

## USE OF RESEARCH EVIDENCE TO IMPROVE TEACHING PRACTICES RESULTS FROM CATALONIA (SPAIN)

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### Abstract

The European, national, and local educational policy is experiencing an increasing interest in using research evidence to inform educational practices. The use of research evidence is associated with multiple benefits at the political, organizational, and personal levels. Despite the known benefits, it seems that teachers make unconscious or irregular use of research evidence. This paper examines the beliefs and perspectives of primary and secondary teachers of Catalonia (Spain) about the use of research evidence to inform their practice. To analyze the teachers' beliefs, we use a survey designed ad-hoc for this purpose. 652 primary and secondary teachers from Catalonia (Spain) comprised the final sample, mainly working in public schools (91%). Discussions with colleagues, information obtained in professional development training, and websites/social media, are the main sources of knowledge used by teachers to support and inform their practice, making little use of academic journals and/ or professional publications. Research evidence is mostly used to make personal decisions, as teachers consider that research evidence can help them expand, deepen, and clarify their understanding of teaching and pedagogy. Although, they identify mental and time costs that can be barriers to the use of research evidence. Despite Catalan teachers having a positive view of research evidence, they make little use in their daily practice, and, in consequence, the Evidence-Informed Practice perspective (EIP) is not assumed at the school level, being necessary to promote the vision for evidence-use in the school context.

**Keywords:** *Evidence-Informed practice, research use, teaching practice, school teacher.*

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### 1. Introduction

The European Educational Systems are experiencing an increasing interest in using research evidence to inform educational practices. The use of research evidence is associated with multiple benefits at the political, organizational, and personal levels. At the political level, research evidence informs the educational policy, improving the quality and the governance of the educational systems. At the organizational level, research evidence can contribute to making the schools more effective, improving organizational development, and enriching the educational practice. At the personal level, research evidence can impact positively the teachers' professional development.

Focusing on the organizational (schools) and personal (teachers) levels, some of the benefits linked with the use of research evidence are related to teaching/learning practice improvement, school development, and better school achievement (Mills & Saunders, 2019; Nelson & Campbell, 2017; Slavin & Madden, 2018). Those are possible because, as the studies conducted by Judkins et al. (2014) and Brown (2018) reflected, the use of evidence encourages reflection, stimulate the adoption of new pedagogical approaches and innovative pedagogical practices, improve teacher confidence, and inform professional development.

Despite the known benefits, it seems that teachers make unconscious or irregular use of research evidence, and the evidence-inform approach is not assumed by the schools. Teachers find it difficult to search, access and use research data without practical support (Brown, 2015; Cain, 2015), as, for example, they found the language used complex and incomprehensible for them (Murillo & Perines, 2017). Schools report problems to effective time use and spaces for interaction and collaboration, both key elements to stimulate reflection and engagement with research at the personal and school level (Ion, Díaz-Vicario, & Suárez, 2021). Also, the scientific community experiences difficulties in transferring efficiently and managing the knowledge created, generating an impact on educational practices (Ion & Castro, 2017; Lillejord & Borte, 2016), not making research accessible and understandable for teachers. As Brown (2015) states, the use of research evidence to inform the practice depends on the perception of the cost-benefit and factors linked with the personal characteristics of the teachers, the school organization, and the research

culture itself. In this sense, it is important to identify teachers' attitudes towards research and the extent to which educators use research as a source of knowledge to inform their teaching practices.

With the forementioned objective, this paper examines the beliefs and perspectives of primary and secondary school teachers of Catalonia (Spain) about the use of research evidence to inform their practice. The purpose is to gain insights about the use that teachers made of educational research as a source of knowledge to know what the current situation is and take decisions. In the framework of this study, we understand "research evidence" as information based on academic studies, for example, research evidence obtained from an article in an academic journal or a website (such as the Education Endowment Foundation and the Learning Toolkit).

## 2. Methods

We apply the survey "Research use survey" to analyze the teachers' beliefs. Based on the work of Baudrillard (1968, cited by Brown, 2015), the survey design assumes that any educator's use of research will be a function of some combination of three factors: the benefits, the cost, and the signification associated with using academic research. The survey includes 97 items grouped in five dimensions of analysis (research use, kind of resources used to inform the practice, the benefits, costs, and significations of research use). Depending on the dimension, the items need to be evaluated in a four, five or six-point Likert scale. Also, the survey includes a final section to obtain information about the teachers' and schools' profiles (non-mandatory response).

