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### Teachers as researchers

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## TEACHERS AS RESEARCHERS

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Research in educational settings has often been undertaken by a *third-person* (a term used by Ball, 2000), who sits on the edge of the classroom, maybe moves among the students from time to time, and looks ‘at’ the teaching taking place. The assumption was that an outside observer may see and hear things taking place that the teacher takes for granted, and may notice things occurring that might not have been planned for by the teacher. This approach harks back to research objectivity and a value-free research agenda (Denzin & Lincoln, 2005). However, while an outsider seeks to understand what goes on in the lessons, he/she does not necessarily appreciate or understand some of the relational, historical and affective factors beyond that gaze, and that combine in the interactions, classroom climate and situation of that moment. The *first-person* approach to research in educational settings means the teacher is in a position to probe beneath the observed actions associated with their practice and focus on issues arising through the questioning, evidence gathering and analysing of their actions alongside their students’ learning. First-person research by teachers brings to scholarly research and writing, a perspective direct from the classroom practitioner. Practitioner research, or the *first-person* approach to research, is referred to as ‘working in the inside’ (Ball, 2000). Ball advocated that this form of research provides a valuable contribution to the improvement of teaching as teachers examine in depth some of the puzzles associated with classroom practice.

Teachers learn to question their practice in an effort to improve their pedagogical content knowledge (PCK) *and* in order to promote student learning. PCK became a widespread part of education terminology as a result of a seminal address by Shulman (1987) where he described PCK as “That special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding” (Shulman, 1987, p. 8). PCK is not only about *what* we teach, but *how* we teach it in order to maximize student learning and understanding. The introduction of the term PCK by Shulman was responsible for the focus within teaching, and in educational research, on teacher knowledge of content, pedagogy, students and the connections between the three. While PCK requires knowledge of what is taught and how it is taught, it also requires knowledge of how students learn. Shulman was arguing that teaching and teachers do have a distinct and distinctive knowledge base. Elements of this knowledge are knowledge of educational contexts; knowledge of educational purposes and values; content knowledge; general pedagogical knowledge; curriculum knowledge; pedagogical content knowledge, and knowledge of learners and their characteristics (Shulman, 1987, p. 8). This includes what students understand before they learn the subject matter as well as their cognitive processes while they learn.

During the teaching of a unit of work, and as the unit may be concluding, teachers will regularly reflect on the impact teaching is having on students’ learning. Regardless of the subject area, it is accepted practice that reflection should be *for* action, *in* action and *on* action (Schön, 1983). That is reflection in preparation for teaching, within a teaching session and after that session. Many variables need to be considered during this reflective process: some of these are generic pedagogical practices, while others might be specific to the content of the particular subject area. Every day, teachers see the effects of what they teach and how they teach may have on their students. Routine teacher practices like this could be termed quasi-experimental studies. Thus, this type of inquiry is applied, pragmatic or ‘praxis orientated’ and ‘in the field’ answering questions like, “what might work in teaching and learning with *these* children?”

Teachers taking steps to question their own practice and teaching and learning in their classroom is, in New Zealand schools, commonly understood as *Teaching as Inquiry* (Ministry of Education, MoE, 2007, p. 35). The MoE’s teaching as inquiry is a cyclical framework of three main stages: Focusing inquiry (identify aim and current situation in relation to that aim); teaching inquiry (seeking modified or new strategies to implement and gather evidence that the strategy is working for the children); and learning inquiry (monitor and reflect on outcomes to decide what to do next). Note that this Teaching as Inquiry cycle was initially developed by

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Graeme Aitken and Claire Sinnema, the writers of *Effective Pedagogy in Social Sciences/Tikanga ā Iwi: Best Evidence Synthesis Iteration [BESI]* (2008). The cycle is discussed in section 2.2. Lewison (2003) defined teacher inquiry (and action research) as a “set of insider research practices that promote teachers taking a close, critical look at their teaching and the academic and social development of their students” (p. 100). The research practices being referred to by Lewison are a cycle of questioning, taking different perspectives, considering evidence and insights from other research to propose solutions, then implementing and evaluating these solutions to begin the cycle again. In all instances, the evidence gained from teaching practice (both current and in the past) is usually combined with learning from research literature, to inform future practice (Ministry of Education, 2007, p. 35).

Prior to 2003, it was common for university research teams to submit proposals to gain funding in response to a Ministry call for potential research projects in Ministry-interest areas. The Teaching and Learning Research Initiative (TLRI) established in 2003, was designed by the NZ-Ministry of Education to support collaborative research partnerships between university researchers and school teachers. Projects funded are to be about teaching and learning in the early childhood, school and tertiary sectors and the aim of this fund is expressly “to build research capability and to make a difference to teaching and learning in New Zealand” (<http://www.tlri.org.nz/tlri-research>).

