

## Practitioner engagement in and/or with research and its impact on learners

### Who is this summary for?

This summary is aimed at policy makers at school, local, regional and national levels and those who influence the support of teacher professional learning. It is based on:

Bell, M. Cordingley, P., Isham., C. & Davis., R. (2010) *Report of Professional Practitioner Use of Research Review: Practitioner engagement in and/or with research*. Coventry: CUREE, GTCE, LSIS & NTRP. Available at: <http://www.curee-paccts.com/node/2303>

### What did the review set out to do?

The review explored what's known about how practitioners in schools and colleges get involved in or with research, and about the impact which that has on their learners. This includes finding out about:

- the range of approaches practitioners use to engage in and/or with research;
- the extent to which practitioners apply research within their own contexts;
- the obstacles to practitioner engagement in and/or with research; and
- the forms of support that help practitioners overcome the obstacles.

It also explored how practitioners in other sectors (health and social care) engage in and with research to see what could be learned from that.

The review described engaging *with* research as practitioners using publicly available evidence, interpreting it and adapting it to their own contexts. By engaging *in* research the review specified practitioners carrying out enquiries that:

- address a research question;
- use instruments (observation and interview schedules etc.) to enable them to explore adverse as well as positive effects of an intervention/new teaching strategies; and
- analyse and report on the evidence collected.

In all the studies surfaced by the review, the practitioners who engaged in research themselves also engaged with published research. The latter stimulated or informed and shaped the practitioners' own research activities. In a number of studies teachers were engaged *with the research of others* rather than *in* their own research.

### What did the review find?

#### The links with learner outcomes

In all, 25 research reports were included in the synthesis of studies in education. There was strong evidence from these studies of links between teacher engagement in and with research and

significant changes in practice with a positive impact on student outcomes. Such impacts were spread fairly evenly among improvements in:

- knowledge and skills;
- behaviour for learning; and
- attitudes/motivation for learning.

Approaches to engaging in and/or with research were rather similar within education but varied more in health and social care.

- There was more evidence about the impact of engaging in and/or with research in education than in health and social care. In health and social care, evidence highlighted the importance of face to face engagement, of peer support and of opportunities to contextualise even very large scale and robust research to enable practitioners to identify its implications for their own practice and end users. Other, common approaches in health and social care such as issuing guidelines, establishing champions or monitoring compliance had weaker and more variable outcomes.
- Within education, approaches to supporting engagement in and with research were very similar and involved co-construction (in the design and implementation of the research), modelling and mentoring. Face to face work, contextualisation and peer support were common features of all programmes. Here there were fewer variations in impact. Learner outcomes appeared to be more directly related to the nature of the approach to teaching and learning than to the approach to supporting engagement in and with research. Practice seems to make better progress when practitioners who are engaging in and/or with research learn from and with each other, and from specialist input and support.

### **The kinds of research activity the practitioners were engaged in**

- **Researcher led**

At one end of the spectrum, in the education studies the research was entirely planned, analysed and reported on by academic researchers, with practitioners actively involved in implementation, in data collection and review. Teachers were introduced to research findings and the underpinning rationale or theory, by researchers. They were offered extensive support, often via enquiry-rich development activities, to interpret findings and adapt them for their own contexts. We saw practitioner engagement in this case as engaging *with* rather than *in* research.

- **Practitioner led**

At the other end of the spectrum in education, the research activities were wholly planned, implemented, analysed and reported by practitioners, who based their interventions on research findings. In these teacher initiated and directed studies, those involved drew upon a range of support from a wide range of sources, including research, Higher Education Institutes (HEI), local authorities (LA) and specialist organisations. In the Masters based studies, the guiding hand of the HE tutors was evident in the consistencies between the methodologies adopted by the authors of the studies from the same institution. Whilst the nature of the support varied between studies, the processes undertaken by practitioners were very similar. Practitioners were involved in data collection through a range of methods, usually including observation, review of practice and refinement of the approach, analysis and reporting. Thus it involved engagement both *in* and *with* research.

The studies of engagement in and/or with research in health and social care spanned a broader spectrum ranging from reading briefings and guidelines and compliance monitoring to workshops, interpretation and contextualisation.

### Aspects of research

The kinds of research education practitioners were engaging in and with varied, but included research into:

- assessment for learning, including self and peer assessment;
- using the web as a learning tool;
- improving social skills through the use of co-operative learning strategies;
- making group work effective;
- increasing student motivation;
- professional development in behaviour management;
- teaching literacy, mathematics, and social sciences;
- inquiry based learning in science; and
- creativity in the curriculum.

### The obstacles to education practitioner engagement in and/or with research

Our synthesis of education studies highlighted four obstacles.

