

*Critical Analysis: Original Paper*

## **Action Research in Early Childhood Centres: Balancing Research and Professional Development Goals**

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### **Abstract**

*The role that research plays in the professional development of teachers and leaders is an on-going subject of debate. But, there is considerable agreement that when teachers take an 'inquiry stance' there is greater use of evidence in efforts to improve teaching and learning. Research partnerships between practitioners and academic researchers could create a valuable confluence of the goals of the research and professional development goals of action research. At the same time it is important to raise awareness of the possibility that the goals of research and the goals of professional development might be in conflict when these activities are uncritically assumed to be synonymous. In the course of one project employing action research the tension between research aims and professional development aims surfaced and led this researcher to reflect on a number of issues. Although practitioner partners in research projects may be committed to engaging in further cycles of action research, this seldom eventuates because such research is hard to sustain without external facilitation. Furthermore, there is a need to be critical about claims purporting action research activity when in fact action learning is occurring. At best practitioners in formal action research projects may achieve the status of temporary researchers. We need to challenge the view that they will have the resources to conduct and publish rigorous action research beyond such projects.*

**Key Words:** Action research; early childhood education; professional development

### **Introduction**

#### ***The Imperative to Develop Early Education Professionals in New Zealand***

Teacher professional development is embedded at the heart of any professional activity because the notion of professionalism carries with it the commitment to continuous development. As Day and Sachs (2004) point out, the notion of autonomous professional has been superseded by systemic pressure for quality improvement. Government intervention is now the norm for ensuring that standards of teacher initial and continuing education are constantly raised. For early childhood education in New Zealand, this is evidenced in the strategic plan developed for this sector (Ministry of Education, 2002). New Zealand's early childhood sector is currently being subjected to both radical and rapid change in terms of its professionalisation. Hoyle (1990) asserts that "professionalisation is the process whereby an

occupation increasingly meets the criteria of a profession” (p. 13). These criteria generally include expertise and skill derived from a systematic body of knowledge, a lengthy period of training, some form of credentialing (often in association with a higher education institution), a considerable degree of autonomy for the practitioner and some form of professional self-regulation with constant attention to the development of the professional (Eraut, 1994; Hoyle; 1990). Radical reform requires radical increases in the amount and quality of professional development available to teachers to implement and sustain change. Waves of educational reform around the world (Borko, 2004) have been accompanied by associated calls for more professional development for teachers from both the policy makers and the profession.

### ***New Conceptions of Professional Development***

There has been a move away from a conception of continuing professional development of teachers as in-service training or education associated with notions of transmitting learning to a wider view. This wider view is characterised, for example, by notions of a constructivist approach (Cochran-Smith & Lytle, 2001), a school-based, holistic approach (Cardno, 2005), and a view of professional development as life-long learning in both a collective and collaborative culture (Day & Sachs, 2004).

Cochran-Smith and Lytle (2001) provide three conceptions of professional development they believe coexist and are “invoked by differently positioned people in order to explain and justify quite different ideas and approaches to improving teaching and learning” (p. 47). They categorise these as:

- Knowledge-for-practice – where formal knowledge and theory is generated by academic researchers constituting knowledge for teachers to use in order to improve practice;
- Knowledge-in-practice – essential knowledge that is embedded in the practical work of the expert teacher and reflections on that practice; and
- Knowledge-of-practice – local knowledge of practice generated by teachers when they critically examine their own teaching context, thus inquiry is focused on problems of practice by the teachers themselves.

On the surface, this definition of knowledge-of-practice resonates well with the principles of research methodologies that value research which is done by practitioners or with practitioners and where the intent is to investigate and improve practice (Cardno, 2003). Cochran-Smith and Lytle (2001) present the notion of “intentional investigation” under a banner of professional development and do not refer to research in this context. They assert that:

The assumptions underlying professional development understood as knowledge-*of*-practice are different from those implicit in knowledge-*for*-practice and knowledge-*in*-practice. Unlike the first two, this third understanding of the relationship of knowledge and practice in professional development cannot be understood in terms of a universe of knowledge that divides formal knowledge, on the one hand, from practical knowledge, on the other. Rather, it is assumed that the knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they

treat the knowledge and theory produced by others as generative material for interrogation and interpretation. (p. 48)

However, a common interpretation of practitioner research (Coleman & Lumby, 1999) coincides with the definition of “knowledge-of-practice” above in that practitioners conduct research that investigates and critiques their own practice against a theory backdrop. This conception of the teacher as a practitioner-researcher and what this means for the relationship between theory knowledge, practice knowledge and local knowledge is, however, generating more questions than answers. It continues to fuel debates about the worth of practitioner research as both research and/or professional development.

