Enabling Teachers to Better Teach Through Engaging With Research

Jake Madden¹, David Lynch²
St Augustine’s Primary School, Coffs Harbour¹
Southern Cross University, Coffs Harbour Campus²

Abstract

In recent years educational authorities across Australia have been paying increasing attention to improving the learning outcomes of all students in schools, or as it is more pointedly stated, getting schools to focus more on their core business of teaching and learning. Saint Augustine’s Primary School and Southern Cross University in Coffs Harbour Australia have established a ‘Teachers as Researcher’s Initiative’ (TARI) as a vehicle to improve the teaching of teachers. There are three key elements that make up the TARI. These elements are: (1) a partnership with a local university, (2) the introduction of a coaching, mentoring and feedback regime and (3) the embedding of a research culture. While we discuss each element individually for clarity purposes, the reality is that each element is connected to the others in equal measure such that the orchestration of each in required doses is what makes the TARI work. This is a comment about the important role that the school’s leadership team plays in enabling the project to succeed and have the desired impact. In this article we provide an insight into the TARI for those who want to refocus their school and their teachers.

1. Introduction

In recent years educational authorities across Australia have been paying increasing attention to improving the learning outcomes of all students in schools, or as it is more pointedly stated, getting schools to focus more on their core business of teaching and learning [28, 25, 27]. In focusing on ‘what are we here for’ Dinham [13], capturing such debates, argues by stating:

...the focus of every school, every educational system and every education department or faculty of education – [should be] student learning and achievement.” [13 p.1]

These comments underpin the so called ‘Melbourne Declaration’ [36], which articulates two important goals for education in Australia:

- **Goal 1**: Australian schooling promotes equity and excellence
- **Goal 2**: All young Australians become:
  - Successful learners
  - Confident and creative individuals
  - Active and informed citizens. [36]

Incidentally, this view around the role of schools was not always the case. Until the mid-1960s the general view was that schools make almost no difference to student achievement, which, it was thought, was largely pre-determined by socio-economic status, family circumstances and innate ability [7]. However, recent research refutes this view [10, 18, 32]. Hattie [18], for example, conducted a meta-analysis covering over 50,000 education related studies. He found the major sources of variance in student achievement to be centred across 5 key elements:

1. The student: accounts for 50% of variance in student achievement
2. The student’s home life: 5-10% of variance in student achievement
3. The School: 5-10% (principals, other leaders of influence) variance in student achievement
4. The student’s peers: 5-10% of variance in student achievement
5. The Teacher: 30% of variance in student achievement

Taking into account what schools and education systems can readily control and deal with, a focus on teachers and their teaching has become the key focus in school reforms [15, 24, 18]. Or, as Hattie [18] suggests, it is what teachers know, do, and care about which is very powerful in this learning equation. Therefore, a pathway to success in terms of enhanced learning outcomes in students is enabling teachers to become better teachers [30, 24]. In this article we outline a teacher capability building project known as the ‘Teachers as Researchers Initiative’ (TARI) which was staged at Saint Augustine’s Primary School (in Coffs Harbour, Australia) from 2012 to 2014, where a focus was on enabling teachers to better teach. Before beginning our outline, we briefly detail the context of such an initiative for reference.
2. Context of Schooling Today

It is well documented in the literature that society is moving from an industrial ‘lock-step’ model of schooling to a more targeted and flexible learning environment where teachers are increasingly being encouraged to seek answers and to pose new questions about their teaching and their student’s learning [35, 33, 24]. This rationale is based on research which suggests that a ‘design with intended learning outcomes focus’ is key if teachers are to achieve learning outcomes in all of their students [24, 23].