The survey was sent by email to all primary and secondary schools of Catalonia (Spain). The participation was voluntary, the data was collected anonymously, and the teachers were informed of the objectives of the research and how the data would be used.

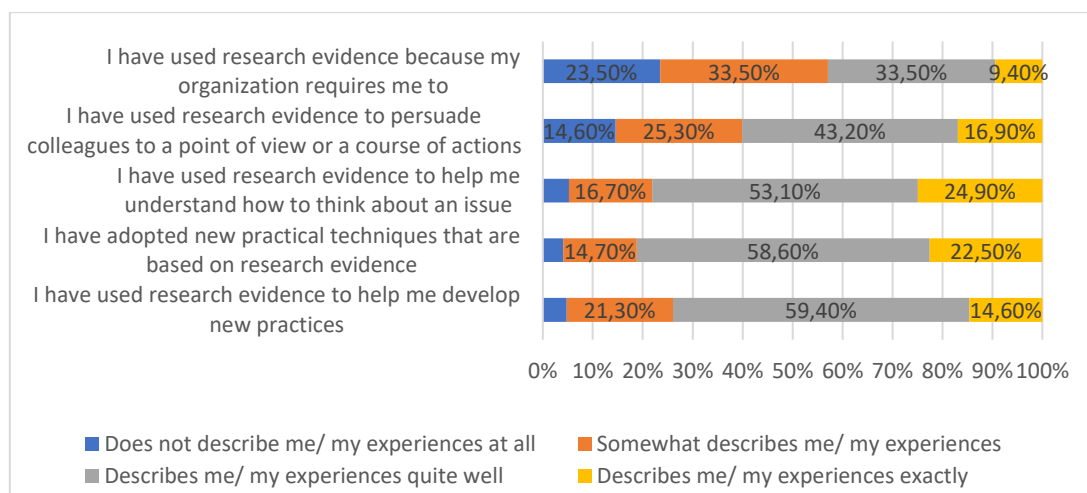
The final sample was comprised of 652 primary and secondary teachers. Only 52% of the teachers (n = 343) answer the profile questions. Those were teachers mainly working in secondary schools (57%) of public titularity (91%) and characterized by a middle-high social complexity (63%). The 72% were female of 45 years old ( $M = 44.58$ ;  $SD = 9.863$ ), with a postgraduate/master's degree (45%). 48% have a full-time contract, and 24% are leaders or middle leaders in their school.

Using IBM Statistical Package for the Social Sciences (SPSS v.20) we performed a descriptive analysis.

## 3. Results

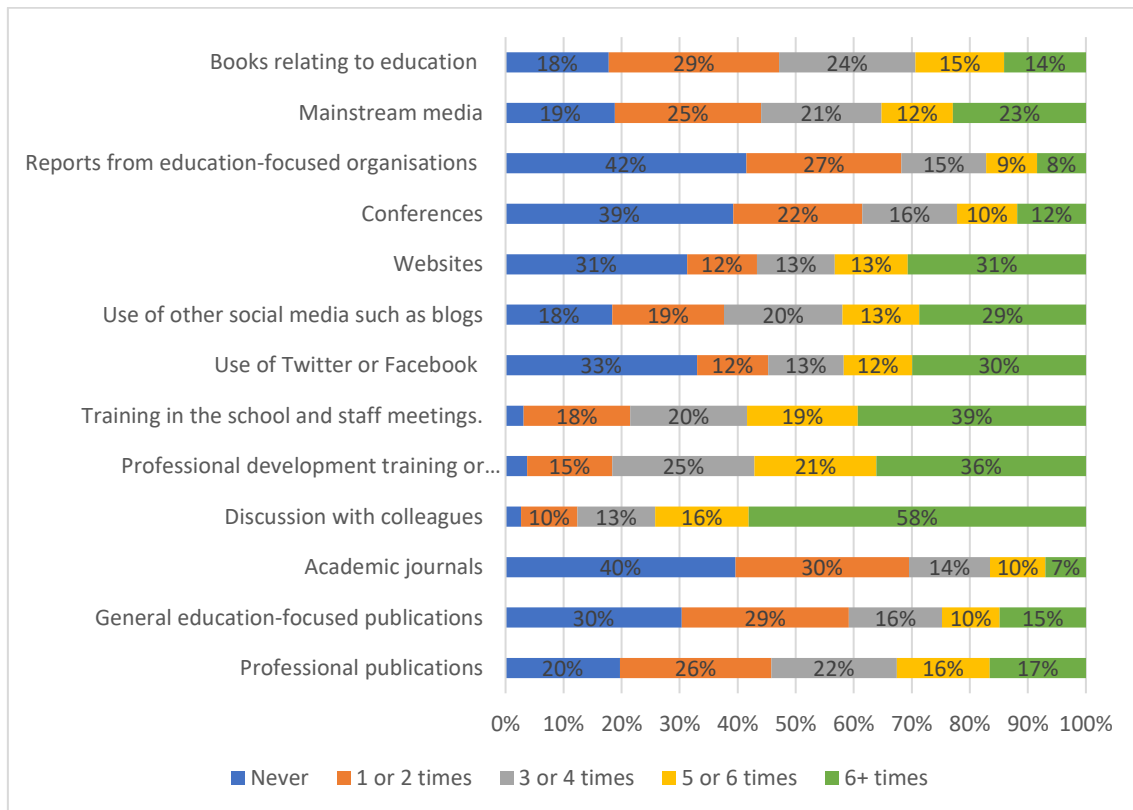
Research evidence is mostly used to make personal decisions (see Figure 1), as teachers consider that research evidence can help them to adopt new practical techniques (81,1% describes their experience quite well or exactly), to understand how to think about an issue (78% describes their experience quite well or exactly), to develop new practices (74% describes their experience quite well or exactly) and to persuade colleagues to a point of view or a course of actions (60% describes their experience quite well or exactly). They use less research evidence because their school organization requires them (only 43% describes their experience quite well or exactly). Even though, they inform that in their school experiments new ways of working (86% describes their experience quite well or exactly), value new ideas (81% describes their experience quite well or exactly) and share information about the effectiveness of programs or practices (66% describes their experience quite well or exactly).

