Using collaborative inquiry

to examine equity-linked problems of practice

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KEY POINTS

- This article focuses on the professional learning of two deputy principals from two different schools who worked together to research an equity-related problem of practice which they had in common.

- Collaborative inquiry focused on problems of practice is a powerful way of enhancing teacher learning aimed at improving student learning outcomes and opportunities.

- Cordingley's (2015) key components of the contribution of undertaking research to continuing professional development and learning were found to be factors in the deputy principals' professional learning. In addition, we identified that emotional engagement, trust, and time were also significant contributors.

The focus on teacher inquiry to enhance student learning is a key feature of *The New Zealand Curriculum* and in New Zealand's approach to teacher professional learning. This article examines how a collaborative inquiry team comprising two teachers (one each from two Auckland primary schools) and a teacher educator used inquiry to address equity-linked problems of practice. The findings showed that working collaboratively on practice problems was more than sharing examples or ideas. Rather, it involved systematic, intentional, iterative data gathering and analysis, and critical discussions about how the data could be used to change practice to improve learner outcomes.

Introduction

Nations around the world are grappling with the challenge of ensuring all students have access to inclusive, equitable, good-quality education (UNESCO, 2017). This challenge takes on particular significance in New Zealand with its persistent problem of differential achievement between high-achieving students, predominately Pākehā and Asian, and low-achieving students who often come from poor communities and are Māori and Pasifika (Snook & O'Neill, 2014). Although the challenge of teaching for equity is not new in New Zealand, it has become even tougher because of the mounting diversity of its population. According to the 2013 Census, 18.2% of New Zealanders were born overseas, and Auckland (the context for this article) is the most culturally diverse city, with 39% of Aucklanders born overseas (Gomez, King & Jackson, 2014).

In line with the widely accepted view that teachers are the most critical in-school factor in student learning (Hattie, 2009), increased attention has been placed on teacher professional learning and development as a way of improving student outcomes. However, in their significant review of professional development, Opfer and Pedder (2011) note that much of the research on this area has produced discouraging results, with teachers often describing professional learning approaches as being ineffective. Opfer and Pedder believe that this is due to a lack of understanding or recognition of the importance of professional learning being embedded in teachers' professional lives and work contexts. Additionally, Timperley, Parr, and Bertanees (2009) argue that for professional development to be effective in terms of improving student outcomes, teachers should use inquiry to identify their professional learning requirements through an analysis of their students' learning needs.

The focus on teacher inquiry to enhance student learning is a key feature of *The New Zealand Curriculum* (Ministry of Education, 2007) and is evident in New Zealand's approach to teacher professional learning and development (Timperley et. al, 2007). A current example is the Ministry of Education's Teacher-led Innovation Fund (TLIF), which is part of the investing in educational success (IES) initiative to raise student achievement and strengthen teaching and education leadership. The aim of the TLIF is to support teachers to develop innovative practices that improve learning outcomes, especially for students who are Māori, Pasifika, need additional support to learn, or come from low socioeconomic backgrounds. However, a recent evaluation of the TLIF (Uni Services, 2018) noted that, although those participating in TLIF projects were very positive about this initiative, there were issues to do with teachers' confidence in gathering, analysing, and using data to shift knowledge and practice in the service of student learning. This article examines how two teachers engaged in collaborative inquiry used data to address problems of practice to enhance learning outcomes.

Background

This study arose from a larger 2-year TLRI project, Teaching for Equity: How Do We Do It?, which involved 9 teachers from two Auckland primary schools situated in low socioeconomic communities and 5 teacher educators from the University of Auckland.[1] The project had two phases. In Phase 1, Year 1, we examined the efficacy of the Facets of Practice for Equity (Facets) for New Zealand primary teachers. The Facets are:

1. Selecting worthwhile content and designing and implementing learning opportunities aligned to valued learning outcomes.

2. Connecting to students' as learners, and to their lives and experiences.
3. Creating learning-focused, respectful and supportive learning environments.
4. Using evidence to scaffold learning and improve teaching
5. Adopting an inquiry stance and taking responsibility for further professional engagement and learning.
6. Recognizing and seeking to address classroom, school and societal practices that reproduce inequity.

The Facets framework was developed from an analysis and synthesis of major programmes of international research that took a complex view of learning and teaching, and empirically linked teaching practices to equitable learner outcome, broadly defined to include social–emotional and academic outcomes (Grudnoff et al., 2017). In Phase 2, Year 2 of the TLRI project, we used the knowledge generated from Phase 1 to inquire into and improve practice within classrooms and in the school. In Phase 2, three collaborative inquiry teams from the two schools engaged in an iterative research process of systematically gathering and analysing data in order to set and answer their inquiry questions related to an identified problem of practice. The teachers were teamed with a faculty member and the group members acted as critical friends for one another as the inquiries progressed.