There is some evidence that in such partnerships, academic researchers and teachers as researchers bring different and complementary knowledges and experiences to research activities while having different priorities. In the InSITE report, for example,

we do not consider that the way we came to work as a team of teachers and researchers resulted in teachers taking up a role as teachers as researchers in the pure sense. Rather, we conceptualised our joint involvement as a partnership in which teachers acted in support of the research process and researchers acted in support of the teaching and learning process. In our case we always intended to work within the classroom with the teachers, thereby reducing the need for them to take full responsibility for data generation. This decision was deliberate because we were well aware of the complexity of the classroom and the demands on teachers in supporting the learning of diverse groups of students. (Cowie, et al., 2008, p. 93)

In higher education settings practitioner inquiry to inform action may come under the umbrella of *self-study* or *autoethnography*. With formal ethical oversight and making findings of the study available for external review, such a study might be considered *action research*. (Earl & Ussher, 2016; Lisahunter, Emerald & Martin, 2012). Earl and Ussher described (in a 2016 *Teachers and Curriculum* editorial) these different approaches to compare and contrast an understanding of these research terms. A central argument in that piece was the importance of approval by an ethics committee and dissemination of outcomes for the practice of an inquiry, investigation or study so findings are available for peer critique to be called *research*. There are ethical challenges in the multiple roles of teacher as researcher irrespective of the setting (early childhood, compulsory schooling, tertiary education) and these are not to be underestimated (see, for example, Susan Briggs’ discussion of voluntary participation and informed consent in this issue). There are also challenges in taking the extra reflexive turn to deliberate on our own views, assumptions and judgments as we negotiate the research process. So, what is research? Who has this expertise and whose expertise counts? Where do practitioner inquiries and institutionally sanctioned research overlap?

More recently some government funding for research into teaching and learning in New Zealand classrooms has been redirected into the Teacher-led Innovation Fund (TLIF). This Ministry of Education fund was introduced to directly support teams of teachers from early learning services, ngā kōhanga reo, schools and kura to develop innovative practices that improve learning outcomes in identified areas. These projects are also intended to include a university research staff member or professional learning facilitator as a critical friend, and aimed “to support quality practice that improves student achievement ... that can be shared and adapted for use across schools and kāhui ako” (<https://www.educationcounts.govt.nz/publications/schooling/tlif-teacher-led-innovation-fund>). That outcomes are shared across schools and communities of learning may be interpreted differently than seeking public dissemination but in practice, if project information is available through open access online, it is likely that it amounts to the same thing.

It is reported that “More than 140 projects received a total of \$10 million from the teacher-led innovation fund in the past four years.” (<http://www.scoop.co.nz/stories/PA1807/S00153/funding-focuses-on-innovative-teaching-strategies-13718.htm>). In 2019, “over \$1.4 million has been allocated to six TLRI projects, one in the early childhood education sector and five in the school sector” (<http://www.tlri.org.nz/>). Thus government funding in New Zealand for classroom research is more directly supporting projects initiated by schools. Teacher-led projects to facilitate local knowledge have been funded more generously than tertiary-led projects. The language has shifted from an emphasis on research to an emphasis on innovation.

Conceptualising ‘teaching as inquiry’ as separate from ‘research’ is, however, not something universally agreed on. Clarke & Erickson (2006) see teacher inquiry as ‘research by teachers’. They explain there has been a distinct trend in the study of teaching and learning since the 1950s after ‘research on students’, ‘research on teachers’, and ‘research with teachers’ to ‘research by teachers’. Using the term ‘research’, these authors argue, is a deliberate signal that practitioner investigations need to be systematic and rigorous. Using the ‘research’ word can give credence to what teachers do in their work but do these projects earn the appellation ‘research’?

The label research itself is a mantle of credibility for the study being conducted in an orderly and rigorous manner but simply saying that does not make it so. We also need to ask what is meant by the term ‘rigorous’? Clarke and Erickson continue to use the term inquiry, however, when discussing research by teachers they emphasise the importance of being *inquisitive* for teacher professional learning and pedagogy. These authors also emphasise that it is important for knowledge from research in classrooms not to be kept private but to be shared in publications and other forums.

