type of research and proposes a linear model of the evidence-utilisation process that follows a simple path from the dissemination of research findings to utilisation by policy-makers and practitioners (Best & Holmes, 2010). Stressing the role of research producers in this process and limiting the role of final users, the model has been criticised mainly due to two aspects: the transfer of knowledge is not automatic, and raw research information is not easily applicable in teaching practice or decision making (Landry et al., 2001).

Traditionally, the educational-research model of Catalonia has been lineal, as “researchers produce new knowledge, which gets disseminated to end-users, and (in the best-case scenario) then incorporated into policy and practice” (Best & Holmes, 2010, p. 146). Some attempts have been made to increase interactions between users of research knowledge and to adopt evidence-informed policies and practices, but most of them are very recent. At the systemic level, the Catalan Department of Education, in December 2018, approved Decree 274/2018, which implies a major commitment to educational research through the creation of the Educational Research Service. Along with other goals, the purpose is “to drive educational research by establishing policies of process and impact assessment to obtain scalable and transferable models to different educational realities” (Decree Article, p. 118). The first initiative undertaken under this new regulation was the launch of the strategy “*Schools of Evidence*”, which was a collaboration between two institutions: the Catalan Institute of Public Policy Evaluation (Ivàlua) and the Jaume Bofill Foundation.

As a public policy, the strategy for promoting the use of evidence and educational research was presented in November 2019, with the ultimate purpose of improving education and reducing educational inequalities. The general objectives of the programme are: a) to collect, disseminate and generate solid evidence on education policies and practices, regarding their effectiveness and efficiency; b) to create opportunities to share and transfer knowledge about what works to improve education; c) to devise pilot initiatives based on evidence; and d) to promote an assessment culture and the practice of controlled and rigorous experimentation within the administration and the educational community, connecting decision-making processes with international evidence-based/informed trends. Although the initiative is currently stalled and there is no information available about when it will be resumed, it nonetheless represents the first public attempt to bring different educational stakeholders to the same table to discuss EIP and to plan actions to move it forward.

Another way to promote evidence use in practice is the *demand-pull model*, which focuses on the initiative of final users (in this case, teachers) in research utilisation, as they appear to be the major source of ideas (Rich, 1991; Weiss, 1979; among others). However, this model fails to take into account organisational aspects and users' interests. These limitations led to adding new variables to the model, such as organisational structures, rules and norms, as essential determinants of knowledge utilisation (Oh & Rich, 1996). In addition, the critical factor causing the under-utilisation of research findings is linked to the political interests of users, which may be in conflict with research data (Landry et al., 2001 in Iftimescu et al., 2020).

Criticised for its excessive instrumental use of research and for the omission of the role of the interaction between users and knowledge producers, the previous model led to the emergence of the *dissemination model*, which focuses on the role of the transfer process as both formal and non-formal. The dissemination model promotes the need to develop dissemination mechanisms in order to identify useful knowledge and mobilise it to final users. The model stresses the importance of two determinants: the type of research results and the dissemination effort (Landry et al., 2001). The dissemination model is the most common in the Catalan landscape at this moment and is followed by private entities as well as universities and research centres. "*What Works in Education: Evidence for Educational Improvement*"³ is one of the first initiatives promoted by a private body that focuses on offering scientific evidence based on systematic reviews and programme evaluations to the educational community. Ivàlua and the Jaume Bofill Foundation are the institutions responsible for

3 For more see <https://ivalua.cat/ca/projecte-tematic/educacio/que-functiona-en-educacio>.

this initiative, which began in 2015. Their objective is to collect, summarise and share international evidence about effective educational practices, including recommendations for their implementation in the Catalan education system. They produce a biannual publication with two systematic reviews about a specific topic and organise open-close seminars related to one of the themes published. In addition, they organise an annual international meeting with experts related to one of the themes explored in the systematic revisions.

The initiative “*What Works in Education*” offers “research distillations” (Burkhardt & Schoenfeld, 2003, p. 4), which can support the improvement of the research-practice nexus (Martínez-Celorio, 2019). It is considered an example of “Summary Guides” models, similar to another initiative conducted by the “laCaixa” Foundation, a private bank foundation. The EduCaixa Programme⁴ consolidated an evidence-informed programme in 2018, promoting an educational assessment culture through the awareness, generation and transferability of educational evidence. In collaboration with the Education Endowment Foundation (EEF) and the Institute for Effective Education (IEE), both from the United Kingdom, EduCaixa offers resources from *The Teaching and Learning Toolkit* and *The Best Evidence in Brief*, translated into Spanish and Catalan. Despite the benefits that this implies for Spanish and Catalan teachers, as it enables them to access international evidence, we note that the summaries are barely tailored to the Catalan context adaptation and guidelines for local application.