In this article we focus on how inquiries, carried out by one team comprising two deputy principals (DPs), one from each of the two TLRI schools, and a faculty member, identified and addressed a problem of practice related to teaching for equity. Both DPs had noticed a marked increase in students being sent to them by teachers because of behavioural problems. They were concerned about equity issues related to the impact on the opportunities to learn for the misbehaving students and their classmates. This common problem of practice led to their initial research question: Why are teachers sending increased number of students to senior staff because of behavioural problems, and how will addressing this reduce classroom and school practices that reproduce inequities?

To address this question each DP gathered data over 2 weeks on the type, frequency, time, and location of the incident that led students being sent to them. They also interviewed a sample of students sent to them, and the teachers doing the sending, to gain insights into the reasons for the misbehaviour. Data analysis showed that, in both schools, students being sent to the DPs were mainly from specific year groups and at specific times in the school day. Collaborative analysis and discussion of the data suggested that the "causes" of the misbehaviour were different for each school, which led to two different research questions for the next stage of the inquiry.

At School 1, the data suggested that most of the behaviour difficulties relating to Years 3 and 4 might be because the children had not been adequately prepared for the "big jump" in learning expectations from Year 2. Hence, the DP's next inquiry question became: How can we better prepare Year 2 students to become more independent and so facilitate a smoother transition to Years 3 and 4? After researching ways of building independence, the DP worked with one teacher volunteer to trial a "can do/must do" strategy to build self-management skills in Year 2 children. Given the positive outcomes from this approach (ascertained from the reduction to nil in children being sent out for misbehaviour and observations of their increased task independence), the school decided to introduce this strategy to all Year 2 classes the following year, and to investigate the results of this innovation.

At School 2, data analysis showed that most of the misbehaviour incidents occurred during writing and were from a specific year group. This led to a new research question: How will changing our approach to writing in Years 5/6 affect student engagement and enjoyment in writing and what, if any, effect will this have on student behaviour? The DP worked with one Years 5/6 teacher who volunteered to a 4-week trial of a new approach to writing that encouraged more student choice. The DP worked as this teacher's critical friend to implement and assess the impact of this new approach. Data showed that, during this period, no children were sent out of class for misbehaviour. Furthermore, all the children completed writing (which had not been the case previously) and interview data showed that they really liked being able to choose rather than being told to write in a particular genre. The outcomes of this inquiry led to the development of a school-wide focus on this approach to writing.

Studying the impact of collaborative inquiry on teacher learning and practice

The research question for our study was: How did two teachers' engagement in collaborative inquiry provide an example of professional learning that leads to change in practice? Data were captured through transcripts of critical-friend discussions throughout the inquiries. In addition, data were generated by a 60-minute semistructured interview with the two DPs that focused on their experience of undertaking their inquiries and how this had influenced their own professional learning and practice. The interview was audio taped and transcribed. We had previously gained ethics approval from Auckland University's Human Participants Research Ethics Committee approval for the TLRI project.

We carried out a deductive data analysis using the key components of the contribution of research on effective

continuing professional development and learning (CPDL) that were identified by Cordingley (2015). We selected Cordingley's framework because it had been developed from a synthesis of systematic reviews of international research including two New Zealand best evidence syntheses (Timperley, Wilson, Barrar & Fung, 2007; Robinson, Hohepa, & Lloyd, 2009). Cordingley's (2015) key components of the contribution of undertaking research to CPDL are specialist expertise, peer support and professional dialogue, inquiry-oriented learning and the use of tools, learning to learn from looking, aspiration for pupils, understanding why things do and don't work (the role of theory), leadership, and proactivity.

In the next section, we report on the findings from the deductive analysis using examples and direct quotes provided by the deputy principals, identified as DP1 and DP2.

What made the DPs' inquiries such effective CPDL?

The DPs addressed all of Cordingley's components in their stories about how their engagement in research led to a change in their knowledge and practice about teaching for equity. In addition, in our study emotional engagement, trust, and time availability were important in supporting their CPDL. We consider each of these in turn.

Specialist expertise

Cordingley (2015) identified teachers in "making use of specialist expertise, including expertise in the form of research evidence; using evidence and expertise to support planning in particular" (p. 240) as a significant contributor to effective CPDL. In our study, the presence of outside experts who were trusted and respected was important. The DPs brought their areas of professional expertise to the discussions and the faculty member brought research expertise.

