

Contributing to Educational Change as a Teacher-Researcher

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ABSTRACT: *Recent world wide educational reform has resulted in teachers adapting to different roles and responsibilities. This paper examines a case in Western Australia, and argues that it would be helpful for teachers to develop competencies that enable them to adopt a research perspective towards school-based decision making. The paper describes the process of one early childhood teacher who developed professional competencies through classroom-based action research that could enable her to contribute fully to the process of educational change. Teachers cannot be expected to develop research competencies without support, and the paper suggests that collaborative practice between university- and teacher-researchers can facilitate the growth of learning for all participants.*

INTRODUCTION

Recent world wide educational reform has resulted in changes to teachers' professional roles, and early childhood teachers are no exception. In several different contexts, early childhood teachers' roles and responsibilities have been expanded to include assisting in formulating school policy; participating in school budget decisions; developing school mission statements; identifying and diagnosing contextual problems; and working collaboratively with school staff.

Many aspects of the expanded professional role require teachers to engage in critical inquiry that includes competencies such as analysing and synthesising information; identifying problems; raising questions; problem solving; reflecting; and negotiating. This paper suggests that these competencies may be developed through first-hand experience in classroom-based action research. Many teachers resist the idea of research and may lack the knowledge and skills to develop a research perspective (Humphreys, Penny, Nielsen & Loeve, 1996). It would be unreasonable to expect teachers to develop research competencies without a great deal of support, and one way for teachers to gain support is to collaborate with university researchers. Collaboration is a complex construct that some teachers resent because they are grappling with many changes due to educational reform (Corrie, 1995).

Educational reform

Recent educational reform has been based on restructuring policies that devolve power from a centralised bureaucracy to individual schools. Critics of reform argued that it has been driven by economic rationalism rather than benefits to education (Hannaway & Carnoy, 1993), which is seen in the construction of schools as sites of self-managing enterprise that enact economy, efficiency, and effectiveness (Reynolds, 1994).

Reforms have had considerable impact on early childhood education in contexts such as Western Australia, where programmes for three to five year old children have been moved from the community to primary schools. Early childhood teachers enjoyed a great deal of autonomy before the recent reforms, however now they report to school principals who may be uninformed about early childhood pedagogy, young children's development, or appropriate curriculum (Stamopoulos, 1997).

Reform and the commercialisation of education

Education became the site of commercial enterprise at the same time that centralised support was dismantled, and Western Australian early childhood education became a particular target of the hard sell. There were several reasons for the intrusion of commerce into early childhood which include the fact that school principals had the power to make important decisions about the early childhood curriculum, the acquisition and use of materials and resources, and the organisation of the daily timetable (Stamopoulos, 1997). School principals' lack of knowledge about early childhood pedagogy made it easy for business to sell kits of teacher-directed pre-programmed instruction to schools. Lock-step programmes were familiar to primary school principals, many of whom found it hard to recognise learning taking place in child-initiated curriculum based on the social constructivist principles of learning (Stamopoulos, 1997). The principles underpinning many commercial programmes were contrary to those articulated in the Western Australian State Education Authority's policy for early childhood education, which stated that:

The role of play as the fundamental means to learning in early childhood education is supported by theory and research ... Children are encouraged to explore, experiment, discover, improvise, innovate, create, question, discuss and construct. (Education Department of Western Australia, 1998 p.12)

Evidence showed that the commercial programmes provided few opportunities for children to construct knowledge through play or active learning (Corrie & Barratt-Pugh, 1997).

The need for a research perspective in school-based decisions

One structured commercial programme, “Smart Start with PMP”, (Bulluss & Cole, 1994), required expensive specialised equipment. Schools who requested funds for the PMP were given \$6,000 each from the State Education Authority from funds set aside for programmes for children with learning difficulties, as it was claimed that perceptual-motor programmes provided intervention for children at-risk of school failure. Perceptual-motor programmes (PMPs) rapidly became the most frequently used intervention for young children “of concern” to teachers but the programmes were administered to all children as they claimed to prevent learning difficulties (Corrie & Barratt-Pugh, 1997).

School administrators, teachers, and officers funding the programmes did not check the research evidence to verify the marketing claims. The fact was that many hundreds of research studies have been conducted on PMPs. A meta-analysis of 180 studies showed that the approach was not an effective intervention technique for academic, cognitive or perceptual-motor variables (Kavale & Mattson, 1983). In summary, research evidence showed that perceptual-motor training did not enhance the development of perceptual-motor skills in either learning-disabled children or normally-developing children (Cummins, 1991; Densem, Nuthall, Bushnell & Horn, 1989; Kaplan, Palatajko, Wilson & Faris, 1993).