The dissemination model lacks consideration of the process of dialogue between researchers and teachers, and the gap between the contexts of research production and research use prompted the appearance of the *interaction model* (Huberman & Thurler, 1991; Oh, 1997; among others). The variables considered in this model are related to informal personal contacts, participation in committees, and transmission of reports to non-academic organisations (Huberman & Thurler, 1991 in Iftimescu et al., 2020).

An example of this model in the Catalan system is promoted by EduCaixa, which, in 2018, launched the initiative “*Your Ideas Transform*”, aimed at promoting rigorous impact evaluation and scaling up education programmes implemented in schools. The programme matched schools and research groups for collaboration. Research groups were commissioned to assess the impact of innovative practices promoted by schools, and to support knowledge transfer or scaling up the experience to other schools. The focus of this initiative was to identify education programmes that could be transferred to other educational contexts. Only one call has been opened and completed since the initiative started, and we do not have evidence of the impact of this initiative, as the

4 For more see <https://educaixa.org/es/landing-evidencias>.

research reports are not made public. It was an example of the model “Design Experiments” defined by Burkhardt and Schoenfeld (2003), and it is a significant attempt to conduct quasi-experimental research in practice.

All of the above models have been criticised in recent years due to new advances in the field of knowledge utilisation. For instance, Estabrooks et al. (2006) argue that the variables proposed in the models are not enough to explain the complexity and variety of the real situations, scenarios and agents involved in the research utilisation process. In order to overcome the limitations of the previous models, Brown (2012) added variables derived from the *Social Activity Model*. From his perspective, knowledge adoption appears as “most likely to occur when both researchers and policymakers are actively seeking to engage with one other, employing corresponding strategies to enable this process” (Brown, 2012, p. 460). Integrating the virtues of previous models, the Social Activity Model adds factors linked to the determinants that encourage evidence to be adopted and ensure efficient strategies to communicate this evidence, as well as factors that impact how findings are likely to be received by the public and users. In addition to these considerations, several other factors that shape the nature of the relationship between researchers and policymakers can be named, such as political, legislative, economic and cultural factors, although the intention is not to focus on the latter aspects (Ion & Lopez, in press). Among all these initiatives, we cannot overlook attempts made by researchers and research groups to spread the results of their research and increase the inclusion of and collaboration with teachers. Although these efforts are clear, there still continues to be a gap between researchers and practitioners.

Taking into account the current initiatives, various research-practice models coexist in the Catalan education system today. We note that the majority of initiatives to increase the use of evidence to inform educational practices come from private stakeholders, and only a few are promoted by the public administration. Irrespective of the promoter of the EIP initiatives, it is clear that Catalan schools are “assaulted” by a variety of proposals from both public and private entities, which reflects the increasing interest in linking research and practice accompanying the wave of innovation that the Catalan education system has started. As final recipients – both providing data to researchers and as end users – school teachers are exposed to all of these initiatives requesting them to adopt EIP in their school/classes.

In this context, the present paper explores how teachers perceive the EIP approach. Specifically, the aim is to examine teachers’ perceptions of the adoption of the EIP approach, and to identify opportunities that could promote the diffusion of this approach to support innovation processes in the school and

on the systemic level. The research questions that guided our qualitative study were: *What are teachers' perceptions of the implementation of authentic EIP in the Catalan education system? What opportunities are there to implement the EIP approach in Catalan schools?*

Method

Since our aim was to conduct an in-depth examination of beliefs, perceptions and conceptions about a particular topic expressed by a group of informants, we developed an explanatory study (Stake, 1995). This approach is suitable for gaining an understanding of meanings that shape people's views and experiences about the topic under examination.

Specifically, we employed a qualitative research method (Miles et al., 2020) to explore teachers' perceptions of the EIP approach. We were particularly interested in knowing how they conceive of the approach, how they apply it, and what their views are on the researcher's role in relation to the school.

