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Supporting Teachers as Researchers (STAR): A model for sustainable professional learning

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Abstract

Supporting Teachers as Action Researchers (STAR) explores how school improvement initiatives may be sustained over time. It represents stage one of a broader investigation into how teachers' professional learning may be enhanced by positioning teachers as practitioner researchers and professionals who are capable of generating change from within their local context. This research project has looked at how can schools develop and sustain curriculum and pedagogical initiatives by combining the principles of action research and communities of practice, and how teachers' professional learning can be enhanced through regional and university support for teachers as researchers employing an action research model.

This paper draws on data from nineteen Victorian Catholic Primary Schools under a regional initiative that asked this key question "What does it mean to personalise learning for students in the 21st century?" Participating schools were involved in a multilayered approach that used an action research model to facilitate professional learning. This approach required teachers in the schools to work with researchers to design and undertake school improvement initiatives designed to redress low levels of student engagement. This research represents a vision of teachers' professional learning that is enhanced by positioning teachers as researchers and is underpinned by a well developed model for sustained professional learning in which teachers are given space to bring new and renewed professional knowledge to their work. The design principles of this professional learning model, which contribute to its overall effectiveness, are identified in this paper. They include the elements of knowledge creation, time, strategic and ongoing support and rigorous accountability. This paper aims to contribute to this debate surrounding models of professional development/professional learning that can lead to sustained change in teaching and improved outcomes for the students. Analysis of the model points to the opportunities for a more personalised approach to teaching in classrooms and to professional learning for teachers.

Keywords: Professional learning, action research, teacher knowledge, personalised learning

Introduction

This research paper represents a vision of mainstream teachers' professional learning that is enhanced by positioning teachers as researchers and is underpinned by a well developed model for sustained professional learning in which teachers are given space to bring new and renewed professional knowledge to their work. This paper considers the professional learning framework employed and the opportunity this framework afforded for teachers to be active participants in effective change processes in local school contexts. It also looks at how this plays out within a wider systemic policy environment. This paper documents research attempts to follow Laurillard's argument that:

> If research is to go beyond the researchers, and connect with classroom practice, in all the education sectors, if we are to succeed in integrating research into practice, then it will be important to engage mainstream teachers as participants in research projects (Laurillard, 2007).

In 2003 Luke argued that contemporary socio-economic conditions, global change and an ageing teaching workforce meant that as a profession we need "theory-busting, theory building and a paradigm shift" (2003 p.61). In 2009 these words are still highly relevant. The paper aims to contribute to the debate surrounding a paradigm shift in the models of professional development/professional learning. At this time models of professional development are required that hand back a measure of responsibility to mainstream teachers. These models need to demonstrate features that are known to lead to sustainable change in teaching as wells as improved outcomes for the students. Analysis of our action research model points to opportunities for a more personalised approach to professional learning for teachers.

Action research has a long history particularly in Australian education. The term was conceptualised by Kurt Lewin (1946). It had a significant impact when taken up in Victoria by Kemmis & McTaggart (1992) and staff from Deakin University. It was promoted by Kemmis and McTaggart as providing a way of thinking systematically about what happens in the school or classroom (1992 p.5) and as a way to manage the process of school improvement. In 2008+ the process still offers educators strategies for empowering teachers in a time when many teachers feel disempowered. When this approach is combined with support in the form of high quality professional learning opportunities it seems to offer a way for school leaders to work towards policy goals of capacity building and a culture of continuous school improvement (Catholic Education Office, 2008).

This project represents a vision of teachers' professional learning that is enhanced by positioning teachers as researchers and professionals deemed as being capable of taking responsibility for their professional learning while being provided with a range of support. The research questions guiding this project are:
(1) How can schools develop and sustain curriculum and pedagogical initiatives by combining the principles of action research and communities of practice?
(2) How can teachers' professional learning be enhanced through regional and university support for teachers as researchers employing an action research model?

Research context

The focus of the professional learning for teachers and leaders of the Western Region of the Archdiocese of Melbourne from 2008 through to 2010 is on Personalising Learning for Students in the 21st Century. The program is partly funded by the Federal Government's

Australian Government Quality Teacher Program (AGQTP) and by contributions from participating schools. This three year program aims to develop a deep understanding of what it means to personalise learning for students in the 21st Century through the use of Formative Assessment, Information Communication Technology and Thinking Processes. To have a clear understanding as to how this project evolved it is necessary to describe forces that were at work within the Catholic Education system in the lead up to 2008. The research context also includes some 'lessons from the past' in regard to our professional learning program and how these lessons have contributed to the design of this three-year project.

