Introduction

Giving back

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Introduction

The Centre of Innovation (COI) programme is now six years old. In only a few years, COI research and dissemination has engaged and, at times, inspired practitioners. Two years into the programme, some COIs were invited to give keynote speeches at New Zealand conferences; by the third year and beyond, a few went on to feature at overseas conferences. Most have spoken to hundreds, if not thousands, of their peers during their tenure. Teachers seek out opportunities to listen to teacher-researchers talking passionately about their research—visitor days at COIs are oversubscribed, workshop venues fill to capacity and COI websites sustain hundreds of "hits". COI have been making waves, and those "waves" have shifted attitudes about early childhood education research. Why? In summary, it is because they carry out research *for* early childhood educators, and they draw links between theory and practice in ways that make sense to practitioners. It is also because educators have a thirst for personal contact with passionate professionals. Gladwell (2002) makes the point that people are becoming immune to messages from mass media and face-to-face dialogue is becoming more effective again.

Visible research

How have COIs generated "waves" that affect others? The main reasons seem to be that the participatory action research approach creates energy that builds a big wave, and then the timing and nature of that wave impacts on people in its vicinity. The collaborative approach to carrying out COI action research appeals to audiences. The research questions are "curious questions" that come from the teachers, making the topics authentic. This publication includes a number of topics:

- How can educators provide optimal experiences for babies and parents in early childhood education services?
- How can a social worker attached to a centre support parents?

• How can early childhood leaders make a difference for children by involving fathers in their service?



Plenty of teachers and managers ask similar questions.

COIs are selected because they are doing something innovative. The teacher-researchers' curious questions about the changes they have made—that is, about their innovation—also provoke interest in the sector. Action research is similar to self-review in that participants carry out research in their own settings, but action research typically goes further, with a written report that is disseminated beyond the group studied. Self-review complements formal accountability processes carried out by the Education Review Office, and assists in building high-quality early childhood services for children (Education Review Office, 2009). Consequently, audiences like to look into COI "tool kits" for tips about gathering evaluative information that informs their self-review processes. In describing their research methods, COIs give back in a different way.

Teacher-researchers in COIs are generous in giving back. They disseminate within months of joining the programme. COI projects are made visible, and early childhood teachers can relate to the COI teacher-researchers who share their projects. Moreover, COI presenters invite dialogue because of who they are. Teachers don't feel shy about interacting with teacherresearchers grappling with authentic questions, whereas they can feel inhibited about engaging in conversations with university researchers. COI presenters actively invite dialogue because they are used to collaborative teaching and learning. They do this daily with children, and continue in this mode when working with adults at workshops and conferences, or with "buddy" centres. Their co-operative learning approach builds solidarity in the sector. Two chapters in this publication share findings about different dissemination approaches. They write about empowerment of teachers who join in the dissemination activities (albeit without using that word).

An intersection: Practitioner meets researcher

When I asked a group of teacher-educators why the COIs have engaged and inspired early childhood teachers, they spoke about COI face-to-face dissemination and about the research associates. The Ministry of Education contracts experienced researchers as research associates to support and advise the COIs in the programme, and their roles include building research capability and being a critical friend. Each research associate is usually involved in the ethics phase, in helping the COI design its research methods and get started as researchers, and during the writing stage. There is no doubt that they are essential. Research associates support teacher-researchers to build their capacity as researchers. They promote robust research and the importance of high-quality research evidence. Without them, much of the work would never be published, and the majority of dissemination would be ephemeral.

The experience of the past five years has shown that the partnership between the academic researchers and the teacher-researchers in the COI programme is unique and challenging. The relationship contributes to transformational professional learning amongst members of the COI teaching team. It also contributes to real-world learning for the academics (see, for example, Simmons et al., 2006). Insider and outsider perspectives are built into the work.

The length of time the partners work together is significant. Two years gathering data, and one year analysing and writing it up, has been important for deep learning. In the first year, the research associate coaches in many ways and demystifies research processes. Mutual trust builds. In the second year, the teacher-researchers become confident data gatherers and presenters. In the final year, insights sink home: practice is theorised, and the actions emanating from the research ripple out into the sector.

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## A transformation: Teacherresearchers build capability

I have had the privilege of being a leader of the COI programme since 2003, which has allowed me to observe some patterns in "wave generation" in the past five years. The table below describes what has happened for those closely involved in COI projects—the "wave generation". I argue that the energy that builds big waves comes from the interactions between the practitioner-researcher and academic research associates across the years and from research and dissemination processes.

The transformation shown in the middle column of the table, which focuses on the interaction between the two partners, also comes from the influence of both research factors (in the left column) and dissemination factors (in the right column).

