

Coaching Teachers: Effective professional development but difficult to achieve

Kay Hawk and Jan Hill

**Prepared for the AARE/NZARE conference, Auckland, December 2003.
The paper was written in June 2003.**

Abstract

In 2002, the nine AIMHI schools (urban, secondary, multicultural) each began a programme of 'coaching' to provide effective, ongoing, classroom-based professional development for teachers. Each school developed its own approach and delivery strategies. The current programmes are mainly funded by the Ministry, as a collective AIMHI project. They are ongoing and in their second year, so the knowledge gained is evolving.

This paper looks at the underpinning philosophical and research base for coaching and at the earliest decisions made by the schools about their individual approaches. It explores the setting up processes used by the schools and the adaptations that have been made as the various approaches were trialled.

While the learning is ongoing, it has been possible to draw some conclusions about what works and what has been difficult. The overall aim is to find ways to help teachers improve their classroom practice and, therefore improve student learning and achievement. The challenge is how to manage and sustain this type of development in a large, urban state secondary school with the time and financial constraints that are a daily reality. They also involve a culture shift in the way teachers think about professional development and having other professionals in their classrooms.

Background

The AIMHI project began in 1995 as a partnership between eight¹ decile 1A schools and the Ministry of Education. In 1996 a collective action plan was developed based on the research done that year (Hawk and Hill, 1996). For three years (1998 – 2000) each school received individual funding for developments based on the needs identified in the collective plan. The group of schools also received some collective funding for professional development

¹ A ninth school joined the group two years later when its decile ranking dropped.

needs identified as priorities. Individual school funding stopped in 2000 but some collective funding has continued joint projects.

The AIMHI schools have a sound background of teacher professional development that has been based around effective classroom practice. This has included the AbeL² development in good formative assessment practice. AbeL development has focused on the integration of good assessment practice into good teaching practice through thorough planning (Hawk and Hill, 2001).

The 'Learning Through Language' programme has provided teachers with effective strategies that support every teacher to be a teacher of language³. This development has also been delivered in the context of integration with unit planning.

The Lorraine Munro BBC⁴ (blackboard configuration) was not new in the sense that some teachers in AIMHI schools were using similar blackboard 'briefings'⁵ before her visit. What the introduction of the BBC format did was simplify the system and standardise it so schools could require it from all teachers for all lessons.

Teachers have also had professional development sessions on the AIMHI research and, in particular, on the ***Making a difference in the classroom*** research. This research provides a full picture of the needs of the students and provides examples of effective practice. A manual of best practice was written for teachers and teachers new to AIMHI schools have had a special induction programme.

NCEA training has strengthened teachers' curriculum knowledge and helped reinforce the AbeL practice of clear criteria and using exemplars.

The opportunity, through AIMHI, to have an in-class coaching programme has enabled the schools to integrate aspects of the professional development. It was also expected that this integration would maximise resources and time and set the schools up with the experience and expertise they need to continue the development indefinitely. This was important because of the short-term availability of external funding support. This paper discusses the setting up and trialling of the first phase of the coaching programme and how it is being used to ensure professional development is embedded into classroom practice. Some of the training materials developed for the coaches are presented in the bullet-point format used during the sessions.

² Assessment for better learning

³ Hawk, K. and Hill, J. (1996). ***Towards making achieving cool: Achievement in multicultural high schools (AIMHI)***.

⁴ **AIMHI Resource Manual**, (1999). Wellington: Ministry of Education. Pp. 6.

⁵ Hill, J. and Hawk, K. (2000). ***Making a difference in the classroom: Effective teaching practice in low decile, multicultural high schools***.

Rationale for coaching

All the AIMHI schools are now effective educational organisations. Leadership is strong and school systems and organisation are efficient. Student attendance is carefully monitored and truancy followed up. The AIMHI tests⁶ have provided valid and reliable data on student attainment on which the schools can measure entry levels and progress. The schools have introduced many programmes and projects to provide for the wider social, emotional and physical health needs of their students. The healthy schools initiative has enabled these services to be expanded.