In 2006 a new process of school review, known as the School Improvement Framework was introduced to Catholic Schools within the Archdiocese of Melbourne. The School Improvement Framework was designed to provide a structure and a process for schools to reflect on their effectiveness in the five spheres of catholic schooling (Education in Faith, Learning and Teaching, Student Wellbeing, Community, Leadership and Management). As part of this process of self-reflection parents, teachers and students were required to complete attitudinal surveys developed by "Insight SRC" designed to give schools feedback on each of the spheres. The implementation of these surveys provided the Catholic Education Office with valuable data about the effectiveness of schools within each of the spheres. Of particular interest for this paper were the results from the student data that measured student engagement. These results indicated that there was a need to improve levels of student engagement. Indicators of student engagement on the student surveys included purposeful teaching – the extent to which teachers deliver their teaching in a planned and energetic manner; stimulating learning – the extent to which teachers make learning interesting, enjoyable and inspiring; student motivation – the extent to which students are motivated to achieve and learn; learning efficacy – the extent to which students have a positive perception of themselves as learners; teacher empathy – the extent to which teachers listen and understand student needs and assist with student learning - Insight SRC (2008, p 59).

Whilst the intent of the School Improvement Framework in 2006 was to foster a culture of improvement, there was still no clear direction about what this improvement might look like. This direction for schools came in 2008, when the Catholic Education Office of Melbourne released the Learning Centred Schools Framework (LCSF) for consultation (Catholic Education Office, 2008) for implementation in 2009. This framework describes five streams for Innovation which include Leadership for Learning, Curriculum by Design, Transforming Pedagogy, Assessment for Teaching and Learning and Learning Environments. The underlying message of the Learning Centred Schools Framework is that through a learning centred approach all students will reach their full potential.

The message from the LCSF document (Catholic Education Office, 2008 p.14-15) the message is clear; it is teachers who make the difference to students reaching their full potential. It states that these teachers:

- have **high expectations** and believe all students can learn
- adopt a **repertoire of teaching strategies** to support **personalised learning**
- **contextualise learning** for their students
- know their students well and build **strong relationships** with students
- use **emerging technologies** to build **student engagement** and help **students learn how to learn**
- are **reflective practitioners** who examine their practice **against relevant education research**

- *share their practice with peers and others* and initiate and support actions that contribute to a positive culture of learning in the school and the *wider professional community.*

Design of the Professional Learning Model

With teacher learning at the forefront of their minds the Catholic Education Office of the Western Region designed a three year program focusing on building teacher knowledge and understanding of what it means to personalise learning for students so that all students can reach their full potential. Choosing to design a model that would span over 3 years was about focusing on depth rather than breadth. In previous years the design of the professional learning program required teachers to complete two professional development modules in one year. Upon reflection it was felt that there was not sufficient time for teachers to engage in what Comber and Kamler describe as serious intellectual engagement (2005 p.295). The current model invites teachers to choose a new module each year so that over the course of three years teachers can build a deeper understanding of how each of the modules contributes to a more personalised approach to learning.

Another key feature of the professional learning program design was to link the three teacher professional learning modules of Formative Assessment, Information Communication Technology and Thinking Processes to an over-arching philosophy of 'personalising learning'. The intent of this design feature was to assist teachers to link the content of the respective modules to the 'why' and 'how' of learning. It was decided to adopt an action research approach to learning for teachers, thereby providing a model of personalising learning for teachers.

Building the foundations of teacher knowledge involved one day for teachers from all three modules brought together to focus on Personalising Learning with Dr Julia Atkin. This was followed by two or three days for each professional learning module: Assessment (2 days), Information Communication Technology (2 days), Thinking Processes (3 days). As part of the knowledge building days teachers were required to keep a journal of both insights gained and the questions raised.

Once the knowledge building modules were completed the participants came together for a fourth (or fifth) day which focused on action research. Working together in their school teams, teachers began to discuss and shape their focus and their action research question. They reflected on their learning and the questions that they had documented in their journal as part of the earlier input days. With the support and guidance of the School Advisers from the Catholic Education Office (Western Region) and Deakin University academics, each school's action research plan began to take shape. This shape included the overall project outcomes that they anticipated for their students and their teachers, the strategies and actions they would undertake as part of their action research as well the evidence they would collect to measure the extent to which they met their project goals.

