

Researching
**PRIMARY
EDUCATION**

Edited by

REBECCA AUSTIN



Los Angeles | London | New Delhi
Singapore | Washington DC | Melbourne



Learning Matters
An imprint of SAGE Publications Ltd
1 Oliver's Yard
55 City Road
London EC1Y 1SP

SAGE Publications Inc.
2455 Teller Road
Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road
New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd
3 Church Street
#10-04 Samsung Hub
Singapore 049483

Editor: Amy Thornton
Development Editor: Jennifer Clark
Production Controller: Chris Marke
Project Management: Deer Park Productions
Marketing Manager: Lorna Patkai
Cover Design: Wendy Scott
Typeset by: C&M Digitals (P) Ltd, Chennai, India
Printed and bound by:

© Rebecca Austin, Wendy Cobb, Judy Durrant,
Gill Hope, Kirsty Howells,
David Gregory and Viv Jones 2016

First published by Learning Matters/ SAGE 2016

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Design and Patents Act, 1988, this publication may be reproduced, stored or transmitted in any form, or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency. Enquiries concerning reproduction outside these terms should be sent to the publishers.

Library of Congress Control Number: TBC

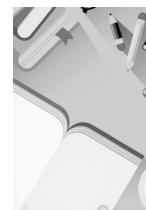
British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

ISBN 978-1-4739-4813-6 (pbk)
ISBN 978-1-4739-4812-9

At SAGE we take sustainability seriously. Most of our products are printed in the UK using FSC papers and boards. When we print overseas we ensure sustainable papers are used as measured by the PREPS grading system. We undertake an annual audit to monitor our sustainability.

Chapter 2



What is evidence-based practice and why does it matter?

Judy Durrant

Objectives

This chapter:

- focuses on the practitioner researcher as a learner in their school and classroom context;
- examines the quest for evidence: ‘what works’ and the importance of ‘why’;
- emphasises realistic, interactive and effective research approaches that can be built into teaching, with direct impact on pupils’ learning.

Chapter summary

A research-based approach to developing your practice provides you with evidence to effect change in your teaching, your classroom, your school, yourself and beyond.

Introduction

In my first few relentless, exhausting months of teaching, a friend from university who was in what I considered to be quite a high-powered job said that she had been feeling a bit under the weather, so had decided to spend the day tidying her filing cabinet. I often recalled this when the inevitable viruses did the rounds, because I felt I did not have the luxury of planning ‘down-time’. Every minute of the working day was filled, marking, and planning loomed during evenings and weekends, on-going tasks built up if I did not keep on top of them, and I had to give my pupils nothing less than full attention, every lesson, every day. Demands on teachers have continued to increase, with greater internal as well as external scrutiny, and more focus on

measurable outcomes and progress for which teachers are individually accountable. Adding more to teaching is therefore only reasonable if it is both valuable and realistic, if it helps you to meet the demands rather than adds to them and if it contributes to improvement.

This chapter makes the case for introducing a research orientation to your teaching, not as an optional extra, but as an essential and integrated dimension of effective professional practice. This involves consideration of different perspectives on evidence-based practice, taking the discussion to the heart of debates about what counts as reliable evidence, what constitutes 'good' research and why it matters. Embarking on your own enquiry not only prompts you to engage with wider educational research, but also enables you to use evidence from your own situation to enlighten your teaching and enhance children's learning. It should not be seen as something more to do, but as a different way of approaching your teaching, both individually and with colleagues. Many teachers have found that their experiences as researchers have changed their professional practice and perspective forever.

Teachers as learners

In any profession, it is an important responsibility to keep up to date with the latest ideas and information. Teachers have particular challenges in this respect: not only are there continuing changes in the nature of *what* is taught, but research and development inform pedagogy – *how* the teaching of this subject matter could be approached. Furthermore, new understandings continually arise from research into learning, leadership and school improvement, all of which influence what goes on in classrooms. A learning disposition is therefore crucial for teachers in order to take account of this changing knowledge and understanding, and develop new skills which may enhance practice. New phases of learning for teacher and student teacher alike, which can be prompted by embarking on a research and development project, are valuable not only for what is learnt about the theme in question, but also for the insights that come from being in the role of learner, perhaps grappling with a new methodology, resolving an ethical question, interpreting complicated evidence or working out a leadership strategy. Interesting conversations may arise if you reveal this to pupils who are part of your research; they may like to hear that by participating in your enquiry they are helping you with *your* learning.