In the case of perceptual-motor programmes, ample research evidence was available but not accessed by teachers and administrators. Anecdotal evidence showed that some teachers doubted the claims made by the promoters, but they lacked confidence to articulate their views. The early childhood teachers may have felt uneasy about expressing opposing views, and did not expect to critique information in the public domain. It is inferred that some practitioners accepted the information as “truth” because they doubted their expertise to question the assertions made by the business people, or to deconstruct the theories underpinning the programme. In addition, thinking critically, asking for and examining research evidence, and constructing a reasoned case to oppose the PMP, appeared not to sit comfortably with teachers’ ideas of their traditional teaching roles.

Practitioners have argued that research and theory have nothing to do with them because it was produced by outsiders and so-called experts (Elliott, 1991). However devolution of decision making to schools highlights the need for teachers and administrators to adopt a research perspective in order to make the best decisions for their school. In relation to commercial programmes, it is suggested that teachers who have first-hand experience with the research process are likely to gain the knowledge and confidence to analyse and critique marketing jargon, consult research evidence, and explain their pedagogical decisions to others. However, the idea of “teacher as researcher” implies changes to the professional culture of practitioners and university researchers that involve complex issues of power.

Constraints to the teacher-researcher role

Traditionally, research has been located in universities, which has widened the theory/practice divide and meant that a great deal of educational research has had little effect on school practice. It is suggested that teacher-researchers have the capacity to change the status quo that has assigned universities as sites of theory and schools as places of practice (Brennan & Noffke, 1997), but it will be difficult to achieve without addressing the historical baggage that has shaped stakeholders' expectations.

The theoretical foundations of early childhood education excluded teachers' knowledge, and teachers have few expectations that *their* knowledge is important to theory building (Cannella, 1997). Teachers' reluctance to collaborate with outsider researchers has its origins in scientific reasoning that positioned the teacher and child as objects for analysis and improvement (Cannella, 1997). Theories of power enabled children and teachers to be constructed as in need of "redemption" by the experts, which has led teachers to be suspicious of outsiders' motives (Baker, 1998).

Some teachers do not want to learn about or participate in research (Humphreys, Penny, Nielsen, Loeve, 1996; Elliott, 1991). However, some teachers' resistance may come from the fact that they feel uninformed about research and lack the knowledge they need to make sense of it. Motivated teachers need to gain knowledge of research methods and processes, which can occur through collaborative practice between university and teacher researchers.

Teachers' history of exclusion makes collaborative practice a problematic construct, particularly as successful collaboration hinges on equity and respect by colleagues. Some teachers find it hard to develop collaborative relationships with staff members (Fields, 1998), and it is likely they would resist collaboration with university researchers. Power relationships may be affirmed by university researchers, who create barriers with exclusive and patriarchal language, and the lack of shared meanings can silence teachers.

Despite possible relational difficulties, better links between university-researchers and teacher-researchers may add considerably to the knowledge base and change attitudes towards research. University-researchers can assist teachers to gain knowledge of the research process, and teacher-researchers can assist university-researchers to benefit from their expert knowledge of the context (Nicklin Dent & Hatton, 1996). It has been suggested that first-hand experience of research may change teachers' knowledge and attitudes towards research, and in order to explore this matter, a case of one teacher who recently completed a research study will be discussed.

RESEARCH IN PRACTICE

Liz is a teacher of five year old children attending the non-compulsory year of education that is located in a primary school. Liz engaged in action research as part of the requirements for a higher degree, and the topic was the development of children's understanding of "design" in technology.

There are many ways of enacting collaborative research, and in the current study the university-researcher's role was to guide Liz through the technical aspects of the research, act as a critical friend, discuss matters that emerged as the study progressed, and provide support. The emergent design of the study facilitated the collaborative relationship between Liz and the university-researcher. The university-researcher is the author of this paper, and the case was constructed collaboratively by the author and Liz, who made changes and added to drafts of the paper.

The teacher-researcher and university-researcher relationship

The relationship between the teacher- and university-researcher was established before the research study, as both were members of an interest group organised by the academic. The interest group met monthly to share and explore the programme in Reggio Emilia, Northern Italy. Collaboration is an essential component of the philosophy in Reggio Emilia, and it had been the model for the interest group. The notions of parity, collegiality and respect for diversity became group norms, and the university-researcher took care to establish her truthful position as a learner alongside other learners. Participation in the interest group led to mutual feelings of respect between the university- and teacher-researcher.

