The Complexity of Community and Family Influences on Children's Achievement in New Zealand: Best Evidence Synthesis

June 2003
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This report is one of a series of best evidence syntheses commissioned by the Ministry of Education. It is part of a commitment to strengthen the evidence base that informs education policy and practice in New Zealand. It aims to contribute to an ongoing evidence-based discourse amongst policy makers, educators and researchers.

The best evidence synthesis approach is being developed in collaboration with researchers. It draws together in a systematic way the available evidence about what works to improve education outcomes, and what can make a bigger difference for the education of all our children and young people.
The complexity of community and family influences on children’s achievement in New Zealand:

Best Evidence Synthesis

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Report prepared for the New Zealand Ministry of Education

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Executive Summary

The influences of families/whanau and communities are identified as key levers for high quality outcomes for diverse children. Outcomes include both social and academic achievement. The focus is on children from early childhood through to the end of secondary schooling. This best evidence synthesis, based on a wide range of New Zealand data (and cautiously informed by a number of overseas studies), has produced findings which have been summarised into four categories. These are family attributes, family processes, community factors, and centre/school, family and community partnerships. The findings are relatively complex. They endeavour to identify what applies to whom and in what circumstances.

1. Family attributes

- Ethnicity and culture are linked to children’s achievement. Overall, Pakeha and Asian children have consistently higher achievement than Māori and Pasifika children. However, this finding is confounded by socioeconomic status (SES); the families of most Māori and Pasifika children occupy the lower levels of the SES scale (including the poverty level) and these children also make up a disproportionate number of those in low-decile schools.

- The data clearly show that, overall, low SES children have significantly lower achievement than middle and high SES children. The evidence also suggests that parental income during the early years of childhood (0 – 5 years) can affect children’s achievement throughout their primary schooling. Children from low income families tend to score lower than other children on some competencies at age 10 years – regardless of whether the family income improves during the children’s primary school years. This lower level of achievement is related to various factors outlined below in this summary, but is not inevitable; it can be changed, especially if early support is available (see Category 4 below).

- Levels of human and material resources available within families are also linked to children’s achievement. Overall, children who live in families (a) with high levels of parental (especially maternal) education, knowledge of appropriate pedagogy, and knowledge and ability to access other resources, and (b) which provide study facilities, computers and resources for wider educational experiences, have higher achievement than children whose families do not have these resources. However, the evidence also identifies alternative means of providing some of these resources. (See Categories 3 and 4 below.)

- Home language is related to children’s achievement. Overall, children whose home language is English have higher achievement in institutions where English is the medium of communication than do children whose home language is other than English.

- Family structure, and changes in family type, in themselves, do not necessarily have a significant impact on achievement. The quality of family ties, and the resources available
to children and parents, are more important than family structure. Family structure is not as important as the effect of adverse outcomes when changes occur in family structure (e.g. separation, or death of a parent), which limit the ability of families to invest time and resources into their children’s development. Long-term adverse outcomes of separation/divorce apply to only a minority of children, but these children are twice as likely as their peers from intact families to experience a range of behavioural, medical and academic difficulties.

- Frequent mobility may be detrimental to child outcomes, and children who have attended four or more schools by age 10 seem to achieve less well than others on some academic and social measures. New Zealand school child mobility is very high by international standards, with segments of the Māori population being especially mobile.

- Low SES children are much more likely to experience chronic health problems and lower levels of well-being. Some of the legacies of family adversity (and negative parenting attitudes and practices) include emotional and psychological distress, behaviour disorders, cognitive disadvantage and delinquency. In terms of children’s physical health, there are very strong links between hearing loss and an individual child’s achievement, particularly with respect to social behaviour and language development.

2. Family processes

- Regardless of ethnic or SES background, families with high levels of educational expectations have the most positive effects on their children’s achievement at senior school level. The evidence indicates that most parents are prepared to help their children as well as their resources permit.

- Parental choice of school for their child(ren) – with the possible exception of parents choosing to send their child(ren) to a kura kaupapa Māori school – does not seem to be linked to children’s achievement, although there is some evidence to suggest that when low SES children attend a school in a high SES area, they achieve at a higher level than they would if they attended a school in a low SES neighbourhood. This seems to be partly a function of teacher expectations rather than SES location. However, the evidence indicates that some schools in low SES neighbourhoods can facilitate high achievement.