The main area where progress must now be made is in the classroom. New Zealand and international research and writing on effective professional development concur that development should be theory based, target needs identified through sound research that includes listening to student voices, be school-wide and be ongoing. It must involve teachers having opportunities to observe, practice, reflect and engage in professional discussions about what helps their students to learn.

There are many very effective teachers in the AIMHI schools who model excellent teaching. There are a number of new teachers and teachers new to low decile schools, who need knowledge, support and skills. There are also some teachers whose performance could be improved.

It is the teachers new to the schools and the teachers whose performance needs improvement who will be the main beneficiaries of the coaching programme. It is important to recognise that teachers are at different levels of readiness and commitment to engage in reflection and change (Hopkins, Ainscow and West, 1990). Rudman (1999) points out that adults' readiness to learn is different. They are less inclined to take risks. This does not mean that all teachers would not benefit, or that they will not all be involved at some stage in the coaching programme. It means that more time will be allocated to the teachers with the most needs.

An in-class programme of coaching has the potential to identify individual teacher needs and to provide the level of support and development appropriate to these needs. The in-class coaching will rarely be subject related. The needs are generic to all learning areas, as is good assessment practice. These needs are primarily:

- building an appropriate relationships with students
- achieving individual student and class locus of control
- using good formative assessment techniques
- planning and delivering the programme at appropriate levels
- using effective pedagogical approaches including cooperative learning strategies
- meeting individual and group needs in a class

⁶ Developed by teachers from the eight schools in partnership with New South Wales University.

- managing behaviour appropriately
- effective teacher questioning and feedback

The coaching must be done within a safe and professional development culture (Fullan and Hargreaves, 1996) and the learning should be deep, rather than shallow. Teachers will increasingly become skilled reflective practitioners (Smyth, 1998) and the development will be ongoing (Hill, Hawk and Taylor, 2001). The research on transfer of training tells us that the qualities of the trainer, the programme and the nature of the follow-up are all important (Sweeney, 1999; Ottoman, 1995, Joyce and Showers, 1996). Showers, Joyce and Bennet (1987) state that for a complex model of teaching, a strategy needs to be used about 25 times before it becomes embedded in practice. Whatever coaching model is adopted, it must be achieving the best outcomes for students that drive the decisions.

School professional development is increasingly moving towards whole school approaches (McAlpine et al, 1998; Sweeney, 1999; Willis; 2000). It is within the context of the school and the teacher's own classroom that the relevance of the development will be apparent to the teacher and in this situation that change is most likely to occur (Aschbacher, 1994; Resnick, 1996). Schools are beginning to evaluate the effectiveness of teacher professional development through monitoring changes for students (Guskey, 2002) although current research indicates that the majority of schools are still using traditional methods (Birman, Desimone, Porter and Garet, 2000).

Development and research methodology

The AIMHI schools have always worked on a model of schools being autonomous decision-makers about how things happen in each school while, at the same time, finding ways for all to benefit from collective initiatives.

It was agreed that each school would develop its own way of delivering the coaching programme. This meant making decisions about:

- | |
|---|
| <ul style="list-style-type: none"> • Who would be coached • How many coaches • How coaches would be selected • How teachers to be coached would be identified • How the focus for coaching would be decided • How the release for coaches and teachers would be managed • How the coaching programme linked (or didn't) with other performance systems • What documents would be kept |
|---|

The great advantage of the schools trialling different approaches is that we have been able to learn about some of the systems that did, and did not, work and the reasons.

Collective activities were to include overall coordination of the initiative and the sharing of ideas, training and liaison of the coaches, collecting research data and the writing of milestone reports.