Materials

In order to approach teachers' voices, we developed semi-structured interviews (Valles, 2009), as this allowed us to ask about general topics as well as specific aspects of the phenomenon under study. Drawing from our literature review, we developed the interview protocol according to the following areas of interest:

1. Perceptions of the EIP approach. We sought the informant's personal perception of the evidence, research and approach of EIP.
2. Type and utilisation of research evidence. We were interested in knowing what kind of sources of information teachers rely on to prepare their lessons, and more specifically, whether they consult findings from educational research.
3. The researcher's role and their relationship with the school. In this topic, we explored informants' opinions on what role researchers have when it comes to school life, if any. We also asked them what role scholars should play in strengthening the connections between academia and schools.

The information gathered in the semi-structured interviews enabled a more in-depth examination of the meanings expressed by the informants. During the interview sessions, we sought not only data, information and descriptions, but also experiences, examples and perceptions that facilitate

understanding of the object of study. In so doing, we were supported by the specific questions incorporated into each of the three general topics. For example, when we asked the participants for the “type and utilisation of research evidence”, we also included questions related to the functionality of research, the role of evidence in the innovation process, the transference of evidence to their practice, the integration of previous experience with scientific knowledge, and the motivation to adopt evidence.

Participants

Ten informants were selected following non-probabilistic convenience sampling (Patton, 2002), establishing four selection criteria: teachers from primary school level with more than ten years of teaching experience who are developing a leading role at their institutions and were engaged in the innovation process in their schools or classrooms.

The final sample was comprised of three principals, three heads of studies, one secretary, and three teachers who were coordinating innovation processes in their schools. All of the informants were females aged between 34 and 59 years (see Table 1).

Table 1

Informants' sociodemographic information

Informant coding	Age	School position (at the time of the study)	Years of experience (as a teacher)
T1	34	Principal	16
T2	59	Teacher	13
T3	58	Teacher	21
T4	52	Head of studies	24
T5	32	Teacher	12
T6	50	Head of studies	29
T7	57	Principal	36
T8	42	Head of studies	18
T9	42	Secretary	12
T10	35	Principal	14

Prior to the interview session, we asked our informants for their consent to participate in the interviews and to record the sessions.

Data analysis

We followed the recommendations of Huberman and Miles (2000) and Miles et al. (2020) on the method of the coding process. We started with a deductive book of codes derived from our literature review, but also allowed categories to emerge from the data in an inductive manner. The final code book comprised 3 topics and 15 codes (see Table 2).

Table 2

Topics under analysis

Topic	Codes
1. Perceptions of the EIP approach	1.1 EIP concept 1.2 Definition of "evidence" 1.3 Definition of "research" 1.4 Conception of the usefulness of research 1.5 Access to research 1.6 Emerging topics
2. Type and utilisation of research evidence	2.1 Usefulness of research 2.2 The role of evidence in innovation 2.3 Transfer of evidence to practice 2.4 Integration of previous experience with scientific knowledge 2.5 Motivation to use evidence 2.6 Emerging topics
3. Researchers' role	3.1 Researchers' role 3.2 Collaborative networks between university and school 3.3 Emerging topics

Results

The presentation of the results is structured in three sections. First, we focus on conceptualisations of the central categories of our research question: *evidence*, *research* and *EIP*, as expressed by our informants. The type and uses of research evidence preferred by teachers are analysed next, showing how research might actually be used by them in teaching practice. In the last section, we outline the features of an educational researcher from our informants' point of view, and what the relationship should be between academia and schools in order to foster the adoption of EIP.

In each section, we include selected quotes and paraphrases of participants statements that best illustrate each of the topics analysed. Our data analysis also includes the benefits and difficulties of EIP implementation, as indicated by the informants in this study.

Teachers' perceptions of evidence, research and EIP

Beliefs and perceptions about findings from academic research shape the way teachers think about EIP. Most importantly, they may influence how teachers take action to apply such findings in teaching practice, if they do so at all.

Overall, the informants agreed that evidence functions as *proof* to demonstrate facts and serves to advance any process. As one of the principals interviewed stated, the evidence is seen by practitioners as “proof, a document, a compilation of information that gives you clues about a fact that you intend to verify” (Informant T7).

