![BERA logo] BERA
BRITISH EDUCATIONAL RESEARCH ASSOCIATION

THE BERA
CLOSE-TO-PRACTICE
RESEARCH PROJECT

RESEARCH REPORT

Dominic Wyse
Chris Brown
Sandy Oliver
Ximena Poblete

ABOUT BERA

The British Educational Research Association (BERA) is the home of educational research in the United Kingdom. We are a membership association committed to advancing knowledge of education by sustaining a strong and high quality educational research community.

Together with our members, BERA is working to:

- advance research quality
- build research capacity
- foster research engagement.

Since its inception in 1974, BERA has expanded into an internationally renowned association with both UK and non-UK based members. It strives to be inclusive of the diversity of educational research and scholarship, and welcomes members from a wide range of disciplinary backgrounds, theoretical orientations, methodological approaches, sectoral interests and institutional affiliations. It also encourages the development of productive relationships with other associations within and beyond the UK.

Aspiring to be the home of all educational researchers in the UK, BERA provides opportunities for everyone active in this field to contribute through its portfolio of distinguished publications, its world-class conference and other events, and its active peer community, organised around 30 special interest groups. We also recognise excellence in educational research through our range of awards. In addition to our member-focussed activity, we aim to inform the development of policy and practice by promoting the best quality evidence produced by educational research.

<div align="center">***</div>

The study summarised in this document was commissioned by BERA to examine dimensions of quality in close-to-practice educational research, in recognition of the fact that capacity-building in education research is necessary in relation to the REF 2021, and with the objective of considering how BERA could best advance the quality of CtP research in the academic discipline of education. Please refer to the BERA statement on close-to-practice educational research (details below), which was informed by this research.

Contents

Download

https://www.bera.ac.uk/researchers-resources/publications/bera-statement-on-close-to-practice-research

Citation

If referring to or quoting from this document in your own writing, our preferred citation is as follows.

Permission to share

SUMMARY

This BERA Close-to-Practice research project addressed the overarching research question, 'How can high quality close-to-practice research be characterised and enhanced for education in the UK?'

The project had two phases.

1. A rapid evidence assessment of published research papers that focussed on close-to-practice (CtP) research. These papers were of two main types:

   a. those that focussed on the methodology of CtP research

   b. those that present findings from research that was close to practice.

2. Interviews with people who had relevant knowledge and experience in relation to CtP research and its qualities. The interviewees included both people who held very senior leadership roles in education and education research, and those whose work meant that they were close to practice on a day-to-day basis – those involved in teacher education, for example.

The rapid evidence assessment looked at traditions of CtP research in order to arrive at a working definition, and also examined research quality in a selection of CtP research papers. This phase of work resulted in the following new definition of CtP research.

> *Close-to-practice research is research that focusses on aspects defined by practitioners as relevant to their practice, and often involves collaborative work between practitioners and researchers.*[1]

One of the striking findings of the rapid evidence assessment was the wide range of methodological traditions of CtP research – among them action research, participatory research, practitioner research/enquiry, design-based research, lesson study, knowledge exchange/transfer/mobilisation/K*, and research learning communities. Furthermore, there were broader trends such as evidence-informed policy and evidence-informed practice. Some of these traditions, such as action research, were more well established than others, such as research learning communities. However, irrespective of their histories, there was scope for research conducted in any of the traditions to be either higher or

---

1   BERA elaborated on this definition in its <u>statement about CtP research</u> (BERA, 2018), though the text is not intended to be identical in both documents.

lower quality, depending on the rigour of the research conducted within each particular methodology.

Our review of 1,343 potentially relevant titles and abstracts found that the most frequent traditions were practitioner research (252 titles/abstracts) and action research (204). Findings that emerged from the interviewing process revealed that the action research subset typified how CtP research is generally perceived in the UK; time constraints also militated in favour of focussing specifically on the subset of research papers in the action research tradition (as opposed to the other 16 traditions we identified) for our analysis of education studies. Of 47 potentially relevant titles/abstracts in the action research tradition we found that 19, upon examining the full texts, were not CtP research. The remaining 28 were judged in terms of their originality, significance and rigour. We judged six studies (only one of which was UK-based) to be high in quality, 11 to be medium in quality and 11 low in quality.

Only 17 of the 47 potentially relevant papers presented UK-based CtP research. They addressed teaching in maths (5 studies), science (6), English (5) and maths and science (1).

In the second phase of the research, the interview phase, some of our interviewees noted the potential of CtP research to connect and contextualise theory and policy as a result of mutual recognition – by practitioners, researchers and policymakers – of problems in education that could be seen as problems of mutual interest to all three groups.

The research team concluded that the best CtP research gave a full and rigorous account of whichever methodology had been selected. Fundamental aspects of chosen research designs were in place – for example, a minimum of two cycles of action and research in action research designs. In weaker CtP research, methodology was not explained in sufficient depth. The lack of a sufficiently rigorous account of data analysis was the methodological aspect that was frequently neglected, particularly in qualitative research.

As a result of the analysis of quality in the selection of CtP studies, the definition of CtP research given above was augmented by the following supplementary definition of *high quality* in CtP research.

> *High quality in close-to-practice research requires the robust use of research design, theory and methods to address clearly defined research questions, through an iterative process of research and application that includes reflections on practice, research, and context.*[2]

---

2   BERA elaborated on this definition in its statement about CtP research; the text is not intended to be identical in both documents.

This research report also includes some recommendations for BERA: for example, the need to provide guidance to the field on quality in CtP research; the need to engage with the field, including some of the newer sites for CtP research, in order to support the application of a wider range of methods to CtP problems; and engagement with universities to raise awareness and promote the career development of those who carry out CtP research, in recognition of their importance to education as a discipline.

1. BACKGROUND TO THE STUDY

The British Educational Research Association (BERA) commissioned a study to examine dimensions of quality in close-to-practice educational research. Close-to-practice (CtP) research was defined in the study tender document as educational research that is based on problems in practice that 'may involve researchers working in partnership with practitioners' to address issues defined by practitioners as relevant or useful, and which supports the application of critical thinking to the use of evidence in practice (BERA, 2017; drawing from Cooke, 2005). This project was the recommendation of a small BERA working group tasked with considering how the Association could best advance the quality of CtP research in the academic discipline of education. BERA Council recognised that more could usefully be done to build a collective recognition of the characteristics of high-quality CtP educational research.

Another driver of the BERA Close-to-Practice initiative was recognition that capacity-building in education research was necessary in relation to the Research Excellence Framework (REF) 2021, as part of efforts to pursue BERA's strategic objective of strengthening educational research. It was hoped that by more clearly identifying the dimensions of high-quality CtP research, BERA would be able to:

- have more influence on the framing of the debate on the role of high-quality research in enhancing and developing professional practice across the UK

- offer more dedicated support to BERA members already working in this way

- enable teaching professionals and educational researchers to work more productively together

- maximise reflexivity and rigour in close-to-practice work.

BERA identified CtP research as an area of interest for the Association for two key reasons. First, as part of the last REF exercise which reported in 2014, the education sub-panel commented on the value of CtP research and highlighted the contribution that it could make to the development of research-informed professionalism (Leach, 2015; Pollard, 2015). Second, many BERA members value and are committed to close-to-practice work in the context of teacher education and professional development. However, there has been relatively little explicit discussion within the literature on the dimensions of quality in CtP research. This project sought to address both of these issues.

2. INTRODUCTION TO CLOSE-TO-PRACTICE RESEARCH

The historical origins of close-to-practice issues can be seen in the concepts, articulated in ancient Greece, of *techne* (art, craft or skill) and *phronesis* (practical wisdom, particularly in organising ones' life or organising aspects of society (Preus, 2007). In modern times these concepts were memorably applied in the philosophical exploration of techne and phronesis in relation to the professional practice of teaching and teacher development (Dunne, 1997). The place of educational practice in relation to educational theory and research has been fundamental to the development of education as an academic discipline. The education and ongoing training of teachers, and the relationship of this to the academy, has been a central part of these debates (Furlong, 2013). Education as a discipline has recently been conceptualised as having its origins in three main traditions of knowledge (Furlong and Whitty, 2017).

1. **Academic knowledge traditions**, including 'disciplines of education' for example, derived from what some have seen as the founding subjects of philosophy, history, sociology and psychology. This first tradition also includes German educational theory; 'applied' educational research and scholarship; and the 'new science' of education.

2. **Practical knowledge traditions:** education as a 'generic' – competence and standards; the 'normal' college tradition of teacher education; liberal education and craft knowledge; and networked professional knowledge.

3. **Integrated knowledge traditions:** for example, pedagogical (Latvia); here, practitioner enquiry/action research is intertwined with learning sciences (ibid).

A discipline is defined not only as an area of knowledge but also as a community of scholars with a shared heritage which includes an infrastructure and traditions of published outputs and other modes of communication that underpin the discipline (McCulloch and Cowan, 2018). An empirical investigation of the emphases of a selection of leading educational research journals revealed that the distinction between the discipline of education as derived from knowledge traditions rooted in the *academy* as opposed to knowledge traditions rooted in *practice* is far from straightforward (Ertl, Zierer, Phillips and Tippelt, 2015). Some consider education as a discipline to lack 'the consensus and indeed the coherence of some of the more established disciplines' (Furlong, 2013, p.2). It has been argued that this lack of coherence can be explained by three factors: first, the study of education addresses

many contexts (from early years to lifelong learning, for example); second, it addresses many different topics of research; and third, those studying it use many different methodologies of research and scholarship (Furlong, 2013).

A trend in educational policy internationally (in countries such as Australia, the Netherlands, Norway, Canada and the US) has been to focus strongly on promoting better links between research and practice (Coldwell et al,2017; Whitty and Wisby, 2017). In these kinds of policy developments, close-to-practice issues are bound up with the idea of research–practice partnerships (Malik, 2016). For instance, in Ontario the Knowledge Network for Applied Education Research (KNAER)[3] was established through a tripartite agreement between the University of Toronto, Western University and the Ontario Ministry of Education. The aim of KNAER was to advance and apply robust evidence of effective practices by facilitating networks of educators and researchers to work collaboratively in order to apply research to practice. Likewise, the Ontario Education Research Panel has been established to facilitate discussion and collaboration among Ontario's school boards and faculties of education (and researchers) in relation to opportunities for and impediments to the advancement of research and the potential for future partnerships (Malik, 2016). The notion of research-practice partnerships in the US is similar. There, partnership approaches are viewed as 'long-term collaborations, which are organised to investigate problems of practice and generate solutions for improving district outcomes' (Coburn, Penuel and Geil 2013). However, despite international acknowledgement of the importance of CtP research, little appears to have been done to assess or address aspects of quality.

Education is not the only discipline in which close-to-practice issues are prevalent. The notion of CtP research is well developed in the health sector where, like education, research informs professional practice. Much of this research is categorised as social science, as is a great deal of research in education. In the health sector, efforts to base research on problems in practice include building practitioners' research skills (Cooke, 2005); practitioners commissioning research, or co-producing it with researchers (Frankham, 2009); and enhancing the value of research for decision-making by setting priorities with practitioners and service users (Chalmers et al. 2014). These efforts focus on research that is 'close to the coal-face', whether small or large scale, conducted by individual teams or institutional partnerships, and conducted independently or supported by a national infrastructure (Cooke, 2005).