The research comprises:

- A **school questionnaire** administered twice a year. This collects data on the numbers of people involved, what the school has contributed, links with school systems of professional development and performance management and what issues/topics, if any, the school identified for coaching.
- A **questionnaire for each teacher being coached**. These are completed twice a year. It has both structured and open ended questions on defining the focus/topic, how the focus was selected, how they feel about progress, what changes they have made and how useful they have found the coaching.
- A **questionnaire that the coach completes** about each teacher they are coaching (completed twice a year). It has both open ended and structured responses and included questions about what changes the coach has observed in the teachers practice as well as ways in which student learning has been enhanced.
- The **coordinators** have recorded **comments and observations** from the coaches during the training and liaison days.

Setting up decisions

Coaching options

As part of the collective AIMHI development the Ministry of Education initially indicated they would provide each school with the equivalent of .5 of a teacher's salary for coaching. Each school was provided with a discussion paper that included the following options. These were discussed by staff before decisions were made about the model the school would use.

Paired peer coaching

This is where every teacher is paired with another teacher to work together in an ongoing way. Both are coaches and both are learners. Classroom observation and data collection are integral components of this process. So is planning and developing resources and strategies together.

Advantages

- Every teacher is involved as a coach.
- It is relatively non-threatening because teachers select their coach.
- There is flexibility in managing the observations.

Disadvantages

- It is difficult to monitor the effectiveness.
- Unmotivated teachers will make very little progress.
- Coach's levels of expertise will be extremely variable. Many might need training in being coaches as well as in particular fields of practice.
- Many teachers are not skilled at giving feedback, especially to other adults.
- Poorly performing teachers might select each other so little progress will be made.

One expert coach

The school employs, seconds or releases one person to be the coach for all teachers. This could be a person from within the school. Or someone with expertise from outside.

Advantages

- The coach can be selected because of their high level of expertise and their ability to work effectively with a range of teachers.
- One person is able to build a good overall picture of development needs and suggest groupings for particular developments.
- One person can identify individual strengths and find ways to share this expertise.

Disadvantages

- Coaching expertise is not developed by a range of people.
- If this one person becomes unavailable, for any reason, the institutional knowledge is lost.

Several coaches

The school could select between four and six people to be the coaches for the rest of the teachers. They might be selected because of their seniority, credibility, particular expertise or position in the school. A school could, for example select its senior management team or a group of 'expert' teachers.

Advantages

- Expertise is developed by several people and the school becomes empowered in its own development.
- There is some flexibility in arranging observations and planning sessions.
- The group is able to work together to share problem solving, development and school planning. Collective wisdom is shared.
- Shares the workload.

Disadvantages

- Not all people selected will have the same level of expertise and ability.
- Individuals, and the group, might need some training in how to be coaches and in specific areas of expertise, such as assessment.
- One person's unavailability is less critical.

Discussion document for setting up the coaching programme (AIMHI 2002)

Most of the schools decided to have a team of selected coaches. Some were to be selected on their credibility with students and colleagues. Others were selected because they were senior leaders. No schools selected the paired/peer option but three did select the one expert coach.

The coaching team could itself be coached in particular areas of knowledge and/or on the skills of being a coach.

Who would be coached?

Two schools decided initially that every member of the professional staff would be coached. One school included the Principal. Their rationale was that everyone should be looking to improve their practice and should have a right to the support provided by the programme. They also felt that it was an inclusive decision that would make it easier for all teachers to accept.

Others decided to target the coaching time so that people who needed it the most would benefit. Their methods of selecting people varied greatly and included:

- Asking for volunteers
- Referrals from HODs, deans or senior leaders
- Including all teachers new to the school
- Including all teachers of a particular class
- All teachers of year nine classes
- All teachers during tutor time

The decision to coach all staff was not manageable given the current resourcing of the programme. This was particularly the case in the bigger schools, even when they added their own staffing resources. On the other hand, asking for volunteers, in most instances, resulted in some of the most able teachers volunteering and seldom succeeded in including teachers that senior staff felt needed to change the most. Selecting teachers new to the school had many advantages and was highly valued by those teachers who felt very supported at a time when it was needed. Selecting a class, or a form level, had the advantage of teachers being able to talk with others involved with the same students and share problems and best practice.

