

Understanding School Engagement in and with Research:

What we learned from 67 Melbourne Catholic schools and the international literature



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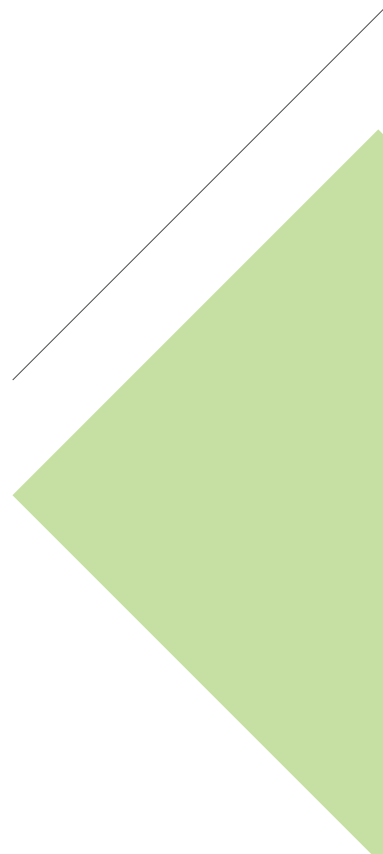
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The wasted resources involved in public and private investment in research that ends up on shelves, finds its way into academic journals and fails to penetrate schools to influence practice are a cost that societies can no longer afford to bear.

[Dimmock 2016, p. 38]

Executive summary

There are increasing calls within Australia and internationally for schools to be research-engaged, jurisdictions to be evidence ecosystems and for researchers to engage with end-users. Efforts to create new evidence and promote 'what works' mean schools are regularly approached to participate in research projects and encouraged to engage with the findings. But how much is actually known about whether, and how, schools engage in and with research?

This paper reports on a study that explored this question among 67 Melbourne Catholic schools. Catholic Education Melbourne conducted the Understanding School Engagement in Research (USER) project in 2016 using an online survey, focus groups and principal interviews to explore schools' involvement in research projects and engagement with research evidence. Following the empirical study, a literature scan was conducted in 2017 in partnership with Monash University to compare and contrast the USER project findings with the broader literature on school research engagement.

Many points of connection were found between the USER project findings and literature, resulting in five key themes:

1. Schools are selective about their research involvement.
2. Schools are discerning about what the research is on and how it is conducted.
3. Schools access research in indirect and informal ways.
4. Schools value research more than they use it.
5. Schools need much more than research access.

In an effort to summarise the key learnings of the USER inquiry, and make sense of the complexity and interdependent factors impacting on school research engagement, a conceptual framework is proposed. The framework highlights the need for a system-wide approach to strengthening school research engagement, whereby all stakeholders have a key role to play. The report finishes with some suggestions for researchers, research organisations, schools and jurisdictions on how they can better support school research engagement.

Why understanding school research engagement is important

There are three main drivers for better understanding school research engagement.

The first stems from the growing policy emphasis on the role of research, research evidence and research-based initiatives in many aspects of Australian school improvement and education development. Shore et al. (2017) call for the nation to develop a *research-rich* teaching profession, and the Australian Professional Standard for Principals talks about ‘ensuring research, innovation and creativity are core characteristics of the school’ and knowing ‘how to apply ... research to the needs of the students in the school’ (AITSL 2014, pp. 22–29). Within individual jurisdictions, education frameworks explicitly encourage the use of ‘research and evidence to ensure progress and growth in learning’ (Catholic Education Melbourne 2016, p. 6). At the federal level, a recent inquiry into a national ‘Education Evidence Base’ emphasised the need for ‘an evidence-based approach to education’ (Productivity Commission 2016, p. 2). There are also increasing calls for researchers to actively collaborate with industry partners such as schools in order to increase research relevance and impact (e.g. ARC 2016).

A second motivation for understanding school research engagement is its potential complexity both practically and conceptually. One source of complexity is that research engagement encompasses both *doing* research (engaging in research) and *using* research (engaging with research evidence). Each of these categories can involve a number of different kinds of activities with different purposes and at different scales within schools (Table 1). Furthermore, these two categories can be inter-connected rather than separate ‘and in the best examples, they complement each other’ (Nelson & O’Beirne 2014, p. vii). All of this means that school research engagement entails a complex range of processes and activities that need to be understood in not only broad, but also nuanced ways.

Finally, there is a clear need for improved understanding of school research engagement in Australia because of a relative dearth of recent empirical studies. While work on the research-practice interface was apparent some years ago (e.g. Figgis et al. 2000; Biddle & Saha 2002), this has not been matched by more recent investigations. This situation is in stark contrast to other parts of the world where conceptual analyses, empirical studies and research syntheses on this topic are becoming more not less prominent, including recent edited collections of work from the US (e.g. Finnigan & Daly 2014) and the UK (e.g. Brown 2015). In view of this, there is an important need for increased investigation of school research engagement in the Australian context and Catholic Education Melbourne’s USER project is a step forward in this direction.