New developments in educational knowledge and understanding are introduced against a backdrop of continually changing education policy. This does not always mirror contemporary changes in subject knowledge or research evidence in the discipline of education, while changes of emphasis in curriculum, professionalism and accountability come and go with different political regimes which are increasingly influenced by international developments and comparisons. There is therefore an additional necessity for teachers to maintain a working understanding of the policies that have implications for day-to-day practice and for planning,

and it is also helpful to understand the bigger political picture which governs education reform and results in various initiatives that schools are required to implement. What happens in the classroom is subject to a wide range of influences. Understanding how the inspection framework has changed, or why reading is taught as it is, helps to make implementation of related policies more effective. However, teachers may also need to raise critical questions about educational purpose and process – what we do and why – in schools and classrooms.

Professional practice inevitably involves conflicts and dilemmas where your values and professional and political positioning seem to be at odds with what is required of you. Schools approach this in different ways, from an autocratic approach where full compliance is demanded and enforced, through to more inclusive styles of leadership where everyone is consulted before decisions are made. Inspection outcomes can sometimes demand a change of strategy. Approaches also depend on the nature of the change and its timescale. As a student teacher you might find yourself placed in settings where you meet these different approaches and can see how they influence how teachers approach their work with children. As a teacher, you may see contrasts as you take up a new post or when a new head teacher arrives.

A learning disposition can therefore be adopted at different levels. Learning everything that is asked of you, in order to implement policy within given frameworks, helps to ensure that your practice is effective and meets requirements. However, a genuine researcher's disposition might require you to ask deeper questions about policy, process, purpose and evidence for change. You can use research evidence to develop knowledge, understanding and skills that are adaptable for different situations and regimes, and can be expertly applied to unique school and classroom contexts. This helps you to contribute to the 'change conversation' in your school. By working collaboratively this can become a powerful process underpinning school development.

Example from practice

Claire, a teacher nearing the end of her Master's degree, said that it was the best thing she had ever done. Her classroom innovation, supported by enquiry, had resulted in an 'out-standing' grading in a recent observation, which had helped her to gain promotion. More important to her was that her enquiry approach, including reading, critical discussion and her own research, had helped her to understand the political forces at work and why she was under pressure individually and as a subject leader, as a result of the school being required to maintain high standards and levels of progress. She was now less inclined to take criticism or conflict personally and instead adopted a more analytical stance, working out why things happened the way they did and how she could take a more active role in school development. She described how she was able to help colleagues in her team to consider the implications of change and therefore plan more effectively. Having articulated her values and commitment clearly as a foundation for her research, she cut through the complexities of policy with fierce advocacy for her pupils.

Evidence-based practice can encompass many different kinds of professional learning, with a continuum from mechanistic and prescriptive training (for example, being trained how to implement a phonics scheme) through to approaches that can liberate you professionally, supporting individual agency, self-efficacy, voice and professional positioning, as Claire found out. Throughout your professional career you will come across all sorts of initiatives, models, programmes and packages which claim to have 'the answer' to a vexing issue. While there is a place for all kinds of answers, it is helpful to cultivate an awareness of the differences in what counts as evidence-based practice and ask critical questions as part of your professional learning, so that you can use that learning appropriately to understand the political and organisational context and motivation for changes you are asked to implement.

The quest for evidence

Educational research is subject to swings of fashion. At the turn of the twenty-first century, the British government funded small-scale teacher-led research projects through the 'Best Practice Research Scholarships' scheme (Furlong and Salisbury, 2005). A couple of years later, hundreds of schools and tens of thousands of teachers were involved in the National College for School Leadership's 'Networked Learning Communities' initiative, engaging in collaborative enquiry-based development within and between schools (Katz and Earl, 2010). At the time of writing, however, policy makers particularly value the evidence from large-scale studies involving statistically significant numbers of schools and pupils in experiments intended to determine 'what works' in education. These include 'randomised control trials' (RCTs) which apply a scientific approach to collecting data and aim to draw conclusions which can be replicated across contexts. One example of this is the 'Closing the Gap' project (see CUREE, 2015). The website describes the project as:

the first ever attempt to use randomised trials to test multiple interventions simultaneously and at scale to close gaps. This will mean that the project will help reveal what works reliably in many contexts whilst helping us to work together to close gaps for vulnerable learners.

