Regional Seminar on Educational Research for Policy and Practice: with particular reference to secondary education reform

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Introduction

The report begins by giving an overview of the secondary sector in New Zealand and the educational reforms of the 1990s. This overview sets the context for the following section that describes the links between educational research, policy and practice during this time. Current concerns within the sector are highlighted and some of the ways research has been used to monitor changes and inform policy are identified. The rapid changes within the sector, associated with an apparent lack of a systematic research plan at the national level, however, have left significant gaps in the information that could usefully inform future policy and practice. The paper concludes by discussing some of the possible opportunities that could be used by the research community to ensure that educational policy and practice is informed by substantive research.

Secondary sector – an overview

In New Zealand, while schooling is compulsory for students between six and sixteen, most children begin school on their fifth birthday. Year 1 to 8 is undertaken in the primary school sector and Year 9 to 13 in secondary. At 1 July 1999 there were 320 state secondary schools and 15 private schools (Year 9-13). There were also 69 state schools that provided for Year 7-13, one correspondence school that offered courses by distance throughout the country and 42 private schools that offered Year 7-13. In addition there were 59 Kura Kaupapa Maori. Kura kaupapa are state schools in which Maori language, culture and values predominate and which provide education through the medium of Maori language. While they are designated as composite schools, able to offer education from Year 1 to Year 13, currently there are only about five offering secondary schooling.

The average roll of New Zealand secondary schools is 717 with 25% having less than 404 students and the maximum size in 1999 being 2304. The secondary student numbers were relatively stable in the 1990s but the numbers are now increasing and will do so until about 2007. Maori students represent 20% of all students attending school, Pacific Nations students 7.6% and Asian 5.9%.

The State is the main funder of schooling and the resourcing includes school staffing, school operating grants, school transport, special needs support, capital expenditure on property and curriculum materials and support. Funding for education has increasingly shifted from common services accessible by schools, and/or higher staffing for schools in disadvantaged areas, to schools receiving a set amount per student based on some formulae. This strategy reflects the belief that those within schools are best placed to make allocation decisions. The funds provided are influenced by an analysis of the socio-economic status of the school community and the subsequent allocation of a decile ranking for each school (decile 1 indicating schools that draw students from communities with the highest degree of socio-economic disadvantage to decile 10 indicating schools that draw students from advantaged communities). The assumption made is that schools serving high-income communities are able to make more in fundraising, and are able to request higher school fees, than those serving poor communities.

As part of the economic and social reforms of the 1980s, education administration was decentralised to individual schools in 1989. Each school is now governed by an elected board of trustees who are responsible for the effective management of the school. The

responsibility involves meeting the legal requirements of the Education Act and the associated National Education Guidelines. This means that it is the Board of Trustees who are the employer, who are responsible for managing teacher performance, for managing the effective implementation of the curriculum, and for managing the finances and school property. The Education Review Office (ERO) has the statuary responsibility for evaluating school-based education through reviewing and reporting on the performance of the managers and professional staff of New Zealand schools.

The New Zealand Curriculum Framework: Te Anga Matauranga o Aotearoa (1993) sets out the overall policy direction for the school curriculum. It includes the principles which underpin the curriculum and describes seven essential learning areas, eight sets of essential skills and the commonly held attitudes and values which should be developed and reinforced through the school based curriculum. National curriculum statements that detail what students are expected to learn in years 1-13 have been progressively introduced through the 1990s. Currently Mathematics, Science, English, Technology and Social Studies are mandatory for students in Years 1-10. Health and Physical Education is due for full implementation in 2001 and the Arts in 2002. The curriculum statements have been published in English and also in te reo Maori for use in Maori medium education.

In the senior secondary school, Year 11-13, the curriculum is used as the basis for assessment for national qualifications. Currently, in Year 11 there is the School Certificate examination, in Year 12 Sixth Form Certificate and in Year 13 Bursary. While Sixth Form Certificate is internally assessed (and moderated by the results of the Year 11 examination), the other two qualifications are largely assessed through examination although many subjects have a component that is internally assessed (for example, a practical investigation in biology and research project in history).