TABLE 1: Examples of activities for doing research and using research

<i>Doing research</i>	<i>Using research</i>
<ul style="list-style-type: none"> • School staff individually or in groups undertaking research projects within the school. • A school collaborating with other schools on a shared cross-school research project. • A school and university working in partnership on a mutually beneficial research project. • Schools participating in large-scale national research studies led by research organisations/agencies. 	<ul style="list-style-type: none"> • Individual or groups of teachers using research findings to inform aspects of their practice. • School leaders or leadership teams using research evidence to inform aspects of their decision-making. • A particular department or school as a whole adopting a selected research-based program/practice.

The USER project

What we were seeking to do – Purpose

Schooling jurisdictions across Australia, including Catholic Education Melbourne, receive hundreds of applications per year from researchers wishing to conduct research in their schools. Each proposal is reviewed against the jurisdiction’s research policy, with consideration of the ethics, risks, benefits and demands of the project. While the application process gives jurisdictions a clear sense of the volume and nature of research that likely occurs in schools each year, the experiences of schools as research participants are largely unknown.

Similarly, despite the push to use quality educational research to improve learning and teaching, and ultimately student outcomes, whether and how schools do this is not well understood. Catholic Education Melbourne’s curiosity to better understand school engagement *in* and *with* research, and desire to strengthen their research engagement, led to the development and implementation of the USER project.

It is important to note that the USER inquiry did not include the research that schools and teachers conduct themselves as part of ongoing professional learning and improvement. While acknowledging that this is a significant and valuable part of educational research, Catholic Education Melbourne deliberately wanted to explore the very under-researched area of academic and externally led research that is conducted in schools each year.

How we did it – Methodology

The USER project involved two main components: an empirical investigation that was initiated and undertaken by Catholic Education Melbourne in 2016; and a subsequent analysis of wider literature that was conducted jointly by Catholic Education Melbourne and Monash University in 2017. This paper reports on the combined insights that have emerged from these two dimensions.

Empirical investigation

The empirical phase of the USER project sought to explore a number of aspects of school research engagement (Table 2). As described in more detail

below, data relating to these issues were collected during 2016 through an online survey, followed by focus groups and interviews. Overall, feedback was received from 73 participants in 67 different Catholic schools across Melbourne, which represents 20% of the jurisdiction’s schools. The total sample of 73 participants comprised 56 survey respondents, 15 focus group participants and 2 interviewees. Data collection was ceased by Catholic Education Melbourne once it was clear that the feedback and key messages from schools were being repeated, and little new insights were being generated.

TABLE 2: Key research foci of the Catholic Education Melbourne USER project

Engagement <i>in</i> academic research projects	Engagement <i>with</i> academic research evidence
<ul style="list-style-type: none"> • How many research requests do schools receive? • How many times do schools say YES or NO? • What are the key reasons for saying YES or NO? • What are the characteristics of research projects perceived ‘positively’ or ‘negatively’? • What research topics/questions are schools most interested in? • How do schools perceive the outcomes and impacts of their participation in research projects? 	<ul style="list-style-type: none"> • To what extent do schools value research and evidence? • To what extent do schools use research and evidence? • Why and how do schools use research and evidence? • What are the enablers and barriers to schools using research and evidence? • Where do school staff access research and evidence? • How do schools perceive the impacts of using research and evidence?

The USER project (Methodology continued)

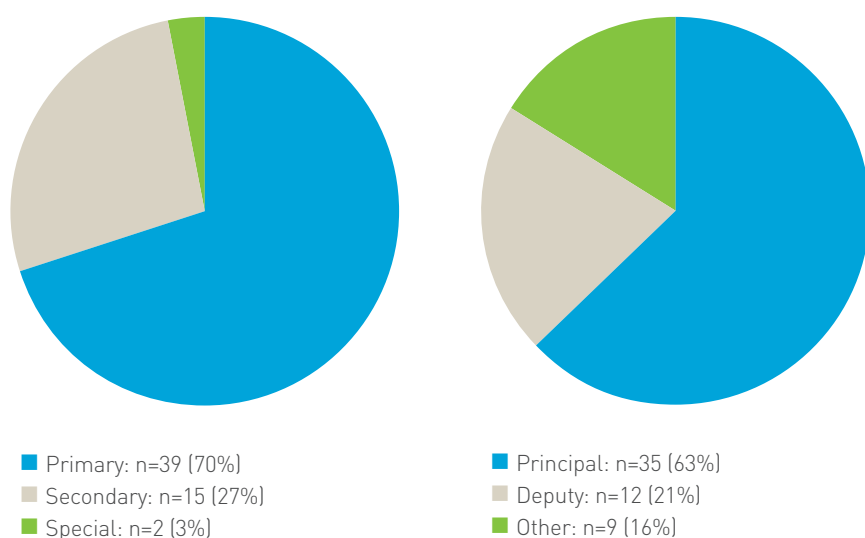
The **online survey** included both closed-response (quantitative) and open-response (qualitative) questions relating to the foci in Table 2, and was designed to be completed by one respondent per school. After piloting the survey with two principals and revising the instrument, it was then open to all schools within the Catholic Education Melbourne jurisdiction of which responses were received from 56 (17% of CEM schools). A higher response rate would have been preferable; however, the mix of schools within the achieved sample was broadly similar to the proportions across the jurisdiction generally, with primary schools making up approximately two-thirds (Figure 1). There was also coverage of all Catholic Education Melbourne regions (i.e. north, south, east and west) and most of the respondents were either principals or deputy principals.