### ***The New Emphasis on Practitioner Research and Use of Research in Practice***

Using the framework provided by Cochran-Smith and Lytle (2001), it is clear that research plays a central role in providing resources to develop practice by generating the theory for teachers to use in what these authors call knowledge-for-practice. This knowledge is used by teachers as knowledge-in-practice when they reflect on their practical work. A more recent trend in New Zealand is the increasing expectation that teachers will become generators of knowledge in their own settings and what is also notable is that this notion of inquiry focused on problems of practice has metamorphosed into a notion of research as though this is incontestable.

A recent systemic initiative related to the professional enhancement of early childhood educators in New Zealand is a funding pool to promote research partnerships. The Teaching and Learning Research Initiative funds research projects that require the involvement of practitioners in research partnerships. Its principles state that all projects within this initiative:

need to contribute to practice and lead to significant improvements and outcomes for learners. All will involve partnership between researchers and practitioners, from the design and conduct of the research, to communicating the results to teachers and other educators who can use them to make a difference to practice. (<http://www.tlri.org.nz/about.html>)

There is no stipulation that the practitioners have to become researchers, but the degree of practitioner involvement implied above leads many (both researchers and participants) to believe that during such projects there is a transition taking place that turns practitioners into researchers. In fact, claims are made that projects have enabled “early childhood teachers to gain expertise as teacher-researchers” (Haynes, Cardno & Craw, 2007). Again, an assumption that researcher-practitioner partnerships necessitate the practitioners to become researchers in every sense remains largely uncontested here in New Zealand, whilst overseas this is a hotbed of debate (Day & Sachs, 2004; Elliott, 2004). This discourse is prevalent in New Zealand as well. Robinson (2003) suggests that “Teachers who are skilled inquirers can become catalysts for an evidence-based teaching culture” (p. 28) and claims that:

As researchers, teachers inquire into their individual and collective practice. The inquiry is both scaffolded on the research findings of others and productive of new knowledge about their particular context. Enhancement of the research role of teachers is central to sustainable school improvement, to effective teacher development and, most important of all, to the professionalism of teachers. (p. 28)

Whilst Robinson presents a compelling argument to eliminate an “oppositional discourse of practitioners versus researchers” (p. 27) and suggests that incorporating the role of

researcher into the professional lives of teachers is a highly effective form of professional development, we should be wary about the consequences of adopting such forms of role extension without caution. Anderson and Herr (1999) for example, argue that whilst practitioners might have genuine interest in their projects, both academics and practitioners themselves consider “that teachers do not have the time or training to do such work” (p. 13). Furthermore, these scholars contend that the notion of embracing practitioner research unquestionably as professional development is antithetical to the academic status of this kind of research. They comment that “many administrators and professional development specialists see practitioner research as the new silver bullet of school reform, but, at the same time, want to control the kind of questions that get asked.” (p. 14)

There is evidence of a strong alignment of the notion of teacher research with professional development in the New Zealand discourse. The question arises about whether this research-as-development notion and the notion of research-as-scholarship are mutually exclusive. Those who promote action research as a rigorous and critical form of research, might well be disquieted by the assumption in some quarters (Oliver, 2005, Robinson, 2003) that ‘research as professional development’ is a dominant feature of practitioner research. Yet the paradox is that action research has within it an imperative to bring about development and improvement while it also claims to be systematic, valid, rigorous and publicly reported research that values knowledge generated from practice (Cardno, 2003). Action research is inherently evidence-based requiring a phase of investigation into the nature of a problem of practice before there is an intervention phase to change or develop that practice and further on evaluate its effectiveness. Thus, inquiry and action are bound together. A further aspect of the paradox is that what attracts practitioners to action research in the first place is its promise of delivering developmentally. Yet action research is but one among a family of ‘inquiry for development’ processes.