Throughout the program there was ongoing support and accountability for school teams. This involved the CEO School Advisers meeting with school teams. The meeting times allowed schools to discuss the processes they had undertaken, the evidence they had collected, to share their findings as documented in their journal and ask questions about future directions for their action research. These meetings were an opportunity for the School Advisers to encourage and support the work of teachers as well as articulate the expectations of the project.

Participants

Schools within the Archdiocese of Melbourne are divided into 4 Regions: Northern, Western, Southern and Eastern. From a socio-economic perspective the Southern and Eastern regions reflect more affluent communities whilst the Northern and Western reflect on the whole more marginalised communities. The 19 schools represented in this paper come from the Western Region and as such, these communities come from a lower socio-economic background and include a high proportion of Language Background Other Than English (LBOTE), many of which are recent new arrivals. One of the schools involved was a secondary boys school.

Research Methodology

Qualitative research is an inductive method of collecting and analysing data that has regard for the circumstances of particular persons, time, place and additional descriptive characteristics of the research context and the participants. Qualitative research allows the researchers to better understand and focus on the subjective experience of the participants and offers a flexible and interactive research experience.

The STAR project employed a qualitative research methodology drawing on data from an online questionnaire and semi-structured group interviews with volunteer case study schools. These methods provided the researchers with both a breadth (questionnaire) and depth (interviews) of data. With this qualitative methodology the researchers aimed to understand, report and evaluate the meaning of events from our participants' perspectives about the effectiveness of the program and how effective their work as teacher researchers was at supporting their professional learning.

Semi-structured interviews seemed well suited to this research project. Schostak (2006) describes the interview as 'individuals directing their attention towards each other with the purpose of opening up the possibility of gaining insight into the experiences, concerns, interests, beliefs, values, knowledge and ways of seeing , thinking and acting of the other' (p. 10). It requires a willingness to be open, both on the part of the interviewer and the interviewee. The interviewer has to accept that they cannot 'control' what comes out of the mouth of the interviewees during semi-structured interviews. It is the coming together of the interviewer and interviewee that 'enriches the encounter by expanding the field of experience' (Schostak, 2006 p. 12).

Methodologically, this means that the interview has to be approached in a double fashion: in terms of the possibilities of its constitution and in terms of its deconstruction (Schostak, 2006 p. 13). These interviews were focussed on the ways in which our participating teachers (rather than the researchers) interpreted their experiences and constructed the daily reality of teaching in the social context of their school workplace. The researchers adopted this approach to documenting and investigating how the combined principles of action research/action learning and communities of practice could promote sustainable change in schools because it allowed them to acknowledge the context and how that might help them to better understand how and why teachers respond in they ways they do.

Teachers from all participating schools were invited to complete the questionnaire. The researchers selected six schools, from those that volunteered, to participate in the interviews.

Data

Online Questionnaire

As previously stated data was collected through an online questionnaire that all teachers, in all schools, were invited to complete. This questionnaire included items which required teachers to select a response along a five point scale as well as an optional comments box to make a personal statement about each item. The online questionnaire allowed the researchers to collect a breadth of data whilst the group interviews allowed for a richer depth of understanding. The online questions were predominantly focussed on the Action Research component of the project. The scale included the five points of:

Strongly disagree	Disagree	Somewhat agree	Agree	Strongly Agree

Interviews

The researchers organised to visit schools to conduct the interviews at a time and place that suited the teams of teachers. Often this was after school time but some school leaderships provided time release during the school day for their teachers to participate. Interviews were recorded. Responses in the interviews were transcribed and combined with comments from the online questionnaire in order to carry out a thematic analysis. The semi structured interviews began with the researcher asking teachers to describe the focus of their action research, followed by questions about what aspects had worked well for them and which aspects had not worked so well. Follow up questions depended on teachers' responses to the initial questions and to tease out further issues and concerns. Later questions asked teachers to make recommendations about how the project could be improved in future years.

In the following section we present data reconstructed in relation to the two questions. Please note discussion of the data is placed within the findings section. The first part presents data related to the question, *How can schools develop and sustain curriculum and pedagogical initiatives by combining the **principles of action research** and **communities of practice**?* That is followed by data that emerged in relation the question, *How can teachers' professional learning be enhanced through **regional and university support for teachers** as researchers employing an action research model?* Data from responses to the items in the online questionnaire and the comments from the semi-structured interviews are placed together here under the each of the questions. Interrogation of the teachers' comments sections of the online questionnaire and comments made during the interviews, examples were selected because they were deemed to accurately represent commonly recurring teacher views.