At the school level, a positive view of the relevance of EIP in practice represents a predictor of further evidence implementation. As proof, evidence helps to demonstrate that teachers have addressed a teaching goal and allows them to show that there has been a change in student outcomes.

According to the informants in this study, evidence also reflects whether the teachers' methodology is having the expected impact on students' learning. The respondents perceived evidence as a resource that contributes to follow-up teaching, and, as a head of study states, evidence “helps you to make progress in any process” (Informant T8). In this sense, from the teachers' perspective, evidence is similar to the data gathering phase in research: a systematic process to collect information to measure an outcome. Conceived as an objective/valid proof, evidence also provides trustworthiness, as opposed to intuition or opinions in teaching practice. Thus, evidence allows the teacher not only to explain the changes in students' learning, but also to make decisions based on an analysis of the data provided by evidence.

Evidence can take different forms, such as documents and/or images in digital or paper form, recorded files, group projects developed by students, and so on. It can be expressed in numbers or expressions, or in a quantitative or qualitative manner. What seems to be more important for some teachers is the conception that it is teaching practice that generates the evidence itself. Although evidence is not separated from teaching practice, sometimes teachers do not recognise the evidence, nor do they collect it, as such. Informant T9, who had 12 years of teaching experience, stated: “What we lack is to step back and look at our evidence”.

As for research, the teachers emphasised that it is a tool that requires a systematic process starting with a definition of variables and followed by the study of its effects in a phenomenon. This is illustrated by one of the three principals interviewed, who considers that research is useful especially “when you want to see what effects a certain variable can have on any object under study” (Informant T7).

The teachers highlighted the importance of research in the educational field and in teaching practice, as it shows the “right path” to promote the student’s learning process. In order to trust research, it seems important for the teachers to see the positive impacts it has; for example, in the improvement on their students’ qualifications. A teacher with 21 years of experience expressed the idea that “when you see the data given by the research and how you help the student to learn, you believe that research is important” (Informant T3).

Related to research use, educational research is utilised as a general guide for preparing a class and, according to the teachers, in some cases it can help to define the school mission stated in the School Educational Project (*‘Projecte Educatiu de Centre’*, in Catalan).

At a systemic level, the informants agreed that research provides not only general educational knowledge, but also the reasoning and information necessary for educational change and innovation.

Although educational research is highly valued, it is complicated for teachers to apply it directly to their daily practice. One of the main issues for EIP implementation is time constraints, as one teacher states: “We do not have time to research and undertake the application at the same time” (Informant T1). The teachers therefore claimed that a lack of time diminishes the opportunities for them to be engaged in the research process. They would like to seek out, read and discuss research results, and to be part of a research team and/or research project, but they do not have the time to do so.

Similarly, the teachers sometimes perceive the practical implications of educational research as not being useful, as research is not usually conducted by teachers or researchers with a teaching background. This perceived gap between the person who produces the research (a scholar or academic at university) and the person who should be the final user of the research findings (a teacher in school) seems to be the most important difficulty when it comes to adopting EIP.

Finally, when asked about EIP, the informants agreed that it is an approach that is useful for promoting improvements in school and learning without relying on “intuition”, but instead taking recourse to objective proof of improvement. As one teacher with 12 years of experience highlighted: “[by implementing the EIP approach you can base your teaching practice] on observable, measurable aspects and not only on intuition” (Informant T5). From the teachers’ perspectives, the use of evidence provides not only tangible examples of their teaching practice, but also a feeling of security regarding their action in classrooms.

Although teachers usually have proof of their students’ assignments, such as test results, in-class exercises or group projects, it is important for them to have evidence, “objects”, of their teaching action. Such proof demonstrates to

school leaders and families that improvements in the learning process do actually exist over time due to their teaching. EIP could help teachers to validate their methods, strategies and actions in class, not only for themselves, but also by making their teaching more accountable.

Conceptualised as a process, the teachers mentioned that EIP involves certain phases, such as diagnosis, goal-setting and planification, implementation and evaluation. In this view, collecting evidence would be part of the implementation process, and the final stage would imply making decisions to enhance what has been done. EIP is therefore seen as an ongoing process that provides a clear direction in teaching, as its helps “to see the horizon, to see where the path leads. Sometimes you go blindly, by intuition”, as a head of studies said (Informant T8). Overall, EIP was conceptualised as a path that provides more certainty and objective fundamentals on the decisions teachers make while teaching.