In order to explore school research engagement in more depth, two focus group discussions were conducted. The first was with six participants including a principal, three deputy principals, a learning and teaching leader, and a teacher, from three primary schools, one secondary school and one Prep–Year 12 college. Participants were presented with a summary of the preliminary survey findings as a lead into more in-depth discussion about: the influences on schools' decisions about engaging in research; the enablers and barriers to schools using research; and suggestions for Catholic Education Melbourne and the research community about engaging schools in research. The second focus group was a session with nine principals as part of a principal regional network meeting, whereby discussion concentrated on whether and how schools use research in practice.

Finally, to gain more reflective and in-depth feedback on the experiences of individual schools, **semi-structured interviews** were conducted with two principals (one primary and one secondary). These provided an opportunity to discuss: decisions about engaging in research; experiences of positive and negative research projects; use of research evidence; and suggestions for Catholic Education Melbourne's reviewing of research applications.

The data from these different sources were analysed in a number of ways. Quantitative survey questions were analysed in terms of the frequency of responses across all schools, and responses to qualitative questions were grouped by survey question and analysed to identify key themes. The responses were then re-analysed and coded by theme, enabling a picture to be built of the emerging findings. All focus group and interview data were also summarised and coded using the same themes from the survey to enable summative findings to be deduced.

FIGURE 1: Survey sample (n=56) by school type and respondent role



University consultation

Catholic Education Melbourne gained such rich feedback from schools during data collection that the organisation sought to engage five Melbourne universities to share some of the preliminary findings. This component was not a formal part of the empirical study, but an important stakeholder engagement exercise. Meetings were held with senior academic staff from education faculties, as well as staff involved in research management (e.g. ethics committee personnel). They were very affirming of the USER project and grateful to hear key messages

from schools. In light of the findings, all universities indicated they would consider how they could improve their research application and ethical review processes, as well as the training of researchers, to strengthen how schools are engaged in research projects. The following quote from a Monash University professor is illustrative:

I was especially pleased to hear about your approach and to have some of the data from schools and principals about their needs. There are some very important lessons for researchers that we need to ensure make it onto their radar before approaching schools with underdeveloped research proposals.

Because the universities showed keen interest in what schools had to say about their research engagement, it prompted Catholic Education Melbourne to partner with Monash University to explore how the USER project findings might relate to wider evidence on school research engagement. This analysis of the wider literature became an important next phase.

Analysis of wider literature

A literature review was conducted to identify, analyse and summarise recent international empirical research on schools' engagement in and/or with research. This was followed by a re-analysis of the USER project findings to explore similarities and differences with the literature. It was an iterative process of both viewing the USER project findings from the perspective of the wider literature, and examining the wider literature from the perspective of the USER project. The net result was the identification of five clear themes, as outlined below.

What we found out – Findings

The first two themes concern schools' engagement in research, while the other three relate to schools' engagement with research. It should be noted that, in contrast to the USER project, the wider literature has focused less on schools' engagement in research relative to schools' engagement with research. There are of course some exceptions which are drawn on in relation to the first two themes.

1. Schools are selective about their research involvement

When schools taking the USER survey were asked how many times per year (on average) they were approached by external researchers to engage in research projects, 79% reported receiving five or more requests per year and 46% had received 10 or more (Table 3). When asked how many research opportunities they said 'yes' to each year (on average), 80% reported saying 'yes' to two or less and 55% reported saying 'yes' to one or none (Table 4). A comparison of respondents' answers to these two survey questions showed that schools were saying 'yes' to one in five research requests per year, on average (21%). Conversely, the ratio for saying 'no' to requests was four out of five per year (on average).

TABLE 3: Average number of requests to participate in research schools receive per year

# Requests	Responses	%
1	2	3.6
2	2	3.6
3	4	7.1
4	4	7.1
5	4	7.1
6	4	7.1
7	1	1.8
8	8	14.3
9	1	1.8
10	16	28.6
12	2	3.6
15	2	3.6
20	4	7.1
30	2	3.6
TOTAL	56	100

TABLE 4: Average number of research projects schools agree to participate in each year

# Projects	Responses	%
0	9	16.1
1	22	39.3
2	14	25.0
3	2	3.6
4	3	5.3
5	4	7.1
6	2	3.6
TOTAL	56	100

The USER project (Findings continued)

Even though schools in the USER project had numerous opportunities to engage in research, they were discerning about which ones they agreed to. Schools had very clear reasons for saying 'yes' or 'no' and there was strong consistency across the 56 schools within the survey. The three most frequent reasons for agreeing to a project were: 'identified as an area of need in school improvement plan' (88%); 'topic is of interest to staff, students and/or families' (79%); and 'believe research will produce tangible outcomes, e.g. school-specific report' (77%). Meanwhile, the three most frequent reasons for not agreeing to a project were: 'demand on school is too great' (93%); 'timing not right' (93%); and 'topic is not related to school/student needs' (86%).