During the 1990s, as the national curriculum was reformed, a National Qualifications Framework (NQF) was established under the direction of the New Zealand Qualifications Authority (NZQA). The NQF sought to achieve better integration of 'academic' and 'vocational' learning by enabling students to gain credit in school, tertiary and workplace settings. The assessment, based on unit standards, is internal and competency based. It is supported by national moderation systems. The unit standards in the conventional school subject areas were derived from the curriculum statements. While many schools now offer courses assessed through unit standards, the NQF did not replace the school qualifications system as was originally intended. Consequently, the dual assessment regimes increased the workload for secondary teachers who were operating within two different systems. The reluctance of many schools to work with unit standards reflected their concern about the credibility and viability of assessment that was internal and competency based. This led the Government to propose a compromise in the form of the National Certificate of Educational Achievement (NCEA) which will be introduced in 2002 to students in Year 11 (2003 to Year 11 and 12; 2004 to Year 11, 12 and 13). The NCEA is based on achievement standards, derived from the national curriculum statements. These are currently being written for Year 11 (Level 1), Year 12 (Level 2) and Year 13 (Level 3) and both internal and external assessment will be used to judge students' performance against these standards. All teachers in the secondary sector are involved in compulsory workshops that are designed to ensure that they are familiar with the assessment standards, are able to design activities that enable students to demonstrate their expertise in relation to these standards, and are able to make reliable judgments about student achievement.

In an attempt to engage those students for whom mainstream approaches to education may not be effective, a growing number of schools are offering a variety of alternative programmes for students in Years 11-13. Some schools have taken an 'academy' approach based on sport, art or languages, which aims to use a student's particular interest or expertise to generate interest in other learning activities. The Secondary Tertiary

Alignment Resource (STAR) is another initiative that is aimed to better meet the needs of senior students. Funding provided by the Ministry of Education enables schools to purchase or provide higher-cost tertiary-level programmes. These provide students with courses of study and/or workplace experience, that lead to skills and qualifications, promoting the transition from school to either employment or further education. The range of subject and skill areas supported by STAR varies greatly among schools but popular subject choices include hairdressing, electro-technology, childcare, first aid, life skills, tourism, automotive technology, agriculture, horticulture and food and technology. Thirty four percent of all Year 9-13 students participated in STAR programmes during 1998.

The Government also funds an Alternative Education programme for students who have become alienated from school. This focuses mainly on students who are 14 to 15 years old and currently caters for about 1000 students. This is intended to increase to 1800 students by term one, 2001. Alternative Education programmes are often community based and generally use an experiential and individualised approach to learning. Students attending alternative education programmes are predominately Maori (73 percent) and male (67 percent) (MOE, 2000a).

While the STAR programmes are located only in schools, the Government also has a Training Opportunities Programme (TOP). Schools, polytechnics and private training organizations offer courses within the scheme. The purpose of this programme is to provide second chance training opportunities for the unemployed with no or low qualifications and limited skills. The aim is to enable TOP students to undertake courses of 8 to 26 weeks duration and to gain credits towards courses registered on the NQF.

Educational research, policy and practice in the secondary sector
The reforms of the 1990s led to significant changes in secondary school administration, curriculum and assessment. These radical changes have not been accompanied by a systematic plan of research to evaluate the impact of the changes, which could inform on-going developments. The monitoring of changes to school administration is perhaps the exception. The Ministry of Education (MOE) funded a research project, *Monitoring Today's Schools*, which commenced in July 1989 and concluded in November 1992. The purpose of the project was to monitor the implementation and impact of the reforms in educational administration as detailed in the Educational Act (1989). A series of reports were prepared covering topics such as *School-Community Relations, Equity, School Review, Curriculum and Pedagogy and Governance and Management.* Report No 15, *National Survey of Secondary School II* (1993), was concerned with ascertaining the perceptions of the *Tomorrow's Schools* reforms as expressed by principals, trustees, teachers, parents and students in 48 schools representative of the range of New Zealand secondary schools. The findings noted improvements in the quality of communication, school-community relationships, attention to Maori concerns, the freedom of schools to make decisions, and the clarification of schools' goals and directions. Concerns were held regarding reduced support systems for schools and high workloads and associated stress. Overall, principals and trustees were positive about the impact of the reforms, teachers tended towards being negative and parents and students were equivocal in their support (Mitchell, McGee, Keown and Oliver, 1993). The New Zealand Council for Educational Research also undertook a longitudinal study on the impact of the reforms for primary and intermediate schools. The early work also identified increased workload and a lack of support for schools as key areas of concern and these sentiments were still being expressed in the latest survey (Wylie, 1999). The 1999 report looked back on the decade of self-managing schools and concluded that there had been significant gains in areas such as the partnerships between boards of trustees and school professionals, in parental satisfaction, and in the way schools are approaching their own development through school and

professional development initiatives. It is likely that these findings would be mirrored in the secondary sector, as would the following conclusion:

> The main educational issues for people in schools, including parents, remain resource-based. The reforms were intended to improve the learning outcomes for children from low-income homes, and Maori children. These children are still under-performing others, on average, and the schools which serve them have gained least, often losing students. It is hard to say if student achievement as a whole has benefited from the shift to school self-management (Wylie, 1999).

In fact, another long-term research project, *the Smithfield Project (1992-97),* that was designed to monitor the educational policy changes in secondary schools, suggested that the outcomes for students have been far from equitable. These policy changes were made in the belief that introducing competition into the provision of education would improve outcomes because schools would be forced to compete for students and would therefore raise their educational standards in order to do so (Watson, Hughes, Lauder, Strathdee, Simiyu, 1998). Competition was to be ensured through the removal of school zones so that students would have the freedom to attend the school of their choice. Lauder, Hughes & Watson (1999) claim that the overall conclusion from their work is that:

> Markets do have an impact on school performance but they have not produced the outcomes predicted by market proponents. In particular, schools which have lost a well balanced social class mix of students will have suffered a decline in their performance, partly because the rump of these schools will comprise students from disadvantaged backgrounds and partly through the instability they will have experienced through the decline, sometimes dramatic, in their rolls (Lauder et al. 1999, pg 94).

Lauder et. al (1999) do acknowledge that their findings are contestable. Nash and Harker (1997), in a research project that followed more than five thousand students in 37 secondary schools from Year 9 to Year 13, found that nearly all the variance in performance was between individuals and relatively little was between schools. They investigated the effect of schooling and, using the Year 11 national examination as a measurement of achievement, they concluded that once the character of a school's intake had been taken into account no systematic differences could be detected in the performance of schools. The results in English, mathematics, and science suggested a pattern of greater variability between departments within schools than between schools over all three School Certificate subjects (Nash & Harker, 1997). However, the findings of the *Smithsfield Project* and the Wylie research have been supported by other critiques (see Fiske & Ladd, 2000; Thrupp 1999). Fiske and Ladd, two American scholars who spent five months in New Zealand in 1998, investigated the consequences of large-scale market-based reforms in education. In their publication, *When Schools Compete: A Cautionary Tale*, they suggest that high-decile schools are likely to be more successful than low-decile schools in attracting the most capable teachers. In the absence of direct evidence of how teacher quality varies by decile, they used the teachers selected by NZQA to act as moderators for the internally assessed unit standards. These teachers are selected on the basis of their professional knowledge, experience and reputation. The highest proportion of the moderators teach in high- decile schools (Fiske and Ladd, 2000). Fiske and Ladd also stress that:

> It is difficult to overemphasise the importance of enrolment schemes in New Zealand schools. Once a school reaches a point at which it has such a mechanism, it is no longer subject to the whims of the market-place. It can choose among applicants and shape the nature of its student body (Fiske and Ladd, 2000, pg216-17).

These research studies have been influential in shaping the policy of the current Labour Coalition government and it has acknowledged that the marketisation of schools has created winner and loser schools. For example, 60 per cent of schools drawing from low socio-economic communities have experienced roll decline in the period 1995 to 1999,

compared to 18 per cent of schools in high socio-economic communities (MOE, 2000a). In an attempt to achieve more equitable outcomes the government has moved to reintroduce zoning and to force schools to ballot to determine enrolments in oversubscribed schools (Thrupp, Harold, Mansell, Hawksworth, 2000).