Coupled with this ‘design with intent’ approach is an increasing understanding about how people learn and how teachers can better teach [37, 24]. With the consequent result that teaching strategies are moving towards an ‘evidence-based approach’ coupled with elements such as questioning, reflecting, interpreting, diagnosing and even predicting likely results: a consequence of the current Knowledge -based Economy [48]. To support this new teaching focus, teachers at Saint Augustine’s Primary School have begun a journey into classroom-based research, where they collect classroom-based data, analyse it and interpret the results and then use such findings to inform their teaching decision-making. They are supported in such endeavours by processes which enable them to embed in evidence based teaching practices and learn how to act as ‘teachers as researchers’. We examine Saint Augustine’s Primary School and their initiative in a section which follows.

3. The Saint Augustine’s Teachers as Researchers Initiative (TARI)

In a previous section we established that schools are facing increasing pressures to ensure all students achieve the desired learning outcomes. As research indicates, a focus on teachers has the potential to achieve such a goal [18]. The challenge for schools then is how to mobilise to effect such required changes? At Saint Augustine’s Primary School the school strategically established a ‘Teachers as Researcher’s Initiative’ (TARI) as a vehicle to enact such required changes. In this section we outline the initiative for key points of reference.

There are three key elements which make up the TARI. These elements are: (1) a partnership with a local university, (2) the embedding of a research culture and (3) the introduction of a coaching, mentoring and feedback regime. We discuss each in turn. While we discuss each element individually for the purpose of clarity, the reality is that each element is connected to the others in equal measure such that the orchestration of each in required doses is what makes the TARI work. This is a comment about the important role that the school’s leadership team plays in enabling the project to succeed and thus have the desired impact [30]. Like all successful school-based projects the school’s leadership team was focused on the TARI project and therefore instrumental in engaging, motivating and supporting staff to participate in the project (15, 16, 17, 30). Figure 1 illustrates this arrangement.

3.1 Partnership with a University

There is a trap in any initiative where the potential exists for a school and their teachers to get distracted from their core business of teaching and learning. In the case of the TARI this potential lies in teachers being overburdened by the initial learning and the enacting of ill-defined processes of research in their already busy classrooms [30, 26]. The architects of the TARI were conscious to ensure teachers were not distracted from their core day to day business and with that in mind enacted a partnership with the local university. The brief to the university was ‘work with us to enable our teachers to use research as a seamless and core component of their teaching work’ [30].

In simple terms, the TARI leadership realised that the core business of the university was research and by engaging with such an entity the school was able to maximise the impacts - gain the required support, guidance and resources --- and not overburden already busy teachers with trial and error approaches. To these ends the university provided the technical advice and support to teachers by way of consultancy, resources, in-service sessions, research services and the like and the teacher was then able to access such services to support
their own research endeavours as required. We hasten to add that over time the processes of classroom-based research have become part-and-parcel to classroom planning and teaching routines such that its incorporation has now actually begun to redefine the actual work of the teacher [30, 26, 27].

3.2 Embedding of a Research Culture

A teaching-based research culture has two aspects. The first is an environment where teachers strategically collect and analyse their classroom data and then incorporate findings as standard practice into their teaching decisions. The second is the active engagement of teachers in research, by way of incorporating evidence-based practice into their teaching plans and actions and by engaging with other teachers on same through conversations, reflections and joint projects. In simple terms the actual process becomes embedded in the work of the teacher such that it is considered part of the overall teaching effect strategy [26, 27]. These two aspects are supported and enabled by the partnership with the local university and the ‘other’ associated elements of the TARI operating in unison. At the heart of such embedding however is the need for a teacher professional development regime that is both informative and supportive of teachers as they go about their day-to-day business and convenient to the busy schedules that classroom teaching demands. With these points in mind the TARI leadership has implemented a coaching, mentoring and feedback regime for such effect [30].

3.3. A Coaching, Mentoring and Feedback Regime

Traditional approaches to teacher professional learning (or as it is known in the system of teaching, ‘teacher professional development’) are based on teachers being released from their classroom teaching duties to attend some kind of seminar or ‘PD session’. These sessions are often on topics not directly related to the teacher and their specific teacher development needs, but aligned to the strategic intent of an education system or the school as a whole. On another plane, the prevailing teaching regulatory environment often mandates minimal teacher professional development hours, further strengthening the continuance of such approaches, which are largely viewed as efficient means [1]. In any case the resulting levels of teacher skilling are ‘minimal at best’ and offer ‘nothing’ tangible once time passes and the teacher returns to the demands of their classrooms [43, 1].