Research use in teaching practice: Type and uses of research evidence

Educational research comprises a wide range of topics in the education field and usually presents not only findings, but practical implications for teaching practice. In this topic, we explore the applications of these findings to improve student learning in class and/or to promote school development.

According to the interviewed teachers, educational research is useful because it helps to detect *what works* in teaching practice. If they can detect which aspects of their teaching practice are having a positive impact on student learning, then they can emphasise these aspects. At the same time, research can also help them to distinguish what *is not working* in order to make a decision. A teacher with 29 years of teaching experience expressed support of this idea when she commented on the importance of research in the educational setting by affirming: “I think that educational research must be present and can be a positive force in the life of the classroom” (Informant T6).

Research findings are also seen as a tool for self-reflection for some teachers: reading a new bibliography based on research evidence makes them question their own perspectives and opens new questions regarding their actions as professionals in the education field.

At the same time, this reflection guided by research has in some cases occurred as a collective process, which seems to be a useful application of EIP for the school. Specifically, one of the teachers interviewed mentioned that it helped them to develop an assessment instrument. She explained that “the past

year has been very useful for us to start, we have undertaken reflection, we have designed an evaluation instrument” (Informant T5).

However, the use of research in current class-innovation projects or for the design of class sessions is still limited. The teachers explained that they prefer to consult other sources of information (e.g., other colleagues’ experiences and/or professional blogs), as they find it more accessible than academic sources (e.g., articles in journals). In this regard, they perceived the “language barrier” as the most significant difficulty: the participants claim that they are not familiar with the academic language in which papers are written: “If the paper is written in technical language, then it is not going to be significant for us” (Informant T10). The perception of abstract and conceptual language that is far removed from practical language diminishes the adoption of an EIP approach.

Perceived researcher’s role and collaboration between researchers and teachers

It is important to analyse teachers’ perceptions of researchers, as this provides valuable insights on how to address the perceived gap between the academic world and the school world. Although collaborative work has been recognised as one of the most important factors in fostering EIP, it seems that there are still some difficulties in implementation.

For the participants, a researcher could be a person who works collaboratively with the school on a particular project and during a specific period. For example, one of the teachers interviewed said “If we collaborate [with researchers], it helps us more. We are not used to this vision of research, and it suits us” (Informant T5). The participants agreed on the value of collaboration between the school and researchers to improve students’ learning and organisational development at school.

A researcher could help the school and teaching staff to navigate the implementation of an EIP process. In this case, the researcher’s role would be similar to an external consultant: a person who guides the phases and activities, provides feedback and support, and assists them in decision making throughout the process.

From the teachers’ perspective, although a researcher is not usually a school staff member, s/he must have previous experience as a teacher or practitioner at the school level. As mentioned in the previous section, it seems that a researcher with a prior teaching background could make a more significant contribution, as they “speak the same language” (Informant T6), according to the teachers interviewed.

Overall, collaboration between schools and researchers has positive impacts: it creates a specific moment to analyse teaching practice in detail, it facilitates the design of specific methods to collect evidence or to “recognise” it, and it promotes debate on educational issues among peers. Most importantly, the teachers emphasised the importance of collaboration between researchers and teachers because it could make them realise the value of their own teaching:

Sometimes you need someone who is not from the school (...) not to tell you what you have to do, but to ask you questions about your practice that make you realise the importance of it, and that is not basic. You return to it the importance that [your teaching practice] had. (Informant T9)

Discussion

In the present paper, we have reflected on the perceptions teachers have of the EIP approach and its application in teaching. We started by exploring different models that have stimulated the presence of evidence in public discourse and in the adoption of public policy. These models allow us to analyse and reflect on the perception of teachers as final users regarding the use of evidence in their classrooms, as well as their perception of the EIP approach at the systemic level.

We have seen that in the Catalan educational landscape, the “evidence-informed practice” policy has been recently initiated and rapidly adopted by many education stakeholders. However, our findings corroborate those of previous studies in the Spanish context and internationally that demonstrate teachers’ caution towards the use of educational research (e.g., Ion & Iucu, 2014; Perines, 2018, Vanderlinde & Van Braak, 2010; Williams & Coles, 2007).