Similar sentiments were articulated in the USER focus groups and interviews. Participants reported being more open to research that seeks to address issues that are pertinent to their school. They wanted to know 'what's in it for us?', and were appreciative of tangible benefits such as school-specific reports, staff professional learning workshops and sessions with students. Common frustrations that led to schools turning down research requests were the demand on school time/resources, the timing of projects, the research team not understanding the school and a lack of school-specific feedback.

This selective approach to research participation among the USER project schools chimes with findings reported in wider international studies. Befort and colleagues (2008), for example, studied school administrators' perspectives on research participation in the US. Their interviews with 57 school administrators and superintendents highlighted similar messages to the USER project. In particular, schools were more favourable towards projects that: 'provide tangible benefits to their school; are consistent with their academic mission; are not burdensome; do not take place during state assessment or other busy times; and are credible and noncontroversial' (Befort et al. 2008, p. 581). Likewise, in a study that explored the gap between educational research and practice in Belgium, school leaders reported receiving increasing requests to participate in research projects, sometimes on a weekly basis (Vanderlinde & van Braak 2010). This study also noted how 'participation in research projects seems to be dependent on what schools will receive in return: projects that result in practical and individual school feedback are valued by school leaders' (ibid. p. 310).

2. Schools are discerning about what the research is on, and how it is conducted

Through further analysis of the USER data and broader literature on school engagement in academic research projects, it became clear that schools are discerning about what a research project is on, and how it is conducted.

In the USER survey, respondents were asked to provide a specific example of a research project they believe had a positive impact on their school, and explain why and how it had made a difference. Many different examples were listed, but there were some common themes. Specifically, schools reported that favourable research projects focused on improving teacher capability and student learning, and involved a capacity building and professional learning approach, not just data collection. The following quote from a secondary school principal is illustrative:

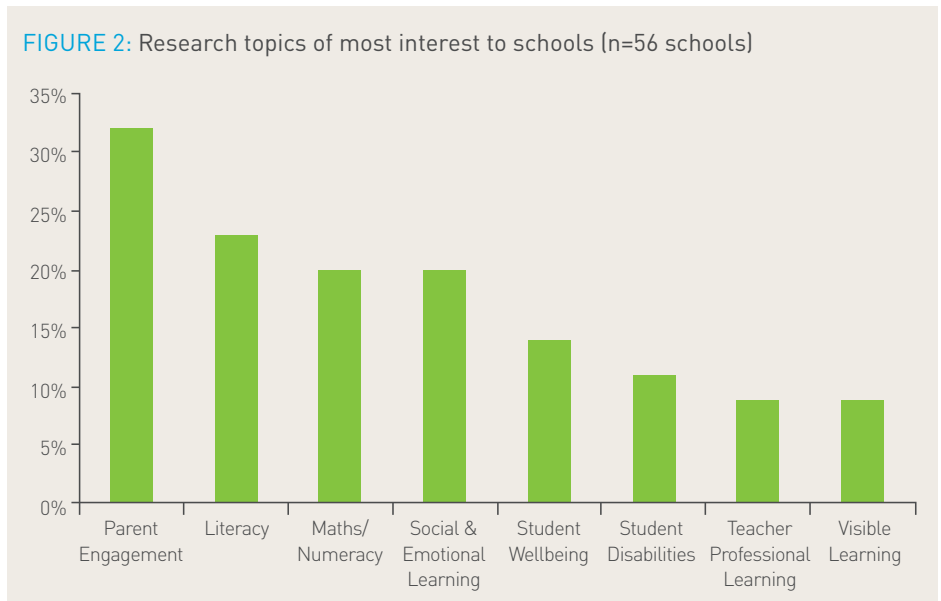
The project was linked to a key priority in the School Improvement Plan, focused on improving teacher capacity and student learning outcomes. It had a clear focus, was based on a thorough literature search and was engaging for the school community. Staff and students saw value in it. Processes were effective and streamlined. Researchers had a thorough understanding of the demands of a school and were careful to not be intrusive/demanding.

Even though schools in the USER project had numerous opportunities to engage in research, they were discerning about which ones they agreed to. Schools had very clear reasons for saying 'yes' or 'no' and there was strong consistency across the 56 schools within the survey.

To explore areas of research that schools were most interested in, the USER survey asked respondents to name three research topics and rank them in priority order. Responses were analysed, coded and quantified to reveal 26 different themes, with the highest ranked being 'parent engagement'. The most popular research topics (i.e. ones that received five or more responses) are shown in Figure 2.