As Taylor, et al [47] argue, current professional development for teachers has not “necessarily acknowledged that teachers are not a homogeneous population but represent diverse perspectives, experience, expertise, receptiveness to new ideas, and potential for leadership roles” [47 p.85]. Further, Campbell & McNamara [5], highlight the ability of teachers to be able to contextualise professional knowledge and learning if such professional development is to have an enduring positive change effect on teacher practice. With these points in mind the coaching, mentoring and feedback regime that the TARI utilises incorporates, professional dialogue, collaboration and Learning of Content in Context as inter-related elements. We briefly outline each in turn.

3.3.1. Professional Dialogue. While the premise of ‘teacher reflection’ - where the teacher questions their own practice with a view to think differently about their classroom practice [15] --- has been described in the literature and evidenced in teacher behaviour over many years, there has been a movement in more recent times towards the use of ‘professional dialogue’ in teacher learning activities. For clarification purposes, ‘professional dialogue’ differs from ‘teacher reflection’ in that while it involves teacher reflection, it incorporates a teaching colleague as participant. Further, it is designed to “feature the depiction of practice and scrutiny of different approaches in a critical and attentive manner” [6 p. 326]. Nelson et al. (2010), cited in Cheng and Winnie [6 p. 326], report that in professional dialogue processes “teachers have to go beyond simply sharing practice, and that they have to emphasise investigating their practice in order to bring about positive changes to their teaching and pupils’ learning”. Research indicates that “there are good theoretical and empirical grounds to believe that on-the-job participation in reflective dialogue is an effective method for the professional development of teachers” [20]. While professional dialogue has similarities to that of a ‘critical friend’, a further difference is the incorporation of ‘teacher collaboration’ and a joint commitment on behalf of teachers in the arrangement to work together to effect change in each other’s practice [4].

3.3.2. Collaboration. ‘Collaborative teacher approaches’ are the antithesis of what can be termed ‘the traditional approach’ to classroom teaching. In the traditional teacher world a classroom teacher works in a single classroom environment--- solo as it were--- doing their teaching work. While they may engage in teacher reflection with a view to improving their practice, the premise of collaboration is minimal and where it does exist, it is focused largely on whole school functions and events [24]. ‘Feedback’ of any kind is neither sought out nor is it well received when it is suggested, a reflection of the ‘private’ or ‘closed’ culture that exists in the traditional teacher approach [4]. The reasons for this circumstance are involved and beyond the scope of this paper save to say, elements such as trust and professional
dialogue — key elements — are negated by the privatised nature of the one teacher, with a closed door in a single classroom situation [8].

‘Collaborative teacher approaches’ can thus be described as teaching environments where the boundaries of teacher work have been challenged and thus redefined [30]. While the notion of teachers jointly teaching is not new, the premise of two or more educators taking joint responsibility for the planning, teaching and monitoring the success of a cohort of students (i.e. a complete year level and multi curriculum areas therein) as well as the teaching performance of each other is new [6, 39]. In these arrangements, professional dialogue becomes a critical feature because it is through such processes that teachers begin to share ideas, harness capacities and experiences, take calculated risks, try something new; knowing all the time they will be supported and guided by their fellow teachers in their goals for teaching improvement. The additional capacity such arrangements represent is an added feature that encourages teachers to be involved. Further, as Plint et al [39, p. 44] argue, “teachers when collaborating in such ways, develop:
1. An awareness and understanding of self in relation to socially constructed identities,
2. An awareness and understanding of self in relation to a collaborator’s socially constructed identities, and
3. A shared awareness and understanding developed by collaborating faculty of the potential impact of their identities and their students’ identities on the processes of teaching and learning”.