We have seen that incorporating an evidence-informed approach in the public agenda is a good starting point for change, but it is not sufficient to secure the use of research evidence in practice. The adoption of evidence in teaching practice requires a diverse and complex configuration of factors, from teachers’ personal factors to school-related variables and systemic elements.

Our findings show that the use of research in practice is influenced by teachers’ perspectives on research, as well as by their ability to understand research language, decode research data, and make sense of research findings and adapt them to their class context. These findings corroborate previous studies (Cain et al., 2019; Flores, 2018; Lysenko et al., 2014) and highlight the importance of bridging the gap between academic research and teachers’ experience, as well as the importance of decoding research language for teachers’ use (Iftimescu et al., 2020).

Similarly, our findings suggest that in order to make use of research, teachers have to possess a strong capacity to engage with research data, to possess basic research skills, to adopt positive dispositions towards research and evidence, and to display a strong commitment to innovation in practice (Malin et al., 2020; Saha et al., 1995). In addition, having positive previous experience with research tends to contribute to making teachers more open and willing to engage with research (Iftimescu et al., 2020).

Personal commitment to evidence does not ensure its automatic adoption by teachers. The organisational environment is key, while the creation of an ecosystem favourable to the use of evidence and ensuring the resources required to implement it are also critical. Effective time use and providing proper spaces for interaction and reflection on practice are key elements to enabling teachers' reflection with peers. The role of school leaders is critical in this regard: they are the main actors who stimulate the teachers' engagement with research at the organisational level and create the conditions to enable teachers to reflect on their practice and to promote staff training. Moreover, allocating logistical and economic resources so that teachers can develop processes of collaborative knowledge exchange and gain access to relevant information are only some of the organisational aspects associated with teachers' predispositions towards the use of evidence in practice.

Conclusion

The study has several implications regarding the implementation of an EIP approach in the education system. First of all, at the decision-making level, it is critical to promote public policies that encourage the use of research evidence in schools. We have seen that in the Catalan public space, there are several initiatives, promoted by various educational contexts and with the participation of multiple stakeholders. Although not all of them include teachers as partners, they contribute to creating an awareness of the use of evidence in educational practice. However, public administration has to demonstrate leadership and vision, acting as a bridge between the policymaking context and the school/class environment. As can be inferred from the findings, evidence use in the Catalan context is currently situated at a crossroad between the *science-push model*, as higher education institutions are attempting to influence the research agenda required for evidence-based policymaking. However, looking at the school level, we can find islands of the *Social Activity Model*, demonstrating the need to examine the role of teachers in the adoption of EIP in more depth. The engagement of teachers can be interpreted as the attitude of organisations and

their members towards research, the political and managerial context likely to promote and favour research transfer and use, and the financial context needed to foster quality results. These are critical factors that are not present today in all Catalan schools, as there is no initiative at the systemic level.

The successful implementation of EIP in the education system has to take into account the realities of school and the teachers' capacities and values. Considering that the conception of research and the ability to use it are grounded in training programmes, the findings support the importance of reliable teacher learning and research capacity. This should involve robust in-service training to overcome the possible deficit of research during initial training. Such training should include strategies designed to enhance teachers' knowledge and skills in research, transcending formal contexts and taking advantage of informal learning opportunities, and paying attention to the transference of these skills to the class context. At the school level, the transformational potential of the willingness of schools and teachers to participate in collaborative activities represents a facilitating factor for the use of research, and this can bring individual capacities to scale in order to contribute to more substantial school improvement. Our findings suggest that encouraging the aspirations of motivated teachers to use research in practice, the school system should be building a support capacity around teachers' professional development based on research evidence. Supporting teachers' involvement with research and creating opportunities for direct experience could strengthen practitioners' attitudes toward educational research and enhance its use in practice.

Although the study addresses the idea of bridging the gap between the contexts of policymakers and teachers, it cannot, at this stage, provide a full understanding of how efficient collaboration could be defined. Since evidence-informed practice appears increasingly more frequently in public discourse, it provides us with a sense of policymakers' positive disposition towards a decision-making landscape based on research evidence and opens the possibility of a meaningful relationship with research evidence. It is clear that in order to strength this relationship, efforts must be made by both parties. Teachers' capacity to engage with research must be stimulated and supported by the Educational Administration, while policymakers must align their decisions and political discourse with teachers' reality. In addition, more opportunities for researchers, policymakers and teachers to meet in both formal and informal contexts could contribute to such engagement from all parties.