At the time of writing the number of teachers being coached in each school ranges between 10 and 41.

Who would be coaches?

Again a number of practices were trialled. They included:

- Selected members of the senior leadership team
- All members of the senior team
- One 'expert' member of staff with a related role for the other .5 of their time
- A team (three to six) of teachers who have high credibility with students and staff

Two key lessons emerged. Senior management staff find it very difficult to find the time for coaching. They found themselves postponing and canceling appointments and not scheduling them. Emergency and unexpected demands kept taking priority over coaching appointments. Two deputy principals who did diary times, and kept to them, did make it work but they were the exception.

The other major problem occurred in the schools that had appointed only one coach. All the investment in training, knowledge and experience was invested in just one person. In one school the coach left and the school was left with no records or knowledge on which to draw and had to begin again. Even when the one person stays, it is less than ideal. There is great benefit from coaches being able to support each other through shared problem solving. These schools that began with one coach now have one or two other people who attend liaison meetings and training and provide in-school support for their coach.

Topics/focus of the coaching

Again schools approached this in different ways. They included:

- allowing the teacher being coached to self identify needs
- the teacher and coach deciding together on the focus

- coaches visiting classes and observing with an open mind and then deciding what to work on with the teacher
- the school leadership team deciding that the foci would be based on their knowledge of their students and the AIMHI research
- the school staff at a staff meeting identified the 'top six' priorities for classroom practice based of the research
- one school decided that appraisal goals for individual teachers would form part of the identification process

When teachers decided on their own needs, many tended to select the overt symptoms of deeper underlying issues. Some asked, for example, to have help with setting routines and behaviour management when the underlying issues that needed addressing were their relationship with students, a lack of careful planning, involving students in constructing their learning or providing differentiated learning opportunities. More progress seems to be made on bigger issues and deeper learning experiences when the school agrees on the priorities for development.

Performance management

Schools made decisions before they began the coaching about the links, or lack of them, to the schools appraisal and performance management systems. Most schools decided to keep the coaching programme entirely separate unless individual teachers requested their coach to address appraisal goals. They made decisions about confidentiality and about documentation. These are too varying to describe in full but most schools regarded coaching as a developmental and confidential process that only involves documents directly related to the observation data collecting or reflection process. Most have a system where the teacher and the coach are the only people to access and use the records because their purpose is entirely formative.

It is worth mentioning that, at this point in time, there is no evidence that the schools that have linked coaching to appraisal are experiencing any difficulties because of this.

Training and professional development

All coaches from the nine schools were trained and met together three times in 2002 for sharing information and problem solving. They have had professional readings and the schools have shared resources they each developed, such as observation sheets.

Staff, in most of the schools, have also had appropriate readings and development sessions in their own schools.

Recently the first development day was held for teachers who were being coached and who had been identified by their schools as having difficulty

forming effective relationships with their students. They participated in a workshop designed especially to provide information, ideas, development and support in this area. Initial feedback has been very positive and another day is planned for teachers to gain skills and strategies in cooperative learning techniques.

In both instances the teachers participating will take ideas back to try in their own classrooms with ongoing encouragement, feedback, monitoring and support from their coach. This enables the development to be very targeted, intensive and economical for each school. At the same time the implementation of the learning is supported in an ongoing way.

Progress to date

At the time of writing this paper, the schools have had one year of trialling their delivery of the programme and a term of 2003 to implement the restructured programmes. Most schools have made some changes as a result of lessons learned from 2002. They used the following guidelines, developed at one of the liaison sessions, to make decisions about delivery in 2003.