In the UK, the Research Excellence Framework (REF) plays an important role in measuring research quality in all universities and in all academic disciplines. One element within the REF is the scoring of research outputs on a scale from 1* to 4*, with 4* equating to research that is world-leading in quality. In the REF 2014 exercise (the last one at the time of writing), although the proportion of research outputs in education thus judged to be world-leading

---

broadly matched those of other social science 'units of assessment' (subjects or fields as defined within the REF), there were a significantly higher proportion of lower-graded outputs (that is, 2*, 1* and unclassified) in education than in others.[4] Furthermore, of all units of assessment, education submitted the lowest proportion of higher education institution staff to the REF (as indicated by Higher Education Statistics Agency returns).[5] The funding formula does not attribute Quality-Related (QR) funding to work rated as less than 3*, although the value of such outputs is acknowledged in quality descriptors.

In feedback on the 2014 exercise, the education sub-panel drew attention to areas of relative strength and weakness in the field. On classroom enquiry, for example, the panel made the following observations.

> *'There were many examples of practice-focused research, the best of which drew on social scientific theory, method or both. Some of these were world-leading, particularly those featuring co-production or close collaboration between learners, teachers and researchers. Weaker outputs were often descriptive and were judged to be of modest originality, significance and rigour. Such research is a very important form of professional activity in the development of self-improving education systems but is, by its very nature, contextually variable.'*
>
> HEFCE, 2015, p.109

The spring 2015 issue of BERA's *Research Intelligence* magazine carried articles on the 2014 REF which included comments about the quality of CtP research (Pollard, 2015). In addition, as part of BERA's commitment to CtP research issues, the BERA–RSA inquiry that reported in 2013 addressed research and teacher education (see Tatto & Furlong, 2015, for an editorial introduction to the papers that emerged from this project).

This introduction has briefly highlighted some of the underlying theories and developments that have characterised recent debate about the links between practice and research, and which influenced our thinking as we undertook the research presented below. This research report includes the outcomes of a rapid evidence assessment of literature spanning the main traditions in CtP research and a selection of school subjects. The following chapter of the report presents the methodology that was used to carry out the research. Chapter 4 presents the findings from both the first phase of the research – the rapid evidence assessment – and the second phase, interviews with people with relevant expertise in CtP research issues. The final, fifth chapter of the report presents a discussion, conclusions, and a series of brief recommendations for BERA.

---

4   These observations about the REF were taken from a draft of the BERA statement on CtP research (BERA, 2018). For REF 2014 results and submissions by unit of assessment see https://results.ref.ac.uk/(S(bbj2o1bvbzao2gzwbnhmuwkj))/Results/SelectUoa/

5   https://results.ref.ac.uk/(S(bbj2o1bvbzao2gzwbnhmuwkj))/Results/SelectUoa

3. RESEARCH DESIGN AND METHODS

The core research team was assembled from people with expertise in the following areas: carrying out CtP research; research of relevance to the links between research and practice; and methodological expertise relevant to the methods used. We are grateful to the advisory group who commented on the original proposal, and who remained available for advice; some of them offered this advice as part of the interviews we carried out for the research. The role of the BERA steering group for this project included robust peer-review of work completed, and advice on work going forward, at several stages of the project, for which we are very grateful as this added significantly to our understanding and to the quality of the work we did. Full ethical approval was sought and granted as a result of submitting to the UCL Institute of Education ethics process.

Our research was designed to address the overarching research question: **How can high quality close-to-practice research be characterised and enhanced for UK education?** It consisted of two main elements, and so was undertaken in two phases.

1. A rapid evidence assessment (RAE) of published research papers that focussed on two areas.
   a. Close-to-practice methodology studies: papers and systematic reviews across academic disciplines that focussed mainly on methodological aspects.
   b. Close-to-practice education studies: papers reporting outcomes of education research that was close to practice.

   We assessed these two areas in order to characterise the types of CtP research attracting academic attention in the UK, and ultimately to determine how close-to-practice studies could be assessed for their originality, significance and rigour.

2. Interviews with UK-based people with relevant knowledge and experience in relation to CtP research, in order to explore its value, complexities, qualities, and the potential for building capacity within the UK.

Phase 1: Rapid evidence assessment

The team faced considerable challenges in the systemic reviewing process: our research focussed on a term (CtP research) that is relatively new to the discipline of education, and that is also very broad as a concept. However,

by meeting these challenges the REA broke new ground at each stage of the process. Unlike many more conventional systematic reviews that, for example, consider the evidence in relation to a tightly defined topic such as the effectiveness of teaching methods in a specific subject area, the REA had to establish its own definition of the term to be investigated. Furthermore, the research had to address methodology as one way to understand how CtP research was and might be defined, not only as a fundamental aspect of research quality. Consistent with emerging best-practice the REA was also informed by users of the research – specifically the BERA steering group, which encouraged the research team to follow some additional lines of enquiry as the process unfolded. These lines of enquiry added to the value of the work, but also added complexity to the REA process. The overall process of the REA is illustrated in diagrammatic form in appendix 2.

1a. Rapid evidence assessment of close-to-practice methodology studies

This initial stage of the REA began with the identification of traditions/categories of CtP research using previously published reviews that were relevant to the research questions. A purposive search for one seminal document/study per tradition, and systematic reviews relevant to each tradition, was undertaken. For those traditions for which there was no systematic review, key documents or empirical papers that included thorough reviews of relevant literature were considered. The following inclusion criteria were used for the seminal conceptual papers:

- the studies provide a definition/description of their research traditions (rather than just mentioning the approach used), **and**

- studies indicate the knowledge areas and contexts in which they were conducted (and, between them, they address a range of curriculum subjects and teaching practices), **and**

- studies identify strengths and/or limitations of their research traditions.

Studies were excluded if they:
- investigated **service learning** (because such studies are designed for local learning with limited reach)

- investigated **citizen science** (because the core aim of this kind of research is to accumulate knowledge about science, not about improving teaching practice)

- were empirical studies applying but not investigating quality standards/criteria (for example, systematic reviews of CtP research that did not reflect on quality).

EPPI-Reviewer software (Thomas, Brunton and Graziosi, 2010) was used to manage all review data and to facilitate analysis throughout all stages of the RAE.

The search of sources rich in systematic reviews identified 29 potentially relevant articles from the Campbell Library mentioning education, eight systematic reviews from the EPPI-Centre that were related to CtP research, and considerably more published by the Education Endowment Foundation (EEF). These reviews shared the following characteristics:

- they rated the quality of their included studies

- they were aligned with quality criteria for systematic reviews.

However, although the systematic reviews that we found referred to the quality of the research of the studies they reviewed, none of them, from any of the three sources, explicitly addressed the quality of CtP research. Therefore, systematic reviews were excluded from the review at this stage, as further analysis was unlikely to add additional learning.

Nevertheless, we found that the Campbell Library, the EPPI-Centre and the EEF offer clear methodological guidance and standardised tools to enhance research rigour, similar to the validated guidance and tools that are also available for primary research, particularly for health research[6] but also for evaluating education.[7] However, these three sources offered much less guidance about the methods available to researchers and practitioners for working together to maximise the relevance, or enhance the 'closeness to practice', of research.

In this first stage of the review (1a) 16 different research traditions related to CtP research were identified (see chapter 4), and within these traditions 40 potentially relevant papers were located. Of those 40 papers, 14 were excluded for the following reasons:

- two studies were excluded because they did not make explicit reference to CtP research

- six studies did not provide a definition or description of their research tradition

- two were excluded because they did not include information about the strengths or limitations of their research areas

- four were published prior to 2007.

The remaining 26 documents met the inclusion criteria. These were reviewed to determine, for each document, the purpose of the document; the origins of the approach taken; the core characteristics of the research; the definition of CtP research; the quality criteria; and the strengths and limitations of the methodology.

---

6   See http://www.equator-network.org/.

7   See https://educationendowmentfoundation.org.uk/tools/diy-guide/getting-started/.

1b. Rapid evidence assessment of close-to-practice education studies

A systematic search by keywords was conducted (see appendix 1 for details of the search strategy). An electronic search of the British Education Index (BEI) initially identified 1,343 potentially relevant titles/abstracts. Subsets were identified electronically as: practitioner research (252); action research in education (204); design-based research (147); evidence-based research (135); evidence-based research AND education (123); developmental research (121); and knowledge transfer research (36). Findings that emerged from the interviewing process revealed that the action research subset typified how CtP research is generally perceived in the UK. Furthermore, time constraints provided another reason to focus on action research, as a subset from among the 16 traditions detailed above, for our analysis of education studies. Of the titles/abstracts within action research in education studies subset, 155 were published in peer-reviewed journals.

On the advice of the BERA steering group an additional search was carried out, within a selection of sources rich in school-subject-focussed studies. These were academic journals that were thought likely to specialise in one or more types of CtP research, and to include school-subject-focussed research among their articles. 115 sources were identified through this search process. The journals searched were: *Educational Researcher, Reflective Practitioner, Literacy, Education 3-13, English in Education, Research Papers in Education*, and *Research in Mathematics Education.*

The output of the searches was inspected for CtP studies, defined as classroom or subject practices, teaching or assessment practices, or teacher training. This selection resulted in 47 potentially relevant action research studies. These 47 studies were examined for two different purposes: the first was to analyse close-to-practice studies from any context (28 studies); the second purpose was to examine close-to-practice studies based in the UK (17 studies). Of those 17 papers, five were excluded by the research team because they did not report implementation of CtP research.

The final selection of this part of the REA was of 12 UK-oriented studies that were subject to full text review. Data were extracted from the 12 articles based on four questions proposed by the steering group.

- What kinds of practices have been investigated in CtP research?

- What questions about these practices have been investigated?

- What kinds of claims have been advanced, and outcomes achieved?

- What theoretical tools have been drawn upon?

The final part of the REA involved assessing the quality of research in a selection of articles that fitted the definition of CtP research established in phase 1a of the REA (see chapter 4). Quality was determined by the extent

to which the research articles demonstrated originality, significance and rigour – criteria that are also used in the REF. In order to select examples of articles, the research team returned to the 47 potentially relevant titles and abstracts of action research. From these 47 articles, 14 were excluded as they did not refer directly to CtP research. Furthermore, the reading of full texts, rather than abstracts alone, revealed that some studies were not sufficiently aligned with our definition of CtP research, or to a particular research tradition – hence a further five papers were excluded. The remaining 28 articles were allocated to members of the research team to be reviewed for originality, significance and rigour, and to give an overall judgement of 'low', 'medium' or 'high' research quality.

On the advice of the steering group the research team finally selected a small number of articles as exemplars of CtP research in education, in order to stimulate discussion with the steering group. Due to an under-representation of articles categorised as high quality, and in recognition of the fact that only one such high-quality study was UK-based, the final selection of papers for discussion included some medium-quality examples as a way to stimulate reflection on the quality of UK based CtP research.