In the main, however, educational research that has been undertaken over the past decade within the area of secondary education has largely been in the form of small-scale evaluations and/or case studies. This research has been designed to monitor new initiatives and provide information for the on-going development of policy and practice. Evaluation studies have been used, for example, as a means to seek the views of teachers and the interested public to draft curriculum documents (such as *Health and Physical Education in the New Zealand Curriculum; The Arts in the New Zealand Curriculum*) and to monitor the implementation of the technology and mathematics curriculum documents. These studies provide indicative rather than detailed information and they have been completed within a relatively short-time frame. In this way, they meet the needs of the short-term political agenda (the Government in New Zealand is elected for a three year term) but each study can only make a very minor contribution to the overall knowledge base within the secondary sector.[1] The use of case study methodology is also a popular approach because it provides a focused approach and enables the strategic allocation of resources. The individual case studies are then used as a stimulus and guide to other schools. In this way they are used as a demonstration of policy intent in action and to encourage other schools to undertake similar initiatives. Case studies have been used to demonstrate the way selected schools have responded to curriculum change (Marshall, 1999) and to provide a focus for community debate about the future provision of schooling in the area (Wylie and Chalmers, 1999). It has also been the approach used to monitor projects that are attempting to improve student achievement (Hawke & Hill, 1996; Timperley, Robinson, & Bullard, 1999).[2]

Policy and practice related to the secondary sector has also been informed by data collected as agencies such as the Ministry of Education (MOE), the Education Review Office (ERO) and the New Zealand Qualifications Authority (NZQA) undertake their statutory functions. For example, the Government is keen to ensure that all young people have the opportunity to develop knowledge and skills that will enable them to participate in the changing workforce. The ability to do this relies on advanced schooling and subsequent tertiary education and the government has introduced a number of initiatives designed to encourage students to continue in education. The retention of students beyond the compulsory ages improved significantly in the 1980s and early 1990s, but in the mid 1990s growth slowed. In 1999, an estimated 85% of students aged 16 (63 percent of those aged 17 and 16 percent of those aged 18) remained at school (MOE, 2000a). Of all 1998 school leavers, 51 percent went directly on to tertiary education in 1999. Maori and Pacific Island students were much less likely to progress to university than were leavers overall (MOE, 2000a). These figures do need to be set within the context of a market driven education system where student choice of subjects and courses (at the senior secondary and tertiary level) rather than government priorities drives the expertise that is eventually available.[3] To determine if New Zealand will actually have the specific expertise that might be required in the future workforce would require a much more comprehensive research driven approach to the problem.

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[1] Evaluation studies related to curriculum development and implementation are described in more detail in the Appendix.

[2] Examples of these case studies are described in the Appendix.

[3] There are some restricted courses in the tertiary sector; such as medicine, law and veterinary science.

Another current concern within the secondary sector is teacher supply. The changing demographics will result in increasing secondary rolls and a consequent increase in demand for secondary teachers, particularly in specialist areas that are currently more difficult to staff such as mathematics, physics, information technology and te reo Maori. The MOE monitors the number of teachers who enter the teaching service, resign from a teaching position, or transfer between schools but the actual responsibility for employing teachers lies with school boards of trustees. In response to data that suggests a pending shortage of secondary teachers the MOE has instigated a number of initiatives to encourage people into teaching, to move to hard-to-staff-positions, and to attract teachers from overseas. The latter strategy may prove problematic as many of the traditional suppliers of teachers, such as Australia and Britain, are also encountering difficulties in recruitment (Russell, B., 2000) To compound the problem, while the data available has been used to inform the current policy, it may provide only a partial glimpse of the problem. In a paper that discussed issues of 'subject knowledge' and teacher supply Baker and McNeight (2000) argued that:

> … the diversification of courses and qualifications at the tertiary level also means that there may actually be fewer students undertaking study in areas that relate in any significant way to the school curriculum. This could pose a considerable problem as the demand for secondary teachers increases in the next few years.

That is, the current policy is based on data that does not provide information about the long-term actual availability of sufficient teachers in the various subject area of the secondary school curriculum. Again, to determine if New Zealand will have the actual expertise that might be required in the future teaching workforce would require a much more comprehensive research driven approach to the problem.