- Dysfunctional family processes (e.g. conflict, substance abuse, child abuse, negative modelling, disturbed parent-child relationships, deprivation of stimulation and affection) can affect children’s performance and behaviour. Children in such family circumstances are at increased risk of hyperactivity, truancy, mental health disorders (and suicide), delinquency, and low levels of literacy and self-esteem. There is some evidence that by age 15 years about 20% of New Zealand children have experienced some kind of mental health disorder. The data also show that the youth suicide rate in New Zealand is 2.5 times greater for Māori than non-Māori.

- With respect to television viewing, the synthesis provides two main findings. Children aged 5-16 years who watch television for less than 3-4 hours daily have significantly higher achievement than children whose viewing exceeds this. Moderate amounts of viewing can have positive influences on children’s development in terms of stimulation of curiosity, creativity and language development, particularly if constructive interaction
occurs with parents or significant others during the viewing.

- Rich home learning environments (including positive contact and interaction with extended family/whanau), and especially varied language and literacy experiences (oral and written), together with meaningful mathematics experiences, are associated with higher achievement.

3. Community factors

- Social networks (e.g. Pasifika church connections, Māori cultural connections) provide important opportunities for children’s further learning, particularly the development of cultural identity and sense of belonging that contributes to children’s feelings of well-being. Social networks also provide crucial support for parents as they endeavour to increase the family’s cultural capital (e.g. by adding further pedagogical strategies to their repertoire – see Category 4 below) in order to raise their children’s achievement.

- Peer groups, especially at secondary school level, can profoundly influence children’s achievement. They can do so in positive ways, or in negative ways. Their influence can override parental expectations, and can also promote mediocre educational norms.

- When parents and children can access local community institutions (e.g. libraries, medical facilities) and social agencies (e.g. to receive income entitlements) children’s achievement can be enhanced beyond the level which schools alone can accomplish.

- The synthesis yields two additional findings relating to the influence of the media. Firstly, the evidence is inconclusive about the effects of viewing violence on television and in video games. Secondly, popular culture in the form of radio, television and video programmes, and films results in the development of shared scripts across the cultures that constitute New Zealand society. These scripts can provide a meaningful basis for enhancing children’s achievement. The evidence indicates that the full potential of television and video for children’s educational development is yet to be realised.

- Community messages about gender can have positive or negative effects depending on the ways in which they are played out (e.g. they can contribute to positive gender identity, but they can also result in boys avoiding subjects perceived by them as ‘feminine’, such as literature, music and drama).

- The use of meaningful community contexts and resources to enhance achievement remains to be investigated.

4. Centre/school, family and community partnerships

- Integrated or comprehensive programmes that address the real needs of parents and children, especially in children’s early years (0 – 5 years), can significantly improve children’s achievement. Such programmes may be offered through a local centre, or in the home, or both.

- Incorporating school-like activities into family activities, through providing parents with access to both additional pedagogical knowledge and information about finding and
using local educational resources, can have dramatic and positive impacts on children’s achievement.

- Genuine home/school collaboration can also lift children’s achievement significantly. The evidence shows effective ways in which schools can initiate such collaborative partnerships.

- The provision of additional educational resources (such as children’s books) to families is also associated with greater achievement.

- There is clear evidence that programmes such as those listed above depend for their success on families being treated with dignity and respect, on the programmes adding to family practices (not undermining them), on structured, specific suggestions rather than general advice, and on supportive group opportunities as well as opportunities for one-to-one contact (especially informal contact).
Preface

Synthesis as a Ministry of Education initiative

This synthesis of best evidence relating to the influence of community and families on the development and achievement of children in New Zealand was commissioned in 2002 by the Medium Term Strategy Policy Section of the New Zealand Ministry of Education. It encompasses children at the early childhood, primary and secondary school levels. In keeping with Epstein’s (2001)\(^1\) view that our young are whole people living in multiple environments, as opposed to roles located in educational institutions, the term ‘children’ (rather than ‘students’) is used to refer to all those across these age ranges.