The broader literature strongly supports this idea that schools are more positive towards research projects that are focused on what schools believe to be relevant to their needs and priorities. Wider studies have shown that teachers are particularly favourable when the research is focused on classroom teaching and learner outcomes (Bell et al. 2010; Vanderlinde & van Braak 2010), and school leaders are more willing to participate in research projects that are likely to progress their school's academic mission and goals (Befort et al. 2008). Similarly, Todman et al. (1990) argue that outcomes for researchers and schools can be improved if 'researchers take serious account of the educational and organisational concerns of schools, and schools adopt a policy of supporting research projects on issues which they themselves find stimulating' (p. 148).

Not only are schools concerned with what the research is about, but also how it is conducted, preferring a partnership approach. Recognising the concern that teachers can be viewed as 'subjects' in research, Cordingley et al. (2002) argue that there is a place for researchers to engage schools



more actively in the research design, implementation and development of outputs. Nelson et al. (2015) also emphasise the importance of a partnership approach in their review of a university-community research collaboration in San Francisco. While acknowledging that relationships and trust take time to develop, they believe it is worth the investment because 'university partners can learn invaluable lessons from the community that ultimately contribute to the strength of their scholarship' (p. 25). Similarly, a survey of academic educational researchers in Australia showed that they recognise the need to directly engage end-users and tailor research processes and findings to their needs (Cherney et al. 2012).

Schools in the USER project were clear that the most beneficial research projects were ones that

include a capacity building and professional learning dimension – a theme that chimes strongly with the wider literature. Cordingley's (2015) summary of systematic reviews on the contribution of research to teachers' professional learning and development, for example, makes a similar argument. Dimmock (2016) goes further to suggest that bridging the research-policy-practice gap requires university researchers to collaborate with teachers in professional learning communities and co-create new knowledge and evidence in situ. Lastly, a UK inquiry into the role of research in teacher education argued that 'when research becomes a professional learning process, it can have a deep influence on how they [teachers] understand research and may lead them directly towards more active engagement in undertaking enquiry themselves' (BERA-RSA 2014, p. 18).

The USER project (Findings continued)

3. Schools access research in indirect and informal ways

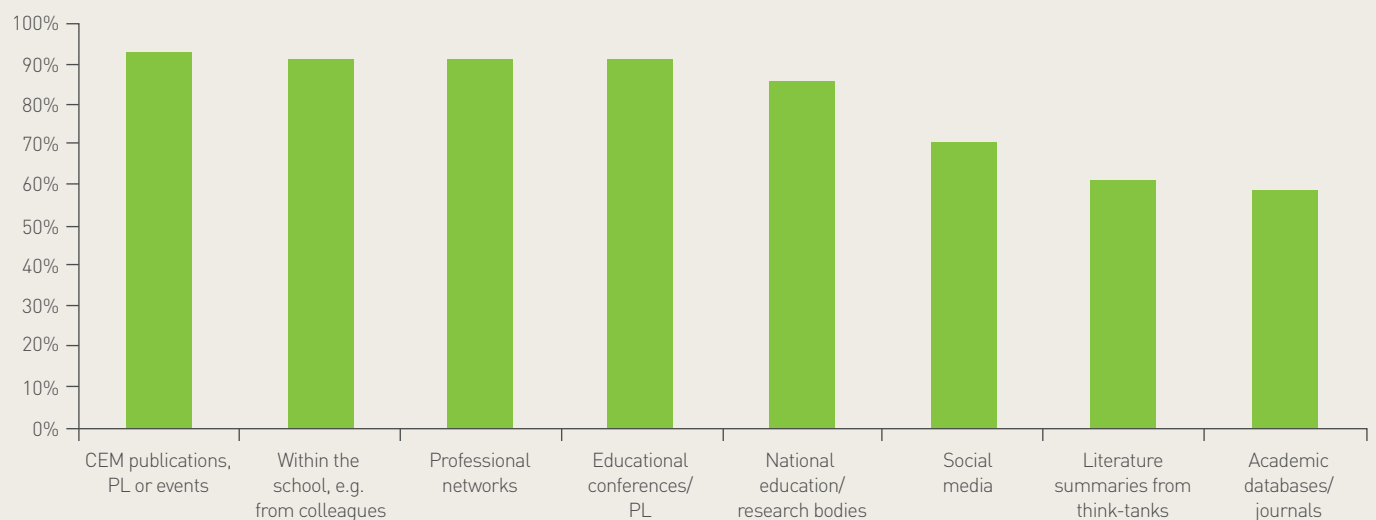
Turning now to engagement with research, Catholic Education Melbourne wanted to know where schools access research findings and evidence. Survey respondents were provided with a list of possible sources and asked to select all those that were relevant and/or specify 'other' sources. Responses revealed the four most common sources: 'Catholic Education Melbourne publications, professional learning or events' (93%); 'within school [e.g. from colleagues]' (91%); 'professional networks' (91%); and 'educational conferences and other professional learning activities' (91%) (Figure 3). The least common sources were: 'literature summaries from think-tanks' (61%); and 'academic databases and journals' (59%).