The Education Review Office (ERO) publishes regular reports that are intended as resources for education policy makers and teachers. They are based on observations made by Education Review officers during school reviews and on documentary material including self-review information, supplied by the school. Reports related to the secondary sector have included *School-Business Links, The Professional Leadership of Secondary School Principals, Promoting the Achievement of Boys* and *The Senior Secondary Student.* These reports tend to provide indicative data in relation to the area under consideration rather than substantive information. For example, in the ERO report on *The Senior Secondary Student,* one conclusion was:

> The extent to which each senior student is able to access courses that meet individual learning needs is dependent on the capability of their chosen school to provide such courses. Schools, however, may be impeded from making further changes of benefit to their senior students by the lack of clarity in the direction of various government policies (ERO 1998, pg 25).

Similarly, in the report into the achievement of boys it concluded that:

> Another factor influencing boys' achievement is the ability of schools to provide a wide range of programmes for senior students, including subjects that may be of particular interest to boys. This is an issue for small schools, especially composite schools. These schools may need to restructure their school curriculum and explore options such as greater use of clustering and distance learning to enable them to offer courses which interest and motivate boys as well as girls (ERO, 1999, pg 41).

The Ministry of Education responded to this growing concern about the educational outcomes of boys at school by commissioning a report that reviewed the information held by the Ministry (1986-1997). On the basis of the material held it was concluded that:

> While there are areas where particular concern for male students is warranted, for example levels of suspensions and their participation and achievement in English, the data presented in this report suggests that any differences in the relative participation and performance of male and female students in the compulsory school sector is not new. Male students' performance has not declined over time; extant gender differences have been a consistent feature of participation and achievement statistics since the late 1980s and early 1990s. That these differences continue to feature in educational indices is a cause of concern in itself. However, as both genders display particular areas of weakness, support should be directed to both

genders, rather than one or the other, in order to raise overall student achievement. (Praat, 1999, pg4).

The New Zealand Qualifications Authority (NZQA), responsible for the senior school qualifications, provides data on the number of students attaining qualifications by age, gender, ethnicity and in relation to the decile rating of the schools. The latter indicates that there is a strong link between socio-economic status and achievement at school. In 1999, students from schools drawn from lower socio-economic communities were less likely to sit School Certificate than those from schools drawing from higher socio-economic communities (MOE, 2000a). Also, Maori and Pacific candidates were less likely than other ethnic groups to achieve higher grades in senior school qualifications. Close to 60 percent of Maori students leave school without Sixth Form Certificate or the equivalent on the National Qualifications Framework, about twice the level for non-Maori. While the issue of disparity in achievement between Maori and non-Maori is not a new one, the Ministry of Education argues that the anticipated growth in the Maori school-aged population will place further pressure on the school sector to improve its responsiveness to Maori students (MOE, 2000a). The Government is also seeking to reduce the gap in achievement between Maori and non-Maori through the funding of school and community based projects and research (refer case studies in Appendix). For example, The New Zealand Council for Educational Research, under contract to the Ministry of Education, has recently released a report on *Maori Parents and Education: ko nga matua Maori me te matauranga*. The report concludes that Maori parents want their children to have a better education than they had and, while they have a strong wish to be included in their child's schooling, they need more guidance on how best to support the education of their children at home (McKinley, 2000). It was also found that the kura kaupapa were the most successful schools at involving Maori parents because both parents and teachers viewed education as a home-school partnership (McKinley, 2000).

NZQA contributes additional information that informs the secondary sector through its own auditing procedures and through its limited ability to contract research. Each year NZQA, as part of its assessment audit process, uses a sampling technique to monitor schools' implementation of the internally assessed components of courses that contribute to national qualifications. Schools are required to provide a range of documentation (such as course outlines, assessment schedules, samples of students' work) and these are evaluated by someone with expertise in the particular subject area. The subsequent reports are designed to inform all teachers of the strengths and limitations of current assessment practice and non compliant schools are required to provide evidence that they have improved their practice. NZQA also contracted the New Zealand Council for Education Research to investigate the impact of the implementation of the National Qualifications Framework on secondary students (Fitzsimons, 1997a). This research was undertaken at a time when there was growing unease with the existing policy direction. This was to introduce qualifications in the secondary sector that relied on a standards based regime, using unit standards as a basis for assessment and not external examinations. Fitzsimons (1999b) concluded that while the aim of the NQF was intended to increase choices for learners this was not happening. Instead students appeared confused about the qualifications structure and they had little knowledge of the choices available. While the research provided useful information it also perhaps contributed to its own demise. It was initially designed as a longitudinal study over five years but policy changes in 1997 about the future directions for NZQA resulted in the organisation withdrawing funding for the research. This is perhaps a good example of the difficulty in sustaining long term research in a rapidly changing educational environment.