Data collected from online questionnaire items

Forty-six participants completed the online questionnaire. This is just over 50% of the total number of teachers who participated in the professional learning modules (N=46 for all items). The items are placed at the top of each table.

Question 1
*How can schools develop and sustain curriculum and pedagogical initiatives by combining the **principles of action research** and **communities of practice**?*

Questionnaire Data relating to *principles of action research*

Table 1

Using the Action research process supports a hands on approach to teachers professional learning	
Answer Options	**Response Frequency**
Strongly disagree	**2.4 %**
Disagree	**0.0%**
Somewhat agree	**0.0%**
Agree	**41.5%**
Strongly agree	**56.1%**

Table 2

The content of my learning has been grounded in concrete tasks closely related to my teaching practice.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**2.4 %**
Somewhat agree	**4.9 %**
Agree	**56.1 %**
Strongly agree	**36.6 %**

Table 3

The action research approach has encouraged me to be more reflective about my teaching practice.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**2.4 %**
Somewhat agree	**7.3 %**
Agree	**39.0 %**
Strongly agree	**51.2 %**

Table 4

Using this approach has provided me with some useful insights into the processes of learning and development of my students.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**0.0 %**
Somewhat agree	**4.9 %**
Agree	**56.1 %**
Strongly agree	**39.0 %**

Table 5

Participating in an action research process with my colleagues has encouraged me to adopt an inquiry-based approach to my own professional learning.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**4.9 %**
Somewhat agree	**14.6 %**
Agree	**43.9 %**
Strongly agree	**36.6 %**

Comments from interviews and comment boxes on the questionnaire relating to *principles of action research*

The PD process is replicable; as teachers we were doing a presentation at a staff meeting to interest others in a research approach to improving ICT use in learning.
The PD was not just listening to an expert, but was an action-oriented experience, where people could learn in teams, be supported by others, and produce something meaningful. This was good.
The PD model was excellent. It was multi-faceted; there was a 'product' at the end of a long process, in which you could take pride.
There were lots of activities and "tons of resources" especially from the initial PD days.
The two days with Clare and Scott were good to get a clear idea of the potential of ICT in education.
The project caused stress (IT failing) and confusion and times but the amount of learning taking place was unbelievable. It was therefore, overall, very enjoyable.

Questionnaire Data relating to *communities of practice*

Table 6

The process has encouraged me to share my professional knowledge with colleagues in MY OWN WORKPLACE.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**2.4 %**
Somewhat agree	**7.3 %**
Agree	**41.5%**
Strongly agree	**48.8 %**

Table 7

This approach has encouraged me to share professional knowledge with colleagues in OTHER SCHOOLS.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**9.8 %**
Somewhat agree	**26.8 %**
Agree	**53.7 %**
Strongly agree	**9.8 %**

Table 8

This approach to professional learning has allowed me to learn from other teachers' work.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**0.0 %**
Somewhat agree	**4.9 %**
Agree	**51.2 %**
Strongly agree	**43.9 %**

Table 9

I believe that using action research with my colleagues is more likely to encourage an ongoing approach to professional learning in my school.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**0.0 %**
Somewhat agree	**19.5 %**
Agree	**39.0 %**
Strongly agree	**41.5 %**

Table 10

Using action research has encouraged me to adopt a collective approach to solving problems that are related to teaching practice.	
Answer Options	**Response Frequency**
Strongly disagree	**0.0 %**
Disagree	**2.4 %**
Somewhat agree	**14.6 %**
Agree	**56.1 %**
Strongly agree	**26.8 %**

Comments from interviews and comment boxes on the questionnaire relating to *communities of practice*

It was good to be able to talk to other teams from other schools; sharing of information was valuable.
The presentation day was terrific; it was enjoyable to hear what others had done, and to pick up ideas to take away and try.
The day the schools came together was great; everyone was interested, excited, and supportive. The hard work you had done could be acknowledged by your peers. The idea of coming together to celebrate everyone's success and stories has a lot of appeal.
There were weekly meetings to keep the research going; the time taken to do this was not a problem because it helped with other things such as planning, reflecting and evaluating – if anything, it made the teachers use their time better.
Having a team involved was an important factor: an individual teacher could not have done so much alone; the support of others was essential.