The aim of such projects is to be able to identify effective strategies that can be applied to inform improvement, but, as Welch (2015) points out, generalised conclusions from such studies need to be applied with an understanding of the effects of local conditions and cultural sensitivity to individual pupils and groups. It is individual teachers who are best placed to investigate how and why something may or may not work in a unique local setting – what a RCT broadly suggests will work might be qualified by your particular school or classroom or your pedagogical approach.

The Education Endowment Foundation (EEF), which provides funding for research and development to improve educational achievement focusing particularly on

children facing disadvantage, offers a ‘Teaching and Learning Toolkit’ where each theme or approach is graded according to cost, evidence and impact. In adopting one of these approaches, teachers might not have time to read the small print, but this is crucial in understanding what is being offered. The following is their note of caution on impact.

*Crucially, the summaries in the Toolkit combine evidence from a range of different research studies into a single average for each area. **This average will not necessarily be the impact of this approach in your school.** Some of the approaches which are less effective on average might be effective in a new setting or if developed in a new way. Similarly, an approach which tends to be more effective on average may not work so well in a new context. However, we think that evidence of average impact elsewhere will be useful to schools in making a good ‘bet’ on what might be valuable, or may strike a note of caution when trying out something which has not worked so well in the past.*

(EEF, 2015, ‘Using the Toolkit’)

This suggests that where such wider evidence is taken into account, distilling this into a recipe for success in all circumstances is not viable; all that might be available here is a ‘good bet’ to ‘try out’ in the light of experience. It may transform children’s learning, but it may have no effect at all; it could even be counterproductive. In the EEF Toolkit, ‘Mastery learning’ is shown as a low-cost, relatively effective strategy, which might be attractive to schools looking for quick gains on a tight budget, but again there is some important qualifying information to consider.

There are a number of meta-analyses which indicate that, on average, mastery learning approaches are effective, leading to an additional five months’ progress over the course of a school year compared to traditional approaches. Unusually however, among the evidence reviewed in the Toolkit, the effects of mastery learning tend to cluster at two points with studies showing either little or no impact or an impact of up to six months’ gain. This clear split and wide variation implies that making mastery learning work effectively is challenging.

(EEF, 2015, Mastery learning, ‘How effective is it?’)

Additional guidance follows: on collaborative learning, setting high expectations and children taking responsibility for their own learning. Finally, teachers are advised that the effectiveness of the approach decreases over time, so it should be used sparingly, perhaps for more challenging topics rather than for all lessons. Bypassing this advice and adopting the approach wholesale might be disappointing and unhelpful.

While large-scale research findings may inform large-scale reform, application at local level is in the hands of schools and teachers, and the above example shows how

important it is to adopt a critical perspective and delve beneath the headlines of the latest ideas and approaches so that evidence is not misunderstood. It is vital for teachers to be involved in examining the claims being made by studies underpinning improvement strategies: what is the evidence and how has it been analysed and qualified? However, there is more at stake than 'what works'; there is also the important question of why.

Purpose and accountability

The contradictions in the quest for 'what works' are explored by Biesta (2007) who argues that by focusing on the technical dimensions of educational process as problems to be solved, we omit the very essence of education as a democratic learning process. By limiting it, we undermine it. If we want children to be able to adopt critical perspectives, ask questions, be creative and make a contribution in class and in society, why would we train teachers to comply and conform to external requirements without the opportunity for critical discussion and consultation? The question for schools, for professional bodies and for individual teachers and student teachers is not only 'what works?' but 'what for?'. Large-scale reform and sometimes local initiatives are introduced on the basis of assumptions about the purposes of education. If the purpose of education is only for children to achieve well in tests and examinations, reforms and initiatives will be solely focused on this outcome. Research that serves this agenda will ask 'How can we get more children to pass tests at a higher level?'. Systematic, scaled-up research based on such assumptions can result in pared-down, reductionist findings – issues are distilled to their constituent parts and responses are geared towards the specified improvement, while ideas and approaches which fall outside the 'norm' or challenge the agenda are discounted. In contrast, teachers' own investigations tend to be focused on the real, individual concerns and needs of both adults and children, and can reveal diverse views about people's ambitions and values in the educational process. This often leads to a more holistic view of education in terms of learning, development and well-being. Often when teacher researchers set out to solve a practical problem through school-based investigation, these deeper questions and motivations surface, particularly through qualitative enquiry. This can overturn assumptions about learning, teaching and schooling, presenting both challenges and contributions to the official agenda.