There are shifts year by year in how each set of activities (research and dissemination) are conducted and the consequences. After the first year of support, research engenders more critical and analytical thinking—the patterns in the early sets of data both trouble and excite the teacher-researchers. They are "troubled" when they realise there is a gap between what they thought was happening and the reality, or a gap between what they valued in their practice and what children and/or families valued in their practice. The dissonance can excite as well as trouble the participants, as it triggers dialogue, critical thinking and new ways of looking at teaching and learning.

As well, questions from audiences challenge staff to read, reflect on and refine their innovative practice. COIs want to be affirmed to begin with, and hope the data will verify the positives. In later years, COIs become more open to critique from within and from external people.

In the middle year, the second cycle of research tends to change praxis. So does teachers' reading of relevant literature. Appreciation of the complex craft of teaching grows amongst research associates. Philosophic discussion about what learning is, and

#### **COI TRANSFORMATION**

| Research factors                                                                                  | Forging a new role out of an intersection of teacher-researcher and academic researcher                                                                         | Dissemination factors                                                                                                                                         |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support and challenge begins from research associates and research leader.                        | Year before: The early childhood education service has been doing its own systems thinking, evident in an innovative approach to teaching and learning.         | The "walls come down" whereby early childhood education practice is opened to peers and families. Teacher-researchers' talks are relevant to their audiences. |
| Research moves from verification to critical thinking.                                            | Year One: Within-centre systems thinking develops further as first-cycle experiences, with the input of an outsider, bolster an inquiry culture and reflection. | Oral communication fosters a shift in accountability and improved articulation of practice.                                                                   |
| Interaction with research associates and sharing research at COI hui provoke analytical thinking. | Year Two: A second cycle of research changes praxis, involving increased dialogue and reflection within teams, and better links with families.                  | Sharing through talks and writing builds solidarity in the sector, and it empowers teachers.                                                                  |
| Writing a final report creates new models of knowledge for teaching and learning.                 | Year Three: Researchers and practitioners meet (in the fullest sense of the word); new models of knowledge about teaching and learning grow.                    | Publication takes the research out to the wider world and academic gaze.  Discourse links theory and action.                                                  |

about education versus teaching, generally arises. Although the focus of the data collection may be small, questions about the organisation of the whole centre often arise. Dissemination generally results in a reconstruction of the COI's relationship with its families and community. Families' contributions to their child's learning are more readily embraced by teachers, and dialogues about children's learning between teachers and parents—and children—become everyday occurrences.

In the third year, analysis of data and cooperative writing of the report contribute greater depth and complexity to the discussions. A new theory of practice usually emerges with the meeting of minds that occurs as teachers and researchers interact.

In another paper (2009), Phillip Capper and I argue that the teacher-researchers in COIs develop the skills and competencies of scientific research in the same way as children learn in early childhood settings—through the mediation of peers and teachers and the cultural tools provided by the research environment of the day. Practitioners expand their knowledge co-operative learning amongst adults in a different sort of zone of proximal development to that typically experienced by their peers. They become more expert in a community of practice by accessing research experts. Similarly, academic researchers develop improved understandings about teaching in the early years by accessing expert early childhood teachers and engaging in in-depth co-operative learning about early childhood teaching and learning in a different zone of proximal development to that typically experienced by academics. In other words, each works in the zone of proximal development of the other.

Stated purposes of the COI programme are to promote "reflection on quality practices in teaching and learning" and "to extend the effectiveness of teaching and learning" (Ministry of Education, 2002, p. 15). We argue that for the COIs themselves, "the reality is that the

combined effort of the collaborators transforms praxis into practice" (Habermas, 1974).

## The impact of COIs on the broader educational community

The COI programme is for the benefit of the early childhood sector, as well as for those directly involved. For peers to benefit, diffusion of innovation is important. The literature on diffusion of innovation describes four stages:

- innovation is communicated (innovation reaches audience via planned and unplanned means)
- innovation is adopted (decision to adopt and use the innovation)
- innovation is implemented (strategies to implement an innovation)
- innovation is sustained (innovation embedded in practice).

(Salveron, Arney, & Scott, 2006, p. 40)

As described above, COIs do plenty of communication about their innovative practices and research findings, and there has been a greater-than-expected level of response to COI presentations for the sector. This indicates that the COI programme is communicating well and that the innovative programme has been adopted. There is also evidence that the approach of participatory action research has been adopted and is being implemented elsewhere. For example, professional development facilitators are increasingly using the approach, and there has been an increase in early childhood teachers taking postgraduate papers, where many use action research approaches in their assignments. The COI programme cannot claim the kudos for the adoption of the action research approach as its value was made clear by Linda Mitchell and Pam Cubey in the best evidence synthesis (2003) focused on professional learning for early childhood education practitioners. In

addition, postgraduate courses have been sponsoring the approach for more than a decade. However, it can be argued that the Ministry of Education sponsorship of this programme (and others, like the action research programme focused on children on the autistic spectrum) has given action research approaches recognition, and this has assisted its take-up and implementation.