Both sets of expertise facilitated deeper consideration of the school-wide behavioural challenges that both DPs were experiencing. Establishing a relationship with someone from elsewhere who could be trusted (the other DP and the faculty member) enabled them to share concerns and in a safe environment and helped them to make decisions about the way forward. Both DPs believed that having research expertise in the team was a necessary component for success of their research into their practice.

> I found it refreshing [to research with] others from the outside because when you are in the situation you actually can't see it and I would think, "Gosh, is it …?". (DP2)

> And the interaction with a critical friend. I still think that worked because we had an expert. (DP1)
>
> I don't think it would have worked if it had just been us, we still would have talked, we enjoy our time together. (DP2)
>
> But the pushing of the research aspect, the probing … (DP2)
>
> Yes, we needed that. We met a few times without you. (DP1)
>
> It wasn't as productive as when you were here … It was good but … (DP2)
>
> We needed the expert with the research focus there. [The faculty member] had a sound understanding of what we were doing, the research process, to help us. (DP1)
>
> And I learnt a lot from the other DP because I was new in the role. (DP2)

Peer support and professional dialogue

Cordingley's (2015) second effective CPDL strategy was teachers' involvement in "giving and receiving structured peer support using collaboration, especially reciprocal risk taking and professional dialogue, as core learning strategies" (p. 240). Analysis of transcripts of meetings between the DPs and their critical friend from the faculty showed very clearly that both DPs engaged in deep professional dialogue and encouraged each other to take risks. This continued in the post-project interview with the two DPs, with one DP asking questions of the other to clarify the different circumstances they found themselves in.

> My situation was different as I think you had people who had issues that needed to be addressed while in my setting they were quite open to change and I didn't come up with people who are resistant to change. Was this different for your setting? Would you say that? (DP1)
>
> Working with a critical friend from a different site but in a similar role supported me to go deeper and to keep going. (DP2)

Inquiry-oriented learning and the use of tools

Cordingley's (2015) synthesis identified one of the contributing factors of effective CPDL was teachers' involvement in "undertaking sustained, enquiry-oriented learning over (usually) two terms or more supported by use of tools and protocols to discipline learning and secure coherence and progression" (p. 240). Inquiry-oriented learning for the project's participants involved them doing research framed by one of the six Facets of Practice for Equity listed earlier. Both DPs selected Facet 6, *recognizing and seeking to address classroom, school and societal practices that reproduce inequity*, as they wanted to challenge and address a perceived inequity. Having their "equity glasses on" provided the DPs with a framework to plan and carry out their inquiries, and to analyse

their data. Post-project, the Facets continue to provide a standard against which they gather evidence to make decisions that can impact the children in their schools.

> [What was important] was really going through the inquiry process, investigating, noticing, that sort of stuff and then coming back and prioritising, going through our discussions, thinking cycles really. (*DP1*)
>
> The Facets really made us think about the reasons why different learners might be marginalised … and the Facets focused our inquiries. (*DP2*)

Another tool was a formal inquiry process. The DPs were introduced to a research framework for conducting a sustained inquiry and supported to follow that process. For the DPs, this process deepened their professional knowledge about teaching for equity, enabling them to make changes to their schools' practices.

Learning to learn from looking

Collecting and analysing data became increasingly important to the DPs as they moved through their research. They had learnt to "learn from looking through exploration of evidence about pupil outcomes and from observing teaching and learning exchanges especially those involving experiments with new approaches" (Cordingley, 2015, p. 240). Though both had started with an issue that was similar, as a result of collecting and looking carefully at data they identified very different causes for the issue. They were emphatic that systematic inquiry had been a very powerful way of testing their assumptions. Being reminded by the faculty critical friend to constantly "go back to the data" meant that they questioned their original assumptions and ended up with very different conclusions and suggestions for change.

> We were testing an assumption—what was assumed at the start was not where we ended up. .. Somebody telling you to keep going back to the data [*DP1 agreeing here*]. Without that I would have gone down the path of "I know why, I know why!" (*DP2*)
>
> It was systematic—research practice—you can't jump to a conclusion—need to keep looking at the data. … I think it was important that we got information to talk about. (*DP1*)

Aspirations for pupils

Cordingley (2015) noted that a contributing factor to effective CPDL was "using aspirations for specific pupils and evidence about their learning as driver for development" (p. 241). The DPs' schools had a strong ethos of high aspirations for all the children in their school.