Phase 2: Interviewing experts in close-to-practice research

In consultation with the BERA steering group for this project, three types of interviewee were agreed to be important.

1. People who work and write in a CtP research tradition, and would have something to say on its value and complexities.

2. People who might have insights into the structural difficulties in the field that impact on capacity building.

3. People whose roles give them insight into the quality of CtP research.

These roles were used as the basis for recruiting the interviewees described in table 3.1.

The interview questions (see appendix 3) were derived from the project's research objectives, and from key issues that had arisen as a result of the REA phase of the research. The interview consisted of six questions that sought the opinion and thoughts of interviewees about the following dimensions of CtP research:

• definition of CtP research

• identification of traditions of CtP research

• factors that could determine and enhance quality criteria for CtP research

- comparison between experiences in different nations of the UK

- the role of CtP research in different phases of education and educational settings

- ways in which BERA could support the development of CtP research.

Type 1. People who work and write in a CtP research tradition and would have something to say on its value and complexities	Pseudonym
Strong subject background related to secondary school teaching. Research-active. Still active in teacher training.	Alan
Strong primary education science background through teacher training. Has become research-active over a long period of time. Still active in teacher training.	Peter
Type 2. People who might have insights into the structural difficulties in the field that impact on capacity building	Pseudonym
Programme leader of a PGCE. Pursuing a doctorate. Insight into planning of research time for PGCE colleagues.	John
Senior researcher with research interests, and senior management expertise, in educational policy and practitioners' work. Knows Scotland's education systems very well.	Kim
Researches close-to-practice issues through professional learning.	Val
Type 3. People whose roles give them insight into the quality of CtP research	Pseudonym
Significant involvement in REF.	Aidan
Editor of key practice-oriented peer-reviewed education journal. Involvement in professional organisation of relevance to CtP research.	Mike

A total of seven semi-structured interviews, one with each interviewee, were conducted between March and April 2018. All interviewees gave informed consent, and received the schedule of the interview in advance. Interviews were undertaken using Skype or phone, or in-person. Digital recordings were transcribed in full by a professional transcriber. The duration of the interviews ranged between 13 and 56 minutes, with an average duration of 40 minutes.

Analysis was conducted using QSR International's NVivo 10 qualitative data analysis software. A thematic approach to coding was adopted. Coding focussed on identifying the main and most recurrent themes in the different dimensions proposed in the interview schedule, as well as identifying other topics that were considered relevant and of interest in relation to the research questions. Interview data was coded using NVivo 'nodes'. Each node reflected answers from different respondents to a particular theme. Likewise, node hierarchies were created in order to illustrate the relationships between topics and to differentiate between general themes (parent nodes) and more specific sub-themes (child nodes). These nodes and hierarchies are shown in figure 4.1, below, and table 4.4 provides a brief description for each node.

4. FINDINGS

Findings, phase 1: Rapid evidence assessment

REA of close-to-practice methodology studies (phase 1a)

Sixteen different traditions of CtP research were identified: action research, co-creation research, design-based research, evidence-informed practice, knowledge mobilisation, knowledge transfer exchange, lesson study, practitioner research, research-informed teaching practice, research learning communities, school improvement/school effectiveness, transdisciplinary research, implementation science/improvement science, insider research, citizen science, and service learning.

Of 40 potentially relevant studies identified by the team, 26 documents met the inclusion criteria. They were inspected to determine: the purpose of the document; origins of the approach; core characteristics of the research; definition of CtP research; quality criteria; strengths and limitations. It is relevant to note that the documents could be counted as falling into multiple different domains of research and/or areas of knowledge.

Tables 4.1, 4.2 and 4.3 describe the literature included at this stage in relation to their areas of knowledge, domains of research, and types of research and subject area.

Table 4.1
Domains of research and areas of knowledge of documents that met the inclusion criteria in phase 1a*

Domain of research	Area of knowledge		
	Education	Health	Other
Investigating research–practice interface	15	3	2
Investigation by or with practitioners	5	0	1
Addressing support for CtP research	9	2	0

*Note: Some documents addressed multiple areas of knowledge and/or domains of research.

Most of the papers subject to review were concerned with education (see table 4.1). Six studies featured research conducted by or with practitioners. The most common focus of the research reported in the papers was the research–practice interface. As can be seen in table 4.2, seven articles were categorised as 'evidence-informed policy and practice', six as 'design-based research', six as 'knowledge mobilisation/exchange/transfer/K*',[8] and five as 'action research'. Those studies categorised as 'evidence-informed policy and practice' did not refer to specific methodological approaches; instead, emphasis was placed on the relevance of conducting practices and developing policies based on evidence from research. As in table 4.1, the same document can be included in more than one category.

Table 4.2
Type of CtP research and area of knowledge of documents that met the inclusion criteria in phase 1a*

Type of research	Area of knowledge		
	Education	Health	Other
Action research/ participatory action research	3	2	0
Capacity building initiatives (e.g. TLRP)	1	1	0
Design-based research	5	1	0
Knowledge exchange/ transfer/mobilisation/K*	2	3	1
Lesson study	3	0	0
Practitioner research	0	1	2
Research-informed teaching practice	2	0	0
Research learning communities	1	0	0
Research use	0	0	1
Evidence-informed policy and practice	5	2	0
Participatory research /community-based participatory research	0	1	0

*Note: Some documents addressed multiple areas of knowledge and/or domains of research.

The initial stages of the REA resulted in a conceptual map of systematic reviews and seminal papers, reflecting the range of close-to-practice traditions. From those studies that we categorised as being in the 'education' area of knowledge, only eight focussed on a particular subject area. As shown in table 4.3, five were based on science, three on maths,

8   The term 'K*' has been coined to reflect the myriad terms associated with the concept of knowledge mobilisation (ODI 2012). The '*' represents an acceptance of the plurality of terminology, and provides an umbrella for notions such as knowledge transfer, knowledge utilisation and so on.

and none on other subject areas of school curricula.

Table 4.3
Focus of research and school subject area of documents that met the inclusion criteria in phase 1a, were categorised within the 'education' area of knowledge, and focussed on a particular subject area

Focus of research	School subject	
	Maths	Science
Investigating research–practice interface	1	2
Investigation by or with practitioners	1	1
Addressing support for CtP research	1	2

From the different traditions included in these methodological studies it was possible to differentiate between those that were well-established and the more incipient approaches. Action research was the most recognised and well-established approach, with origins dating back to mid-20th century. By contrast, examples of CtP research areas that have recently emerged include research learning communities and knowledge mobilisation.

The following key characteristics were shared across all studies:

- an emphasis on the cyclic and dynamic iterative process of research and its application

- an emphasis on the relevance of practitioners reflecting on their practices

- the work involved close collaboration and/or a strong relationship between academics and practitioners

- the work was focussed on solving specific problems of practitioners or communities defined by practitioners or users of research

- the work sought to make an impact on practice, and sometimes to make a contribution to the theory and methodology

- points were made about the need for an effective and supportive learning environment in order to engage in research and build capacity in research use.

Some common difficulties and challenges were also identified.

- In contrast with the normal activities of a professional (teachers, for example), performing research detracts from the time that is available for their core work.

- Financial resources are required to create partnerships between practitioners and researchers.

- Time is required for practitioners to acquire expertise in research methods, and for researchers to understand the context of practice.

- It is challenging to transfer research skills and knowledge from the trained practitioners to the rest of the actors involved in the organisation. As a result, close-to-practice interventions rely on particular individuals, such as initial teacher education academics, to support the development of knowledge and skills.

None of the close-to-practice methodology studies that we located as part of our search specifically addressed the research of academics with responsibilities for initial teacher education (ITE). However, this cadre is vital to efforts to raise standards in CtP research in education.

REA of close-to-practice education studies (phase 1b)

The initial results of the BEI search (1,343 titles and abstracts) were ultimately reduced to 12 close-to-practice research studies originating in the UK. Table 4.4 presents a summary of the levels within the education system, and the subjects/disciplines, that were addressed in each of the 12 studies.

Table 4.4
Level of education and subject focus of close-to-practice studies in the UK

Study	Level of education	Subject/discipline
Biza, Jaworski & Hemmi (2014)	Higher education	Maths
Boon (2016)	Primary education	English
Brindley & Bowker (2013)	Higher education	Ethics in school-based action research
Cain, Holmes, Larrett & Mattock (2007)	Higher education	Teaching training practices
Coates (2009)	Primary education	Science
Gibbs et al (2017)	Higher education	Higher education pedagogy and students' engagement
Grace, Rietdijk, Garrett & Griffiths (2015)	Secondary education	Science
Jaworski (1998)	Secondary education	Maths
Lofthouse, Flanagan & Wigley (2016)	Higher education	English
McDonnell and Curtis (2014)	Higher education	Assessment and feedback in higher education
Pearce (2014)	Higher education	Entrepreneurship in higher education
Wyse and Spendlove (2007)	Primary and secondary education	Creativity and creative learning

No study focussed on early years education. Six of the studies focussed on school subjects such as maths, English or science, while the other six focussed on wider issues.

Table 4.5
Types of practices investigated in UK CtP studies

Study	Type of practice investigated	Research focus/objective/ questions
Biza, Jaworski & Hemmi (2014)	University mathematics education as social activity	To gain more insight into the nature of teaching and learning
Boon (2016)	Peer assessment in formative assessment	How to increase children's uptake of feedback during peer assessment in primary school writing
Brindley & Bowker (2013)	Ethics in school-based action research in the UK	Explore policy within schools regarding school-based action research ethic
Cain, Holmes, Larrett & Mattock (2007)	The ways in which action research assignments have been carried out by trainees in their practice in relation to (a) behaviour management, (b) monitoring and assessing, and (c) pupil-centred education	The efficacy of action research in encouraging self-reflection on teaching practices
Coates (2009)	Science teaching	Development of strategies that would enhance science teaching for gifted children
Gibbs et al (2017)	Teaching practice in higher education and student engagement	How action research has been used in higher education
Grace, Rietdijk, Garrett & Griffiths (2015)	Physics teaching	Explore the impact of the Action Research for Physics programme
Jaworski (1998)	Teachers researching their own mathematics teaching at secondary level	How do teachers formulate their research? What is the nature of the evolution of the teachers' research? What is the role of the project in motivating and sustaining teachers' research? In what ways does the research influence mathematics teaching: how is the nature of the subject (that is, mathematics) significant to this research?
Lofthouse, Flanagan & Wigley (2016)	Development of CPD program to meet needs of diverse communities	Develop a video coaching approach to teach English in multicultural settings
McDonnell and Curtis (2014)	Development of democratic feedback model with higher education students	Explore the potential for more democratic practice in assessment and feedback
Pearce (2014)	Higher education	Entrepreneurship in higher education
Wyse and Spendlove (2007)	Creative partnerships in education	Explore the outcomes of an action research approach to creative learning in the context of creative partnerships

The most common types of practices in the UK CtP studies (using action research methodology) were those concerned with school teacher development in order to produce knowledge about the nature of teaching and learning processes, and/or to develop effective teaching strategies that could help students' learning (see table 4.5). For instance, Cain, Holmes, Larrett and Mattock (2007) focussed on how action research could help trainee teachers to reflect about different dimensions of their practice such as behaviour management, monitoring and assessing, and pupil-centred education. Gibbs et al (2017) looked at the ways in which action research had been used in higher education both to improve diverse aspects of teaching practice and to promote student's engagement.