One developmental concept that is inquiry-driven and evidence-based is that of action learning which is described as “a process of collaborative transformation in which members of a social system transform themselves and their social system through participative reflection-in-action” (Passfield, 1996, p. 50). In action learning the inquiry into practice is viewed as learning, not research. This is akin to the notion of “intentional investigation” proposed by Cochrane Smith and Lytle (2001, p. 48) as central to professional development that fosters “knowledge-of-practice”. Zuber-Skerritt (1993; 2002) and McGill and Beaty (2001) note that the term ‘action learning’ (often used synonymously with the term ‘experiential learning’ because of shared philosophical assumptions about adult learning) is associated with reflecting on personal practice:

It offers us a method of raising our learning from the unconscious to the more conscious levels through techniques of questioning that probe and illuminate what many of us assume or ignore about our own prefiguring of what we learn. This conscious use of the learning process can thus make tacit knowledge more explicit. (Zuber-Skerritt, 2002, p. 118)

I contend that a great many projects claiming to be action research could well be employing the tenets of action learning and involving researchers and practitioners as learning partners (Cardno, 2006). I do not believe that the mere process of participating (as a practitioner partner) in an action research project turns the practitioners into researchers unless this is what they aspire to be both during and beyond the life of the project. I will present some key features of one such project to illustrate how these research partnerships are able to meet the goals of both professional development and action research. I will also endeavour to discuss the conflicting nature of these goals.

## Action Research in Action

### *A Study of Three Kindergartens: Action Research Process*

In 2005 and 2006 the Teaching and Learning Research Initiative (TLRI) funded an action research project conducted by three academic researchers at Unitec Institute of Technology in partnership with three West Auckland kindergartens where the Head Teacher and other teachers formed an action research group with one researcher assigned to each kindergarten. The purpose of the project was the enhancement of mathematics teaching in each of these early childhood settings.

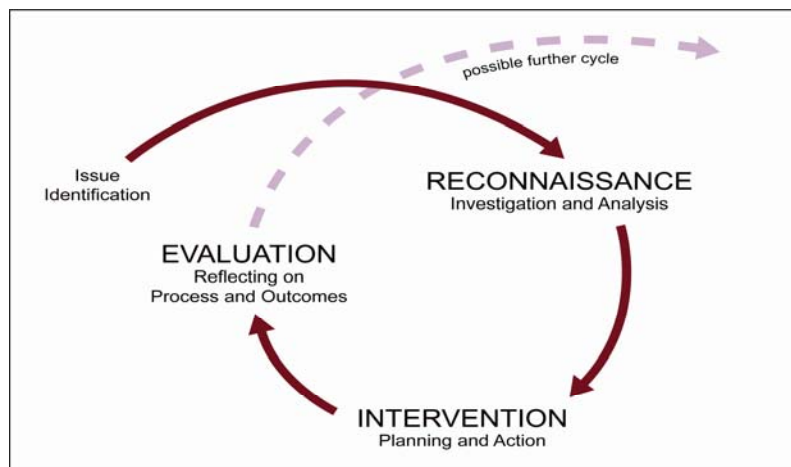
The report of this study (Haynes, Cardno & Craw, 2007) states:

Action research was chosen as an appropriate methodology because its fundamental principles value professional practice, collaborative research partnerships between practitioners and researchers and theory building that acknowledges the primacy of the critique and generation of new knowledge in the local practice context with a view to improving that practice.

The scope of this project was limited to a focus on the practice of the teachers and did not extend to a direct study of the outcomes of these practices for learners. Children’s learning, however, remains central to any endeavours to enhance teaching practice. It was the hope of the researchers that further cycles of action research would be employed to examine the impact of changed teacher practices on children’s learning.

In each kindergarten the researcher led the action research group through the phases of action research that create a cycle of investigation and analysis, planned action for change, and evaluation to reflect on the process and outcomes of changes as in Figure 1.

**Figure 1:** Action Research Process (Source: Cardno, 2006)



In each of the three settings, a full cycle of action research was achieved. This comprised a reconnaissance of current practice that involved data gathering in each site related to an analysis of the problem of practice that the teachers wanted to focus on. The overarching research question for the project was: What do the participants know and practice in relation

to the teaching and learning of mathematics and how can this be improved? In all cases methods for collecting data involved documentary analysis, questionnaires, the use of reflective journals and diaries and the use of notes, emails and photographs as evidence. The findings were written up by each researcher as a case analysis for verification by the participants. This draft report of the reconnaissance phase was used as the basis for discussion to formulate an action plan for changed practices.