Brief for the synthesis

The brief called for a synthesis of evidence about the influence of New Zealand families and communities on child outcomes, but at the same time acknowledged that the synthesis should be cautiously informed by international evidence about key influences. While the focus is on the influence of families and communities on educational outcomes, the synthesis also seeks evidence about the role of cultural matches and mismatches between families, early childhood education settings and schools. The brief asked that the synthesis give particular emphasis to evidence for Māori and Pasifika children from early childhood through compulsory and senior schooling years. In addition to the synthesis of available evidence linked to children’s outcomes, the brief requested that the final report include an analysis of implications for policy levers and partnership approaches likely to optimize desired outcomes for children.

Finally, the brief indicated that the best evidence synthesis should be derived from a selective consideration of research that provides evidence linked to child outcomes (both from large-scale research programmes and case studies). It should build on preliminary work carried out within the Ministry of Education and develop an initial synthesis of evidence iteratively with Ministry of Education staff. The synthesis will help inform the development of indicators of the health of the system for the early childhood and schooling sectors, and may inform government policy development in areas other than education.

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**Building on an earlier review**

By bringing together relevant data from a wide range of studies done in New Zealand and internationally, this synthesis builds on and extends an earlier strategic research initiative literature review carried out for the Ministry of Education. Nechyba, McEwan & Older-Aguilar (1999) carried out a multi-disciplinary US focused study of the impact of family and community resources on child outcomes. Their theoretical approach was behavioural geneticist and they used economic theory in their focus on choices influencing child outcomes. Nechyba et al (1999:2) concluded that:

\[
\text{… while genetics provides an important causal link from parents to child outcomes, the environment a child is raised in represents an equally important link.}
\]

These reviewers noted that while home environments are important for outcomes measured early in life, such explanations become less important for explaining outcomes in adolescence and adulthood. The reviewers also questioned some of the early assumptions in the literature about the causal nature of family influences demonstrating that family income, family structure and some differences in parental styles (e.g. early work on authoritarian vs. permissive parenting styles) did not appear to have directly causal impacts on children's outcomes. Nechyba et al (1999) highlighted the evidence of a positive impact of some kinds of parental involvement in schools, within-class peer effects, and wider parental choices. The reviewers explained that although broader ‘neighbourhood effects related to residential, ethnic and cultural communities are important we still know little about these effects’.

Nechyba et al (1999:112) concluded:

\[
\text{Nevertheless, given that much of what we thought we knew about parents, neighbourhoods and school has yet to be persuasively demonstrated, the lack of general understanding (arising from the studies we reviewed) of the environment’s impact on child outcomes is puzzling, even stunning.}
\]

**Synthesis strategies**

The best evidence synthesis presented in this report attempts to take our understanding of these complex issues further, through a range of best evidence synthesis strategies:

- bringing educational theory, research and frames to the forefront of our understanding of the processes that influence children’s achievement
- focusing on studies that have explored educator agency, and demonstrated strong positive influences on children’s achievement, as a way forward in assisting policy makers to understand what can make a positive difference for children
- including case study and qualitative research that provides evidence of links to outcomes, or quality processes in families and communities for which there is other evidence of links to outcomes

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• attending to, and unpacking the importance of context, and giving particular weight where possible to New Zealand research that explains or illuminates the New Zealand context
• unpacking the ethnic and cultural influences further through drawing on research that is relevant for Māori and Pasifika whanau and communities
• using a jigsaw approach that enables pieces of evidence to be brought together in such a way that we can better understand wider processes
• attending to issues of cultural match and mismatch between families, communities and schools that mediate educational processes and outcomes
• making use of deficit, difference, domination and empowerment theories, as well as complexity theory and poststructuralism, to make evident the assumptions underpinning the research evidence because such assumptions have been found to be critical in distinguishing the kinds of processes associated with effectiveness for children
• developing the use of chaos theory (see Chapter 1), as suggested by Nechyba et al (1999)4, as a means of gaining further insights into the complexity relating to influences and outcomes

Every effort has been made, within the time and resources available, to ensure that this report synthesizes as much accessible, sound and relevant research literature as possible. The challenges of this work have been articulated by Nechyba et al (1999), and the extensive and complex range of potential influences, and ongoing research relating to community and family influences on children’s achievement make the work inherently complex. Accordingly this best evidence synthesis should be seen as part of an ongoing, iterative, evidence-based dialogue to assist New Zealand policy makers, educators, and researchers to better understand the influences on the achievement of children and young people.