> We are committed to diversity and difference and inclusivity … all children have the right to learn. For example, when we take children on school trips everyone, including children in wheelchairs, has to be able to access the same opportunities. (*DP2*)

> We have to see diversity as a positive, as opposed to seeing it as a problem. To see diversity as a problem it becomes something you have to manage, rather than enjoy. (*DP1*)

Both DPs were concerned that no students were left out of learning opportunities because of perceived difference in capability and their research was motivated by their commitment to reaching that objective. For example, DP2's concern about a small number of children who walked away from learning situations very upset because their needs were not being met was a prompt for her research.

Understanding why things do and don't work: The role of theory

Carrying out the equity-linked research helped the DPs to focus "on why things do and don't work in different contexts to develop an underpinning rationale or practical theory alongside practice" (p. 241), another of Cordingley's (2015) identified contributing factors of the influence of research on CPDL. Discussions in the critical-friend team were characterised by exploring their own theories of practice. They also theorised about the evidence they were gathering against the Facets of Practice for Equity framework.

> [The choice of factor 6 was critical], because we were both DPs and this naturally brought us to that as we could bring about change in our system. (*DP1*)
>
> I think that doing the research made me think that at the end of the day it is about the kids and watching those kids walking out so mad, so angry and that to blame them is really scary. I don't want that to happen so I suppose I have become more focused on "What are you doing?" (*DP2*)

Leadership

Cordingley (2015) noted "seeking out leadership support" (p. 241) as a contributing factor when teachers are engaged in research as part of their CPDL. Both DPs commented on the importance of the support for their inquiries from their principals and other members of the senior leadership teams in their schools. Both principals were very supportive of their school's engagement in the TLRI project, its focus on equity and the potential for CPDL that was accruing for the teachers directly involved in the project and their colleagues. One DP acknowledged close interest from all members of the senior management team. The other commented that, although she did discuss the direction of the inquiry with her principal, in future she would more deliberately discuss her inquiry at senior management team meetings.

> The other senior team were on board, that we were trialling something. I interviewed them [senior leaders], showed them the data, put down in concrete exactly what it was, what happened. I had the backing of them to follow the inquiry through. (*DP1*)
>
> We had a management meeting once a fortnight and if I had said this is where I am at, this is what I have done, this is where we are going, that would have benefited me. (*DP2*)

Proactivity

The last of Cordingley's (2015) integrated research contributions to effective CPDL involves "actively seeking out specialist and peer support and taking responsibility for creating and taking opportunities for professional learning within day to day school life" (p. 241). Through their engagement with the TLRI project the DPs happily seized an opportunity to take responsibility both for their professional learning and for those of the teachers they were researching with and/or working alongside. They were drawing on both their professional knowledge and research knowledge. The critical-friend triad of two DPs from different schools and an education-faculty member brought these knowledges together, enabling rich discussions of problematic practice. On reflection, they commented that the structured process and the support of their critical friends with practice and research knowledges were significant factors in their professional learning and practice.

> I think it is the process, having gone through it in such a structured way – it has allowed me to think about the different steps of the cycle that we use here. I think that the critical component of that helped, with you DP2 and you [faculty member], having that person to bounce ideas off and when goals setting. I think that was useful. (*DP1*)
>
> I think [being in the project] definitely improved my leadership in terms of my relationship with the teachers and hearing the stuff that DP1 was doing and having that critical friend and having that other place to come. I don't think it would have been as successful if I was on my own … because that outside person, for me, I could see through [their eyes], I just talked to DP1, and you [faculty member]. (*DP2*)

Other important components—emotional engagement, trust, and time.

As well as Cordingley's key framework components, we identified three additional factors influencing the impact of taking an inquiry approach to practice on professional learning. These were emotional engagement, trust, and time.

Emotional engagement was both a trigger for direction of inquiry and a spur for continuing. Although some negative emotions arose during the inquiries most of these emotions were positive in nature. Emotions commented on by the DPs ranged from frustration when meeting resistance from colleagues, to joy of data collection and analysis, and satisfaction with positive outcomes for students.

> The critical-friend discussions were really important to deal with the emotional stuff. (*DP2*)

Trust was a key ingredient for professional learning as the depth of each DP's learning required each member to be vulnerable and open to critique from the other team members. It was also dependent on the contribution of the others in the collaborative inquiry team as they built relational trust (Robinson, Hohepa & Lloyd, 2009).

> Trust was paramount in the critical-friend relationships because we were dealing with tricky situations. (*DP1*)

Both DPs were "walking" DPs without a scheduled regular class. This facilitated their inquiries. They had flexibility of movement and time to collect data. They could support teachers by observing teaching, and teaching classes. They could more easily meet their collaborative inquiry team members.