One further significant source of data that informs policy development is that provided by international studies such as the *Third International Mathematics and Science Study* (TIMSS) and the *Programme for Internal Student Assessment* (PISA). TIMSS was

undertaken between 1992 and 1997 and included students in Year 9 (age 13 cohort) and Year 12 and 13 (students in the final year of schooling). The results from a repeat of TIMSS are currently being analysed. TIMSS findings at the Year 9 level indicated that the mathematics scores were just below the international average and for science just above the average. It highlighted areas of weakness (such as algebra in mathematics and earth science in science) and areas of strength (such as data representation, analysis and probability in mathematics). It also indicated that Maori and Pacific Islands students' performance, on average, was below that of students from European/Pakeha and Asian groupings in both mathematics and science. At the senior secondary level the TIMSS results indicated that students achieved significantly higher than the international means. The policy initiatives leading from TIMSS have largely been within the primary sector where funding has been directed to support the development of teacher expertise in science and mathematics. The PISA study is in its early stages and New Zealand is participating:

> because international studies such as this enable our teachers, principals, the public and policy makers to benchmark the performance of our students alongside students from other countries. In addition, the information that is collected within New Zealand can tell us a lot about the factors in our own school systems that can affect student performance (Ministry of Education, 2000b, 2).

Conclusion

The devolution of responsibilities from central government to schools, and the associated establishment of a number of separate educational agencies (such as the MOE, ERO and NZQA), have led to a fragmented approach to educational research. The research that has been undertaken has largely been small scale and driven by short-term policy agendas. At present, this means a focus on the government priorities which are to promote student achievement – particularly with respect to Maori students, Pacific Island students and boys - and to deal with issues associated with school choice, teacher supply, curriculum implementation and the development of the new senior school qualifications.

It has been especially difficult to gain a comprehensive picture of the impact of school reform. While there have been a number of significant research projects 'when it comes to the crunch, there have only been a few studies in most areas … This has not often allowed enough research evidence to inform the often intense policy debate over New Zealand's educational reforms' (Thrupp et al. 2000, pg6). For example, there have been a few studies on the implementation of new curricula (such as technology) but there has been no attempt to undertake any research of the overall impact of the curriculum reforms on student learning. However, the Ministry of Education now has a review of the new curricula on their agenda though without the benefit of substantive research data. Thrupp et al.(2000) also suggest that there has been a conspicuous absence in New Zealand of detailed research on changing school roles, values and cultures, as has been undertaken in other international policy settings. There has also been a lack of debate about some of the implications of research findings and of the educational data published by agencies such as the Ministry of Education, Education Review Office and the New Zealand Qualifications Authority. For example, does the increased demand for STAR funding in secondary schools, and the expansion of Alternative Education, indicate the need for parallel educational systems in the secondary system and/or the need to promote learning in secondary schools that is thematic and contextual, rather than as compartmentalised, disconnected subjects? (refer Hood, 1998). Are Lauder et. al (1999) correct in suggesting that the money put into projects such as those in Otara and Mangere (refer Appendix) is only needed because these schools are casualties of the market? How useful are small-scale case study research projects in actually providing information for new policy and practice? In a case study that looked at the 'value-added' in two secondary schools Neville (1998) concludes that

> These schools are exemplary schools. However they cannot be made into blueprints for other schools to copy. For example, both use a vertical form structure successfully

but this may not mean that such a structure could be advocated on the basis of their particular experiences. Structures are an outcome of the overarching culture of the school and as such are not necessarily transferable to another and very different culture and history. What can be learned from these schools is that there is no 'one best way' for there are as many ways as there are schools (pg81).