Taken together, teacher collaborative approaches expand the professional learning of teachers but also the potential for authentic student learning [39, 6].

3.3.3. Learning Teaching Content in Context.

According to researchers, such as Opfer & Pedder [38] and Wayne, et al, [52] professional learning developed to meet, for example, ‘minimal teacher registration hours’ and focused to systemic priorities --- the traditional approach --- is insufficient when collaboration and professional dialogue predominate the teacher culture. Opfer & Pedder [38] go on to assert that “teacher learning must be conceptualized as a complex system rather than as an event” [38, p.378]. By this they suggest “one (has to) consider the sort of local knowledge, problems, routines and aspirations that shape or are shaped by individual practice” [38] and thus design professional learning accordingly. Such teacher learnings must “recognize the overwhelmingly multicausal, multidimensional and multicorrelational quality of teacher learning and its impact on instructional practices” [38, p. 394]. In simple terms, once professional dialogue and collaboration come into play the ‘learning content’ for teachers needs to match their context. The processes of classroom-based research and teachers working on understanding and applying evidence-based practices, is the central focus of such a regime.

4. The Teacher as Researcher at Saint Augustine’s Primary School

Having now provided an outline of the context and the details of the Saint Augustine’s Teachers as Researchers Initiative’ (TARI), we continue our outlining of TARI by providing some insights into the processes which inform what teachers actually do when they act as a teacher researcher.

Stringer [45] offers an ecological lens to the type of research activity that the TARI employs. In short, he describes this type of activity as ‘action research’, which he says refers to a three step method as explained:

1. Look: Gather information related to what is most valued to the goals or the work of the school.
2. Think: After identifying relevant assumptions and expectations, analyse/interpret this information to evaluate possible antecedents, cultural and theoretical assumptions, ideologies, influences, consequences and potential actions.
3. Act: This part of the cycle often involves posing new questions that lead to further inquiry. [45]

Freebody [14] argues action research is a ‘deliberate’ rather than a purely exploratory entry into a naturally occurring educational setting. That is, it is a planned and self-conscious focused examination of changing practice and has a number of components. For Freebody [14], a key characteristic of action research is that it is a solution-oriented investigation aimed explicitly at understanding and solving particular problems rather than simply documenting their instances, character or consequences. Freebody [14] expands on Stringer’s [45] work by outlining a more detailed seven step action research process:

1. Selecting a focus
2. Collection of data
3. Analyse, document and review data
4. Develop analytical categories
5. Organise data and its interpretations
6. Take action and repeat cycle. [14]

This action research type activity can either be conducted by a group or personally owned. However, the emphasis is on the importance of the researchers’ role in defining the problem, what counts as solutions, and what form the reporting of the project will take.
The central component of this action research is the ‘loop’ factor (step 6). This takes the form of a series of iterations on and around the problem, its documentation and theorization, and the analyses that are used to display how it has been redefined and solved. For some, these iterations are referred to as spirals [45] but are more commonly known as the Action Research cycle. This cyclic feature of Action Research is taken to be central to its core emphasis on the documented improvement of practice.

Stringer [45] elaborated on his “Look, Think, Act” model following a more qualitative interpretive research design as outlined in Figure 2.

| 1. Research Design – Initiating a study |
| 2. Data Gathering – Capturing stakeholder experiences and perspectives |
| 3. Data Analysis – Capturing identifying key features of experience |
| 4. Communication – Writing reports |
| 5. Action – Creating solutions |

Figure 2. Stringer’s Qualitative Interpretive Research Design [45]

The ‘trying out of ideas’ (or creating solutions) is not undertaken solely for the purposes of re-theorizing educational practice, or adding to knowledge, but is also aimed at improving educational practice at the moment it is needed. In that respect, action research is concerned as much with outcomes on the original research as it is with generalizations to other research or leading to theoretical refinement [40].