The intervention phase involved the implementation of action plans in each setting with the participants and researchers monitoring this and recording evidence in the form of new documents, observation of new practice and photographic records. The final phase of the project included two levels of evaluation. In the first instance, site based change was evaluated by practitioners in each kindergarten by reflecting on evidence gathered through the monitoring of the intervention and in a formal meeting with the action research group facilitated by the researcher. In addition, participants from all three kindergartens were brought together for a formal evaluation event in which they contributed a summary of their kindergarten-specific evaluation of the project outcomes. All participants took part in an analysis of the action research process to identify what they believed were the strengths, weaknesses, opportunities and threats for them in relation to “issues for future action research in our kindergarten” (Haynes, Cardno & Craw, 2007, p. 94).

In short, the researchers in the project claimed that in their view the demands of action research had been met in this project because, as they assert (Haynes, Cardno & Craw, 2007, p. 13) the research partners had attended to all of the following. They:

- Utilised existing knowledge to inform problem understanding;
- Engaged in action learning to generate focus research questions;
- Collected and authenticated evidence in a process of on-going verification;
- Intervened to change practice paying attention to both theory and best practice;
- Monitored the effectiveness of changed practice and emerging new theories of practice to draw conclusions and to chart future directions; and
- Reported the project (presentations and publication).

At the end of the evaluation phase, the researchers completed their individual write up of the case study which reported the process and findings of this one complete cycle of action research as it was implemented in each kindergarten. These case studies were validated by the head teachers before inclusion in the full report of the TLRI project. The kindergarten head teachers also contributed their own perspectives on the project to a conference presentation that was used to disseminate this knowledge (Cardno, Haynes & Craw with Whyte, Palmer & Bone, 2006).

### ***Participation in Action Research – Practitioners’ Voices***

The three head teachers in this project were very keen to participate in the project. The main attraction for them was the focus on mathematics teaching and learning because this was a curriculum area they had endeavoured to develop in terms of their own knowledge and enhancing children’s learning. At the start of the project when they were introduced to the proposed process for conducting action research, they all confirmed familiarity with the term in the context of professional development. None of them had, however, encountered the structured approach that the researchers in this project facilitated (for details see Haynes, Cardno & Craw, 2007).

A finding across the three projects relates to conditions in kindergartens that are 'a given' either in a particular setting or across a range of settings. In this project the kindergarten teachers struggled to implement change in a project of this type because of work conditions related to a) time commitment and b) changes of personnel. In the case of one kindergarten they were frustrated in their change efforts by:

Working conditions (high student to staff ratio; lack of time to devote to mathematics teaching because social conditions made it necessary to prioritise the learning of boundaries/rules for socialisation; all team members having been in these roles for only one or two years and still developing as a team; insufficient capable parent voluntary help).

The other two kindergartens also commented on intentions for change that had been thwarted by a lack of time. Staff turnover confounded efforts to bring about change and improvement. Whilst one kindergarten in this project had a stable staff, the other two, with the exception of the head teacher were challenged by frequent staff changes. The teachers experienced these conditions as a barrier that had been hard to overcome. As one teacher said:

The problem for us is that it is hard to be a teacher of Mathematics in a setting where there are several barriers.

All three participating head teachers asserted that involvement in the action research project had been a worthwhile experience. Their comments below illustrate the flavour of the end-point evaluation of participation in the project.

One head teacher said:

I think the main thing is that the teachers have agreed to a main focus on mathematics and the planning and evaluation of mathematics is now embedded in our system, so everyone is getting a regular reminder to focus on mathematics. It's great to have been involved in this research because it has taught me so much and I hope that one day the understandings we have gained will be part of the early childhood diploma course (i.e., having a daily focus and putting in systems to keep that focus going). And yes, I would certainly want to be involved in practitioner research again because it has been better than any other professional development. (HT#1)

This practitioner believed she had been involved in research and that for her this had categorically been a form of professional development.