There are close parallels between the patterns of research sources reported by schools in the USER project and those reported by schools in similar studies internationally. A recent national survey of 733 school and district leaders in the US, for example, found that 'leaders were most likely to access research through professional associations and professional conferences' (Penuel et al. 2016, p. 33). The survey also found that 'colleagues in other school districts and staff in state departments of education represent other prevalent sources for accessing research' (ibid.).

The importance of professional conferences was also highlighted by a survey of 156 teachers in England (Proctor 2015). When respondents

were asked about research-related events, it was found that professional conferences are more highly valued than local authority events, academic conferences and outside organisation sponsored events. Similarly, the role of professional publications as a research source was noted in a study of 120 school principals in the US and Australia (Biddle & Saha 2006). This study reported that 'most principals gain the bulk of their information about research knowledge from secondary sources' such as professional publications, as opposed to primary sources such as academic journal articles (ibid. p. 75). The recurring message here is that schools are more likely to be accessing research and evidence from sources that are informal and indirect.

FIGURE 3: Common sources for schools accessing research and evidence (n=56 schools)

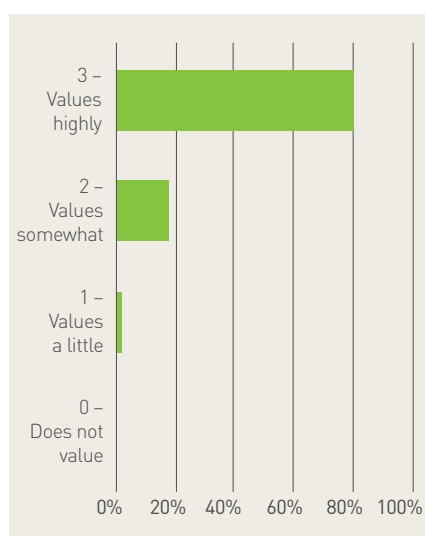


4. Schools value research more than they use it

Schools in the USER study were also asked how much they value 'keeping up to date with educational research and evidence'. The pattern of responses was very clear: 45 of the 56 schools (80%) reported that they 'highly value' keeping up to date with educational research and evidence (Figure 4). However, when schools were asked how frequently they use educational research and evidence to inform planning, decision-making, professional learning, and teaching and learning, their responses were less clear cut. While about a third of the sample (34%) reported using research and evidence 'often', over half (55%) reported using research and evidence 'sometimes' (Figure 5).

There appears, then, to be a difference between the degree to which schools value keeping up to date with educational research and the frequency with which they use such evidence to inform their practice. When viewed in relation to wider international studies, it is clear that the USER project schools have much in common with schools elsewhere. Levin et al.'s survey of 188 school leaders across Canada, for example, found that 'respondents reported strong interest in research' but 'when it came to measures of actual practice, such as time spent on research related reading, events or networks, two thirds to three quarters reported quite low levels of involvement' (2011, p. 10). The same finding has emerged from surveys of 312 teachers in the UK (Williams & Coles 2007) and 156 teachers in England (Proctor 2015):

FIGURE 4: How much schools *value* keeping up to date with educational research and evidence (n=56 schools)



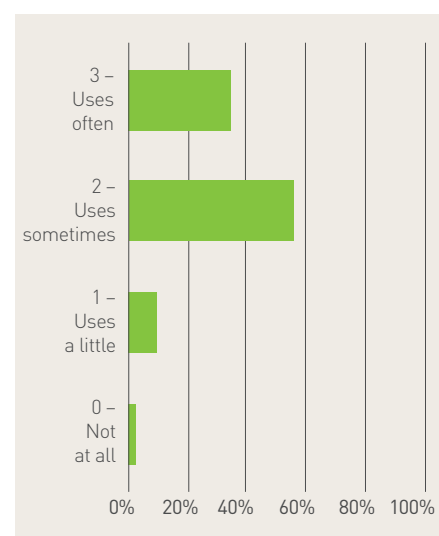
'While survey respondents were, on balance, positively motivated towards the use of research evidence, their actual use of information from research was limited' (Williams & Coles 2007, p. 185).

'The study shows a consistent gap between how much teachers value the use of research and how much they use research in their daily practices' (Proctor 2015, p. 464).

5. Schools need much more than research access

One issue for exploration in the USER project was what can help or hinder schools' use of research evidence. Building on the previous finding that more schools value research and evidence than use it in practice, the focus groups and principal interviews provided an opportunity to explore the enablers and barriers to using evidence.

FIGURE 5: How frequently schools *use* educational research and evidence to inform their practices (n=56 schools)



In terms of **enabling factors**, using research and evidence within schools was easier where:

- the research was perceived to be relevant to the school, and the findings were school-specific
- the research findings were presented in an accessible and user-friendly format
- the research was promoted and supported by leadership in the school
- there was jurisdiction (i.e. Catholic Education Melbourne) support for the research project or evidence
- evidence use formed part of the school culture (i.e. built into day-to-day dialogue, planning, professional learning, meetings, and learning and teaching).

The USER project (Findings continued)

Reported **barriers** to using research and evidence within schools included:

- constraints relating to teacher time and staff motivation, cost, physical space and timetable restrictions
- a lack of dedicated roles within the school to coordinate engagement with research
- limited confidence and capability of teachers to translate research into classroom practice.