Figure 1. Research use.



The main sources of information (see Figure 2) that teachers used to support their practice and/or their professional learning are discussions with colleagues (58% of the teachers used more than 6 times in the last year), information obtained in professional development training or training at school and staff meeting, and websites/social media/Twitter or Facebook. They make less use of academic journals (30% used one or two times in the last year), professional publications, and books relating to education as common sources of information. In all the cases, teachers think that all those resources need to be research-based.

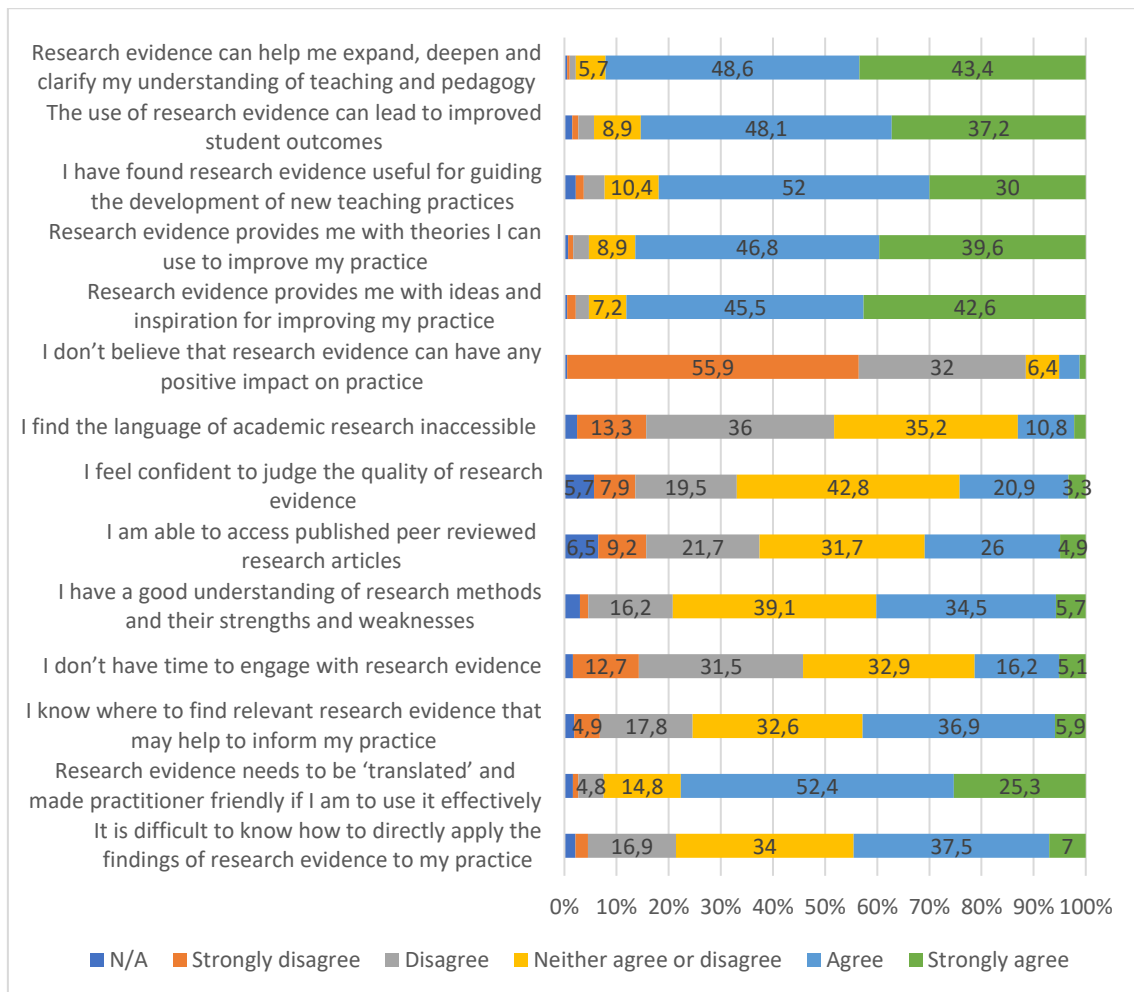
Figure 2. Source of information used to support the practice or the professional learning during the last 12 months.