It could be argued that this fragmented, quick fix approach is a reflection of the times. However, perhaps more optimistically, there is a need to find new ways of operating in this rapidly changing environment. There are signs that some educationalists are looking for new ways to ensure that research is available to inform ongoing policy development and the New Zealand community. *Te Tiro Hou: report of the Qualifications Framework Inquiry* (1997) that was commissioned by the secondary teachers union, the PPTA, was influential in helping to clarify the issues surrounding the National Qualifications Framework and it provided an informed and constructive basis on which people could formulate a position on the future of secondary school qualifications in New Zealand (PPTA, 1997). Similarly, after a decade of competition between tertiary institutions there appears to be an increasing awareness of the need for collaboration to enable projects of significant scale to be undertaken and people are looking for a more critical dialogue. The conference *A decade of reform in New Zealand education: where to now?* held in June 1999 - which was a collaboration between the University of Waikato, the New Zealand Council for Educational Research and the New Zealand Association for Research in Education - is an initiative that demonstrates these features. The new Labour-dominated coalition government has already signalled significant changes in the direction of educational reform in New Zealand and this is likely to offer more opportunities for such initiatives. Similarly, the Government's more consultative approach to policy making provides new opportunities for researchers to debate research priorities with government officials. This is particularly important in New Zealand as most educational research is dependent on funding from the Ministry of Education. There are few other avenues for research money as there are only a very small number of philanthropic foundations in New Zealand and, being a small country, there are not the multiple levels of government that exist in a federal system.

The lack of educational research has also been attributed to the fact that the Ministry of Education currently is looking to use its small research budget for policy initiated projects. The research projects are allocated to a preferred contractor from a number who are invited to tender. Some researchers have lamented the change from funding independent research proposals (Thrupp et. al, 2000) but this process did not necessarily lead to research that provided information in areas of critical concern to New Zealand education. Again, the changing environment is an opportunity for the research community to work with educational agencies to develop a shared view of the current concerns in education – from the various points of view of the Government, the community, the schools and the researchers – so that the precious research funds are more strategically allocated. This shared view needs to include some overview of the key issues within the sector so that the many small research projects can more effectively contribute to this overview. It must also have a vision of both short-term and long-term priorities, so that policy development and practice can be supported with substantive research.

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Appendix
Case studies: examples linking educational research, policy and practice

Curriculum development
The draft curriculum document, *The Arts in the New Zealand Curriculum,* was released in May 1999 and the responses of people were sought in a number of ways:
- through response sheets sent out with the draft document;
- collating feedback from regionally organised consultative meetings;
- the associated Ministry of Education teacher development contracts including a component where contractors were required to collate the feedback from participants;
- a random sample of 221 primary and 156 secondary schools (response rate to a questionnaire was 76% from primary schools and 63% from secondary).

The process enabled people to provide feedback and gave indicative data about the views of interested people. These views were considered in the development of the final version that was released in August 2000. However, it does need to be noted that respondents from the secondary sector were more critical than those from the primary sector and they foresaw more implementation problems and identified a greater need for resource and/or new or adjusted facilities (Kerslake, 2000).

Curriculum implementation
During 1998 a research project was undertaken to gather information about how schools were progressing with implementing the new curriculum area of technology. The research consisted of an analysis of Milestone Reports made by professional development programme directors to the Ministry of Education, interviews with personnel involved in implementation, and a survey of a random sample of schools. The findings indicated that full implementation of this new area was proving problematic. Teachers needed new knowledge as well as new learning and teaching approaches and so ongoing professional development was required as was the need for greater guidance and more resources to support the curriculum (Chamberlain et al., 1999). The findings of this research influenced the decisions to move to fully implement the curriculum with reduced requirements (that is, reduced coverage of technological areas) in 1999 for the Year 7-10. This decision was made to lessen the pressure on schools, in recognition that there were still issues to be worked through at these levels (Chamberlain, et al, 1999).

Curriculum change
An investigation into secondary school curriculum change was undertaken in 1999. The purpose was to determine the reasons for curriculum change and the process by which change was bought about in individual schools and so to inform decision-making about curriculum change in schools (Marshall, 1999). A significant issue that emerged was the universal concern about curriculum overload. A few schools were partially addressing this through changes in teaching style and method (for example taking an integrated studies approach). However, Marshall notes that almost all of the schools in the study 'had been forced to change by adverse circumstances and that schools that are secure are less likely to be innovative in the broadest sense. While curriculum change is widespread, changes in fundamental pedagogy are not. The New Zealand public is essentially conservative in its educational tastes' (Marshall, 1999, pg18)