The second head teacher stated:

The unique opportunity of being part of an action research project gave added value to our roles as early childhood teachers. We have appreciated the opportunity to work alongside others who work within the broader field of early childhood education. The steps we took such as identifying a challenge, gathering data, identifying and implementing change strategies will be useful in reviewing the curriculum, the environment and teaching practices - we have already had an opportunity to utilise these steps to review another curriculum area. Being involved in this action research project has taught us to take time to identify a problem/challenge and not

expect to rush this part of the process. Working with the researcher was extremely helpful. It ensured that we were guided through the project and that we stayed on task without anxiety, confusion or unmanageable pressure. Taking part in this important and worthwhile action research project has been part of our educational journey, a journey that has helped us grow both personally and professionally and will definitely continue beyond the end of the project. (HT#2)

For this participant (and her associate) the action research provided them with a chance to work alongside academic researchers, modelled a systematic approach to undertake curriculum review and allowed them to embark on an educational journey that has helped them grow personally and professionally. As to whether the staunch commitment expressed to definitely continue [the journey] beyond the end of the project will be acted upon, only time can tell. Since completing the project, none of the head teachers have approached the research team for guidance in setting up a further action research cycle. This is not surprising because the conditions in practice settings make it almost impossible for practitioners to embark on research of this nature without external facilitation or motivation to complete a qualification (Cardno, 2006; Cardno & Marat, in press).

The third head teacher commented:

For quite some time I have aspired to being involved in a research project that supported the journey towards best practice. My involvement in this project not only challenged me to achieve this goal but had further benefits far beyond anything I had conceived. Mathematics is an area that I am particularly passionate about however was not feeling very confident in. Through this project I developed strategies to support my continuous growth in mathematical knowledge and teaching practices. This involved substantial in-depth reflection, using multimedia to research documentation that provoked thought for further reflection or supported current thinking. Our current review procedures now represent this more in depth reflective approach and are now supported by evidence (something we learnt is essential through the research process). The most unexpected reward from my involvement in this project is the deeper, more supportive relationships I have developed with my colleagues. Finally, would I do it again? I haven't finished. The journey is just beginning and will never really end. (HT#3)

For this practitioner there was clear gain from the project in terms of a journey towards best practice and the goal of continuous growth. These are undoubtedly benefits related to her professional development. Again, it is questionable whether this practitioner is likely to find that conditions or capability allow such research to be done again unless support is provided by an academic researcher.

If we have the professional development of practitioners at heart, then we could be assured that for every one of the participants in the study featured here, there has been a successful outcome. If however we are aspiring to turn these practitioners into researchers then we may need to ask some critical questions about why and how this could be done. It is not sufficient to propose unquestioningly that all practitioner partners in an action research project should as a consequence of participation become researchers. Yet, I have been party to making exactly such an assumption. It has been stated (Haynes, Cardno & Craw, 2007, p. 18) that:



If action research is to be valued by both research and practice communities then it must be committed to the development of practitioners as researchers as well as changers of practice. In our application of action research methodology in three early childhood sites we have, as researchers, endeavoured to make the partnership a real learning experience for all.

We have asked our practitioner partners to articulate what it has meant for them to make the transition from being a practitioner concerned with improving practice to becoming practitioner-researchers who both improve practice, add to their own knowledge of their theories of practice, but above all add knowledge that can be disseminated to the community of theory and practice knowledge that constitutes the domain of early childhood research.

Our practitioner partners assert that this research has led to the following practitioner-research outcomes. They have:

- Learnt a new process which can be applied in other situations;
- Developed awareness of using evidence in everyday practice in order to improve this;
- Been made to feel more accountable about the changes they make;
- Been challenged to be more collaborative in their teaching teams;
- Acknowledged that they are on a learning journey
- Been motivated by the knowledge that their research and action can make a difference to both themselves and others if it is in the public domain.

For the researchers in this study, the research goals of action research had been achieved and simultaneously the professional development intent of the project had met the needs of the practitioners. It is still a contested notion whether the confluence of these two sets of goals work in tandem to raise the credibility and status of action research when it can be construed as professional development – which remains ‘dear to the heart of practice’ in the voices of the practitioners.

Are we denigrating the integrity of action research by also attempting to satisfy the professional development aspirations of practitioners? I think this is unavoidable to some extent, especially when the professional development goal is paramount in processes merely called action research. It is in such cases that the integrity and rigour of the methodology is compromised because valuable accounts of practice knowledge remain unpublished.