Opportunities for school-based research are therefore to be welcomed by student teachers, teachers and other practitioners because they create openings to ask the questions that underpin school structures, cultures and processes of change. Rather than being discomfiting, you are likely find such investigations empowering as you discover the real stories and issues beneath the surface of teaching and learning activity. Children reveal perspectives you may never have considered before, and their comments can provide powerful and surprising insights; after all, they spend a great deal of time in your classroom. As a teacher or student teacher, you may discover very practical information, such as how uncomfortable it is to learn while sitting on the floor, or that children are getting hungry or too hot. Children may tell you what it is like to try to

learn lessons that are not in their first language, or how important it is that friends on their table understand their dyslexia. Detailed, often qualitative, evidence from your own school challenges priorities and ways of working, and may suggest ways forward that better meet children's needs. The research approaches in this book will help you to ask the right questions. Research can be used to ask 'why?' as well as 'what?' involving colleagues, pupils and others in the conversation. As a student teacher you can adopt that 'researchly disposition' we have already described so that you begin your career as a reflexive, questioning practitioner, but is never too late to start. Connecting with a project or programme that supports enquiry-based professional learning will give a framework within which to work.

Having made a case for asking deeper questions of purpose as well as process, there is a danger that becoming involved in research might sound rather subversive and revolutionary. Sometimes it is! However, the energy and enthusiasm that is generated through enquiry can always be put to positive and constructive use. As a teacher, it makes sense to link your research carefully with school priorities and understand and advocate its role within the school development process. This is likely to have much greater impact than using it to undermine leadership: use your research to *contribute* to leadership. The next chapter takes you through the process of developing your research idea. As a student teacher you might have more freedom to choose your research focus for more personal reasons, but whether you are a teacher or student teacher, you need to have clear purposes in mind, which may be focused on your own classroom and personal professional learning, but may have much greater scope. Sometimes there are also wider influences – for example, on other schools, within the community or alliance, or on education policy. As a student teacher you will be guided by tutors and by course demands as to the focus of your research, but you could also consider how you might work within your placement school's own development priorities. As an established teacher, by negotiating the focus of your investigation, perhaps with a senior leader or team leader, you can win support for your enquiry and leadership. This may be very practical support such as allowing time on the meeting agenda to talk to colleagues or enabling you to do some classroom observations, but it is also important to have encouragement, moral support and someone with whom you can talk through ideas either in your own school or elsewhere. Furthermore, it is reasonable to be held accountable for research undertaken in your own role and often funded or otherwise supported by your school. By working with people and thinking strategically, you will increase the power of the process and its eventual impact.

Researching to underpin change

In the context of the debate about what works and why, there is a wide range of benefits to researching your own practice, whether directly feeding into improvement through action research or, more broadly, gaining understanding and knowledge on themes of interest and relevance. This is why research is embedded into initial teacher education. As research becomes embedded in your practice you can gain a range of benefits.

Research can:

- help you find solutions to particular problems arising in your classroom or school;
- underpin professional learning of knowledge, skills and understanding;
- connect you with sources of information and networks of professional support;
- clarify purposes, processes and priorities when introducing change – for example, to curriculum, pedagogy or assessment;
- improve understanding of your professional and policy context, organisationally, locally and nationally, enabling you to teach and lead more strategically and effectively;
- develop your agency, influence, self-efficacy and voice within your own school and more widely within the profession.