Limitations

Our study sample was comprised of a limited number of participants, which reduces the capacity to generalise the research findings. The results presented must therefore be considered a first screening of the school reality, and future research should include a broader sample in order to strengthen the theoretical saturation of the findings.

Acknowledgement

This work was supported by the Spanish Ministry of Economy and Competitiveness under the grant: EDU2017-88711-R.

References

- Armstrong, P. W., Brown, C., & Chapman, C. J. (2020). School-to-school collaboration in England: A configurative review of the empirical evidence. *Review of Education*. <https://doi.org/10.1002/rev3.3248>
- Best, A., & Holmes, B. (2010). Systems thinking, knowledge and action: Towards better models and methods. *Evidence & Policy: A Journal of Research, Debate and Practice*, 6(2), 145–159. <https://doi.org/10.1332/174426410X502284>
- Brown, C. (2012). The 'Policy-Preferences Model': A new perspective on how researchers can facilitate the take-up of evidence by educational policy makers. *The Policy Press*, 8(4), 455–72.
- Brown, C. (2020). *The networked school leader: How to improve teaching and student outcomes using learning networks*. Emerald.
- Burkhardt, H., & Schoenfeld, A. (2003). Improving educational research: Toward a more useful, more influential, and better-funded enterprise. *Educational Researcher*, 32(9), 3–14. <https://doi.org/10.3102/0013189X032009003>
- Cain, T., Brindley, S., Brown, C., Jones G., & Riga, F. (2019). Bounded decision-making, teachers' reflection, and organisational learning: How research can inform teachers and teaching. *British Educational Research Journal*, 45(5), 1072–1087.
- Cain, T. (2015). Teachers' engagement with published research: Addressing the knowledge problem. *Curriculum Journal*, 26(3), 488–509.
- Chapman, C., & Ainscow, M. (2019). Using research to promote equity within education systems: Possibilities and barriers. *British Educational Research Journal*, 45(5), 899–917 <https://doi.org/10.1007/BF02912503>.
- Estabrooks, C. A., Thompson, D., Lovely, J. E., & Hofmeyer, A. (2006). A guide to knowledge translation theory. *Journal of Continuing Education in the Health Professions*, 26(1), 25–36. <https://doi.org/10.1002/chp.48>
- Flores, M. A. (2018). Linking teaching and research in initial teacher education: Knowledge

- mobilisation and research-informed practice. *Journal of Education for Teaching*, 44(5), 621–636.
<https://doi.org/10.1080/02607476.2018.1516351>
- Huberman, M., & Miles, M. (2000). Métodos para el manejo y el análisis de datos [Methods of data analysis. Through the corners. Anthology of qualitative methods in social research]. In C. A. Denman & J. A. Haro (Eds.), *Por los rincones. Antología de métodos cualitativos en la investigación social* (pp. 253–301). El Colegio de Sonora.
- Huberman, M., & Thurler, G. (1991). De la recherche à la pratique. Eléments de base [From research to practice. Basic elements]. *Revue Française de Pédagogie*, 98(1), 69–82. <https://doi.org/10.3406/rfp.1992.1335>
- Iftimescu, S., Ion, G., Proteasa, C., Iucu, R., Marin, E., & Stingu, M. (2020). Closing the circle: Research and policymaking in education. In A. Curaj, L. Deca, & R. Pricopie (Eds.), *European higher education area: Challenges for a new decade*. Springer. https://doi.org/10.1007/978-3-030-56316-5_21
- Ion, G., & Lopez, E. (in press). Mapping characteristics for evidence-informed schools: Initiative, support and shared reflection. *School effectiveness and school improvement*.
- Ion, G., Gairin, J., & Lopez, E. (2020). Les evidències científiques com a font d'aprenentatge professional per a la millora educativa [Scientific evidence as a source of professional learning for educational improvement]. In C. Lindín, M. B. Esteban, J. C. F. Bergmann, N. Castells, & P. Rivera-Vargas (Eds.), *Llibre d'actes de la I Conferència Internacional de Recerca en Educació. Educació 2019: reptes, tendències i compromisos* (pp. 760–768). LiberLibro.
- Landry, R., Nabil, A., & Moktar, L. (2001). Climbing the ladder of research utilization: Evidence from social science research. *Science Communication*, 22(4), 396–422. <https://doi.org/10.1177/1075547001022004003>
- Lysenko, L. V., Abrami, P. C., Bernard, R. M., Dagenais, C., & Janosz, M. (2014). Educational research in educational practice: Predictors of use. *Canadian Journal of Education*, 37(2), 2–26.
- Malin, J. R., Brown, C., Ion, G., van Ackeren, I., Bremm, N., Luzmore, R., Flood, J., & Muhammad, G. (2020). World-wide barriers and enablers to achieving evidence-informed practice in education: What can be learnt from Spain, England, the United States, and Germany?. *Humanities & Social Science Communications*, 7(99). <https://doi.org/10.1057/s41599-020-00587-8>
- Miles, M., Huberman, M., & Saldaña, J. (2020), *Qualitative data analysis. A methods sourcebook* (4th ed.). SAGE.
- Oh, C. H. (1997). Issues for the new thinking of knowledge utilization: Introductory remarks. *Knowledge and Policy*, 10(3), 3–10.
- Oh, C., & Rich, R. (1996). Explaining use of information in public policymaking. *Knowledge and Policy*, 9(1), 3–35. <https://doi.org/10.1007/BF02832231>
- Patton, M. (2002). *Qualitative research & evaluation methods*. SAGE.
- Perines, H. (2018). ¿Por qué la investigación educativa no impacta en la práctica docente? [Why educational research doesn't impact on practice?] *Estudios Sobre Educación*, 34, 9–27.
- Rich, R. (1991). Knowledge creation, diffusion, and utilization. *Knowledge*, 12(3), 319–337. <https://doi.org/10.1177/107554709101200308>