**Timeliness of synthesis**

This best evidence synthesis is timely, given the conclusion reached by Blaiklock, Kiro, Belgrave, Low & Davenport (2002)5 in a recent New Zealand report to the UN, namely that, despite efforts by government in the last 3 years to reverse the trend, overall, children – particularly Māori and Pasifika children, and children in low income and single parent families – are disproportionately affected by growing inequality and levels of poverty. As the authors (Blaiklock et al, 2002:52) point out,

*The effects are inter-related: for example, low household incomes are exacerbated by high housing costs, and overcrowding and poor nutrition can lead to ill-health and lower educational achievement which limits opportunities for future employment and income.*

---

Iteration process, and complementary nature of the report

Finally, it should be noted that the first draft of the best evidence synthesis of the influence of families and communities on children’s achievement was required (within a relatively short timeframe) for the purpose of helping to develop the Ministry of Education’s current education indicators in 2002. The initial focus was therefore on ensuring that key family and community influences were identified. Since then, further and extensive scholarly work has gone into the synthesis and the present version incorporates the results of the first iteration. In this respect the synthesis can be considered to complement the Treasury Report entitled ‘Investing in well-being: An analytical framework’.

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Chapter 1: 
Introduction

RATIONALE FOR THE SYNTHESIS

There are several reasons for the development of this synthesis. These include the benefits that may be gained by children as individuals, and the benefits that may thereby accrue to New Zealand as a society. The first is a matter of equity and involves the democratic right of individual children to develop fully their intellectual and social potential. The second ground is both social and economic. Healthy social development can make for a socially cohesive society that is able to celebrate its diversity\(^7\), and healthy intellectual development can maximize creativity and innovation; both forms of development are needed for sustainable national economic development.

The synthesis is a direct outcome of concern within the Ministry of Education that some children in New Zealand are not realizing their potential. While recent data from the Programme for International Student Assessment (PISA) indicate that New Zealand 15-year-olds are among the best in 32 OECD countries with respect to reading, mathematics and science, the overall achievement of New Zealand children is not high by international standards across the schooling system\(^8\), and the mean performance of some sub-groups gives particular cause for concern\(^9\).

The Ministry of Education has initiated a range of projects (particularly in literacy and mathematics education) to address this concern. The aim of this Best Evidence Synthesis is to provide sound information for those involved in enhancing the development and achievement of New Zealand children. Children’s education occurs not just in early childhood centres and at school, but also within the family and community. If these groups work in constructive partnerships then children’s achievement can be enhanced (see Chapter 7). A particular focus of the synthesis, therefore, is on identifying perspectives and conditions

\(^{7}\) In 2001 the mix of children in New Zealand schools was: Pakeha/European 63.0%; Māori 20.4%; Pacific 8%; Asian 5.9%; other ethnic groups 1.2%; foreign fee paying children 1.5%.

\(^{8}\) For example, the Third International Mathematics and Science Study revealed that in mathematics at Year 9, New Zealand children in 1995 achieved a scale score of 501 (below the international average of 519, and well below the top country Singapore which achieved 609), while in 1999 their achieved scale score slipped to 491 (considerably below the international average of 521, and even further behind Singapore which achieved 604). See Mullis et al (2000: 36).

\(^{9}\) Analysing the New Zealand data from TIMSS, Garden (2001: 40) reported that while the average scale score in mathematics for New Zealand Year 9 children in 1994/95 was 501, the scale score for N.Z. Asian children was 532, for other ethnic groups was 522, for Pakeha/European was 514, for Māori was 463 and for Pacific was 430. The comparable scale scores for 1998/99 were: for New Zealand as a whole 491, for Asian children 534, for other ethnic groups 508, for Pakeha/European 508, for Māori 454, and for Pacific 429. Figures such as these highlight the importance of going beyond the 'mean' in national data to identify critical differences that need to be addressed.
that enable the development of effective partnerships. Some New Zealand research projects have already demonstrated that constructive school – family/community partnerships can markedly improve children’s achievement. For example, in the early 1980’s McNaughton, Glynn and Robinson (1981) research in Auckland, and Biddulph’s (1983,1993) research in Christchurch showed that primary children’s reading achievement could be increased significantly when parents became partners and provided additional supportive tutoring for their children, in this case in their own homes. More recently, Glynn (1997) has demonstrated that children’s behaviour can be improved significantly when home and school work on the issue together. As a final example, Glynn, Berryman and Glynn’s (2000) research in the Rotorua region has shown that Māori children’s literacy can be improved significantly when parents become integral partners in the teaching process. However, the scope and potential benefits of these kinds of relationships have yet to be explored fully at national level.