Teachers, it might be argued need to be recognised as researchers as one defence of teaching being seen as a profession. Australian educator Alan Reid tells us,

educators must themselves have the capacity to be always deepening their understandings of teaching and learning through reflection and inquiry. ... educators are professionals who are able to theorise systematically and rigorously in different learning contexts about their professional practices - including the issues, problems, concerns, dilemmas, contradictions and interesting situations that confront them in their daily professional lives; and can develop, implement and evaluate strategies to address these. (2004, p. 2)

Just as Shulman made teacher expert knowledge more visible, Hargreaves (2000), argued that *All teachers must value and defend their entitlement to and their education in a rigorous knowledge base that undergirds their professionalism* (emphasis in original) (p. 170). Professional teachers develop curriculum, improve pedagogy, use their judgment in assessment and take into account complexity, diversity and uncertainty. Reid (2004) said “if the task of educators is to develop in children and young people the learning dispositions and capacities to think critically, flexibly and creatively, then educators too must possess and model these capacities” (p. 3). We might add that teachers need to be able to express these capabilities. In other words, teachers as professionals do not need centralised curriculum documents, prescriptive teaching programmes or standardised assessment systems. Darling Hammond (2000) used John Dewey to emphasise that teachers who are professionals continue to learn how to teach from teaching, therefore, the aim of teacher education should be to “empower teachers with greater understanding of complex situations rather than to control them with simplistic formulas or cookie-cutter routines for teaching” (p. 170).

Hargreaves did acknowledge in a warning that:

moving teachers’ professional learning and preparation more towards the school site may increase its collaborative and practical potential, but in excess, if it is severed from the academic world altogether, this strategy will de-professionalize the knowledge base of teaching and dull the profession’s critical edge. (2000. p.166)

Hargreaves highlights the collaborative and practical benefits of teachers working together. Using his comment, we can extend this to partnerships between practitioners and academics to return richer and broader benefits from educational research.

Arguably, teaching in compulsory education settings is more complex now than when Claxton wrote: “the reality is now, as it has always been, that teaching is a demanding, and at times frustrating profession” (1989, p. 27). Many classroom issues may be specific to the students and setting but not all. Learning needs can be common to groups of students and system-wide concerns also need to be addressed. Investigations that teachers undertake within their classrooms risk the ‘problem’ that the basis for their study is perceived as individual and or localised. Just as not all issues can be resolved with universal solutions, not all ‘problems’ in educational settings are solely local or can be addressed with local ‘solutions’. ‘Big picture’ research undertaken in education (as a social system) helps identify more general patterns and trends. Research looking across the educational and social-cultural landscape can identify systemic challenges influencing student progress and achievement. This research might seek to answer questions like, “How might teachers teach learners like these?”

Teachers are users and adapters of research and therefore need to be able to access, read and critique research. All teachers including graduates of initial teacher education programmes need to have, if not the desire, then certainly the habit, of seeking relevant research to help them answer their questions. Principals play a role here in actively seeking and reading sources of ‘good’ ideas to share with staff including sourcing and disseminating research literature. Teachers can also be producers and co-producers of research literature to disseminate new knowledge and new ideas. Stringer and Jhagroo (2019) suggest that, for beginning teachers at least, the significant challenges in full-time teaching require additional time and support to develop the “competencies and capabilities to cope with the demands of being an inquiring practitioner” (p. 50). We recognise the aspiration and potential of teachers as researchers but also wish to highlight the capabilities of all aspects of research.

## Close

The significance of teachers to the successful implementation of educational innovation and change has been recognised for some time. Hargreaves and Fullan (1992) said, “it is what teachers think, what teachers believe, and what teachers do at the level of the classroom that ultimately shapes the kind of learning that young people get” (p. ix). Good teachers have lots of questions and are not ever completely satisfied with their current practice in their efforts to cater to individual children’s learning needs. These teachers seek to try innovative approaches, new programmes and technologies developed from a variety of sources including suggestions and recommendations from colleagues in other schools, formal and informal professional learning, conferences and seminar days. For example, a recent *New Zealand Assessment Institute* (NZAI) day on the University of Waikato campus hosted by the [Wilf Malcom Institute of Educational Research](#) had 160 attendees, most of them teachers from schools in the region. Teachers can undertake further formal study for higher qualifications and this study gives them access to new perspectives, a greater understanding of the experiences of their students and new ideas (see the final article in this issue for some advice).

Teachers’ capability to respond to new ideas with continuing improvement in their teacher professional knowledge is strengthened by being inquisitive, questioning their practices and the influences on students’ experiences of learning, as well as understanding the importance of reading research literature. Unlike routine teacher reflective practice or even the reflective processes within a Teaching as Inquiry cycle for change, when teacher research takes place it is more purposefully planned. The research question(s) provides an opportunity for the teacher to ethically and systematically (through research design) gather appropriate evidence in order to examine an issue within the context of what is already known in the research literature and write about it for a wider audience. Research is a form of reflective practice that goes beyond simply individual inquiry and makes the process and its outcomes, public. Can we say then that all teacher research is inquiry and that some inquiry is research? Do reports of investigations by teachers need to have the characteristics of research in order for teachers to be called researchers? Do teacher inquiries need to be called research for teachers to be seen as professionals? Reid asks, “how can [teachers] improve the learning and wellbeing of children and students by continuing to build their inquiry capacities throughout their professional lives?” (p. 3). Our final question then, what further demands on time, support and resources, competencies and capabilities are needed for teachers as researchers?

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