Each of these can involve investigation using evidence from your own setting, along with wider research evidence. All fall under the helpful definition of research offered by Stenhouse (1975) of *systematic enquiry made public* which extends and enhances professionalism and practice. Where policy makers' emphasis may currently lie with large-scale studies such as randomised control trials, it is important to recognise the unique contribution that small-scale, teacher-led enquiry can make to educational research, and in turn to the educational process. Skilbeck has given a helpful explanation of Stenhouse's concept of teacher research as being concerned with gaining greater understanding of *the meanings, values, interests and concerns of people as expressed by them in real life situations* (1983, p11). This suggests detailed investigations that would be difficult to undertake as an outsider (someone who is not part of the context being researched) but would be enhanced by an insider's situational knowledge and use of existing relationships to further deep and meaningful enquiry about things that really matter to the school community. As a researcher in your own school, you also have the best understanding of how to make use of what you have learnt, whether personally or in supporting wider organisational development. In the context of new knowledge from wider research, it is only those directly involved in the educational process who can make it count in practice. It is these people – pupils, teachers, support staff, parents and others – whose feelings and attitudes matter when implementing change. Around this, there are unique local factors that make the introduction of recommended practices and policies different in every school. Improvement is therefore likely to be most effective if approached with a research orientation, an enquiry mind-set, asking questions, gathering evidence and involving people in collaborative enquiry as part of any process of change.

Evidence and impact

Too often, teacher and student-teacher research projects, perhaps particularly where part of an award-bearing programme such as a Master's degree or a PGCE,

are reduced to an individual academic exercise. They can become bogged down in impenetrable methodological jargon, inappropriate discussions about validity, or ineffective and unimaginative approaches to data gathering and analysis, such that they sacrifice the clarity of purpose discussed at the start of this chapter. If the end result is only intended to be a paper submitted for assessment or published article, this may never engage anyone who can make practical use of the information. As a teacher you are well placed to design activities to engage and inspire colleagues with what you have learnt, without necessarily resorting to sitting them in rows listening to a slide-show presentation or giving them your essay to read. As a student teacher you can share ideas and evidence with your peers and take what you have learned with you into your teaching career. You may find that your mentors and placement colleagues are interested in your investigations. Remember that you will need to be sensitive and constructive in engaging people with new evidence and discussing the implications.

Choosing interactive research methods that are built into classroom practice and become part of the learning process can start to bring benefits to learners through the research process itself. With creative planning, the research can even become part of the curriculum. It may be helpful to focus not on findings leading to 'continuing professional development' that may eventually lead to improvements in practice, but on improving practice directly. Participative enquiry approaches draw children increasingly to the centre of the research – their views and voices can lead the research in particular directions. This kind of approach sees the pupils as co-researchers – solving problems together as a class or school community. As a result, teachers and teaching assistants are more able to understand – and therefore plan – learning and teaching from the children's point of view. Research only has this powerful impact if it is planned that way. Dialogue about learning increases, children feel valued as teachers listen to their ideas, opinions and feelings, and relationships with learners improve. It is important to recognise the difference between this kind of approach and a more linear view of practitioner research which has the aim of finding out what works in relation to a particular problem and then implementing it – somewhat in isolation from the views of the children who will ultimately be affected. Interactive, participative projects designed to gather, use and share evidence during day-to-day activities are philosophically different: they involve a learning conversation and a leadership mind-set. By setting out with the intention of leading change underpinned by evidence, mapping intended outcomes and subjecting the process to continual critical review, these endeavours have greater potential to change the learning culture of your classroom and contribute to school development far beyond your original area of focus.

The following case study illustrates how a deceptively simple question about the relative proportions of teacher talk and child talk led to some important developments led by three teachers from a primary school.

Example from practice

'Do we talk too much?': a teacher-led investigation into the relative value of teacher talk and child talk in class, within a whole-school action research project

Blean Primary School, Kent, worked with Canterbury Christ Church University to involve all teachers in year-long action research projects as part of the school improvement plan. Head teacher Lynn Lawrence recognised that it was important to *provide the framework for teachers to identify and implement improvements to teaching and learning for themselves* (CCCU, 2013, p2), building greater capacity for improvement based on enquiry, reflection and collaboration. Jane Martin, Karen Rockall and Matthew Bundle started with the research question 'How much can I talk in class?'. Their initial plan was to measure how much time children and adults spent talking, but having opened up the enquiry, they found the project was increasingly led by the children's needs. It was clear that children needed support in talking to one another and in using talk for learning, so different strategies were tried and evaluated by their own observations and judgements of what had changed.

In Jane's reception class, the children learnt active listening techniques, including the importance of eye contact. They responded to pictures, including their own drawings and other stimuli, in paired talk. They learnt a series of hand signals to give cues such as 'slow down', 'tell me more' or 'I don't understand' without interrupting the flow. Jane found that the youngest children could sustain discussion and develop one another's confidence in presentation using an innovative and popular approach that did not rely on adult intervention. The children were soon using these 'tools for talk' with enthusiasm to talk about their own pictures and work, and eventually taught them to Year 1 and Year 2 classes.