In Australia, Brady and Kennedy (1999) found that parents are able to work only at the margins of schools, and this may be the experience of a significant number of parents/caregivers in New Zealand too. As discussed in Chapter 7, there is New Zealand evidence of a marked decline in parental involvement in New Zealand schooling over the 1989 to 1999 period. Also Mikaere and Loane (2001) reported that only some of the schools in the Turangi/Taupo area were welcoming of Māori parents. Bishop and Berryman (2002) have identified various barriers to positive home and school relationships for Māori parents, and also reported that teachers were unaware of the need to deal with this issue. This is a key issue because, as Brady and Kennedy (1999:20) pointed out,

...the arguments in favour of strong parental involvement are well known: student academic achievement can be enhanced, parents can develop greater ownership over schooling and therefore become more supportive of schools, and greater co-operation between school and home can establish a better environment for student learning.

International and national research studies (including those referred to above) provide strong empirical support for this view (e.g. Epstein, 2001), and are considered in detail in Chapter 7.

The underlying reason for this synthesis is a concern for children as individuals and as members of New Zealand society. Evidence about family and community influences that are...
positive and helpful for children’s development and achievement, together with evidence about negative and unhelpful influences, can assist the formulation of policies aimed at promoting greater understanding, and enhancing collaboration between families, diverse communities, and the early childhood centres and schools which jointly educate them.

Family and community obviously play a major role in the lives of New Zealand children. School-aged children spend approximately 85% of their time among their families and communities, while 0 to 4-year-olds spend even more time within these settings (although some in day care probably spend less). Given the probable significant impact of family and community factors, it is important to identify those which seem to lead to healthy development and high achievement, as well as those that appear to have negative impacts on children, and even place some at risk. Evidence about these influences is relevant to policy makers and educators responsible for supporting positive processes and addressing those that are problematic and harmful.

**QUESTIONS ADDRESSED BY THE SYNTHESIS**

The **major question** is:

- What influences do families and communities have on children’s achievement?

**Sub-questions** are:

- What processes are involved?
- How can positive influences be enhanced?

It is important to note that in this synthesis ‘achievement’ includes children’s social achievement (and emotional development/mental health) as well as their academic and cognitive/intellectual achievement.

This emphasis on both the academic and the social is consistent with academic achievement as defined in the New Zealand early childhood education curriculum document Te Whariki (1996)

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the New Zealand Curriculum Framework

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the current New Zealand curriculum documents, and the philosophy of Kura Kaupapa Māori. For example, in Te Whariki (1996) the aspiration is for children:

… to grow up as competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society.

In Te Whariki (1996), desirable outcomes are linked to strands and goals: Well-being - Mana Atua; Belonging - Mana Whenua; (Valued) Contribution - Mana Tangata; Communication - Mana Reo; and Exploration - Mana Aotūroa. In the New Zealand Curriculum Framework, educational achievement encompasses achievement in the essential learning areas, the essential skills, the commonly held values, attitudes to learning, and behaviours and other

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outcomes demonstrating the shared values. Educational outcomes include cultural identity, well-being, whanau spirit and preparation for democratic and global citizenship.

An important reason for emphasizing social skills is that they tend to be overlooked in assessment of children’s achievement. And yet it is clear that the New Zealand curriculum includes a focus on the skills that will enable children to develop good relationships with others, work in co-operative ways, and participate appropriately and responsibly in a range of social and cultural settings. A particular focus is the ability to negotiate and reach consensus. The curriculum also emphasizes the development of respect for others, tolerance (rangimārie), non-racist behaviour, fairness, caring or compassion (aroha), diligence, and hospitality or generosity (manaakitanga). Social and co-operative skills support wider social cohesion in communities. Such skills also support effectiveness, productivity and creative synergies in workplaces.