Collective Guidelines

AIMHI COACHING IN THE CLASSROOM: 2003 GUIDELINES

- The coaching programme should be in addition to the support that all schools should provide for first year teachers.
- There should be a **coaching team**, even if one person holds most of the 0.5 allowance.
- Working **in the classroom** is an essential part of the coaching programme.
- Senior management staff can be members of the coaching team but not the only people coaching.
- The hours spent on coaching need to add up to 0.5 of a full-time position. The following are guidelines only:
 - (a) at any given time there should be work going on with about 5/6 teachers;
 - (b) in the course of a year there should be work done with about 30 teachers.
- Coaching should challenge what the teacher is doing, not just provide support. The goal must be to change teacher classroom practice.
- Coaching should be cooperative and reflective, not just telling or following advice. The locus of control for the learning needs to be with the teacher.
- Schools and teachers need to be clear about the relationship between coaching and the school's performance management system.

Collective guidelines for the coaching programme. (AIMHI 2003)

Current models

Only one school now has one coach. Five schools have a team comprising three coaches, one has four and one has six.

In addition to the .5 salary from the Ministry of Education, all the schools contribute resources from their professional development budget and six contribute staffing resources.

No schools are now attempting to include all teachers in the programme. Teachers to be coached are being selected in a variety of ways and receiving the time and classroom observation time they require in a more intensive way than had been originally planned.

All schools have incorporated aspects of the coaching programme into their school-wide professional development and three regard it as an integral part of the schools performance management programme. The other five schools have made the decision to keep the two systems completely separate.

Topics selected as the focus for coaching in 2003 include teacher/student relationship, the "Making a Difference in the Classroom" research⁷, giving feedback and feed forward, student focused learning, questioning skills, classroom management and planning and routines.

Problems experienced

Most problems experienced have been discussed in the body of the paper but this section will provide a summary that schools interested in trying a coaching model can learn from:

- Senior leaders found it difficult to manage coaching commitments around their daily activities.
- Schools were not able to offer the opportunity to every teacher because of a limited resource of coaching time.
- Having only one coach, or person directly involved, made the schools vulnerable to losing the knowledge, skills and experience if that person leaves.
- Being the only coach is a lonely experience and having a small team assists the process and problem solving.
- Even the teachers selected for their credibility and skills found it difficult to front issues with teachers and to give honest and constructive feedback. Some tended to give advice and support rather than facilitate the learning of the teacher themselves.
- A small number of teachers resigned when they felt pressured to change. The schools did not regard this as a 'problem' because these teachers were not meeting the learning needs of students but it was an experience that made coaches question their practice.

⁷ Hill and Hawk, 2000.

- When teachers identified their own needs some of the needs were relatively trivial or they were the symptom rather than the cause.

Successes

The purpose of the coaching programme is to improve teacher practice in ways that have been identified by current research. Almost all teachers who have been coached and all coaches agree that important changes and progress has been made in changing teacher practice and in benefits for students. The following section identifies the nature of the success and illustrates it with quotes from the questionnaires:

- **Teachers new to the schools** have received excellent induction and support through the difficult period when students 'test' the teacher and his/her relationship with them

Its providing tangible support for staff new to our type of school.

There is credible research evidence and an academic base to the programme that gives us the right basis to rely on in knowing what teachers need to do in our school.

- The **learning is** happening at a **deep** level for many teachers

This is deep learning for teachers. There is a very intense dynamic between the teacher and coach.

The professional portfolios are helping with the reflective discussion.

Even the best teachers have appreciated the reflection.

Staff are now on our backs (the coaches) to work with them.

- **Coaches are developing high level skills** and becoming more effective at providing feedback and helping teachers to learn. They are also learning about good classroom practice themselves

There are real benefits and learning for the person in the coaching role.

- **Teachers are making progress** in being more effective practitioners, in relating to their students and in managing a classroom to better meet the needs of individual students and of the class

There was too much teacher talk. There is less of this but still more work to do. He is now more respectful of students (coach).

Thanks to the coaching programme I gained confidence and new experiences to provide better quality teaching (teacher).

She has changed her practice of only contacting parents when there was a concern. She has earned many 'brownie points' from her parents (coach).

I do less talking and have more student-based activities and I'm not cramming too much into one lesson (teacher).

I have learned a lot about teaching in a predominantly Pasifika community and have developed a better understanding of the needs and cultures of my students (teacher).