## **Discussion**

### ***Action Research as Professional Development: Professional Development as Action Research***

There is little doubt that teacher-researcher partnerships create a big demand for the professional partners. Participation requires a considerable commitment on the part of already busy teachers even when the process is facilitated by a consultant or external academic researcher. At the same time both the researchers and the teachers in this project

wanted to engage in rigorous action research. This is a dilemma inherent in practitioner research in general and action research in particular. On the one hand proponents of action research wish to promote the methodology as an epistemologically appropriate and highly practical tool for institutional-based change that is manageable and sustainable. Yet, on the other hand, academic action researchers often find themselves needing to defend the methodology as a rigorous form of qualitative research that has scholastic credibility as well as practice relevance. Furthermore, action research is generally presented as an ongoing process (Cardno, 2003; Cohen, Manion & Morrison, 2007; Elliott, 1991; Kemmis & McTaggart, 1992), spiralling beyond an initial cycle to deeper or further cycles and thus implying that the end of one project is a platform for embarking on a new cycle of action research. This gives rise to an often untested assumption that practitioners will be able to continue to apply an action research approach in resolving problems of practice after the conclusion of the formal project. It behoves academics and consultants who provide action research opportunities in the first place to consider these challenges for practitioners and to create conditions and motivation that will assist teachers to make critical choices about whether or how they can sustain the momentum of action research beyond a formal 'supported' or 'funded' professional development programme or research project.

The Teaching and Learning Research Initiative in New Zealand has three fundamental aims which are to:

- build a cumulative body of knowledge linking teaching and learning;
- enhance the links between educational research and teaching practices, and researchers and teachers, across early childhood, school and tertiary sectors; and
- grow research capability and capacity in the areas of teaching and learning. (Teaching and Learning Research Initiative, n.d.)

These aims and the principles that guide research projects are research focused yet are underpinned by what might be considered professional development values in a strategic sense, a research sense and a practice sense. Many of the principles of TLRI can be seen to have aspirations confusingly in common with professional development objectives, such as

- understanding the processes of teaching and learning;
- consolidating and building knowledge;
- building capability; and,
- learning and research partnerships between researchers and practitioners.

Furthermore, a *Best Evidence Synthesis* (Ministry of Education, 2003) has suggested an unquestioned symbiosis between professional development and action research that should be debated. The TLRI aims and principles can also be construed as supporting such a symbiotic relationship. In short what is desirable is the generation of quality research, the utilisation of academic research by practitioners, and the generation of practice-research knowledge by practitioners in partnership with researchers.

What then will distinguish the activity of action research in a professional development context from action research in a research context? I believe that there is currently a gap in the way the literature conceptualises practitioner inquiry activity that allows both researchers and practitioners to make this distinction in a meaningful way. What is revealed is that there is a plethora of studies that lay claim to the conduct of action research in early childhood settings (Ministry of Education, 2003). What is not revealed in evaluations of the current

literature is the exact nature and form of action research that has been employed to consider whether this is action research at all or alternatively the application of some of the principles and practices of action research in a diluted way in professional development contexts.

Action research is a highly applicable form of research: a condition that is both a strength and a weakness in terms of its methodological reputation. As such, it would be helpful if the research and professional development community were more aware and constantly critical in drawing boundaries around what is and what is not action research in order to build its strengths and curtail its weaknesses. I have some do's and don'ts to offer in relation to this idea.

### **Do fund action research projects adequately**

Action research is highly valued for its ability to allow participants to bring about change and improvement in the course of an actual project that is localised to a specific setting. It is also intended to move on from an initial cycle of investigation and improvement to further cycles in order to sustain the momentum of change. To do this effectively, it is necessary for those who fund action research to provide resources that will enable sustainability. Participants in this research project were keen to continue with improvement initiatives through a further cycle of action research after the formal project ended. However, the research project was not funded to allow for this continuity through on-going resourcing of facilitation by researchers. At the very least an action research project should be funded for a minimum of four years duration with the incrementally diminishing involvement of the research partner factored in by the end of the third year of engagement and sufficient funding provided to ensure that each subsequent cycle of action research is rigorously conducted and published by research partners. I strongly contend that unless provided with direct support practitioners will not engage in further action research. What they might do, however, is engage in an action learning exercise if they have the skills to do this.

### **Do recognise that participants are action learners and not necessarily action researchers**

Facilitated action research of the type employed in this project engaged the teachers in action learning within the structure of an action research study. They participated in what Zuber-Skerritt calls a process that is "essentially developmental in that it encourages creative, innovative thinking by asking open-ended questions about how to improve" (2002, p. 118). This is exactly what is needed to understand problems in action research and to negotiate changed action. Because action researchers in educational settings work with adults (key practitioners and their professional colleagues) the principles of action learning are acknowledged to be at the heart of the process. But in themselves they do not constitute action research. In this project each meeting of the action research group was an action learning episode.