Judging the quality of close-to-practice research

The final stage of the REA was the review of the research quality of 28 studies. Table 4.6 shows the frequencies of quality categories that were applied by members of the research team to these papers.

Table 4.6
Close-to-practice quality of 28 reviewed articles

Close-to-practice quality	Number of articles
Low	11
Medium	11
High	6
Total	**28**

The six articles categorised by the research team as 'high quality' CtP research were Hourigan and O'Donoghue (2015); Lamberg and Middleton (2009); McDonnell and Curtis (2014); Ostinelli (2016); Piggot-Irvine, Rowe and Ferkins (2015); and Slavin (2008). Only one of these (McDonnell and Curtis, 2014) was UK-oriented research.

Eleven out of the 28 articles were categorised as 'low quality' CtP research. In most cases, articles were found to be low-quality because of a combination of most the following factors:

• findings that were too descriptive

• research that was under-theorised

• small-scale of the study not offset by depth of analysis and/or theorisation

• lack of detail in the description of the methodology and methods of the study.

Eleven studies were categorised as 'medium quality' CtP research. In general, these articles provided more detail about their analyses and methodologies than low-quality studies, but their findings were often still too descriptive. Similarly, like the low-quality research studies, small sample size was not sufficiently compensated for by greater theorisation. Analysis in medium-quality studies was often of insufficient depth, and they offered insufficient accounts of methods of analysis.

Of the six studies categorised by the research team as high-quality, some had made effective and appropriate use of an action research design that included a minimum of two cycles (and other necessary design elements such as theoretical framing), and were still based on practitioner-focussed close-to-practice problems. These articles made an original contribution to an aspect of teaching practice, and provided a robust use of the methodology. Other characteristics of these studies were that the original contribution of the study was made explicit, and sufficient theorisation was evident throughout.

The following five studies were chosen as exemplars of different levels of quality, for discussion with the steering group. The selection was made on the basis of a range of studies that would generate significant discussion between the research team and the steering group, in line with the objectives of the research, and with the particular focus at this stage on research quality. Below, the bibliographic details of each article are given alongside a summary of comments about each of them made in the course of team members' assessments of their quality.

- Lamberg,T. and Middleton, J. (2009). Design Research Perspectives on Transitioning From Individual Microgenetic Interviews to a Whole-Class Teaching Experiment. *Educational Researcher*, 38(4), pp.233–245.

    This is a really important example of design research. It makes a contribution to design research as a methodology – hence it has broader appeal, including international appeal, and makes a contribution to a particular aspect of school-subject (maths) teaching. It is also a thoughtful review of many CtP research issues.

- Piggot-Irvine, E., Rowe, W. and Ferkins, L. (2015). Conceptualizing indicator domains for evaluating action research. *Educational Action Research*, 23(4), pp.545–566.

    This paper offers three broad categories of evaluation indicators: preconditions/precursors for action research; action research processes and activities; and action research outcomes and impacts. The point is made in the paper that there is a difference between outputs that evaluate close-to-practice methodology and those that disseminate the results of close-to-practice research.

- McDonnell, J. and Curtis, W. (2014). Making space for democracy through assessment and feedback in higher education: Thoughts from an action research project in education studies. *Assessment & Evaluation in Higher Education*, 39(8), pp.932–948.

  The engagement in, and responses of, university students in this exploration of democratic assessment has potential to be influential on a large scale, despite its small sample size. The article achieves this through appropriate theorisation. The conclusions identify where the original contribution is made (although this could have been even more specific), which raises the important point that CtP research, like any research, needs to provide an explicit warrant for its originality. This requires, at the very least, a substantial review of previous published research in any given field, then a clear indication of what the original contribution is.

- Hourigan, M. and O'Donoghue, J. (2015). Addressing prospective elementary teachers' mathematics subject matter knowledge through action research. *International Journal of Mathematical Education in Science & Technology*, 46(1), pp.56–75.

  This paper is significant for several reasons. It uses an action research design, and makes explicit reference to some key features such as 'reconnaissance'. Many studies claim to be action research but few adopt the essential features, such as a minimum of two cycles of action and research. The work is also clearly rooted in a practitioner's close-to-practice problem, and it focusses on a subject in the school curriculum (again, maths). It is weakened somewhat by a lack of detail about the analysis processes used.

- Boon, I. S. (2016). Increasing the uptake of peer feedback in primary school writing: Findings from an action research enquiry. *Education 3-13*, 44(2), pp.212–225.

  One of the important elements of this research was that it was carried out by a teacher, hence its selection by the research team. In general, the methodology is well described, and there is even a short section on the way in which qualitative data analysis was undertaken. However, the sample size is very small, and this is not sufficiently compensated for by greater theorisation and/or depth of analysis to meet the highest standards of quality.

Findings, phase 2: The interviews
Perceptions of close-to-practice research in the UK

The emergent findings from the first phase of the REA research (1a, above) were used to inform some of the questions in the interview phase of the research. The themes that emerged from the analysis of the interview transcripts are illustrated in figure 4.1, and defined in table 4.7.

Figure 4.1
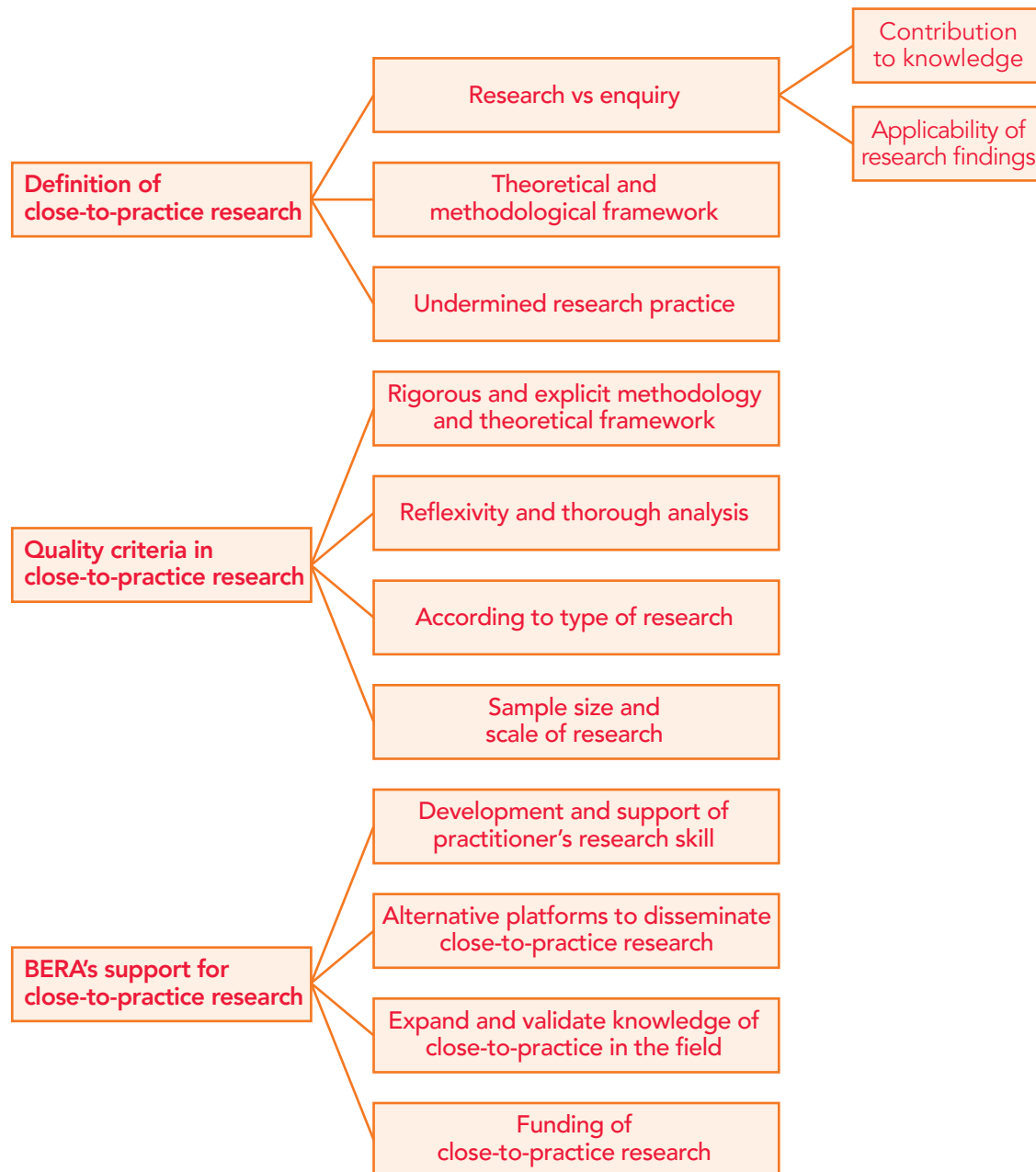Themes/NVivo nodes derived from the interview data

Table 4.7
Definitions of NVivo nodes derived from analysis of the interview data

NVivo Nodes	Definition
Definition of close-to-practice research	This node categorises how interviewees understand close-to-practice research
Relevance of close-to-practice research	Summarises the positive and relevant elements of close-to-practice research in education
Research vs enquiry	Refers to the distinction made by the interviewees between academic research and practitioner research
Contribution to knowledge	Main element that distinguishes research types
Applicability of research findings	The application of research findings to practice
Theoretical and methodological framework	Robustness of theoretical and methodological framework in research activity
Undermined research practice	General view of practitioners' research as a research practice
Quality criteria in close-to-practice research	Views of interviewees about the criteria relevant to identifying quality in close-to-practice research
Rigorous and explicit methodology and theoretical framework	Importance of authors following rigorous methodology and theoretical framework, and providing an explicit account of these in reports/papers
Reflexivity and thorough analysis	Importance of reflexivity about the research process and findings, and its development thorough analysis
According to type of research	Quality of research to be assessed according to particularities and aims of close-to-practice research
Sample size and scale of research	Sample size and scale of close-to-practice research as features of this type of research, and their impact on the quality of close-to-practice research
BERA's support for close-to-practice research	Interviewees' opinions about the ways in which BERA could support close-to-practice research in education
Development and support of practitioners' research skill	Relevance of enhancing practitioners' research skills
Alternative platforms to disseminate close-to-practice research	The need to look for varied ways, other than academic journal publications, to disseminate close-to-practice research
Expand and validate knowledge of close-to-practice in the field	The need for BERA to take an active role in stressing the relevance of close-to-practice in education
Funding of close-to-practice research	Interviewees' opinions about the need to provide multiple and varied opportunities for funding close-to-practice research in education

The strengths of the high-quality close-to-practice outputs identified in the REA were paralleled by some positive observations by the interviewees about CtP research. However, as will be seen below, the interviewees recognised some significant challenges facing those who

undertake CtP research. The weight of comments about the challenges of CtP research reflected the aim of the interview phase, which was to explore such challenges.

