Building teacher capacity and raising reading achievement

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Abstract

Our goal in this paper is to discuss two rather unsurprising notions. The first is that teacher learning impacts schooling improvement. The second is that teachers, like all other learners, need to be scaffolded through the learning process. As part of this discussion we will present examples from a school—university partnership project aimed at raising student achievement in reading comprehension. Specifically, we will describe tools that we have used to effectively support teachers in learning to work with student data as they strive for improvements in teaching and learning.

For the past four years [2009–2012], a team of Griffith University researchers has been engaged in a literacy innovation partnership project working with two clusters of schools in a culturally diverse, low socioeconomic area south of Brisbane. The project is a research and design collaboration funded in part by an Australian Research Council Linkage grant. In the 2011 school year, we worked with 133 classroom teachers and 3149 students in 12 partner schools. This group of schools is demonstrating accelerated progress on TORCH and NAPLAN measures of reading. Our goal in this work was to close the achievement gap by helping teachers develop skills in making evidence-based decisions about what to teach, to whom and how, assisting the school community to develop a reflective practice capacity, and

to support the staff of each school to develop extensive content knowledge for teaching reading so that they might create unique innovations to accelerate student learning.

Growing research evidence indicates that effective professional learning for teachers is inquiry oriented. Indeed, New Zealand colleagues working in problem-based methodologies and inquiry-focused professional learning communities (Robinson & Lai, 2006) advocate a view of professional learning as an ongoing, iterative and contextualised process (Timperley Wilson, Barrar, & Fung, 2007). Put simply, these researchers argue that schools can accelerate student learning when reflective teachers learn what it is that they need to know to meet their students' needs, teach accordingly and re-run the reflective cycle.

Another major finding in recent years is that professional learning is enhanced when teachers in a school do not work in isolation, but when their efforts are supported by other like-minded colleagues (Earl & Katz, 2007; Earl & Timperley, 2009).

Our engagement in schools has taken these ideas seriously and we have worked to improve teacher capacity through an approach that values professional responsibility and collective focus in an ongoing cycle of reflective practice. To anchor our efforts and make the focus on professional learning meaningful, we utilise the concept of 'professional learning communities' (PLC). The term PLC was coined to denote the activity of 'a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way' (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006, p. 223). Over the last four years of the partnership, schools have established and grown professional learning communities that act as 'think-tanks' for an inquiry process centred on student achievement, teacher learning and quality instruction.

Data are central to all partnership activity and it serves two purposes. First, data are used to focus our inquiry and reflection efforts, but they are also the measure we use to evaluate the utility of the research model we are building (Glasswell, Davis, Singh & McNaughton, 2010). In all our enthusiasm for using data, we have had some reservations. We live in a world where data-driven decision making is a phrase that has real consequences, but often little real meaning. Indeed, school systems all over the world that are engaging in change processes put great efforts and resources into examining data as a lever for change and as evidence of it. School administrators are awash with data (Hattie, 2005). They deal in scale scores, stanines, percentile rankings and test-item analyses every day. In Australia, as National Partnerships schools across the country try to work out ways to use data to drive intervention and assess effects, discussions often turn to how to collect, analyse and reflect on student data in ways that will help accelerate student learning.

Our schools are no different. Our reservations, however, lead us to concur with the assertion that data is not always dealt with in ways that have most meaning for teaching practice and maximum impact on student achievement (DuFour, DuFour, & Eaker, 2008). In aggregated reports of a population's performance, critical detail can become lost. Individual students can become lost. For us, using data in meaningful ways in schools means a commitment to 'keeping it real'. By this we mean that achievement data should be traceable to the students it concerns and related to real-world instructional problem solving in unique classroom settings. Our experience in this project is that when teachers see data as providing critical information about individual students, they engage with it differently and are keen to learn more about what it means and how they might best use it.

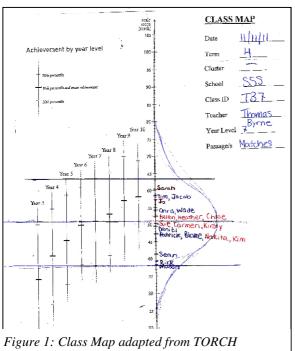
In the following pages, we describe two ways in which we have helped schools build a culture of inquiry around evidence that we believe is both rigorous and 'real'. We present for discussion 'focussing activities' and smart tools that skilled facilitators use to support teacher learning and actively promote inquiry and collaboration. Like other researchers (Danielson, 2009; Little & Curry, 2009), we suggest that skilled facilitation is an important aspect of establishing and maintaining productive routines for professional engagement around student data.