The wider research literature can help to put these findings from the USER project into context. Syntheses of empirical research on evidence use in education [e.g. Dagenais et al. 2012] have shown that evidence use can be shaped by four main sets of factors. These concern the nature of:

- the *research* – factors relating to the focus and form of the research evidence
- the *practitioners* – factors relating to the interests, needs and background of the practitioner users
- the *professional context* – factors relating to the institutional context in which the research is being utilised
- the *wider context of support* – factors relating to the wider context of knowledge transformation and communication between researchers and research users.

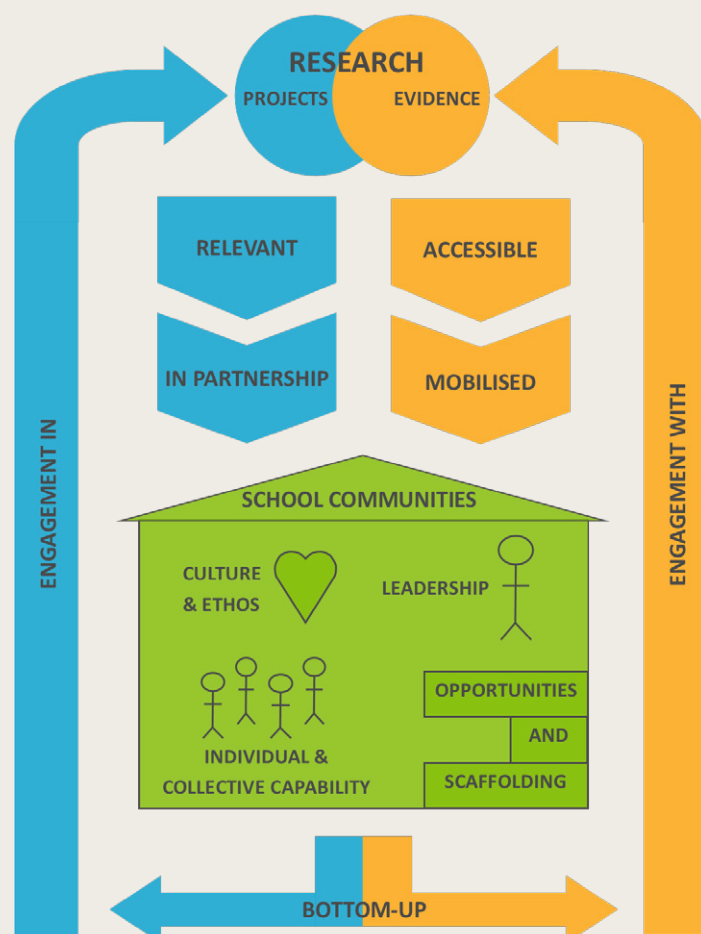
It is clear that the enablers and barriers highlighted by schools in the USER project relate to all four of the above categories. Taken together, these various enablers and barriers highlight the complex range of influences that can affect research engagement, and that schools require a lot more than being able to access research.

What it all means – Discussion

In an effort to summarise the learnings from both the USER project and broader literature, and make sense of the complexity of *school research engagement*, a conceptual framework is proposed in Figure 6 below. The framework seeks to capture both engagement *in* and *with* research, and the interdependent factors

required to maximise school research engagement. Each component of the framework is worthy in its own right and may enhance school engagement in and with research; however, the real opportunity lies in the whole. In its entirety, the framework represents school research engagement as an aspiration, requiring a coordinated effort across all components for its full potential to be realised.

FIGURE 6: A conceptual framework for understanding and improving school research engagement



Engagement in research projects

In terms of enhancing school engagement *in* research, this framework emphasises how projects should be **relevant** and informed by school needs and priorities (Dagenais et al. 2012), and deemed helpful to the daily endeavour of improving student outcomes (Befort et al. 2008). Similarly, it highlights the value of research projects being conducted **in partnership** with schools, whereby teachers have direct involvement in the research process (Hedges 2010; Dagenais et al. 2012), and projects aim to build school and practitioner capability, rather than simply collect data.

Engagement with research evidence

In relation to school engagement *with* research, the framework makes clear that research evidence needs to be **accessible** to schools when they need it and where they can easily access it (Bell et al. 2010; Ion & Iucu 2014). Research evidence also needs to be in a format that schools can more easily understand, engage with and apply (Williams & Coles 2007; Judkins et al. 2014). Even more than this, research findings need to be **mobilised** into useable outputs for school and classroom implementation, ideally through collaboration between teachers and researchers (Sharples 2013; Nelson & O'Beirne 2014; Anwaruddin 2015).