In five years it is remarkable that diffusion of innovation from two of the first 10 COIs has reached the implementation and sustained stages. The integration of ICT into early childhood education programmes was the first to go beyond the "tipping point" (Gladwell, 2002). The message in Roskill South Kindergarten's innovative practice was infectious and timely-namely, that young children can integrate the use of ICT tools into their learning and self-assessments, not just learn some computing skills. The Ministry of Education adopted the innovation even before Roskill South completed its research in 2006, and invested in resources (two DVDs) and ICT professional-learning programmes, thereby substantially influencing the spread of that innovation. Roskill South Kindergarten's innovative practice is described in Catching the Waves (Meade, 2005) and Cresting the Waves (Meade, 2007). The SPACE programme for new parents and their babies—described in this publication—is another COI whose innovation has been adopted nationally; in its case through the playcentre movement and the Ministry of Social Development. COI involvement has been an important factor in these achievements.

Attachment-based learning programmes for infants and toddlers, such as that described in the Massey Child Care Centre COI, is spreading, too, as the Massey approach fills a gap in teacher-education knowledge pertaining to this age group. As well, a similar knowledge base is also used by the New Zealand Brain Wave Trust in its public

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lecture series this decade, thereby increasing teacher receptiveness. The hands-on leaders of the attachment-based learning model remain immersed in their Massey centre, so the diffusion of that approach is likely to be slow. Nevertheless, their face-to-face dissemination is likely to be effective, as they continue to disseminate by working alongside teachers in a few other centres and dialogue with individual visitors who come to the Massey centre. Their contribution as lecturers in Massey University's early childhood education online degree from 2009 will mean that their innovation will spread nationally and should influence many student teachers and the settings where they work. Time will tell if the power of the message is limited or strong.

Schema-learning theory is experiencing a renaissance in England with new editions of three books focused on schema-learning theory published in 2008 coinciding with the release of the new *Early Years Foundation Stage* curriculum framework (Department for Children, Schools and Families, 2007) that recommends its use. The implementation of this innovation is assured in England. Interestingly, one of the new editions is by New Zealand authors (Meade & Cubey, 2008) and draws on Wilton Playcentre's COI research. Will it, and a new book on schemas by a Wilton Playcentre COI writer (van Wijk, 2009), help diffusion of this innovation in New Zealand?

The research carried out in Wycliffe Ngā Tamariki Kindergarten COI has taken the interest of leading international scholars in the field of bilingual education, and the Samoan immersion project at A'oga Fa'a Samoa won an award voted on by research peers in the New Zealand Association for Research in Education in 2008.

Looking over the emerging trends, it appears that impact depends on the extent of implementation of an innovative approach. Experience has shown that adoption and implementation of particular innovative approaches

to early childhood education teaching and learning are more likely when the sector has recognised gaps in areas of knowledge and understood the COI messages that fill those gaps. The particular COI innovation must be memorable to be infectious. Generally, wider adoption has come about when a strategic alliance is forged between a COI and another party, or when there are messengers in the team who persist with writing and speaking after their COI contract ends, using messages that send out ripples.

An evaluation of the COI programme is underway. Impact is part of the evaluation brief. Those involved in the programme are keen to hear from the evaluation team—and from anyone interested in the programme—about ways to improve the effectiveness of dissemination, of giving back.

About this publication

This COI publication—Generating Waves—is both giving back to readers, and about giving back by COIs. Most of the chapters are written by teams involved in Round Two of the programme, 2004–7. Their research was focused on infants and toddlers; leadership in early childhood education; and/or collaborative relationships, a strategic goal in Pathways to the Future/Ngā Huarahi Arataki (Ministry of Education, 2002).

The first two chapters describe what happened as a consequence of dissemination being integral to their COI research. The first chapter, focused on "weaving dissemination actions into research", is by two Round Three COI authors. Then the Massey Child Care Centre COI shares information about their innovative dissemination to "buddy" centres. The remaining three chapters—by the Citizens Nursery COI, Te Kōpae Piripono and Te Mārua/Mangaroa Playcentre SPACE COI—report some research findings.

Ten COI have completed their projects, and 10 more are engaged in their research. All Round

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One and Two COI final research reports can be accessed on www.educationcounts.govt.nz

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