Social development and sense of self tend to be intertwined with academic development. For example, if children do not see themselves as able to learn (for example, in mathematics) then their achievement is likely to suffer. Therefore, to understand the influence of family and community on children’s achievement it is necessary to attend to the social dimension of learning as well as the academic.

Educators themselves usually recognize that children’s physical, mental, emotional, social and cultural well-being are factors that have an impact on their learning, and the significance of affective factors for children’s learning is highlighted in various learning theories, including enactivist theory (Sumara & Davis, 1997)21 and humanistic theory (Biddulph, 1997)22. Aspects of psycho-social development that are likely to be related to children’s academic achievement include:

- sense of self-esteem and being valued
- sense of cultural identity23
- perception of self as capable of learning about and making sense of various phenomena
- feeling of control over, and a sense of success in, personal learning
- feeling of safety and security (that is, freedom from victimization, physical/emotional/psychological abuse, and violence)
- a propensity to question, investigate, persist, do one’s best, share, and be accepting of valid differences.

When considering family and community influences, it is important to emphasize positive forms of achievement while also identifying areas of difficulty. It should be noted, however, that reaching consensus on what constitutes positive achievement is problematic, and that this, in turn, can undermine the ability of parents, communities, and teachers to contribute to

positive outcomes because goals are unclear (Hill & Yeung, 2000). In an attempt to address this issue, a recent Child Trends report (cited by Hill & Yeung, 2000:36) presented a preliminary set of constructs/broad concepts/attributes that might comprise positive achievement. These were drawn from research findings relating to certain child and youth characteristics and later positive outcomes, opinions expressed in US national surveys and polls, and a perceived cultural consensus about characteristics and activities that are intrinsically valuable. The list includes:

- close parent-child relationships
- strong sibling relationships
- peer relationships that hone social skills and prosocial behavior
- development of character, which encompasses notions of responsibility, truthfulness, good values, and steadfast adherence to one’s principles
- learning to treat others with respect
- involvement in some type of religious or spiritual activity
- development of tolerance (respectful attitudes and nondiscriminatory behaviors) toward those who differ from you
- involvement in extracurricular activities
- athletic participation
- participation in cultural and literary activities
- development of behaviors and consciousness respectful of the environment
- community service
- development of social capacity in terms of ability to interact positively within intimate and family relationships as well as the society at large.

While the characteristics and activities listed above are drawn mainly from US studies and sources, they are also likely to have relevance in New Zealand society. The purpose in bringing this extensive list of outcomes together was to ensure that the synthesis appropriately considered well-being and other outcomes for emergent learners as well as the knowledge, skill and values outcomes sought for children in schooling. The reality of the evidence available is that much of the international or New Zealand longitudinal evidence has been focused on relatively narrow outcomes in reading (e.g. the Burt vocabulary test) and mathematics, school qualifications or traditional measures of IQ. While such achievement links provide a core of evidence for the synthesis we have endeavoured also to seek out and use evidence from the National Education Monitoring Project, the wide range of outcomes in the Competent Children Project, and other sources that have provided more comprehensive evidence of outcomes.

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25 Child Trends research briefs are available on its website – www.childtrends.org
WHAT COUNTS AS EVIDENCE

Best evidence syntheses in some fields, for example, medicine, are able to draw on the results of large scale experimental studies. However, research in education (and social sciences in general) is usually less tightly controlled than in the natural sciences, particularly where the focus of interest is the community itself, so there is a need to draw on studies that are broader in methodological approach than those which are entirely experimental and quantitative.

This synthesis therefore draws upon some of the principles for systematic review methodology outlined by the United Kingdom Government Cabinet Office (Nutley, Davies & Walter, 2002).26

In terms of best evidence, there is a focus on data that (i) are specifically linked to children’s achievement, (ii) best explain the processes by which family and community influences are translated into achievement, and (iii) indicate clearly how positive family influences can be enhanced. Wherever possible the strongest available New Zealand evidence linked to achievement has been brought to the fore. However, international evidence has also been used cautiously, and ‘bits of evidence’ arising out of diverse research sources have been interpolated, to make transparent emerging patterns and questions in the New Zealand context. In an endeavour to focus on research and data sources, whether quantitative or qualitative, that provide genuine evidence rather than commentary and opinion, 219 documents that were retrieved in an initial search were subsequently rejected in the light of the best evidence synthesis criteria indicated above. In total 176 New Zealand studies and 101 overseas studies have been included in the final synthesis.