Action research is seen as a collaborative enterprise as it provides opportunities for colleagues to share, discuss and debate aspects of their practice with the aim of fostering school improvement and development. This involves responsible ‘sense-making’ or interpretation of data collected from within the field of a researcher’s own practice.

One way forward for the classroom teacher is to become an action researcher. Lawrence Stenhouse, in his 1975 book, “An Introduction to Curriculum Research and Development popularised the term ‘Teacher as Researcher’. The purpose of Teacher as Researcher is simply to enhance their own (or that of their colleagues) teaching ability. It’s a systematic reflection on their teaching practices with the sole aim of personal improvement.

For the teacher researcher, the purpose of school based research is fourfold:

- Address the gaps in the current knowledge by allowing teachers to investigate voids in their (own) teaching practice
- Expand the knowledge of teachers
- Test the knowledge already known about teaching and apply it to new circumstances or with different participants
- Add voices not yet heard to the research knowledge [9].

In the mid to late ‘70s, ‘Teacher as Researcher’ was generally an individualized notion, looking at a teacher’s practice as an isolated activity within the school, and even isolated from colleagues. However, today we see the focus of classroom research as part of the whole school and even at times, at the system level. Teacher research captures children’s learning and development using data that focuses on children’s voices.

A consequence of teachers undertaking action research (inside their classroom) is that it becomes more meaningful (and personal) to the classroom practitioner, promotes the voice of the teacher and highlights their professional role. Teacher researchers thereby become the creators of knowledge.

Schools are beginning to take an interest in this research as a means to inform their decision-making across the many dimensions of school life. While school improvement remains the major basis for schools focusing on ‘in school’ research, other areas are becoming more prominent. These include workplace health and safety, physical learning environments and even issues around professional development.

The move away from university based research that guides the theory enacted in schools has been accentuated by the need for teachers to be more hands on in determining student learning needs [2]. When discussing teachers as researchers, the focus is not on an experimental approach to teaching, but rather a practical means to improving teaching and learning.

As no two classrooms are alike, the need for the teacher to be able to tailor the curriculum to the needs of each student becomes more apparent. The teacher must be able to rely on his/her knowledge through careful systematic observation guided by an understanding of various hypotheses to each context faced.

5. Outcomes to Date

The TARI has now entered its third year and at the time of writing an evaluation is being undertaken and we await the findings. But anecdotal outcomes to date provide insight into what the TARI has yielded in terms of teachers and their teaching work. We summarise these outcomes as dot points:
1. The classroom reporting processes that traditionally occupy teachers at key junctures in the school year have evolved from ‘end points’ to ‘starting points’. Put simply, the outcomes of each teacher’s teaching (i.e. student learning results) are now being analysed as references for the next body of teaching work. This has the effect of teachers reflecting upon their practice for student learning effect and becoming more diagnostic and insightful as to what they need to do next as a teacher.

2. Teachers now have a ‘common teaching language’ in that the initiative has created a framework through which teachers can discuss their practice, provide advice and guidance to fellow teachers and reference points from which teachers enact remedial and professional development actions.

3. The traditional ‘one teacher one class’ has evolved to a series of strategic collaborations. Teachers now teach in teaching ‘teams’ where they regularly meet to evaluate and reflect on their teaching practices and their teaching outcomes--- the data that they now collect--- such that each teacher reports feeling supported and energised in their teaching work (Madden, 2012).

4. 20% of classroom teachers at the school are now enrolled in formalised research programs (i.e. Masters of Education by research) with the partner university to further their research prowess.

So what does this all mean? For teachers, a changing world has generated a complex series of agendas at an exceedingly fast pace. The TARI has created a framework for teachers to ‘pause and take stock of what they are doing’: to analyse what they do and a platform for them to seek advice and to gain the required professional development support they need and when. But chiefly the processes of teaching are being reformed/ refocused and which teachers appear to be readily adopting. The TARI demonstrates that its inherent processes can be used to enact change in a teacher’s teaching practices. This can only be good for the students in their care.

6. References


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