- Saha, L. J., Biddle, B. J., & Anderson, D. S. (1995). Attitudes towards educational research knowledge and policymaking among American and Australian school principals. *International Journal of Educational Research*, 23, 113–126. [https://doi.org/10.1016/0883-0355\(95\)91496-4](https://doi.org/10.1016/0883-0355(95)91496-4)
- Saqui, B., & Vogrinc, J. (2020). The development of teacher research as a form of developing teacher pedagogical practice. *Center for Educational Policy Studies Journal*, 10(3), 5–9.
- Stake, R. E. (1995). *The art of case study research*. Sage.
- Valles, M. S. (2009). *Entrevistas cualitativas* [Qualitative interviews]. Centro de Investigaciones Sociológicas, CIS.
- Vanderlinde, R., & van Braak, J. (2010). The gap between educational research and practice: Views of teachers, school leaders, intermediaries and researchers. *British Educational Research Journal*, 36(2), 299–316. <https://doi.org/10.1080/001411920902919257>
- Verger, A. (2014). Why do policy-makers adopt global education policies? Toward a research framework on the varying role of ideas in education reform. *Current Issues in Comparative Education*, 16(2), 14–29.
- Weiss, C. H. (1979). The many meanings of research utilisation. *Public Administration Review*, 39(5)426–431. <https://doi.org/10.2307/3109916>
- Williams, D., & Coles L. (2007). Teachers' approaches to finding and using research evidence: An information literacy perspective. *Educational Research*, 49(2), 185–206. <https://doi.org/10.1080/00131880701369719>

Biographical note

GEORGETA ION is PhD in Education. She is an associate professor at the Department of Applied Pedagogy at the Universitat Autònoma de Barcelona and a researcher at the Center for Research and Studies for Organizational Development. She conducts research in evidence-informed practice in education, teachers' research capacity and assessment in higher education.

ANNA DÍAZ-VICARIO has a PhD in Education and a Bachelors' Degree in Pedagogy. She is a Serra Húnter Fellow at the Department of Applied Pedagogy at the Universitat Autònoma de Barcelona and a researcher at the Center for Research and Studies for Organizational Development. Her lines of work include assessment and peer-feedback, evidence informed practice in education, early school leaving and organization and management of school safety and health.

CECILIA INÉS SUÁREZ is a Postdoctoral Researcher at the Department of Applied Pedagogy at the Universitat Autònoma de Barcelona. She is also a team member at the Center for Research and Studies for Organizational Development. Her research focuses on inclusion and equity in Higher Education. Her work examines college choice, access, persistence and ethnic student's experiences within University, teacher training and evidence informed practice in education.