APPROACH TO THE SYNTHESIS – METHODOLOGICAL ISSUES

Following Cooper, Charlton, Valentine and Muhlenbruck (2000)27, the primary goal in conducting this synthesis has been to gather, summarise, critically analyse, and integrate the literature relevant to the focus of the study. However, effective approaches to synthesizing evidence in education are still in a state of development (Nutley, Davies & Walter, 2002).28

As mentioned above, the numerical meta-analysis typical of such fields as medical syntheses has limited applicability in education because there is relatively little large-scale experimental research available. Two approaches which therefore seem to be appropriate for this synthesis are the Systematic Review (Boaz, Ashby & Young, 2002)29, also known as Narrative Review,

and Realist Synthesis (Pawson, 2001). Although these two approaches have different underlying assumptions about purpose, causation, ontology and generalization (Pawson, 2001), both can be utilized in a pragmatic way, provided the differences are acknowledged.

**Systematic Review**

A systematic review seeks to synthesise findings from as much relevant evidence as possible. By bringing the evidence together, such a review seeks to identify commonalities and differences between various studies and their findings. It also endeavours to make clear the impact of context on results (which may include multiple outcomes). Known gaps are also highlighted. However, this approach does not readily allow analysis of underlying theory, especially theory underpinning social interventions. Realist synthesis, on the other hand, is designed to allow this analysis.

**Realist Synthesis**

Realist synthesis has been developed to examine the extent to which underlying theories can account for changes engendered by various programme resources. This approach takes the view that it is not a programme as such that leads to direct changes, but rather the extent to which, and the manner in which, a programme is taken up by those it is designed to serve – given their interpretation of the intervention strategies. Thus, an initial theory may evolve to include a number of caveats which take into account the varying conditions and processes under which a particular programme achieves a measure of success. Realist synthesis also focuses on what doesn’t work, as much as on what does, for whom, and in what circumstances. It is considered important to identify ‘failures’ so that they are not constantly repeated. Accordingly, where possible, efforts have been made within the synthesis to make transparent the characteristics of programmes, and the nature and types of processes or engagements that are linked to outcomes for children, including those linked to negative outcomes.

Realist synthesis appears to be appropriate for this present synthesis, for two reasons. Firstly, some of the data involved are from intervention programmes. Secondly, although to date the focus of realist synthesis has been on intervention programme resources, it seems possible to extend its application to middle-level theory underpinning other studies. For example, there is considerable correlational data regarding ethnicity and achievement. Presumably this exists because various researchers have a theory that achievement and ethnicity are connected. It may therefore be possible to examine theories of this kind across a range of findings to determine whether the theory holds and, if so, in what circumstances. The result may be that the theory is extended, restricted or in some cases abandoned. A theoretical approach may enable greater coherence in synthesizing because it has the potential to bring together a diversity of studies which are, in themselves, relatively complex. Explanations may be in terms of theories grounded in the various data and/or existing theories, such as complexity and chaos theory (described later in this chapter).

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Strengths and differences of Systematic Review and Realist Synthesis

Following Pawson (2001)\(^1\), the strengths and differences of these two approaches to synthesizing are outlined in terms of three elements, namely causation, ontology and generalization, in Table 1.1 below.

Table 1.1: Comparison of systematic review and realist synthesis

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<th>Systematic Review</th>
<th>Realist Synthesis</th>
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<td><strong>Causation</strong></td>
<td>A ‘configurational’ approach is used.</td>
<td>A ‘generative’ approach is used.</td>
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<td>Outcomes are considered to follow from an alignment of a fruitful combination of attributes.</td>
<td>It is not programmes that work; the underlying reasons or resources offered to subjects are what generate change.</td>
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<td></td>
<td>Programmes work because of the compatibility of target group, setting, programme strategy/content, implementation details.</td>
<td>Causation is contingent upon whether the choices/capacities on offer are acted on, and this depends in turn on the people and circumstances of the initiative.</td>
</tr>
<tr>
<td><strong>Ontology</strong></td>
<td>This consists of:</td>
<td>This consists of:</td>
</tr>
<tr>
<td></td>
<td>• the above factors</td>
<td>• the generative processes, and</td>
</tr>
<tr>
<td></td>
<td>• information on outcomes, and</td>
<td>• a contiguous context, i.e. interrogation of base-line inquiries for information on what works, for whom, in what circumstances.</td>
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<td></td>
<td>• the methodologies in the original evaluations.</td>
<td></td>
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<tr>
<td><strong>Generalization</strong></td>
<td>The goal here is ‘proximal similarity’ i.e. imitate successful programmes as a whole, or at least achieve as many similarities as possible.</td>
<td>A ‘best buy’ is not on offer here, but rather transferable underlying programme theory, i.e. theory that discerns underlying patterns to successes and failure. The aim is to determine whether a particular programme theory works in these respects, for these people, in these kinds of situations.</td>
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Other methodological issues