Definition of close-to-practice research

The relevance of close-to-practice research in education

Close-to-practice research was presented by interviewees as an important type of research in education mainly because of the impact and applicability of this kind of research, and the opportunities it offers to connect theory and practice in order to develop richer understandings of educational issues in practice, but also at a policy level.

> **Kim:** *'…and I think that it is about that really strong reporting of the contextual issues that are prevailing within that close-to-practice arena, because that's the bit I think that brings the richness that those researchers that are not working in the close practice field miss.'*

High-quality CtP research was seen by the interviewees as research that focussed on issues that are important for practitioners, providing them with tools to better understand their problems, and to find solutions to improve their practice and promote meaningful change. Close-to-practice researchers recognise 'usefulness' and 'practicality', combined with an understanding of how theory can be applied in a particular context in order to help broaden understanding about practice.

Furthermore, another important feature of CtP research is that it can contribute to the articulation of 'that space in relation to policy research and practice' (Kim). Although interviewees argued that the practice–policy relationship is complex, they pointed out that policy, research and practice are concerned with the same problems, and CtP research is a relevant way to connect and contextualise theory and policy. The creation of partnerships between researchers and practitioners is therefore crucial to developing new and powerful insights that could contribute to more complex explanations.

Distinctions between academic research and close-to-practice research

While reflecting on the definition of CtP research, most interviewees pointed out that it would be relevant to draw a distinction between what is considered 'academic research' and research conducted within school settings by practitioners. While the former is widely identified as 'research', the latter was conceptualised by four respondents as 'practitioner enquiry'.

According to the interviewees one of the main elements that differentiates academic research and practitioner enquiry is the role of theory, which can enable generalisation across cases. In the case of academic research, it

was acknowledged that its main purpose is the contribution to knowledge, while enquiry is linked to more practical aims and more specific to particular contexts and times. Furthermore, the use of a strong theoretical framework to support and enable the generalisation of findings is a fundamental feature of rigorous research. Related to the role of theory was the view that a robust methodological framework that supports confidence in research findings, and therefore allows for generalisation of the research findings, was necessary.

Some of the interviewees saw academic research and practitioner enquiry as two ends of a continuum: on one side, practitioner enquiry is more concerned with practical and contingent issues, and therefore it is usually based on small samples sizes or short-term interventions, or both. At the other end of the continuum, academic research seeks to contribute to knowledge.

Aida: *'But if it is going to be called research then… the primary objective is to improve knowledge which may then be applied to the improvement of practice and policy, but its primary aim is knowledge itself… For enquiry I think the primary aim is a more direct improvement.'*

John: *'…[B]ut I think they use those terms as a kind of way of saying, Look, you know, we know that we're not kind of doing rigorous research, what we're doing is something that we're hoping will help us to improve within our own school, or give us a bit of a clue, or show… governors and other stakeholders that we are interested in kind of improving.'*

Mike: *'I'm not sure that practitioners are particularly interested in originality and significance… certainly in the way that we would define them – they're more concerned about… How can this help my practice? How can this help us to make this a better school? How can we get better outcomes for the children?'*

Kim: *'The reason for them being under-theorised, small scale and so on – you can easily see when you're involved in practitioner research because again their purpose is to understand development in the school, they're not interested in writing up the methodological aspects.'*

Related to the distinctions made between academic research and practitioner enquiry were some institution-inspired differences. These included how practitioners' research can appropriately interpret and employ existing academic research understandings to change their contexts, and the role of academia in supporting this process.

Kim: *'And so what the University want out of it in terms of looking at research outputs or even in terms of knowledge… [is] critique of knowledge, [but that] was not what the practitioners were after – they were after a very clear, "What can we do in this particular project that will help us to do what we're doing in schools better?"… They wanted the analysis but they wanted the analysis to come with very practical outputs, not with a critique necessarily of policy.'*

Val: *'[In our work] we developed tools for enquiry which supported teacher enquiry and that helped them to investigate what was happening in the classroom, so they were engaging in enquiry and in research if you like… What happened is that we created an appetite for engaging in research… For a long time the Scottish Centre for Research – which sadly was absorbed into Glasgow University and then disappeared – the work they did on actually bringing together and interrogating you know small group work.'*

Strong CtP research was expected to include features of academic research, such as robust theoretical and methodological features and support from researchers. When these are present, more comprehensive and complex understanding of practical outcomes, and a contribution to knowledge, is possible. Kim pointed out that this distinction between academic and practitioners' research involved an 'identity shift'. From the practitioners' side it was necessary to 'learn a completely different language' in terms of theory and methodology. And for all involved it required the need to go through the process with an open mind.

Conceptualisation of knowledge and what counts as research

Having positioned CtP research along the continuum between academic research and practitioner enquiry, some critical views arose in the course of the interviews regarding the role of the REF in relation to the understanding of practitioner research. All interviewees acknowledged the REF as the main current driver for further development of research within universities in the UK. Not only do REF criteria appear to define what good research is but, interviewees reflected, the REF also was having an impact on the themes, methodologies and types of research publications.

Mike: *'What (universities) want is the kind of research that is… driven by the REF, and the REF has this notion of journals of a certain kind, or academic impact factors… you know, all of that kind of thing are essentially driving out the opportunities for publication for practitioner or small scale*

research. […] [I have talked with] colleagues telling me they have been told they are not allowed to publish in the journal [that I edit] because their institution has told them there is a list you can publish in.'

Val: *'…[T]he fact that a lot of educational researchers, therefore a lot of BERA members, are teacher educators, and need to be submitted to REF, and so their publications, their outputs if you like, tend to be of a certain kind… and these were rated quite low in the last REF.'*

It appeared to some interviewees that the REF could be narrowing what counts as research, and also entrenching the division between practitioner research and academic research. Furthermore, most interviewees agreed that in this division there is a deficit model of CtP research, which appears at the lower end of REF scores arrived at according to REF criteria.

Although there was explicit mention during the interviews that each research output is assessed by the REF according to its particular features and its field of enquiry, the association between 1* REF outputs and practitioners' research was felt to be widely acknowledged. However, some interviewees appeared to have a misconception about 'what counts' in the REF – for example, that high-scoring REF outputs are only published in 'certain kind[s] of journals' with particular academic impact factors.

Mike: *'My concern there again is that there's a danger that we are actually again bifurcating even more… you know, we have these posh academic journals where we worry about citations and REF and impact and how we (get) impact case studies and so on… and that's the real stuff that we as academics you know believe in… and in particular that's what the University believes in […] More worryingly… I do have some colleagues… who will themselves say, That kind of research is just not of interest, it's not REF-able… because it's just small-scale, it's one classroom.'*

John: *'[I]n this [approach to] research, which is the REF?… you know it's one-star in REF… even though it might locally be quite [a] useful study, and these approaches [close-to-practice traditions] have the potential for real impact. But I think that the view I've experienced in the short time that I've been in ITE is that you know in terms of a hierarchy they're quite far down.'*

Another interesting point made by Mike was about the change over time, possibly influenced by REF, to how school-based research is conceptualised within universities. He mentioned that the work he was conducting as an academic in collaboration with a school was being defined by his university as 'consultancy', not as research. He highlighted how the role of academics in practitioners' research had changed, so that what was once considered school-based research was today conceptualised as consultancy. Others added a critical view on the distinction between researcher and practitioner activities, arguing for a more collaborative and horizontal partnership in which both parts contribute with relevant knowledge.

> **Mike:** *'Now at the start of that time this kind of activity, which would be as far as I'm concerned school-based research, would be fairly immediately accepted as such, as school based research, and you know that's a research activity. And in the last three to five years there's certainly been a considerable difference that's developing, and it's become more and more problematic for us to persuade the University authorities that what I would consider to be school-based research is research. I think that's partly to do with the pressures of the REF, partly to do with University structures, but I think it's also to do with a long-term overall vision of many colleagues who are not educational researchers, not involved in education, to see school-based as research as not really research.'*

> **Val:** *'I'm particularly interested in how knowledge is created and translated within different communities, and my view is that actually they're both practice communities in fact. So the idea that one is and one isn't is misleading, but they're different practices which intersect.'*

Close-to-practice as research that is undermined

Related to the distinction between academic research and practitioner enquiry, most interviewees acknowledged that CtP research is usually undermined through comparison with other research.

> **Aida:** *'But you know unfortunately I think the word 'research' has a certain kudos around it, which possibly 'enquiry' lacks. And there might be another word, but I think… and of course nobody wants to be told that they're not doing research, that they're 'only' doing enquiry, if you put it you know in a pejorative way like that.'*

John: *'And I suppose my experience is that people working in schools and even universities are almost apologetic when they talk... I mean you know they're almost apologetic in the way in which they described the research they're doing as if there's certainly a kind of hierarchy.'*

Mike: *'...[A]nd school-based research, and what we're terming here 'close to practice research', is the bottom end of that hierarchy. Well it's something minor, not really research, not really...'*

Another relevant point made in this regard was about the definition of CtP research, as it highlighted the position of the academic, as *close*-to-practice necessarily also implies distance from, or a lack of involvement in, the *practical* activity itself. Some interviewees preferred the term 'practitioner research' to refer to this type of research, where the emphasis is placed on the practitioner's role, with the academic in a collaborative role.

Quality criteria in close-to-practice research

Most interviewees agreed that CtP research was regarded as small scale, with small sample sizes, and as consisting of analysis that was not related to or supported by an explicit theoretical framework – hence it was more descriptive in seeking to provide a response to a practical problem.

The most common problems in CtP research mentioned by the interviewees were agreed to be the following.

Theory aspects

The interviewees recognised that practitioners have a rich knowledge of the contextual issues and cultural aspects of research sites. However, they may not know how to interpret the data using a robust theoretical framework, and the consequent research reports and papers can be descriptive and under-theorised.

Kim: *'...[S]o I think it's that realisation that a paradigm, a research approach, actually matters. And I think that is missing, you know, they go into collecting data or you know looking at something they want to, but they don't start off with saying you know, Well what is my research approach?'*

Peter: *'And the way that I rather cruelly do it with research associates is to say, 'So what?' a lot of the time. And that actually the 'So what?' only gets answered if you've theorised what you're doing and ... why you're doing it in a particular way. But what is it that you're trying to get at through this study, have you got at it at all? And what*

therefore [the] insights are… what are you adding to theory as a result of [the] thing that you're doing. So I think the theoretical element of it is really really important.'

Val: *'We don't have recourse often to the kind of theoretical analysis that would enable us to illuminate and understand the issues better. So either we don't know they're out there, so we don't know how we can use them… I think a wider menu of theoretical perspectives would help [practitioners].'*

Methodological rigour

Another feature related to quality criteria was the methodological rigour of the research. There was no suggestion by interviewees that CtP research was inherently weaker than other research. However, it was felt that CtP researchers often need more and better training in using methodological tools. One of the difficulties that experienced academics mentioned was that practitioners struggled to identify the research problem, and therefore the purpose and questions that would guide the research. Interviewees recognised that practitioners are often not familiarised with the variety of research tools available, and therefore have difficulties in selecting the most appropriate tools according to the purpose of the research. Relating research tools to theory was also seen as a challenge.