Karen used the National Geographic 'picture of the day' to develop language and generate questions, particularly focusing on the use of adjectives. The children's curiosity developed markedly around the scenes and topics introduced.

Matthew set up a 'conversation station', like a bus stop with pictures and questions which stimulated children to talk, value talk and listen to each other's ideas. When this was then moved into the corridor, it encouraged talk between children from different classes and age groups.

The teachers in this project group reported to colleagues that the project had led to a much greater proportion of talk, not only *by* children, but *led by* children.

It is important to note that individual teachers at Blean Primary School were given complete freedom to choose their focus for enquiry. They planned enquiry and gathered evidence on a wide range of themes which led to some important implications for school development, for example:

- highlighting issues for summer-born children, particularly the need to focus on leadership;
- encouraging growth mind-sets by celebrating what is learnt from mistakes;
- suggesting ways to use 'carpet time' more effectively;
- using active learning in mathematics in all year groups, not just with younger children;
- introducing mini 'brain breaks' to improve well-being;
- helping children to understand dyslexia through purchasing books to read together;
- involving children as partners in learning, developing a pupils' learning charter and undertaking learning walks;
- involving children in defining ethos and culture which unexpectedly revealed the importance of stillness and spirituality.

Across the school, the balance shifted noticeably towards greater involvement of children in their learning, as a result of their participation in teacher-led enquiry. Sometimes, it became child-led enquiry as assumptions were challenged and children were motivated by involvement in the enquiry itself. This was only possible because teachers were flexible, responsive and open to their evidence as it emerged, ensuring that improving learning was more important than carrying out research as originally planned. See CCCU (2013) for details of teachers' enquiries and Durrant (2014) for more about this approach to teacher-led development.

Evidence-based practice for school development

The case study from Blean Primary School shows the crucial role of leadership in structuring and supporting school-based research. Many years of experience have demonstrated that schools can make most powerful use of internal enquiry combined with external research evidence where head teachers build action research and distributed leadership into the school improvement plan and link them explicitly with other initiatives and policy drivers. It helps if teachers are given freedom to choose their own areas of focus, sufficient funding is allocated for external support and time is provided for collaboration (however limited). Head teachers need to look for visible ways to value the work in progress and on completion, and can model enquiry by participating in the projects themselves, learning alongside their staff.

Teacher-led enquiry which engages with wider research as well as instigating school-based research can therefore generate much momentum for positive organisational change if the conditions are right. The following case study illustrates how this can be tightly focused on one school improvement priority linked to professional standards and accountability, while still offering flexibility, choice and scope for unexpected outcomes. It describes a project that was designed to enable individual teachers' and teaching assistants' motivations and concerns to be aligned with school and national agendas and wider research evidence.

Example from practice

Effective assessment and feedback: using a whole school research project to address a school improvement priority

The head teacher of St Ursula's Catholic Junior School in the Diocese of Brentwood, Clare D'Netto, worked in partnership with Canterbury Christ Church University to involve all teachers and teaching assistants in action research to improve assessment and feedback. This responded to messages from wider educational research that effective feedback is one of the most important factors in improving learning and closing the attainment gap for the most disadvantaged pupils, and the project was linked to a priority in the school's action plan.

(Continued)

(Continued)

Under this broad area of focus, teachers and teaching assistants considered together what effective current practice looked like and how it would be evidenced, then generated a mass of questions from which collaborative action research projects emerged. This was an acknowledged risk for the head. As well as allowing considerable freedom in an area of accountability and professional standards, initial discussions led to the uncovering of inconsistencies and anomalies in marking and feedback. It was challenging to move from there to the initiation of enquiry and development projects, which relied on people's individual and collective commitment and energy.