Teacher as researcher

In the preliminary meeting Liz appeared to be nervous at the idea of engaging in research. She said she felt unsure and very worried although she had completed the required research units. Later she reflected:

I didn't know much about research ... I wasn't looking forward to it ... I wasn't a researcher, I was just a teacher ...

I just didn't think I could do it. I thought a researcher was someone who was a doctor and knew how to do all this ... and I didn't think that I was capable at all.

At the beginning of the study Liz asked many questions and seemed to be searching for one right answer. However, it was established quickly that the topic and context of the study meant that answers would emerge as work progressed. Reflecting

questions back to Liz, and encouraging her to position her questions in the context where *she* was the expert meant that Liz answered many questions herself. However, Liz had some questions about the research process, which led to specific information and guidance to ensure scientific rigour.

As a teacher-researcher, Liz had definite views about the type of study that was appropriate for her to implement. She observed from her readings that other studies had tested children and provided experiences to demonstrate children's limited understandings before embarking on some interventions in order to measure the changes later. Liz said:

I didn't want to do that ... throwing them in at the deep end to fail. I, as the classroom teacher, would be left to heal all those wounds that to me would be really deep. They (the children) are so keen to please and think they are succeeding. To me that would have been a real scar.

Liz's position as teacher influenced her decisions as a researcher. She was not prepared to engage in a study that she perceived might harm children. Liz was conscious of the longer-term effects on children, and she put that consideration first in her decisions about the methodology of the study.

Skills as a teacher

Liz was aware that her actions and decisions would shape the outcomes of the study. She said that she began to doubt her capacity as a teacher to make a difference to children's understandings. Liz struggled with fears that her "normal" teaching would not be good enough, although usually she felt confident about her teaching skills. At times she questioned whether her teaching could help children understand the new concepts, and she feared that the results would show there was no difference in the children's progress. It was apparent that the research process had added a new dimension to the responsibilities Liz experienced, and she required support and encouragement to help her maintain her belief in her capacities as a teacher-researcher.

Liz was a busy working mother as well as a teacher-researcher, and time was at a premium. It was agreed that telephone conversations with the university-researcher could support Liz and save her time. Consequently, regular telephone conversations were held during the evenings and at week-ends as the study unfolded. Often conversations were lengthy, but the easy communication meant that issues could be dealt with quickly and thoroughly as they arose without waiting for another appointment.

As the study progressed Liz's perceptions changed and she started to appreciate that she was in a privileged position as a teacher-researcher. For example, she began to doubt the efficacy of outsider researchers. Liz said that an external observer may not get the "correct view" because they did not know the children. She said that she was able to see the picture "behind the picture" because of her insider knowledge.

In the beginning Liz expressed some impatience with the protocols of research procedure, however half-way through the study she articulated awareness and respect for the procedures, and emphasised that research studies must be rigorous saying that she had to be:

... disciplined. You have to be aware of what you're really seeing. That's why writing down and capturing as much as you can on tape and video is really important ... during one of the taped discussions I cut this child off in the prime of going off into the direction I wanted ... but at the time I thought he was going right off the track, so I ended the interview, but, looking back, and looking at it again, I realised what he was saying was exactly right ... that's why I think it is important to have all those other constant observations.

Liz observed that looking at the video recordings and listening to the audio-recordings of her interactions with the children had provided some insights into her own teaching. Liz consulted the university-researcher less and made more decisions autonomously over the course of the research project, but always supported her decisions with documented evidence. She noted that she knew now about the importance of gathering multiple sources of data. Liz said that the process of analysing the data was:

so informing. I just learnt so much about myself and the children. And about my teaching and about how I could make it better.

Knowledge about research

The importance of first-hand experience when learning about research, as opposed to studying units about research methods, was clear when Liz reflected about the research process:

I learnt *how* it was done. You might see some research that's been cited and ... I didn't really understand how it had been researched. I just learned everything I know about research now, which is not a great deal. Except I know that any teacher can be a researcher, and that it's really valuable.

Liz talked about the influence of her knowledge of research on her teaching as she was endeavouring to follow children's interests and strengths in order to negotiate an emergent curriculum. Liz reflected on how the process of research could enable her to prepare programmes:

I could almost use researching as a whole programme, and I think it would be so much more valuable than planning a programme of any sort because this is sort of like the planning, teaching and evaluating ... into that cycle, and research makes you do that, because you're always analysing what's happening and informing the teaching, and finding out a bit more.