Val: *'There's no reason why close-to-practice research can't be rigorous in its methodology, there is no reason that you can't analyse that data you know with a rigour of a theoretical underpinning and a good theoretical framework for analysis. So it's almost again the lack of understanding of how you bring the theory and practice together.'*

Mike: *'Me personally, how I try to enhance quality, how I think for me quality should be enhanced in close-to-practice or practitioner research is by giving that input, by trying to enhance that rigour, by trying to get colleagues to think about aims more carefully, to try and get them to read around the literature and to read around and problematise the government initiatives which they're often responding to.'*

With regard to methodology, a positivist quantitative approach was mentioned several times as a referent, but it was also recognised that this was not the only way to do relevant and high-quality research. Different interviewees argued that researchers must choose a theoretical and methodological approach that is relevant for the research purposes and questions, and they should report the reasons why they have chosen this

approach, as well as its contribution to the research process and outcomes. Being transparent about methodology adds to the quality of the research.

> **Peter:** *'And so I think what makes high quality is [knowing] where… this approach that I've taken fit[s] within the general approaches that have been taken… I'm talking methodologically now… within the sort of framework of methodologies.'*

> **Val:** *'And… I always think that the qualitative equivalent to statistical analysis is transparency and replicability. You know you've got to be completely transparent about what you did, why you did it, how you did it, so that someone else can see – they can't run it through SPSS, but what they can do is say, "Right well I don't think that was a very good decision", or "Because you decided that, that happened".'*

Other relevant aspects concerned conducting a robust literature review to support the arguments presented in a publication, as well as in providing a detailed contextualisation of the practice being studied.

> **John:** *'You know I'm thinking about the work that I'm doing with master's supervision where a master's student will come up with a proposal and it won't be… as you're describing, it won't be underpinned by theory, it won't be backed by a literature review, but you can see that they've done some reading and that there's a basis of a very good study there.'*

> **Kim:** *'Yeah and I think that it is about that really strong reporting of the contextual issues that are prevailing within that close-to-practice arena, because that's the bit I think that brings the richness that those researchers that are not working in the close practice field miss.'*

Sample size and scale of research

One issue that was widely agreed upon was that the size of the sample, and the scale of the research, were important considerations in relation to the quality of research. As mentioned above, respondents signalled that the small size and scale of CtP research has been identified as an issue for the quality of this type of research. However, most agreed that sample and scale were not *necessarily* an obstacle to producing relevant and high-quality research, because the ability to link theory and practice could enhance the quality of research sufficiently to compensate for or address concerns about a small sample size and/or scale.

> **Mike:** *'More worryingly… I do have some colleagues – not all by any means – who will… say, "That kind of research is just not of interest, it's not REF-able… because it's just small-scale, it's one classroom".'*

> **Kim:** *'I mean there is no reason… and I think that… we were just having an internal review at the moment, and I think you can look at reasonably… small-scale pieces of research, but they've been analysed with, you know, real rigour in terms of… methodology… and the theory is strong. So I think the notion of small-scale being problematic isn't necessarily the problem.'*

> **Val:** *'Think small scale – yes, I think… and maybe that isn't necessarily a problem, but it is an issue about what you do about that.'*

Rigour in definition of terms

A third element of the quality criteria was rigour in the definition of terms of research traditions. Regarding the different close-to-practice traditions identified during the REA element of this project, and which were listed as part of one of the interview questions, the interviewees only suggested 'appreciative enquiry' (Mike) and 'reflective practice' (Aida) as approaches that could be added to that list.

Some interviewees mentioned the importance of being rigorous in defining the terms of the 'approaches'. One of the problems in CtP research is blurred boundaries between and lack of definition of what each of the approaches implies in theoretical and methodological terms – something that can undermine the quality of CtP research. For instance, Val pointed out that different terms are used in CtP research in education that describe essentially the same method, and that similarly different terminologies are 'nest[ed] within each other'.

Ways for BERA to support close-to-practice research in education

One important element of the interviews was to look for different ideas about how BERA could support the development of quality CtP research in education.

One of the most salient aspects mentioned by interviewees was related to the funding available for this type of research. They mentioned that the availability of funds for CtP research was a problem, and that 'little funding implies little value'. None of the interviewees mentioned funding sources such as EEF research schools.

One of the issues that was frequently mentioned was the lack, or poor quality, of training that practitioners had on research methods and use of theory. There was consensus on the need to provide support to practitioners to learn this 'new language' and acquire the knowledge necessary to make robust interpretations of research findings in the light of sound and rigorous theoretical frameworks. Interviewees proposed that BERA could help by promoting and valuing a wider range of methodologies that could be more suitable for practitioners' contexts and the time that they have available for research. The research skills to be developed should also include the reflexivity and critical thinking that would help practitioners to problematise their practice and conduct trustworthy and credible research that could be useful to other contexts.

Some interviewees argued that it is necessary to validate the relevance of CtP research. The practical purposes pursued by practitioners' research could be presented as valuable in different ways from academic contributions to knowledge. Interviewees also mentioned the necessity of supporting and validating alternative ways to publish CtP research, including special journals but also other means of dissemination (online, webinars and discussion groups, for example). Similarly, the need to explicitly promote partnerships that connect universities and practitioners was stressed. Facilitating this process through greater visibility and availability of mechanisms and funding, in addition to promoting this type of research and the importance of engaging in it, emerged as activities that BERA should focus on.

5. DISCUSSION AND CONCLUSIONS

As a result of the initial guidance provided in the BERA tender, the rapid evidence assessment, and the analysis of responses of the interviewees, our definition of CtP research is as follows.

> *Close-to-practice research focusses on issues defined by practitioners as relevant to their practice, and involves collaboration between people whose main expertise is research, practice, or both.*[9]

We also offer the following supplementary definition of *high quality* in close-to-practice.

> *High quality in close-to-practice research requires the robust use of research design, theory and methods to address clearly defined research questions, through an iterative process of research and application that includes reflections on practice, research, and context.*[10]

The main emphasis in CtP research has been on investigating the research–practice interface itself. The significance of the research–practice interface, to researchers, practitioners and policymakers, has if anything continued to increase over time, as the establishment of this BERA research project attests.

High-quality CtP research has the intrinsic benefits, as some see it, of being close to practice: the applicability to 'problems' in practice; the frequent connections between practice and policy that CtP research is very well placed to explore; and, crucially, the potential for rigorously linking theory with practice – a link that, as we discuss below, is insufficiently established in some CtP research.

There is a need for a more explicit focus on methodology in CtP research. Furthermore, while investigation of the research–practice relationship will remain important, there is a need to ensure that CtP research outcomes have relevance beyond the local. This movement from more local relevance to national and international relevance will be achieved through greater understanding of quality in both empirical studies and in studies with conceptual or theoretical emphases. Wider relevance is necessary to make the outcomes of CtP research more likely to be judged by academic peers as high quality.

---

9   BERA elaborated on this definition in its statement about CtP research (BERA, 2015); the text is not intended to be identical in both documents.

10   See previous footnote.

With regard to academic disciplines, the most important aspect of any research is the extent to which it makes an original contribution to knowledge. There are examples of high-quality CtP research that both make a significant original contribution and also, crucially, explicitly identify the original contribution to knowledge that they offer. One important factor in a study's originality is the extent and rigour of the review of relevant studies in the field presented in its literature review. Weaker CtP research fails to survey previous research in sufficient depth, so is unable to provide a sufficient evidence of an original contribution.

The best CtP research gives a full and rigorous account of whichever methodology has been selected. Fundamental aspects of chosen research designs are in place: for example, the strong presence of theory *and* empirical data (qualitative and/or quantitative). In weaker CtP research, methodology is not explained in sufficient depth. One methodological aspect that is frequently neglected is a sufficiently rigorous account of data analysis processes, particularly where research is qualitative.

The ultimate consideration for any research is significance and impact. The previous points made about originality and rigour are also relevant to research significance. If research is not of sufficient quality in general it is not going to be deemed rigorous or significant, and therefore is unlikely to have positive impacts. Although the scale of research is very much a methodological aspect, it also has a clear influence on the likelihood of the research being significant in and to its field. The strongest CtP research offered sufficient depth in its analysis and findings despite what some might regard as small sample sizes. The rigour of the theorisation was an important element of this depth of analysis. Much less common was CtP research with larger sample sizes, including quantitative analyses based on statistical probability. In the context of more general weaknesses in quantitative research in social sciences, education as a discipline needs to continue to attend to this, including supporting greater use of quantitative methods in CtP research.

In addition to their intrinsic importance, originality, significance and rigour are the main criteria used in the assessment of research outputs in the UK's Research Excellence Framework (REF). Some of our interviewees raised significant concerns about the ways in which the REF was being addressed in university settings: it was reported that the REF is negatively influencing perceptions of research that is close to practice. At the same time, it was recognised that practitioners' understandings of the purposes of research often differed from researchers' perspectives. A key distinction was between the main research purpose of making a contribution to knowledge, and the main research purpose of making a contribution to addressing a practical problem. What's more, it was recognised that CtP research can have high value – to practitioners, for example – but may not make a contribution to knowledge in an academic field. Our research leads us to the view that

contribution to practice and contribution to theory are not incompatible. However, in the context of the REF – which is a significant driver for university research, and hence has a direct impact on academic staff who see their research as close-to-practice – it is important that the distinctions of research quality, and the implications of engaging with these, are understood so that appropriate strategic decisions can be made by researchers when they consider the research projects they wish to engage with.

This study benefited from a research team and an advisory group that each brought direct experience of CtP research in and for education and other sectors. It employed clear methods for accessing specific sections of the literature to address the research questions. By drawing on systematic reviews and seminal papers, this work builds on thoughtful analyses conducted by other authors across of range of relevant specialisms. The knowledge generated from this literature was combined with knowledge from key informants bringing expertise in CtP research and the research structures supporting higher education in the UK, and education research in particular. The work was conducted quickly in order to feed in to national discussions about close-to-practice, and this urgency necessarily reduced the scope and depth of the searches and analyses. Nevertheless, it has revealed opportunities for supporting CtP research, and for learning from other sectors such as health in which research by, with and for professions allied to medicine (such as nurses, therapists) shares many similarities with that of academics and practitioners in education.

6. RECOMMENDATIONS FOR BERA

- Engage with a wide range of stakeholders in the topics addressed in this report, particularly raising the profile of CtP research, and emphasising the breadth of research methods that can be used.

- Investigate structures through which BERA could support the development of high-quality CtP research in education through engagement with research networks that engage researchers and practitioners as partners in driving, conducting, reporting and using research.

- Provide guidance on the quality of CtP research in relation to originality, significance and rigour.

- Provide guidance on research funding sources that are likely to be well disposed to applications for CtP projects.