- **Time** – this included having to rush to complete the research within a specified time frame (largely the degree related research) and having to put in time during holiday periods. One study, for example, reported that teachers perceived the action research process as “time-consuming and overwhelming”. Another highlighted the need for more time for initial training in the new strategies the teachers were to implement as part of the research.
- **Facilitation and/or external support** – ranging from too little support to changes in key personnel, facilitators having no knowledge or background in action research, or no expertise in facilitating research.
- **Research methods and processes** – this included difficulties with elements of the research process (including defining the research question, writing the literature review, developing a methodology and organising the findings), difficulties with analysing data - for example calibrating the exact results of observations - and having a large volume of data to analyse.
- **Diverse Foci** – teachers found it difficult to engage in research if they had to focus their efforts on too many different things at once, such as learning about and implementing a number of new teaching strategies or simultaneously acquiring both content and new Web skills.

The search methods for the review did not identify any studies conducted in a Further Education (FE) setting. Reviewers used an opportunistic sample of FE studies for comparative purposes only. There was a notable difference between the FE studies and the school-based studies in terms of obstacles. The FE studies we looked at found that student attitudes, diversity of experience, beliefs, and confidence levels made engagement in research a more complex task for practitioners in the sector; often, students themselves were resistant to new approaches. Support mechanisms however were similar to those in the school sector detailed below.

## **Obstacles to engagement in and/or with research among health practitioners**

The obstacles to engagement in and/or with research among health practitioners related to accessing evidence and the need to contextualise/integrate engagement in and/or with research into real world contexts.

### **Accessing evidence**

Accessing evidence emerged as problematic in health and social care on two fronts. Firstly the nature of the available evidence sometimes made it difficult to access, in terms of:

- gaps in the knowledge base;
- a lag between knowledge creation and its availability to practitioners;
- the plethora of scientific evidence available and lack of effective communication to practitioners; and
- the strength of evidence about effects for a controlled trial with a specified population, but weakness of evidence about what implementation looks like in real world contexts.

Secondly, the dispositions and skills of practitioners meant they were often not well placed to access the evidence that was available. In particular, the review highlighted:

- suspicion among practitioners about how far they could trust research findings; and
- lack of confidence and expertise among practitioners in accessing and using research.

### **The need to contextualise practitioner engagement in and/or with research in real world situations**

A particular issue for health practitioners was the need to reconcile the different types of evidence they encountered. On the one hand, they drew down and were introduced to research evidence from clinical trials, with large populations. On the other, they acquired their own day-to-day evidence of how individual patients reacted to certain procedures. A conflict arose when the two evidence types contradicted each other. This left practitioners with the dilemma of choosing between evidence derived from other, tightly controlled contexts via the research literature, or focusing on their own observations to assess the value of an intervention.

### **Obstacles in social care**

The obstacles in social care related to:

- structural issues such as lack of time and lack of co-ordination of research activity across the sector; and
- professional issues such as lack of confidence/expertise in research.

### **Support that helped education practitioners overcome the obstacles identified in education**

Practitioners drew support from external assistance, peer collaboration, or both. Institutional support was critical too.

- **External critical friends**

Good facilitators offered feedback, guidance, resources and tenacity. Effective support from researchers in studies where teachers were part of an externally facilitated research project included modelling and training. One study for example, referred to the researchers as ‘mentors’ who modelled the intervention strategies and provided technical support via email. Another study described how the researchers provided teachers with initial training in the intervention strategy and a manual that outlined specific learning goals and strategies which they then used collaboratively.

- **Peer collaboration**

This type of support included teachers jointly practising the new teaching strategies, jointly planning and reflecting together and talking to others about the project. It also included institutional resources and supports, and joint workshop and feedback sessions.

- **Institutional/leader support**

Studies which focused on teacher learning found that institutional support was critical to the success of their interventions. The studies pointed to the need for schools/leaders to:

- be knowledgeable about the professional development opportunity that action research offers;
- realise that support during the implementation steps of an action research study, specifically, during the data analysis phase, is essential to the teacher’s and school’s success; and
- provide a supportive culture that enables teachers to learn new practices (such as assessment for learning strategies), feel safe about taking risks and have opportunities to learn from mistakes.

One study for example, reported how action research projects were negotiated with the headteachers and teachers were supported by their schools in the use of assessment data, lesson observations and surveys. The teachers in this study (who were involved in science-based action research) benefited from both institutional support and external expertise, including LA advisors, HEI academics and an interactive science centre.

### **Effective support mechanisms found in health and social care research**

Multi-faceted interventions were found to be most effective. Individual mechanisms for which there was consistent evidence for effectiveness included interactive educational meetings and educational outreach visits. The former in particular were valued for the peer collaboration/interaction they afforded; the latter involved face-to-face interaction with external expertise. It seemed practitioners made better progress when they learned from and with each other, and from specialist input and support. There was a range of other support mechanisms with rather more variable effects, sometimes with little impact at all. Broadly these included: the creation of guidelines, monitoring, the use of champions (‘opinion leaders’).