The project itself has evolved through three phases of activity that are cumulative and incorporate an inquiry focus on data, observing and reflecting on teaching and building capacity for instructional innovation. During the first phase of the project School-based Researchers (SBRs) employed by the University were each assigned to several schools where they began to coach teachers and principals about how to collect, analyse and use student achievement data to plan instruction. Data are gathered using Tests of Reading Comprehension (TORCH) (ACER, 2003) three times in each school year and the information is used as an inquiry focus for teachers, schools and SBRs. In the process of each round of data inquiry, two major focusing activities take place in the schools. These activities were designed to simultaneously serve as models of the inquiry process for schools and as professional learning experiences. Teachers engaging in the meeting processes learn the routines for interacting and become more reflective. Thus, the meetings are both a journey and destination for teacher learning.

A common tool to focus inquiry in these meetings is data visualisation. Data visualisations are graphic representations of data that help teachers 'see' patterns, describe and explain understandings about students' strengths and needs and focus on next steps teaching. The first data visualisation tool we use is the 'class-map' (see Figure 1). It is central

to inquiry about class level data and there is a set of routines that accompany it. Within a week of gathering reading comprehension data via TORCH testing, each teacher is released from class to engage in a one-on-one coaching meeting focused on student needs and teacher learning. A key activity in the meeting is to use the class map to develop a visual representation of a teacher's class data. Each student's score is plotted on the class map. The map includes a scale and a TORCH Described Regions overlay that is designed to help teachers understand student learning profiles and needs, and the complexity of reading comprehension development.

As the meeting progresses, students with similar needs are identified and possible



(ACER, 2003)

grouping options thought through. The discussion incorporates a clear focus on current instructional practices and possible innovations that will help move students forward. The teacher and the SBR/coach collaborate to establish professional learning needs and to problem solve issues related to the logistics of innovations to be trialled.

The second data visualisation tool we use is the school-wide 'TORCH wall' (see Figure 2). All our schools have a TORCH wall, usually displayed in an area where teachers congregate informally or come together to plan. TORCH walls are large charts (2 m x 3 m) constructed from black felt. Each is a horizontal TORCH scale divided into 13 bands

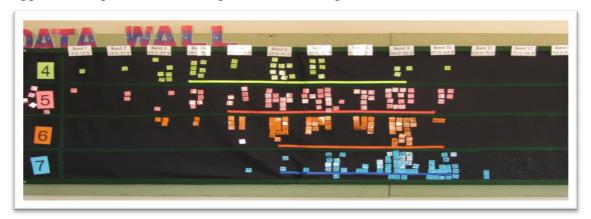
of TORCH scores, which become represented as columns. Each year level in a school has a row on which student identification tiles are placed. Each child's tile is attached to the wall in the row for his/her year level, and the TORCH score band column that the score allows. National norms for the mean and the range of the distribution are marked and give teachers immediate visual information about how their student scores compare to those of national cohorts.

DALLE CONTROL

Three times each year, teachers attend whole-staff meetings where they map their own students onto the large TORCH wall. The resultant scatter plot allows the professional learning community to see the achievement profile of the school as a whole, of each year

level overall, of each class and of each student as an individual. The data have meaning at multiple levels.

Through a collaborative process, facilitated by a School-based Researcher, teachers interrogate the evidence of student learning, identify groups of students who need additional support, raise questions, share expertise and develop innovations.



The TORCH wall serves a different purpose to the class map and the routines and interactions that surround it are particular to its purpose. The wall activity acts as an anchor for a strong and proactive professional community. Conversation is focused on student learning and professional responsibility for student progress. The TORCH wall remains on display until the next round of data collection when it is re-plotted and the reflective cycle is rebooted.

Over the course of the last four years we have seen some considerable changes in the ways teachers collect, interpret and interact with data and how they collaborate around the data visualisations. When we first began our work with mapping student achievement, we met with some resistance to our ideas. We learned early on in our project that, if misunderstood, the data displays had the potential to become walls of despair – a constant reminder of the ground still to be made up. Careful scaffolding over repeated cycles of reflection has increased teacher learning to the point that many schools now value what they used to mistrust and report that they will sustain these focusing activities as the project draws to a close.

Final thoughts

We began this paper with a promise to discuss some commonplace ideas in schooling improvement. What we hope to have shown is how those ideas have been translated into practice in ways that had meaning for the teachers involved. Our goal in this partnership was

to close the achievement gap. This mission saw us focus on teacher learning as we developed an inquiry focused model for examining and using student achievement data to guide instructional decision making. The second obvious point we raised was that teacher learning occurs best when it is scaffolded through a combination of routines, resources and interactions that help teachers grow gradually into the skills and knowledge they need. Our focusing activities and smart tools used by skilled facilitators repeatedly over four years and eleven cycles of reflection have provided us with the means to engage our teachers in a rigorous habit of inquiry that had real learning outcomes for them and their students.

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