- Articulate strategies and career development opportunities for close-to-practice researchers in universities that are likely to support the development of their methodological knowledge.

- Support universities to maintain and strengthen the PhD-by-publication route to a doctorate as one that can result in more efficient use of academic time.

- Engage with practitioners from schools, and researchers, to explore the methodological aspects of CtP research.

- Engage with some of the new sites for research, such as research school networks and other societal developments, to promote high-quality CtP research.

- Engage with senior figures in universities to raise awareness of high-quality CtP research and its potential in REF-related university processes.

- Seek to influence REF processes so that high-quality CtP research is not discriminated against.

- Promote and facilitate partnerships between universities and practitioners.

- Review BERA publications to ensure that close-to-practice researchers have the guidance necessary to enhance the likelihood that they will be successful in getting their research published.

REFERENCES

Biza, I., Jaworski, B. & Hemmi, K. (2014). Communities in university mathematics. *Research in Mathematics Education*, 16(2), pp.161–176.

Boon, I. (2016). Increasing the uptake of peer feedback in primary school writing: findings from an action research enquiry. *Education 3-13*, 44(2), pp.212–225.

Brindley, S. & Bowker, A. (2013). Towards an understanding of the place of ethics in school-based action research in the United Kingdom. *Educational Action research,* 21(3), pp.289–306

British Educational Research Association [BERA] (2017). *Tender: Dimensions of quality in close-to-practice educational research.* London. Retrieved from https://www.bera.ac.uk/opportunity/tender-dimensions-of-quality-in-close-to-practice-educational-research

Cain, T., Holmes, M., Larrett, A. & Mattock, J. (2007). Literature-informed, one-turn action research: three cases and a commentary. *British Educational Research Journal*, 33(1), pp.91–106.

Chalmers, I., Bracken, M. B., Djulbegovic, B., Garattini, S., Grant, J., Gulmezoglu, A. M., Howells, D. W., Ioannidis, J. P. A. & Oliver, S. (2014). How to increase value and reduce waste when research priorities are set. *The Lancet*, 382: pp.156–165.

Coburn, C., Penuel, B. and Geil, K. (2013). *Research Practice Partnership: A Strategy for Leveraging Research for Educational Improvement in School Districts.* Retrieved from: http://wtgrantfoundation.org/library/uploads/2015/10/Research-Practice-Partnerships-at-the-District-Level.pdf

Coldwell, M., Greany, T., Higgins, S., Brown, C., Maxwell, B., Stiell, B., Stoll, L, Willis, B. and Burns, H. (2017). *Evidence-informed teaching: an evaluation of progress in England.* London: Department for Education.

Cooke, J. (2005). A framework to evaluate research capacity building in health care. *BMC Family Practice*, 6(44).

Coates, D. (2009). Developing challenging science activities for gifted pupils through action research. *Education 3-13*, 37(3), pp.259–268.

Dunne, J. (1997) *Back to the Rough Ground: Practical Judgment and the Lure of Technique.* Notre Dame, Indiana: University of Notre Dame Press.

Ertl, H., Zierer, K., Phillips, D. & Tippelt, R. (2015). Disciplinary Traditions and the Dissemination of Knowledge: an international comparison of publication patterns in journals of education. *Oxford Review of Education*, 41(1), 64-88. https://doi.org/10.1080/03054985.2014.1001350

Frankham, J. (2009). *Partnership Research: A review of approaches and challenges in conducting research in partnership with service users.* London: ESRC National Centre for Research Methods. Retrieved from http://eprints.ncrm.ac.uk/778/1/Frankham_May_09.pdf

Furlong, J. (2013). *Education - An Anatomy of the Discipline: Rescuing the university project?* London: Routledge.

Furlong, J. & Whitty, G. (2017). Knowledge Traditions in the Study of Education. In Furlong, J. & Whitty, G. (2017). *Knowledge Traditions in the Study of Education: An international exploration* (pp.13–57). Oxford: Symposium Books

Gibbs, P., Cartney. P., Wilkinson, K., Parkinson, J., Cunningham, S., James-Reynolds, C., Zoubir, T., Brown, V., Barter, P., Sumner, P., MacDonald, A., Dayan, A., & Pitt, A. (2017). Literature Review on the Use of Action Research in Higher Education. *Educational Action Research*, 25(1), pp. 3–22.

Grace, M., Rietdijk, W., Garrett, C. & Griffiths, J. (2015). Improving physics teaching through action research: the impact of a nationwide professional development programme. *Teacher Development*, 19(4), pp.496–519

Higher Education Funding Council for England [HEFCE] (2012). Part 2C: Main Panel C criteria. Retrieved from https://www.ref.ac.uk/2014/pubs/2012-01/

Higher Education Funding Council for England [HEFCE] (2015). *Research Excellence Framework 2014: Overview report by Main Panel C and Sub-panels 16 to 26*. Retrieved from http://www.ref.ac.uk/2014/media/ref/content/expanel/member/Main%20Panel%20C%20overview%20report.pdf

Hourigan, M. & O'Donoghue, J. (2015). Addressing prospective elementary teachers' mathematics subject matter knowledge through action research. *International Journal of Mathematical Education in Science & Technology*, 46(1), pp.56–75.

Jaworski, B. (1998). Mathematics Teacher Research: Process, Practice And The Development Of Teaching. *Journal of Mathematics Teacher Education*, 1(1), pp.3–31.

Lamberg, T. & Middleton, J. (2009). Design Research Perspectives on Transitioning From Individual Microgenetic Interviews to a Whole-Class Teaching Experiment. *Educational Researcher*, 38(4), pp.233–245.

Leach, J. (2015, March). The REF Results for Education and Initial Teacher Education. *Research Intelligence, 126*, pp.19–20.

Lofthouse, R., Flanagan, J. & Wigley, B. (2016). A new model of collaborative action research: Theorising from inter-professional practice development. *Educational Action Research*, 24(4), pp.519–534.

Malik, S. (2016). Knowledge Mobilization in Ontario: A Multi-case Study of Education Organizations. A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy Department of Leadership, Higher and Adult Education Ontario Institute for Studies in Education University of Toronto. Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/73061/1/Malik_Sofya_201606_PhD_thesis.pdf

McCulloch, G. & Cowan, S. (2018). *A Social History of Educational Studies and Research*. Abingdon: Routledge.

McDonnell, J. and Curtis, W. (2014). Making space for democracy through assessment and feedback in higher education: thoughts from an action research project in education studies. *Assessment & Evaluation in Higher Education*, 39(8), pp.932–948.

Murray, J. & Male, T. (2005). Becoming a teacher educator: evidence from the field. *Teaching and Teacher Education*, 21, pp.125–142. doi:10.1016/j.tate.2004.12.006

Overseas Development Institute [ODI] (2012). K*: Knowledge management and mobilisation. Retrieved from https://www.odi.org/projects/2650-k-knowledge-management-and-mobilisation

Ostinelli, G. (2016). The many forms of research-informed practice: A framework for mapping diversity, *European Journal of Teacher Education*, 39(5), 534–549

Pearce, A. (2014). The action researcher as tempered radical and strategic entrepreneur in higher education: a personal reflection. *Educational Action Research*, 22(2), pp.178–195.

Piggot-Irvine, E., Rowe, W. & Ferkins, L. (2015). Conceptualizing indicator domains for evaluating action research. *Educational Action Research*, 23(4), pp.545–566.

Pollard, A. (2015, March). REF 2014: What does it mean for education?. *Research Intelligence* 126, pp. 11–12.

Preus, A. (2007) Historical Dictionary of Ancient Greek Philosophy. Lanham, MD: Scarecrow Press

Richards, D., Coulthard, V. & Borglin, G. (2014). The State of European Nursing Research: Dead, Alive, or Chronically Diseased? A Systematic Literature Review. *Worldviews on Evidence-Based Nursing*, 11(3), pp.147–155.

Slavin, R. (2008). Perspectives on Evidence-Based Research in Education—What Works? Issues in Synthesizing Educational Program Evaluations. *Educational Researcher*, 37(1), pp.5–14.

Tatto, M. T. & Furlong, J. (2015). Research and teacher education: Papers from the BERA-RSA Inquiry. Oxford Review of Education, 41(2), pp. 145–153.

Thomas, J., Brunton, J., & Graziosi, S. (2010). *EPPI-Reviewer 4: Software for research synthesis. EPPI-Centre Software.* London: Social Science Research Unit, UCL Institute of Education.

Whitty, G. & Wisby, E. (2017) Is evidence-informed practice any more feasible than evidence-informed policy? Presented at the British Educational Research Association annual conference, University of Sussex, 5–7 September 2017.

Wyse, D., & Spendlove, D. (2007). Partners in creativity: Action research and creative partnerships. *Education 3-13*, 35(2), pp.181–191.

APPENDIX 1: SEARCH STRATEGY

1. Systematic review sources (scanned all titles)
   - Campbell Library: search date 24/10/17 (since inception)
   - EPPI-Centre: search date 25/10/17 (since 2007)
   - Education Endowment Foundation: search date 25/10/17 (since inception)

2. Electronic databases
   - Web of Science (WoS) Core Collection (search date, 11/11/17)

3. British Education Index (search date 14/11/17)

4. Journals for subject based searches:
   - *Educational Researcher*
   - *Reflective Practitioner*
   - *Literacy*
   - *Education 3-13*
   - *English in Education*
   - *Research Papers in Education*
   - *Research in Mathematics Education.*

Electronic searches applied key terms to titles and abstracts published in English between 2007 and 2017. Typical search terms were:
   - Action Research AND Education
   - Action Research in Education
   - Action Research
   - Applied Research in Education
   - Design Based Research AND Education
   - Design Based Research in Education
   - Design-Based Research
   - Developmental research
   - Developmental Research in Education
   - Evidence based research
   - Evidence based research AND education
   - Evidence Based Research in Education
   - Knowledge transfer research
   - Participatory Action Research
   - Practitioner Research

5. Coding

Studies were included if they met at least one criterion in each of the following sets regarding the purpose, content and study design.

Purpose:

- investigations by/with practitioners

- investigations of the research-practice interface

- investigations of structures (and underpinning standards) supporting close-to-practice research

Study design:

- analysis addressing research quality by drawing on a body of literature (e.g. systematic review, critical review)

- conceptual documents: these could be journal articles, book chapters or reports that provide theoretical overviews of the research areas

- empirical studies in education that addressed classroom or subject practices, teaching or assessment practices, or teacher training, and/or explicitly referred to a particular close-to-practice tradition (without necessarily commenting on the strengths and/or limitations of that research tradition)

For seminal papers and systematic reviews:

- the study provides a definition/description of the research tradition (not just a mention of the approach used) AND

- the study indicates the knowledge areas and contexts in which it was conducted AND

- the study identifies strengths and/or limitations of the research tradition.