School community factors

However, even if research projects are relevant to schools and conducted *in partnership*, and research evidence is *accessible* and *mobilised*, there are school community factors that are also important in enabling research engagement, including:

- a **culture and ethos** that are focused on teacher learning, improvement, innovation and trust (Dimmock 2016), whereby staff can regularly reflect on their practice and take risks and try different approaches based on evidence (Brown et al. 2016; Brown & Zhang 2016), and where research is valued and embedded within the organisation's daily work (Sharples 2013; Judkins et al. 2014);
- **leadership** that values and encourages research participation and evidence use, models the use of evidence in practice (Brown & Zhang 2016), and sets the right climate and practice conditions for staff to engage in and with research (Scott & McNeish 2013);
- **individual and collective capability** among staff so that they have the willingness, competence and experience to engage in and with research (Dagenais et al. 2012), and view research as a positive input for improving their practice (Dagenais et al. 2012; Lysenko et al. 2014);

- **opportunities** being provided for staff to collaborate on research, support being **scaffolded** for staff to consider external evidence alongside their own knowledge and experience (Dagenais et al. 2012; Tseng & Nutley 2014; Cain 2015; Dimmock 2016), and time and resources being allocated for activities such as professional learning, university partnerships, school networks, external research projects and teacher inquiry/further study (Sharples 2013; BERA-RSA 2014; Judkins et al. 2014; Lysenko et al. 2014).

Bottom-up approach

Finally, the framework suggests that school research engagement can be further supported through a **bottom-up** approach through two inter-connected processes. On the one hand, research projects and agendas are created in partnership with school communities (Todman et al. 1990; Tseng & Nutley 2014; Nelson et al. 2015), or at least informed by school-level needs and on-the-ground experience of teachers, school leaders and researchers working in schools (Befort et al. 2008; Hedges 2010; Dimmock 2016; Productivity Commission 2016). On the other hand, the teaching profession's desire to engage with research evidence as a continuous improvement strategy is a key driver of evidence-informed practice, rather than top-down policies and approaches that can be externally imposed and deficit-oriented (Sharples 2013; Nelson & O'Beirne 2014; Anwaruddin 2015).

In terms of enhancing school engagement *in* research, this framework emphasises how projects should be **relevant** and informed by school needs and priorities. In relation to school engagement *with* research, the framework makes clear that research evidence needs to be **accessible** to schools when they need it and where they can easily access it.

Where to next – Implications

The proposed framework brings into focus the complex range of issues that are involved in schools engaging in research projects and with research evidence. It also highlights the shared responsibilities and distinctive roles of the different stakeholders in educational research. In particular, researchers (individually and collectively) can consider ways to engage schools more meaningfully throughout the research lifecycle, through planning, designing, conducting, analysing and translating research. There are also some clear steps that schools and jurisdictions can take alongside research organisations to support school research engagement (Table 5).

TABLE 5: How researchers and research organisations, schools and jurisdictions can support school research engagement

Researchers and research organisations can ...	Schools can ...	Jurisdictions can ...
<ul style="list-style-type: none"> • align research agendas with schools' missions and educational needs • shape research projects to be relevant to school and classroom contexts • engage teachers throughout the research process and co-construct research in context • communicate research in more accessible and engaging ways, and support the development of tools to mobilise research evidence • help schools and practitioners to understand and apply research findings • consider ways to give back to participating schools (e.g. staff professional learning sessions) • create opportunities to build research skills and capability of school staff as part of the research process • promote the value of school research engagement within graduate research training • encourage empirical inquiry and ongoing dialogue about school research engagement. 	<ul style="list-style-type: none"> • create partnerships with universities to support in-school and teacher-led research, data analysis and research professional learning • play a more active role in externally led research to enhance the benefits to schools (e.g. link project to other learning areas, ask for school-specific feedback) • establish a research lead/coordinator role to coordinate research projects, share and translate research findings and develop research partnerships • establish supportive school structures and processes such as: creating study groups and research-focused professional learning communities; discussing research in planning and staff meetings; prioritising 'research skills' in the hiring of staff and ongoing professional learning; and dedicating time for staff to do their own inquiry or participate in academic research projects. 	<ul style="list-style-type: none"> • support evidence mobilisation by translating research into accessible and practical formats and tools for classroom implementation • develop and implement teacher and school leader professional learning on research engagement, and add research skills to existing capacity building programs • create opportunities for schools to collaborate on research projects and facilitate partnership opportunities of mutual interest between schools and universities • commit to and invest in long-term strategies to strengthen school research engagement, including commissioning research and evaluation into understanding effective strategies and approaches in different contexts • promote school and jurisdiction priorities to the research community to inform future research projects and agendas.



Final note

From what started out as a small inquiry into how schools engage in research, the USER project quickly grew into a body of work that is more complex and often misunderstood, but much needed and welcomed by schools and the research community. Catholic Education Melbourne continues to learn about school research engagement and uses the findings to inform numerous activities, including conference presentations, policy development, professional learning, resource development

and the scoping of new projects. The organisation remains committed to engaging the research community to ensure more research is conducted in a way that values and actively engages schools, and schools are not left to their own devices to make sense of the wealth of academic research available. Catholic Education Melbourne will continue to work collaboratively with key stakeholders to strengthen the way educational research is commissioned, conducted and used, to unlock the already great potential in our schools.

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