Related to the benefits (see Figure 3), teachers considered that research evidence can have a positive impact on educational practice (88% of the teachers disagree or strongly disagree with the item “I don’t believe that research evidence can have any positive impact on practice”). Also, they perceived that research evidence: “expand, deepen and clarify their understanding of teaching and pedagogy” (92% agree or strongly agree), “provides ideas and inspiration for improving their practice” (88% agree or strongly agree), and “provides theories that they can use to improve their practice” (86% agree or strongly agree). They consider that “the use of research evidence can lead to improved student outcomes” (85% agree or strongly agree).

About the costs of research use (see Figure 3), 43% of the teachers agree or strongly agree that they “know how to find relevant evidence that may help them to inform their practice”. Also, 40% agree or strongly agree that they “have a good understanding of research methods”, being 24% how “feel confident to judge the quality of research evidence”. Moreover, 44% agree or strongly agree with “it is difficult to know how to directly apply the findings of research evidence to their practice”. For that reason, they consider that research evidence needs to be “translated’ and made practitioner friendly for using effectively” (77% agree or strongly agree) and that need to be “combined with educators’ practical knowledge to be professionally useful” (74% agree or strongly agree).

Figure 3. Perceived benefits and costs of research use.



Finally, about the signification of research use, 75% of the teachers agree or strongly agree that the use of research evidence “enhances the schools’ reputation and their attractiveness as a place to work”, and 59% agree with the statement “learn is the hallmark of an effective profession”. They express that are more inclined to engage with research evidence when it is aligned to the school improvement priorities (78% agree or strongly agree) and the needs of their class (83% agree or strongly agree). Also, 61% agree or strongly agree that they are more inclined to participate in educational research when it is a requirement of their performance management target and when their colleagues are also using research evidence (65% agree or strongly agree).

#### 4. Discussion and conclusions

The study provides more evidence about the beliefs and perceptions of teachers towards research evidence use, informing about teachers’ dispositions to apply the findings of educational research in their practice and the obstacles that they can confront.

The preliminary findings show that Catalan teachers have a positive view of research evidence, considering research evidence to inform and take decisions about their own practice and contributing to their professional development. Even though some mental and time costs are perceived, those can act as enablers for the extensive use of research evidence to inform educational practice. Our results are in line with previous studies conducted in the European Context (i.e., Joram, Gabriele, & Walton, 2020; Malin et al., 2020) identifying the same opportunities and barriers.

We agree with Farley-Ripple et al. (2018) that increasing the use of research evidence in teachers’ practice is complex, as involve an impact on the teachers’ belief, attitudes and dispositions, and the research culture of the school and the educational system in a comprehensive way. Therefore, increasing the use of research evidence in teachers’ practice involves impacting the school culture and leadership, promoting time and spaces to interact with the research evidence, enabling access to the research evidence and increasing the teachers’ research literacy.

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