Furthermore, exclusion criteria were defined in terms of particular content and research traditions. Studies were excluded if they:

- Investigated service learning (because such studies are designed for local learning with limited reach)

- investigated citizen science (because the core aim of such research is to accumulate knowledge about science, not about improving educational practice).
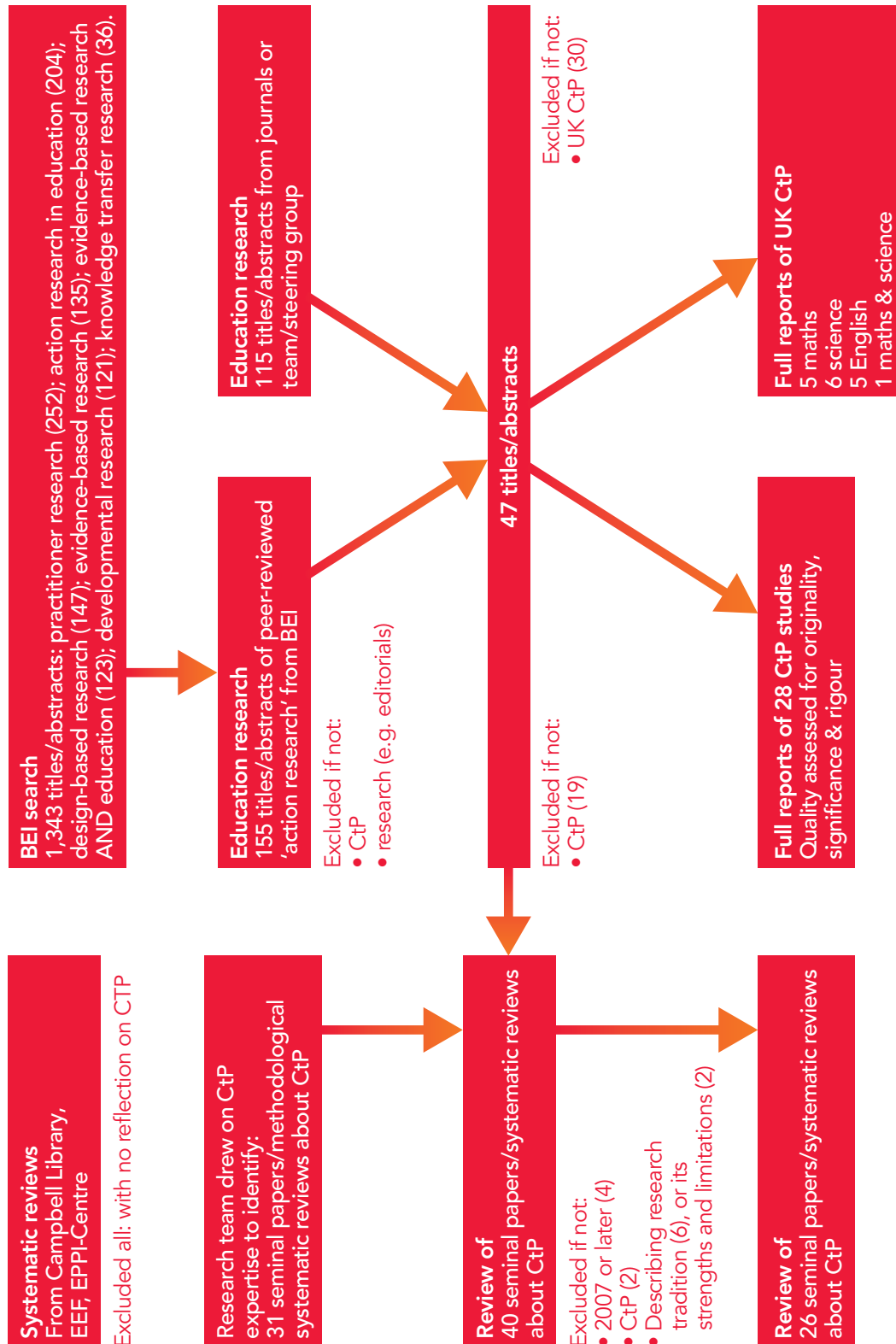
The articles were entered into the EPPI software and coded as follows:

- Authors

- Area of knowledge
  - Education

- Health
- Other

- Domain of close-to-practice research
  - Investigating research–practice interface
  - Investigating by/with practitioners
  - Addressing support for close-to-practice research

- Type of close-to-practice research
  - Action research/participatory action research
  - Capacity building initiatives (e.g. TLRP)
  - Close-to-practice support networks
  - Controlled trial
  - Design-based research
  - Implementation science
  - Improvement science
  - Insider research
  - Knowledge exchange/transfer/mobilisation/K*
  - Lesson study
  - Practitioner research
  - Research engaged schools
  - Research schools
  - Research informed teaching practice
  - Research learning communities
  - Research use
  - Evidence-informed policy and practice
  - School improvement
  - School effectiveness
  - Systematic review
  - Transdisciplinary research
  - What works centres (e.g. EEF)

- Subject of teaching
  - Maths
  - Science
  - English
  - Humanities

- Findings
  - Purpose of article
  - Origins of approach
  - Core characteristics
  - Definition of close-to-practice research
  - Quality criteria
  - Strengths
  - Limitations

- Level of education
- Subject/discipline
- Close-to-practice tradition
- Focus of the investigation
- Close-to-practice quality
  - High
  - Medium
  - Low

APPENDIX 2: FLOW OF STUDIES DURING RAPID EVIDENCE ASSESSMENT

BEI search
1,343 titles/abstracts: practitioner research (252); action research in education (204); design-based research (147); evidence-based research (135); evidence-based research AND education (123); developmental research (121); knowledge transfer research (36).

Education research
155 titles/abstracts of peer-reviewed 'action research' from BEI

Excluded if not:
- CtP
- research (e.g. editorials)

Education research
115 titles/abstracts from journals or team/steering group

47 titles/abstracts

Excluded if not:
- UK CtP (30)

Excluded if not:
- CtP (19)

Full reports of UK CtP
5 maths
6 science
5 English
1 maths & science

Full reports of 28 CtP studies
Quality assessed for originality, significance & rigour

Systematic reviews
From Campbell Library, EEF, EPPI-Centre

Excluded all: with no reflection on CTP

Research team drew on CtP
expertise to identify:
31 seminal papers/methodological systematic reviews about CtP

Review of
40 seminal papers/systematic reviews about CtP

Excluded if not:
- 2007 or later (4)
- CtP (2)
- Describing research tradition (6), or its strengths and limitations (2)

Review of
26 seminal papers/systematic reviews about CtP

APPENDIX 3: INTERVIEW PHASE
QUESTIONS AND NOTES

1. Outline of problem and reasons for interviewing

- The British Educational Research Association (BERA) has commissioned a small-scale research study to examine the dimensions of quality in *close-to-practice* educational research.

- BERA has identified *close-to-practice research* as an area of interest and seeks to consider how the Association could best support and advance an increase the quality of Close-to-Practice research outputs (in education). In part this focus is due to the comments made by the UK Research Excellence Framework (REF) Education panel that close-to-practice research can potentially contribute to the development of research-informed professionalism (something also recognised by the *Chartered College of Teaching*). At the same time many close-to-practice outputs do not score highly in REF reviewing.

- The research informing the project has been divided into two phases: i) a systematic review, and ii) In-depth interviews with nine key people with expertise in Close-to-Practice research and/or understanding of the quality of educational research.

2. Ethics

- Information sheets describing the work, and consent forms are to be completed. The consent form will either be completed face-to-face or returned by email.

- Double check if OK to record the interviews.

3. Interview questions

i. For the recording please could you give your name, job title, then a brief outline of your main career to date.

ii. Introductory question: please tell us about some examples of your experience/work/activity that you think is relevant to Close-to-Practice research.

iii. The project has defined Close-to-Practice research as:

…a type of research that focuSses on issues defined by practitioners as relevant, usually involving collaborative work between practitioners and researchers, through a dynamic iterative process of research and application that requires practitioners' reflection on their practice and the appropriate use of research design and methods to address clearly defined research questions.

How appropriate do you think this definition is? How could it be refined? In your experience what kinds of research activity is it likely to cover? Does it miss anything out?

iv. In reviewing the literature we identified 16 different approaches to Close-to-Practice research: Action Research, Co-creation Research, Design-Based Research, Evidence-Informed Practice, Knowledge Mobilisation, Knowledge Transfer Exchange, Lesson Study, Practitioner Research, Research Informed Teaching Practice, Research Learning Communities, School Improvement/School Effectiveness, Transdisciplinary Research, Implementation science/ Improvement science, Insider Research, Citizen Science and Service Learning. How comprehensive is this group? What else might be included here?

v. Key to this project is understanding how to assess the quality of Close-to-Practice research. During the rapid evidence assessment phase of the work we found that often (in our opinion) outputs were too descriptive and under-theorised, and the work was often based on small-scale samples without depth of analysis. Studies also presented limitations in terms of minimal information about the methods of the study.

Based on our definition of close- to-practice research, how would you say the quality of close-to-practice research might be enhanced?

vi. How far should the elements of quality in your answer to question five be differentiated from the REF criteria for research quality (table at end of document).[11]

vii. To what extent do these other factors also potentially help determine quality? (discuss in particular the topics in the list below that have not been covered so far in the interview):

- The selection of an appropriate methodology which includes consideration of a range of methods rather than always selecting a familiar method (such as Action Research).
- The explicit and thorough reporting (and justification) of methods,

---

11 See appendix 4 of this document.

as part of publication of research.

- ○ Strong a-priori and a-posteriori theorisation of research (probe how the quality of small scale research might be enhanced through theoretical depth?).
- ○ Sufficient depth of review of relevant work published prior to a research study.
- ○ How might close-to-practice work make a contribution beyond the site of close-to-practice, to at least some of the issues relevant to the discipline of education more broadly.
- ○ Clear reporting of how 'closeness to practice' was achieved and what this attribute contributed to the research.
- ○ More generally, do you think that the impact of Close-to-Practice research could be raised, e.g. through particular use of devices such as publication titles, abstracts and keywords that convey closeness to practice?

viii. What can be learned by comparing experiences across the four nations of the UK about Close-to-Practice research?

ix. Are there any similarities and differences between the role close-to-practice research plays in different phases of education, or/and in different institutional settings?

x. How can BERA best build and support capacity to undertake high quality close-to-practice research?

Thanks, finish and close.

APPENDIX 4: REF CRITERIA FOR ASSESSING OUTPUTS

68. The criteria for assessing outputs will be interpreted as follows:		
Originality will be understood in terms of the innovative character of the research output. Research outputs that demonstrate originality may: engage with new and/or complex problems; develop innovative research methods, methodologies and analytical techniques; provide new empirical material; and/or advance theory or the analysis of doctrine, policy or practice.	**Significance** will be understood in terms of the development of the intellectual agenda of the field and may be theoretical, methodological and/or substantive. Due weight will be given to potential as well as actual significance, especially where the output is very recent.	**Rigour** will be understood in terms of the intellectual precision, robustness and appropriateness of the concepts, analyses, theories and methodologies deployed within a research output. Account will be taken of such qualities as the integrity, clarity, coherence and consistency of arguments and analysis, such as the due consideration of ethical issues.

Source: Adapted from HEFCE, 2012, pp.106–107