Data collected from group interviews relating to Question 2

How can teachers' professional learning be enhanced through *regional and university support for teachers* as researchers employing an action research model? (No items on the questionnaire were related to this question).

Comments from the interviews relating to *regional and university support for teachers*

The help Jose [the regional consultant] *gave in shaping the project was invaluable; there was a lot of 'floundering' in the beginning. Her perception and knowledge was brilliant. She was a person who had a clear idea of a standard, and helped you achieve it.*
The project was designed to ensure there was accountability – as teachers we were expected to translate the PD sessions into action – but there was no pressure.
The support and guidance through this whole project has helped to make the process of Action Research relevant.
Having a project to complete meant that we all remained focused and didn't allow any of us to become sidetracked or to get left behind.

Findings
In this section we present findings in relations to the two research questions.

Findings relating to Question 1
*How can schools develop and sustain curriculum and pedagogical initiatives by combining the **principles of action research** and **communities of practice**?*

The rigour of the action research required in this project was clearly more than teachers of the Western Region had ever experienced before when working at the local level. The 'bar' had been raised in terms of expectation and accountability. Teachers perceived the number of days allocate to teacher professional learning, the quality of the presenters on these days as indicating a raising of the bar. The formal documentation of their action research plan, the ues of a reflective journals, the expectation to present at a cluster meetings, the documentation of their action research and the presentation of their action research on the final day as taking professional learning to a new level. One of the overall findings from this project is that if you raise the 'bar' by combining the principles of action research, and communities of practice and provide the necessary support most teachers are capable of withstanding the rigour required of this type of project. The reasons behind the increase in professional learning are a combination of support from teacher regional staff, university academics and school leaders as well as the supportive environment of working in teacher action research teams.
Having a team involved was an important factor: an individual teacher could not have done so much alone; the support of others was essential.

Another powerful factor that contributed to the success of teachers is the increase in student engagement. Whilst many teachers in the project note that in the early stages they spent more time than previously in planning for teaching and in preparing to personalise the learning for their students, they also acknowledge that in the later stages their workload was actually reduced as the students became more capable of driving their own learning. The rewards came later for teachers in terms of time demands and also in the rewards they experienced as

they saw their students becoming increasingly more confident and independent learners. Analysing the data the teachers collected about changes in their student's learning helped the teachers better understand their students and the knowledge gained was invaluable for future planning.

When teachers are clear about their research questions the principles of action research are easier to apply. Teachers thrive in the 'hands on' trial and error approach that action research demands. Professional learning underpinned by action research enables a personalised approach to learning for teachers. Interestingly, the questionnaire item that recorded the most comments was *Using the action research process supports a 'hands-on' approach to teachers' professional learning.* The responses were generally enthusiastic and conveyed a similar message; if the action research made a difference to their students and their practice then action research was a meaningful way for teachers to learn. In response to this item one teacher stated in relation to action research,
… as long as the focus of the research is relevant and real to the teacher
Definitely - being required to implement the action research in my own classroom meant I couldn't sit, listen and forget the professional learning content

The principles of action research demand not only trialling new strategies but also observing and reflecting. Whilst observation and reflection can take many forms, the formal recording of teachers' learning in their journal was found to be extremely valuable. The personal journal is a mechanism for self-monitoring whereby teachers reflect on their practice and think about what their next steps might be in order to achieve their project goals. It should be noted that the formal recording through journals was not something that all teachers readily responded to nor was it something that they were familiar with. Teachers stated that the journal really helped them when it came time to write up their action research stories as they could see how their learning had evolved in relation to their research question.

One of the most important factors in this project was the combination of the principles of action research with communities of practice. The Twilight Clusters began this process. The clusters provided a gentle way of transferring the learning from the school context to a wider community of practice (Wenger, 2000). Each professional learning module (Assessment, ICT and Thinking) involved schools sharing the actions/strategies they had implemented, the evidence they had collected, the insights and understandings they had gained and what their next steps might be. As participants listened to each of the stories presented they were invited to think about how these stories reflected a personalised approach to learning. There was also an opportunity for schools to ask questions of each other and to give feedback in relation to how the story exemplified personalised. There were varying levels of confidence and competence in the way schools approached these cluster meetings. Some schools were more prepared than others and were clear about what they had done and what they had learnt so far. Other schools were more exposed by their lack of preparation. It was a great learning experience for all involved. Regardless of what schools brought to the table at these meetings they certainly went away with more than they arrived with and in one case a greater understanding personalised learning in a secondary school.
Professional learning days and the twilight meeting allowed opportunity for professional dialogue and connections
I made contact with another school to share resources as part of this project
Useful listening to primary schools and for them to hear from a secondary school