### **Approaches education practitioners used to engage in and/or with research**

There was strong evidence of links between teacher engagement in and with research and significant changes in practice with a positive impact on student achievement. Teacher co-construction (i.e. teachers working together to interpret and implement interventions in their own contexts) was an important part of the process. What was important was that the collaborative

inquiry focused on student learning needs from which teacher learning needs were identified. This gave teachers an understanding of what it was they needed to learn to improve outcomes for students and a compelling reason to engage in research. The most powerful element of the process was checking whether any changes in practice were having the desired impact on valued student outcomes.

## How was the review conducted?

The Review Team screened over 8,000 titles and abstracts for this review, from which 224 studies focusing on practitioner engagement in and/or with research and including evidence of learner outcomes were identified. These 224 were subject to a second filter agreed with the sponsors and with the Advisory Group. This involved the application of consistent criteria related to design and methods and was applied to all studies, whether they were classroom-based teacher action research projects or large-scale researcher manipulated interventions. We also excluded all studies which involved only one practitioner. Following the application of robust and transparent weight of evidence criteria, 25 studies with medium or high weight of evidence remained for synthesis. Systematic and explicit approaches for assessing the methodological robustness of the studies were used at the in-depth review stage.

None of the 25 included studies was conducted in an FE setting. A group of FE practitioner studies was identified for contextual purposes because the Steering Group was particularly interested in this setting. The potential differences and issues for these have been highlighted without including them in the synthesis.

For purposes of comparison with health and social care, the review used systematic or large scale reviews of research as distinct from individual studies. This enabled the review to focus on meaningful groupings of professionals rather than sifting the extremely diverse literature that accompanies the (also extremely diverse) workforces in health and social care. Synthesis across the findings from the review of reviews (by means of the sub questions) was conducted in the same way as for the individual studies and reviews uncovered in the purely educational strand of the review. The findings were then compared and contrasted and some of the key learning points from the health and social care literature were identified.

Following completion of the review the review team consulted groups of practitioners, policymakers and researchers about the potential implications of the review. The consultation provided the basis for the following implications.

## What are the implications?

- Findings from OECD research (TALIS 2009) reveal that teachers themselves perceive engaging in research to be the most effective form of professional development.

*Given teachers' own enthusiasm and the evidence from this review about positive impacts, policymakers and school leaders need to ensure that opportunities available for engagement in and/or with research are effective and focused both on teachers' needs and those of their learners. This review highlights some of most effective forms of such support.*

- Practitioner engagement in research *in education*, whether self or researcher initiated, almost always appeared to engage them with research too.

*Access to the public knowledge base (outputs from other people's research) was a critical ingredient in practitioner engagement in/with research. However teachers required support and guidance in securing effective access to research. This suggests that there is a need to*

*highlight and improve access to practitioner research. This could include reports of the best Masters dissertations, for example, plus practitioner friendly research summaries of large scale, high quality academic research.*

- Peer collaboration emerged from the review as one of the key support mechanisms for practitioner use of research.

*It is important to encourage teachers, school clusters and LAs in the school system, and linked networks of colleagues in the Learning and Skills system to establish practitioner research networks or to base networks on research. Could school and learning skills sector networks support each other? How can between – school and college networking be encouraged and facilitated?*

- The review suggests that working with external specialists was an important support to teachers in this area.

*Given the shifting landscape around both Initial Teacher Training (ITT) and Continued Professional Development (CPD) in the schools sector, it will be mutually important for schools/clusters and HEIs to have effective relationships and join together in partnership. Schools/clusters and HEIs could explore sustainable partnerships where external specialists are on hand to help schools/clusters with their research queries. This role might include supporting teachers in engaging in research, providing access to relevant research, and supporting schools in critically contextualising relevant research.*

- Michael Gove (2010) said that he wanted “to give [teachers] more control over their careers, developing a culture of professional development which sees more teachers acquiring postgraduate qualifications like masters and doctorates.”

*This suggests it is important for HEIs and other accreditation bodies to think about the nature of the obstacles and support highlighted in the review findings. Course provision, accreditation requirements and the timing of courses needs to ensure that practitioners can make full use of the courses on offer.*

### **Implications for CPD /ITT providers**

- Difficulties with elements of the research process were an obstacle for many teachers engaging in and with research. The difficulties included identifying a researchable question, using the literature to structure the research and define key terms for organising the findings, and analysing data. Some HE tutors provided effective support in this area.

*This means providing training in these key skills as part of the CPD/ITT offer and tailoring them to participants’ needs and contexts*

- The importance of critical friendship coupled with peer collaboration for supporting practitioners emerged across all the studies in the education review.

*This means offering specialist feedback and resources as well as explicitly encouraging peer collaboration. Peer collaboration means ensuring teachers jointly practise new teaching strategies, plan for and reflect on research and evidence together and talk to others about their research.*

We would like to thank all those who responded so helpfully to our consultation on the implications of the findings from this review.