Attitudes towards research

The knowledge and confidence that Liz gained made her reflect about research in general:

(I'm a) bit skeptical about some research now. Especially the type where someone from the outside comes in.

Liz explained that recently another professional had been in her room to observe a child with additional needs, and she found herself being critically aware of the observer:

I'm very aware now of other people's observations, and um... I'm quite skeptical. Just quite unbelieving. And I'm feeling that I'm looking in people's minds now and looking, trying to look at what they're looking at and saying "What are *you* seeing?"

Prior to the study Liz said she would have accepted the other professional's view without question, however she had become more measured in her judgments since engaging in the study. Liz's knowledge had raised her ability to critically analyse rather than accept what she read or was told, and her sense of awe about research has diminished:

Yes, so that... research in general. I'm a bit skeptical of outside research in a classroom ... far more valuable for a teacher to do it herself.

Research as professional development

Liz commented that doing the research study has made her take a huge step up in her professional development:

I was at this level and going up on a gradient (shows a steady slope with her hands) during my last three years of study, and then all of a sudden, I feel as if I've shot up quite a lot! (Moves hand to a much higher level).

Liz ascribed her developing competencies to implementing the research study. She said that she thought other teachers would benefit from the research experience, but that it would be hard for them without the support of a colleague, such as the university-researcher.

Research, the school and the parents

The staff at Liz's school were interested in the project and Liz shared elements of her study with the school. In addition, Liz sent information home to parents and news about the research project spread:

It created quite a lot of interest in parents and other people who heard about it from parents, and so I've had lots of visitors coming through the centre and wanting to know what's been happening. Sometimes I've had a video running, and they've been absolutely amazed at what the children have been up to.

Changes in Liz's perception of herself from "just a teacher" to a researcher were evident when she said:

after all this is professional research and I think that says something for the school. Obviously the school has been supporting me, and the parents have been supporting me, and that lifts the standard of the school.

Liz noted that being involved in gathering information for the study had been an important learning process for her assistants. Liz said that her assistants knew that this project was for research and therefore they had to follow some important protocols, which had enabled them to develop new skills of observing and working with the children.

At the end of the project Liz commented that:

Turning off the project is the hard part! It doesn't stop! ...It's increased my awareness I'm seeing more of these things but perhaps I would have never seen this development ... it's sad to think that I might have missed all that

DISCUSSION

This paper suggested that devolution of decision-making to schools has highlighted the need for teachers to adopt a research perspective when making school-based decisions. Teachers may be unsure of the research process and may need help to learn about research methods. Teachers cannot be expected to learn about research without guidance, however they may gain important knowledge through collaborative practice between university and teacher researchers.

A case of one teacher suggests that undertaking a research project provided Liz with an enriching experience in several different ways. First, she became more critical and less accepting of research findings just because she had read about them. In addition, she questioned the skills of observers in her room, rather than accepting their findings uncritically because of their professional status. Second, she understood more about the scientific process of reputable research in the qualitative paradigm, and felt able to apply her knowledge when reading about other research studies. It seemed that, alongside her new scepticism, Liz had developed a sense of respect for the research process. Third, she became more analytical and reflective about her own teaching strategies and knowledge of the children. In addition, Liz recognised the broader benefits to the staff, who developed new skills; the school, as it gained some prestige; and in addition, collaborative relationships with parents were facilitated.

It is suggested that the experience of research may enable teachers to refine important knowledge and skills that would equip them for the expanded roles and responsibilities brought about by educational reform. For example, it is likely that Liz's scepticism would extend to analysing marketing hyperbole, and her understanding of scientific research would enable her to ask about proper evidence to support claims asserted by business people.

The case study of one teacher traced some changes in her knowledge about research, which included recognising that the study was important to the school as well as the individual teacher. It is inferred that Liz's knowledge developed partly because there was a collaborative relationship between the university- and teacher-researcher. Parity suggests that all participants have some knowledge and skills to offer: academics can offer guidance about the scientific and technical aspects of research and teachers can offer their insider knowledge and expertise. Collaboration has the potential to strip research of the mystique constructed by esoteric language and exclusion.

The teacher-researcher has the potential to facilitate educational change in a powerful way. Research competencies acquired by teachers could be applied to many aspects of education, such as contributing to theory development and paradigm shifts; critically appraising innovations; gathering research data to inform decision making; reading research studies to guide policies; and collaborating in whole-school management, which have become part of teachers' work as a result of educational reform.

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