Feedback (from coach) has given me more confidence. The chance to practice doing some hands-on activities, with the coach watching, was great (teacher).

- **Students are already benefiting from the changes**

The whole demeanor and self-esteem of the students has changed. They now 'love reading' and stay on task nearly all the time and have developed the expectation that they will be able to participate meaningfully in each lesson (coach).

More students are engaging in learning. Lessons are more structured and there is more clarity about the purpose of the lesson (coach).

There is more realization that a range of activities are needed and so there are less students off task (coach).

There is excellent rapport with students. He is encouraging of students and they are more responsive to the learning opportunities (coach).

A positive change in student attitudes towards learning and increased output of work. There has been a marked improvement in reading and processing of information (teacher).

The teacher used to stand at the front yelling. Now she has the confidence to let go of the control and to let students work in groups (coach).

Students are now on task more often and are learning. They feel safe in the classroom and no longer harbor resentment about unfair treatment (coach).

Initially this teacher was resentful of the misbehaviour of the class. The language she used was, as a result, loaded. The class has become more compliant as a result of strategies to reward good behaviour. She has come to like the class again and this has translated into a better relationship (coach).

There is greater student participation and enjoyment now they have opportunities to give feedback on their own learning and course design (coach).

- A small number of **teachers who were unable or unwilling to meet student needs have left** the schools. There are others who are still being coached who are slow to make changes

This teacher is a 'coaster' and his/her approach is one of passive resistance. There has been no change (coach).

- Coaches feel that their **school generally is benefiting** and that the coaching programme is resulting in some **shifts in school culture**

The game has lifted and the word goes out to other staff.

It's opening up the classrooms and getting rid of teacher loneliness.

The movement of staff around classrooms has been successful. Students see teachers coming and going and accept and appreciate it.

Positive affirming dialogue has increased.

Its clear that teachers have lifted their performance because they know the coach is coming.

The staff involved are seeing it as an opportunity to develop personally and to push their boundaries.

She is now well organized and showing a greater commitment to the school.

He has become more reflective although he is still a bit defensive. He is sharing resources a little more with colleagues and getting some positive feedback.

Discussion

What this paper has described is the first stage only of what the schools hope will become one of the key ways that professional development will be delivered for their teachers in an ongoing way. It covers the first year's developments and describes the setting up process, the selection of coaches and people to be coached, the defining of the role of the coach, training programme and the connections between the coaching programme and other school performance management systems.

The focus, at this stage of the research, has been on what can be learned about what worked, and what didn't, in the setting-up phase.

When the Ministry allocates funding for development projects it rightly needs to know that they are making enough difference to justify funds being spent in that way. It is the same for schools. Development programmes that take teacher time and school resources, especially precious ones like staffing expertise, require physical and emotional energy from staff. The benefits must be significant and lasting for that development to take priority over other possible choices.

There is a great deal of pressure to be able to provide evidence of improvement through increases in student achievement data and there are clear advantages if this is possible, although the ability to isolate causal variables in an organisation like a school is very complex and seldom possible. Because this programme is focused on changing teacher attitudes and practice, in order that students will open themselves to learning and improve their learning, it is not possible to use student achievement data to evaluate the programme. Nor is there any funding available for a comprehensive evaluation.

The data collected have, therefore been mostly qualitative and has focused on what changes teachers are aware they have made and what changes coaches have observed. The latter are extremely valid data since the coaches are well placed to make such professional judgments.

A potential future source of data is the experiences and observations of the students being taught by the teachers being coached. The collection of period wagging statistics could also be valuable since it is an indicator of student satisfaction with the teacher and the effectiveness of their teaching.

In the meantime, both coaches and teachers are appreciative of the opportunities for this ongoing development and the quotes above concur with the views of Huberman (1990) and of Fullan and Hargreaves (1996):

Most teachers would derive more professional satisfaction from resuscitating 3 sullen, low performing pupils on the brink of dropping out than on raising class-level achievement tests by half a standard deviation in 6 months (Huberman cited in Fullan and Hargreaves, 1996:83).