> Freedom of not being in a classroom is that you can go in and out, you can go into a classroom when teachers are doing things. You can just drop in. I wouldn't normally have been able to do this except once a week at a set time. Sometimes you can't fit it in on that day. (*DP2*)

Conclusion and implications

Although generalisations should be made with caution, the findings from this qualitative study support Cordingley's (2015) argument regarding the importance of engaging with, and in, research for teacher professional learning. The study also supports claims that to be effective, professional development needs to be embedded in authentic teaching and learning contexts. Furthermore, the findings indicate that collaborative inquiry is a powerful way to enhance teacher learning and improve student learning outcomes and opportunities. The study shows how teacher inquiry, intentionally constructed as a research process, can deepen and extend teachers' understandings of what equity/inequity means in practice. In the words of the participants:

> I think about equity a lot…do the children fit the system or does the system fit the children? (*DP1*)
>
> I think equity is a bigger picture thing. Like in terms of what the children have access to in our school, who does and doesn't, and is that fair, and how do we as senior leaders address that? And to go about making change, because just because this was the way it was always done, doesn't necessarily make it the right way. (*DP2*)

It was clear from the data that working collaboratively on problems of practice was more than the DPs just sharing examples or recording ideas. Rather, collaborative inquiry involved systematic, intentional, and iterative data gathering and analysis, and critical discussion between the DPs and an "external expert" about the implications of data for the learners in their schools. This deliberate collaborative inquiry process enhanced the robustness of the findings from the inquiries. Professional learning around building rich conceptual and practical understandings about equity was enabled through collaborative engagement over time on real problems of practice with trusted colleagues and critical friends. Building trusting relationships takes time, but without trust it would be difficult for teachers to engage in honest, rigorous discussions about their inquiries and their learning. Such findings have implications for Ministry of Education's IES initiatives such as Communities of Learning where schools collaboratively set and address achievement challenges to meet the needs of the learners in their communities. The findings also speak to the biggest issue identified in the evaluation of the TLIF Initiative (Uni Services, 2018)—teachers' low confidence and capability in analysing and using data to initiate changes in practice, and to demonstrate impact on their teaching and students' learning.

Acknowledgement

Note

1   Information on this collaborative project is available at http://www.tlri.org.nz/tlri-research/research-completed/cross-sector/teaching-equity-how-do-we-do-it

References

Grudnoff, L., Haigh, M., Hill, M.F., Cochran-Smith, M., Ell, F., & Ludlow, L. (2017). Teaching for equity: Insights from international evidence. *The Curriculum Journal*, *28*(3), 305–326. https://doi.org/10.1080/09585176.2017.1292934

Cordingley, P. (2015). The contribution of research to teachers' professional learning and development. *Oxford Review of Education*, *41*(2), 234–252. https://doi.org/10.1080/0305498 5.2015.1020105

Gomez, D., King, R., & Jackson, C. (2014, July). *Demographic profile report 1: Census 2013 Auckland usual residents snapshot*. Auckland Regional Public Health Service: Auckland.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxford, UK: Routledge.

Ministry of Education. (2007). *The New Zealand curriculum*. Wellington: Learning Media. Retrieved from nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum

Robinson, V., Hohepa, M., & Lloyd, C. (2009). *School leadership and student outcomes: Identifying what works and why: Best evidence synthesis iteration [BES]*. Wellington: Ministry of Education.

Opfer, V.D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, *81*(3), 376–407. https://doi.org/10.3102/0034654311413609

Snook, I. & O'Neill, J. (2014). Poverty and inequality of educational achievement. In V. Carpenter & S. Osborne (Eds.), *Twelve thousand hours: Education and poverty in Aotearoa New Zealand*. Auckland: Dunmore Publishing.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration*. Wellington: Ministry of Education. Retrieved from http://educationcounts.edcentre.govt.nz/goto/BES

Timperley, H., Parr, J., & Bertanees, C. (2009). Promoting professional inquiry for improved outcomes for students in New Zealand. *Professional Development in Education*, *35*(2) 227–245. https://doi.org/10.1080/13674580802550094

Uni Services. (2018). *Evaluation of the teacher-led innovation fund: Final report*. Retrieved from https://www.educationcounts.govt.nz/publications/schooling/evaluation-of-the-teacher-led-innovation-fund-final-report

United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2017). *Accountability in education: Meeting our commitments*. Retrieved from https://en.unesco.org/gem-report/report/2017/accountability-education

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