Amid considerable 'messiness' (lots of flip-chart posters, sticky notes, challenging discussions and feeling a way forward), wider research on assessment was considered, assessment practices were reviewed and new strategies were trialled and evaluated. A great deal more dialogue with pupils was instigated, beginning to effect noticeable changes in classroom culture. Increased awareness of the children's individualised responses to oral and written feedback has led to much more personalised and sensitive approaches, recognising the psychological effects on children, both positive and negative. Early on, it was recognised that children wanted their work to be valued and that what the feedback looked like really mattered. They didn't like a lot of untidy red pen over their books; they thought the stamps used to show verbal feedback were a criticism; they didn't have time to act on the feedback received. Rather than prescription, policy has now been rewritten to allow for judgement and discretion in marking and feedback for different individuals. Teachers have noted their own shift from content-centred to child-centred teaching and have allowed more time to understand and act upon the feedback given. Children's fixed mind-sets have been challenged and *their perception of themselves as effective learners has grown* (CCCU, 2014, p7). Even in the year of the project the effects were seen in the improved levels of progress made, particularly for children identified as vulnerable and at risk of underachievement.

The head teacher has also noticed a professionalisation across the school during the course of the year. She noted, *My learning walks showed more and more good and outstanding practice by teaching assistants and teachers as they shared learning destinations with children. Colleagues were using assessment in classrooms as the bridge between teaching and learning* (ibid., p27). The action research enabled each teacher and teaching assistant to choose from a repertoire of assessment approaches suitable for different children and situations. Teaching assistants were motivated to create their own forum for discussion of the impact of their practice on pupils' attainment and progression. Teachers and teaching assistants wrote up their projects to gain recognition from the Teaching and Learning Academy. All the projects were shared at a conference attended by guests including local head teachers, while later the head teacher and teaching assistants presented their powerful story at a university conference.

Sharing the learning

In considering the purpose of researching your practice, it is important to think about wider uses and implications for your research from the outset, so that these can be planned for. The sharing of learning from teacher-led enquiry, in one school or a group of schools involved in a project, can be driven by a genuine desire to find out what others have been doing. Even if you are a confident teacher, it can be very daunting to lead a session for colleagues, but often learning from evidence and activity in your own school is the best way to move practice forwards and you should be able to count on

their respect and support. As a student teacher, you may share your learning as part of your course. Make the most of help and guidance from within a school-based project or from your tutor or mentor. A useful basic principle is to use your whole repertoire of professional skills to inspire colleagues' learning. A slide-show presentation might be considered as a last resort. Development activities designed by teacher researchers in the case studies above have involved as follows.

- Drawing each other's portraits in pairs and giving each other feedback.
- Modelling with spaghetti and marshmallows.
- Making collages.
- Slideshow of children's photographs, 'What makes our school special?' with popcorn.
- A game show presenting research evidence: 'Who wants to be a summer-born child?'
- Videos of children giving feedback on teachers giving feedback.
- A 'field trip' around the school environment.
- Listening to an account of an observed day in the life of a child with dyslexia.
- Sitting on the carpet to see what it feels like.
- A quick-fire quiz with a buzzer and chocolate prizes.
- A competition to solve a geometrical puzzle in teams.
- Making body sculptures of mathematical shapes, accessorised with sports equipment.

Such activities generate a great deal of laughter, but also thinking and discussion. The activities have challenged practice in a non-threatening way, are very memorable and strengthen relationships. Colleagues have to support each other – for example, where anxieties surface, there is disagreement or people find themselves unable to complete a task. It is always fascinating, as a teacher, to reflect on being a learner. It is important to allow substantial time for reflection at the end of such development activities – for example, selecting three learning points and one action point. During the reflection times, the chatter invariably dissolves into silence and deep thought as teachers have valued one another's contributions and are taking away some important ideas and messages. It is encouraging when colleagues can learn from what you have done and found out.

If as a teacher researcher you do not have a ready-made opportunity to share what you have learnt, see if you can create one. You might talk to a mentor or senior leader responsible for professional development, or offer an informal invitation to visit your classroom for a discussion with tea and cake, or use a ready-made forum such as a team meeting, or write a brief summary for the school bulletin, or put a poster in the

staffroom with children's quotations. Once you have developed confidence, and if you have funding, there are also opportunities to engage with the educational research community beyond your school. For example, the UK's National Teacher Research Panel publishes research summaries on its website (NTRP, 2015) and some annual conferences such as the British Educational Research Association (BERA) and the International Congress of School Effectiveness and Improvement (ICSEI) include a practitioner research day.