However, action research demands more than action learning. According to Zuber-Skerritt, action research involves action learning but the process is "more deliberate, systematic and rigorous, and it is always made public" (1993, p. 46). She asserts that the rigour of action research demands explanations of the methodology and use of methods for gathering data so that it can be scrutinized. Cardno (2003) contends that action research requires a formalised approach to engaging with the theory base and gathering data, and must be published to achieve its status as research as opposed to other forms of organisational development. It is

this consistently identifiable standard of reporting the research project that distinguishes action research from the less formal processes of action learning. The essential standards for determining whether a project is actually employing action research methodology (in its many forms and guises) have been set in terms of robust practices that confirm both internal and external validity. The research and professional development community should be more discerning and more critical in the way they make judgements about what can and what can not be identified as action research.

**Do not confuse professional development as being synonymous with action research and vice versa**

There is undoubtedly a synergy between these two concepts. However, far greater critique should be mounted in relation to drawing distinctions between the systematic process (action research) and the product (professional development) and overlaps between these two. In the case of this action research study, initial motivation to participate was driven by all three head teachers' common need to increase their knowledge and skills as pedagogical leaders with specific reference to enhancing the teaching and learning of mathematics in their kindergartens. This was a professional development aim. On the other hand, the researchers were driven by a research aim: to investigate what was problematic and intervene to remove barriers.

At the end of the project all three head teachers asserted the value of professional development that had occurred for them in the course of their participation.

And yes, I would certainly want to be involved in practitioner research again because it has been better than any other professional development. (HT#1)

Taking part in this important and worthwhile action research project has been part of our educational journey, a journey that has helped us grow both personally and professionally and will definitely continue beyond the end of the project. (HT#2)

Through this project I developed strategies to support my continuous growth in mathematical knowledge and teaching practices. (HT#3)

Undoubtedly they appear to have found the project worthwhile and educational as professional development. The research partners also achieved their aim of conducting and publishing a report of a worthwhile action research study. Does it matter which goal is superordinate be it research or professional development as long as both are achieved? Could it not be celebrated as a bonus that action research delivers on both goals simultaneously rather than letting the need to make the research goal superior act to the detriment of the so called inferior goal of professional development? I believe it does matter when the research and practice community are content to accept that any sort of developmental activity can be named action research without this being contested. This contestation cannot occur until we have accounts of purported action research published so that they are available in the public domain for scrutiny and critique.

**Conclusion**

It is not easy for teachers to sustain action research activity beyond formal projects without recourse to on-going facilitation provided by research partners. There is evidence that at best

teachers in formal action research projects may achieve the status of temporary researchers. Beyond such projects they are more likely to engage in developmental processes such as action learning (Cardno, 2006; Cardno & Billington, 2008). This is not to say that they have failed to benefit from participating in a systematic and rigorous research process.

Those teachers who have experienced being in a project as a practitioner researcher will have learnt much about a considered approach to inquiry and should be able to transfer this learning to attend to the resolution for further problems that lend themselves to systematic process for evidence-based change. Thus, even if these practitioners do not continue to engage in research per se, they may have the resources to engage in on-going professional development. According to Cochran-Smith and Lytle (2001) an “inquiry stance” as professional development transcends boundaries imposed by time-bound teacher research or action research projects. These authors state:

Taking an inquiry stance means teachers and student teachers working within communities to generate local knowledge, envision and theorize their practice, and interpret and interrogate the theory of research of others. (p. 50)

Encouragement to take just such an inquiry stance is not new to early childhood practitioners in New Zealand. A nationwide effort to introduce practices of self-review in centres through dissemination of a resource kit *The Quality Journey* by the Ministry of Education (1999) incorporated the expectation that centres would employ a process of Plan (including standards setting for the review); Do (gathering information); Study (analysis of findings); and Act (make considered changes). In essence it proposed a process akin to action learning but without the expectation of publication or formal reporting which is what fundamentally differentiates action learning from action research (Cardno, 2003). I strongly urge action researchers who undertake projects in the early childhood sector to remain staunch in relation to achieving the research goals of action research whilst also engaging practitioners in meaningful research partnerships that provide them with relevant and valuable professional development experiences. If this means that practitioners are only able to be temporary researchers, during the ‘life’ of a project, this compromise in my view is a small price to pay to secure the integrity and on-going value of action research as a rigorous and respected methodology.

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