Following the Twilight Clusters teachers were encouraged to share their learning with an wider learning community. Hence schools were asked to publish the stories of their action

research. The sharing of their stories was found to be beneficial on a number of levels. Firstly, in the formal documentation of the action research teachers and leaders were forced to be really clear about what they had learnt though this process; writing for an audience reinforced the need to be clear about their purpose, process and overall findings. Secondly the learning that was gained in the narrow context of one school could be broadened to encompass potentially all of the forty-four schools in the Western Region. The publication of each school's story allowed it to be shared with and valued by, a much wider community of practice. It was anticipated that the formal acknowledgment of the learning of the teachers who had taken part in this project would also help to build teacher efficacy; for teachers to be proud of the work that they do, know that they can make a difference to students learning as well as to the learning of their peers. The publication of the teacher stories also goes some way to meet Robert Sommer's call for the use of 'innovative dissemination strategies' (Sommer, 2009 p. 227) for the dissemination of action research to the wider educational community.

Findings relating to Question 2

*How can teachers' professional learning be enhanced through **regional and university support for teachers** as researchers employing an action research model?*

These data indicate that teachers are likely to take on the use of action research strategies to continue to monitor and improve their teaching practices. When teachers are involved in a cycle of action, observation, reflection and modification of their actions (teaching practices), and as they use observation and collection of data about their teaching and the consequences of their teaching for their students they are operating as teacher researchers.

The day allocated for teachers to design their action research is considered to be crucial to the success of the project. The organisers learnt that teachers often lack some of the skills necessary to complete action research effectively. Some of these skills include designing effective question for research, procedures for the collection and analysis of data and the art of journaling. To assist with this process of developing teachers' understanding of an action research approach, the support and the guidance from Deakin University academics was crucial. Working in collaboration with experts from Deakin University also contributed to the credibility of action research as a model for learning and increased the perceived level of accountability. Kincheloe (2003) suggests that whilst the act of research is what teachers do as part of their everyday practice, their skills as researchers need to be sharpened so that they become more conscious and deliberate in planning, observing, acting and reflecting (Kemmis and McTaggart, 1988). Kincheloe also suggests that teachers often fail to make the link between theory and practice (2003 p.39). The structured support provided throughout this project supported teachers to make these links more effectively.

The strengths of this project lay in the layers of support (and leadership), the opportunity for teachers to develop knowledge, the supportive community of learners, the clear and high expectations, the built in accountability, the clear timelines, the organisation of a final product in the form of the printed book of teachers' stories and a final day when all school teams presented their stories to a larger group, the and the ongoing nature of the project.

These results are for the first year of the project and as such are very strong. The leaders and the participants will continue on this learning journey during the second and third year of the project it seems reasonable to expect that patterns of sustainable change will be established. It is interesting to note that one item on the questionnaire gained a response below 70% on

"disagree and strongly disagree" See table 4. It was the question about sharing with other schools. Teachers in this region are not accustomed to sharing with other schools; they are still reticent in seeing themselves as valuable contributors to learning of colleagues in a wider learning community. This result is about how the teachers see themselves and therefore it is certainly not an unexpected outcome at this stage. The first year of the project has helped to shape teachers view of themselves as contributors to the learning of the profession. It is expected that it will take the full three years of this project for teachers to shift their thinking in regard to how they see themselves as contributors to wider educational debate

Recommendations for the future

Time

Time was the most commonly requested as area for improvement. At a project level teachers wanted more regular sessions such as cluster meetings to engage with other teachers to see what they were doing. At this stage only one change has been made to the Twilight Cluster and that relates to the time. Instead of attending the cluster after school, time has been made for teachers during school hours. It will not be possible to increase the number of meetings for schools but they will be encouraged to communicate with each other via the 'Myclasses' learning management system.

Teachers also felt that it would have been beneficial to start their modules earlier in the year so that more time can be devoted to the process of action research. Modifications have been made to the program for 2009 when two of the modules will be brought to address this issue. One of the limitations of the project is that three modules are harder to resource in terms of presenters and this impacts on the timeline.

An overwhelming response in feedback from the participants was that they felt that the final presentation day needed to be organised differently so that all schools have sufficient time to present. Attempts are being made to address this issue.