Evidence-based practice: the way forward

Getting involved even individually in school-based enquiry to improve the evidence-base for your practice can lead to important changes to your teaching and your pupils' learning. Sometimes, with support and planning, you can make significant impact on your school. Collaborating with colleagues, from your own school or elsewhere, can make even greater impact and enable you to share your learning more widely. Often there are unexpected wider outcomes, even if the original aim was to solve specific problems in learning and teaching. Where research-engaged approaches are built into school improvement plans and supported by strong leadership, teacher-led, enquiry-based developments can lead to profound cultural change.

Making changes without a foundation in evidence is not worth the risk. It is important to look at wider evidence from reports, journals, books and websites, both of itself and to provide the theoretical context for your own enquiry. If this sounds daunting, there are useful digests available that will give you shortcuts to current information and ideas, and you can look out for the current round of courses and conferences which pick up key themes. Collaborate with colleagues to share the load; your school should have a strategy for this (and if not, you might suggest it). A stronger foundation in evidence, both from wider research and school-based enquiry, can help schools to meet the challenges of external accountability and interpret policy requirements for unique contexts, while improving relationships, environments and organisational cultures for both teachers and learners through carefully and creatively planned research and development processes. The evidence generated and interpreted by teacher researchers offers a unique contribution to this process in each school setting. What you 'find out' is important, but your purpose, how you approach your enquiry and what you do with your evidence is what really counts.

Things to think about

1. Which of the following aspects of research in practice would be *most* valuable to you:
 - problem-solving a particular classroom issue?
 - improving your professional knowledge, skills or understanding?

- clarifying your professional purposes and priorities in the context of school and national policy?
- increasing your personal confidence, autonomy and self-efficacy?

Is there a clear distinction between effective practice and evidence-based practice?

2. What 'hot topic' would you like to investigate in your current role? How would you start?
3. What support does your school give to teacher-led enquiry? How could you encourage this?
4. How could you collaborate with colleagues to keep up with the latest educational research?

References

Biesta, G (2007) Why "What works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57: 1–22.

Canterbury Christ Church University (CCCU) (2013) Learning Together to Enjoy and Achieve: Action research to improve learning and teaching at Blean Primary School, 2012–13. Available from: www.canterbury.ac.uk/education/our-work/research-knowledge-exchange/themes/professional-organisational-and-leadership-development.aspx (accessed September 2015).

Canterbury Christ Church University (CCSU) (2014) Effective assessment and feedback: A risky journey. Available from: www.canterbury.ac.uk/education/our-work/research-knowledge-exchange/themes/professional-organisational-and-leadership-development.aspx (accessed September 2015).

CUREE (2015) Centre for the Use of Research and Evidence in Education. Available at: www.curee.co.uk (accessed September 2015).

Durrant, J (2014) 'Children see differently from us': A fresh perspective on school improvement. *Professional Development Today*, 16(2).

EEF (2015) Education Endowment Foundation website. Available from: <https://beta.educationendowmentfoundation.org.uk> (accessed November 2015).

Furlong, J and Salisbury, J (2005) Best practice research scholarships: An evaluation. *Research Papers in Education*, 20(1): 45–83.

Goodnough, K (2008) Dealing with messiness and uncertainty in practitioner research: The nature of participatory action research. *Canadian Journal of Education*, 31(2): 431–58.

Katz, S and Earl, L (2010) Networking and collaboration for school improvement. *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice*. 21(1): 27–51.

National Teacher Research Panel (2015) Available at: www.ntrp.org.uk (accessed September 2015).

Skilbeck, M (1983) Lawrence Stenhouse: Research methodology: Research is a systematic enquiry made public. *British Educational Research Journal*, 9(1): 11–20.

Stenhouse, L (1975) *An Introduction to Curriculum Research and Development*. London: Heinemann.

Welch (2015) A call to action: Let schools drive research. *Times Educational Supplement*, 2 October, 20–1.

Further reading

Hammersley, M (2007) *Educational Research and Evidence-based Practice*. London: SAGE.

Kincheloe, J L (2003) *Teachers as Researchers: Qualitative Inquiry as a Path to Empowerment*. London: RoutledgeFalmer.

Pollard, A (2008) *Reflective Practice: Evidence-informed Professional Practice*. London: Bloomsbury Academic.

Pring, R (2004) *Evidence-based Practice in Education*. Milton Keynes: Open University Press.

Taber, KS (2007) *Classroom-based Research and Evidence-based Practice: A Guide for Teachers*. London: SAGE.