Schools – planning for the future
The changing demographics within New Zealand have led the Ministry of Education to review the schooling provisions in a number of locations. A case study undertaken by the New Zealand Council for Educational Research provided information relating to school and programme preferences in one regional area. The project was designed to aid the Ministry of Education and a local reference group in their planning for the future (Wylie and Chalmers, 1999). Data was collected through the completion of questionnaires by parents and students; the views of principals, teacher and school trustees were gathered through interviews; and population trends were outlined. At this very preliminary stage of the planning process the aims of the study were to describe the main factors which influenced family choice of schools and perceptions of schools. Wylie and Chalmers (1999) found that parents and students were reasonably satisfied with the current schooling provision in the area but parents would like more information about schools to guide their choice. Looking to the future there was a clear interest in bilingual Maori/English education in secondary schools, and a substantial minority who would like to see more thematic approaches in

schools, more learning in blocks of time, and the possibility of accessing some classes through home computers. Also, there was no great interest in having middle schools (Year 7-10) or senior schools (Year 11-13).

Student achievement

Review of the literature
The failure of the education system to meet the needs of Maori students has lead successive governments to initiate a range of strategies in an attempt to address concerns. In 1997 a report on Maori Participation and Performance in Education was prepared for the Ministry of Education and subsequently a summary was prepared. The intent of this second review was to investigate the educational gap and so to find ways to close the gap in labour market performance between Maori and non-Maori (Else, 1998). Perhaps the most significant finding of the literature review was that there is still a great deal about Maori and education that is unknown.   There are big gaps in research on Maori participation and achievement in education and Else (1998) states that 'we could not find enough clear research, based on figures and large groups, to say what kinds of education are now helping Maori to do better, compared to non-Maori, or what would work best in the future (pg 20).

Improving achievement – case studies
A number of projects have been undertaken that are designed to improve the achievement of Maori students and to determine the factors that are influential in making the difference. One case study, *Strengthening Education in Mangere and Otara (SEMO)*, focuses on improving achievement through better school/community/Ministry of Education engagement, improving transition from early childhood to school, improving teacher effectiveness with Maori students, and literacy interventions (Ministry of Education, 2000a). This is a collaborative project involving the schools, the communities, the Ministry of Education and the researchers. The latter are required to evaluate the effectiveness of the SEMO project in improving the capacity of the schools in relation to meeting the educational needs of the students, and to evaluate the extent to which initiatives develop mutually educative partnerships between all those involved (Timperley et al., 1999). The SEMO team reports the following outcomes: schools are planning, implementing and evaluating initiatives to increase student achievement by redefining community and school staff roles and responsibilities with regard to literacy development; schools are recognising the need to develop self review processes; schools are working in clusters to identify common needs and contract appropriate support services; and there is more school engagement in community-based and Ministry of Education initiatives to integrate health, welfare and education (MOE, 2000a).

A further case study, *Achievement Initiative in Multicultural High Schools* (AIMHI), involves 8 decile one schools with high ratios of Pacific Island students. This aims to increase the rolls of the participating schools, to raise the levels of performance of the schools and students, and to achieve sustainable self-managing schools. In 1996 a research programme was undertaken with the aim of learning about the effects of school organization and governance, parental and community involvement, and any other issues relevant to student achievement in these schools (Hawk & Hill, 1996). The research provided detailed information that has been used to inform ongoing initiatives. For example, the traditional methods used to report to parents did not work in the AIMHI schools and it was suggested that schools needed to identify ways of reporting to, and conferencing more effectively with,, parents on their child's progress and that teachers be given time, through additional staffing to implement them (Hawk & Hill, 1996). Similarly, the transition from primary to secondary school was identified as critical and suggestions to ease the change included using the enrolment time to learn more about students, families, learning needs and expectations. There was also advice given about the approach required by the Educational Review Office to ensure that the reviewers understood the special character of the schools and the needs of the students and the families. Where difficulties were identified, advice was given on timelines and the nature of the support that might be needed.   These ideas align with the Schools Support Project that was established by the Ministry of Education in 1994 to ensure that assistance strategies are in place to support schools that have been identified at risk. This project was evaluated in 1998 and one conclusion was that there was uniform agreement that some schools will always need support as they grapple with the challenges of self-management. While the support may be delivered by various agencies, all agree that the Ministry of Education has a key role in coordinating and facilitating this support and in providing emergency funds to ensure that education of the students is not put at risk.