Support

Many teachers felt that that they needed more support with the development of their research question. They found this session challenging and felt the pressure of time. However some did acknowledge that they came to understand that the refining of their question was a natural part of the cycle of action research and so continues over time. The process for designing action research plans has been reviewed and modifications have been made to simplify this process. However the following comment provides an important insight into the challenges teachers experienced.
 It would be great to do the whole thing a second time, to consolidate what we have learnt.
One may deduce from this comment that as a result of the first year of this project teachers have not only learnt about personalised learning but they also have come to a deeper understanding of the requirements of action research. Hopefully teachers in their second year will approach their action research with greater confidence and competence. More regular monitoring of schools will be a feature of the project over the next two year. The regional staff will meet regularly with teachers to ensure that the appropriate level of support is available. Personal journals are another area in which teachers need further support. Providing scaffolds and models of journaling may assist teachers in this art.

Conclusion

This notion that teachers are the ones that make a difference is not new. According to Hattie (2004 p.25) it is teachers who make the difference and account for about 30% difference in student learning. However it is argued by Comber & Kamler (2005) and Darling-Hammond (2006) that despite the crucial role teachers play in making a difference to student outcomes they are rarely partners in research and as a profession are often targets of criticism from various groups within the community. This exclusion from research according to Kincheloe (2003) is due in part to the low status of teachers as well as teachers' failure to fully understand the link between the theory of research and their role as practitioners. Kincheloe concludes that when teachers are involved in research they have a greater understanding of the context for inquiry and as a result bring richness to the learning. Researchers tend to 'study down' the teachers. As a result, their work is often lacks the valuable insights of practicing teachers, the resulting research is abstracted from the lived world of school (Kincheloe, 2003 p.35).

The lesson to be learned from this research is the importance of developing a 'culture of inquiry' (Kirkham p. 89) as well as a long-term commitment from school leadership and teachers to ongoing professional learning. It really does need to be a learning journey. Teacher education programs can also learn lessons in that they also need to be underpinned by a culture of inquiry, a commitment to this type of professional learning throughout their programs, not just in isolated chunks. In this way pre-service teachers may become aware that there are valuable alternatives to the more common form of discrete, one-off, 'I can use it in my classroom tomorrow' formula of one-size-fits-all professional development packages. Grossman (2005) notes that some kind of learning experiences for teachers appear to contribute to the development of teachers' visions, understandings, tools, practices, and dispositions (p. 389) and that even new teachers have the potential to make fruitful strides if they have the right kinds of support and professional learning opportunities. Darling-Hammond describes how teacher education programs that fit this model could look:

> These new programs typically engage prospective teachers in studying research and conducting their own inquiries through cases, action research, and the development of structured portfolios about practice. They envision the professional teacher as one who learns from teaching rather than one who has finished learning how to teach, and the job of teacher education as developing the capacity to inquire sensitively and systematically into the nature of learning and the effects of teaching (Darling-Hammond, 2000 p.170)

Similar to Kerkham & Hutchison's (2004) teachers who 'repositioned themselves as teacher researchers' our teachers collected and analysed data about the teaching and learning in their classrooms, designed their own research questions and took ownership of their professional learning; and some even revelled in it (Beginning teacher in Catholic School 1).

We have seen here an example of participatory action research, adopted by a community of teachers to strengthen and support the ability of their educational communities to grow and change. This experience should lead to an increase in feelings of empowerment as well 'capacity building' within these school communities. Participation in this type of

professional learning underpinned by action research is essential in the development of an alternative model is to be sustainable and people-centred (McTaggart, 1996, Plummer, 2000).

We suggest that the principles of linking action and research, of building teacher research skills, positioning teachers as agentive, and making a space for teachers to bring new – and renewed – professional knowledge to their work are principles that deserve attention, particularly at a time when teacher quality and professional standards are in the minds of policy makers. Action research combined with quality professional development of teacher knowledge, adequate support by capable leaders, time and effective accountability structures can be the beginning of sustainable change in educational practices and a better understanding of these practices by teachers.

The words of one of our teachers at the end of the first year capture the spirit of the teachers; a spirit that seemed to make it all worthwhile:

> *The last day when all the schools came together again was great. Everyone was interested, excited, and supportive. The hard work you had done could be acknowledged by your peers. The idea of coming together to celebrate everyone's success and stories was very appealing.*

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