There is nothing wrong with improving achievement scores, but teachers working together and individually must see a difference in the involvement and progress of children (Fullan and Hargreaves, 1996:83).

Clearly the coaching programme has delivered already on these outcomes. Fullan and Hargreaves continue to make the links between these and student achievement.

In Chapter 3, we saw how commitment to risk and improvement created higher senses of “efficacy” among teachers, and with it, gains in student achievement. Student development prospered with teacher development (ibid: 83).

References

- AIMHI Resource Manual. (1999). Wellington: Ministry of Education.
- Acshbacher, P. R. (1994). Helping educators to develop and use alternate assessment: Barriers and facilitators. ***Educational Policy, 8(2), 202-223.***
- Birman,B;, Desimone,L., Porter,A. and Garet,M. (2000). Designing professional development that works. ***Educational Leadership, May, 28-33.***
- Black, P.J. and Wiliam, D. (1998). ***Inside the Black Box: raising standards through classroom assessment.*** London: King’s College London School of Education.
- Fullan, M. (1991). ***The new meaning of educational change.*** London: Cassell.
- Fullan, M. and Hargreaves, A. (1996). ***What’s worth fighting for in your school?*** New York: Teachers’ College Press.
- Guskey,T. (2002). Does it make a difference? Evaluating professional development. ***Educational leadership, March, 46-51.***
- Hawk, K. and Hill, J. (1986). ***Towards making achieving cool: Achievement in multicultural high schools (AIMHI).*** Wellington: Ministry of Education.
- Hawk, K. and Hill, J. (2001). The challenge of formative assessment in secondary classrooms. (in Print) ***spanzjournal.*** Whitianga:Aries Publishing.

- Hill, J. and Hawk, K. (2000). ***Making a difference in the classroom: Effective teaching practice in multicultural high schools.*** Wellington: Ministry of Education.
- Hill, J., Hawk, K. and Taylor, K. (2001) Professional ***Development: What makes it work?*** NZARE Conference, Christchurch, December, 2001.
- McAlpine, D., Poskitt, J. and Bourke, R. (1998). ***Assessment for better learning.*** Wellington: Ministry of Education.
- Nagaoka, J., Newmann, F.M. and Bryk, A.S. (2001). ***High stakes testing and the inquiry based classroom: Complementary or contrasting visions of reform.*** Paper presented to AERA.
- Newmann, F.M., Bryk, A.S. and Nagaoka, J.K. (2001). ***Authentic intellectual work and standardised tests: Conflict or coexistence?*** Chicago: Consortium on Chicago School Research.
- Nuthall, G. and Alton-Lee, A. (1995). Assessing classroom learning: How students use their knowledge and experience to answer classroom achievement test questions in science and social studies. ***American Educational Research Journal. 32(1) 185-223.***
- Resnick, L. (1996). Situated Learning. In E. de Corte and F.E. Winert (Eds) ***International Encyclopedia of Developmental and Instructional Psychology.*** Oxford: Pergamon.
- Rudman, R. (1999). ***Human resources management in New Zealand.*** Longman.
- Showers, B. and Joyce, B. (1996) The Evolution of Peer Coaching. ***Educational Leadership***, March: 12-16.
- Showers, B., Joyce, B. and Bennett, B. (1987). Synthesis of research on staff development: A framework for future study and a state-of-the-art analysis. ***Educational Leadership, November. Pp.77-87.***
- Sweeney, A. (1999). ***Technically simple- social complex: action research to help teachers develop their practice.*** Unpublished Med thesis, Victoria University of Wellington.
- William, D. and Lee, C. (2001). ***Teachers developing assessment for learning: impact on student achievement.*** Paper presented at AERA, Leeds, September 2001.
- Willis, S. (2000). ***Adult learning and the professional development of teachers.*** Paper prepared for the Education Review Office. Wellington: Victoria University.