The framework for this best evidence synthesis is based on a comprehensive and critical review of relevant research conducted by Kellaghan, Sloane, Alvarez and Bloom (1993)\(^2\). They examine family characteristics, home processes, and parent programmes that are linked to children’s achievement and they emphasize the importance of home processes. For the purposes of this synthesis, their framework has been extended to include other factors for which significant data exist, for example, ‘resources in the home’.

Much of the data relevant to this synthesis are correlational in nature. Such data indicate broad kinds of association, but it does not follow that the associations are necessarily the most important and helpful that could be made. The categories of data that are compared are based upon researchers’ predetermined views of what factors are likely to be significant. Correlations may be statistically significant but not particularly significant educationally or socially. Further, it must be emphasised that correlations do not involve or imply cause and effect. Research findings require careful analysis to ensure that any relationships assumed to be causal are not simply correlational. It is not possible to be confident about drawing

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conclusions about data that may appear to be causal, for two reasons. Firstly, there could be more than one plausible explanation - although one may be identified as more compelling than the others. Secondly, with large scale studies in particular, people and variables involved tend to be reduced to hypothetical averages, whereas within this best evidence synthesis, variance and diversity among the data are also extremely important. This is clearly evident in the data included in Footnote 9 regarding ethnic differences in mathematics achievement at Year 9. For this reason, data have been sought and selected that represent large scale New Zealand studies linking families and communities (including Māori and Pasifika) with children’s development and achievement33, together with ethnographic-type case studies that illuminate the actual processes and factors involved (David, 199834; Salmond & Crampton, 200135). Selective use has been made of significant international studies, and also of reports of New Zealand case-studies, some of which are non-rigorous in a research sense, if they provide findings or understandings that might assist the analyses. The explanatory power of concepts and theories in a range of disciplines (e.g. education, psychology, sociology, economics) helps make sense of the data assembled. As Cooper et al (2000)36 suggest, more confidence can be placed in conclusions drawn from diverse studies which indicate similar results.

An indepth consideration of factors and processes is necessary. For example, the literature confirms that, whereas children from low socioeconomic homes generally have lower achievement than children from higher socioeconomic homes, there are nevertheless some children from low socioeconomic homes who achieve highly and, conversely, some children from higher socioeconomic homes who do not. These findings raise questions relating to the factors/processes existing within different homes that either facilitate or inhibit children’s learning. The challenge is to identify these, so that factors/processes that contribute in a positive way to children’s development and achievement can be promoted, and those linked to lower achievement can be addressed. It is critical that ‘healthy’ families/communities and positive outcomes are examined as well as those causing concern. As noted above, in New Zealand such identification and examination are urgent, because many Māori and Pasifika families currently fall into the lower socioeconomic category and the projected population shift indicates that by 2040 the majority of children in our early childhood centres and primary schools will be Māori and Pasifika (a shift which will obviously impact on early childhood centres before it affects schools).

The likely complexity of the data, together with the inevitability of ongoing changes in New Zealand society, even in the near future, suggest the need to be tentative about conclusions drawn from research already completed, whether in New Zealand or beyond.

33 Here, following Reeder, Feehan, Chalmers & Silva (1994) there is a need to ensure that such studies were representative of the population on which they were focused.
ISSUES OF THEORY

Inevitably issues of theory arise in an investigation of this nature. For example, relevant research studies tend to be premised upon deficit, or difference, or empowerment/enhancement theory (Kellaghan et al, 1993; Nash, 1997), and these underlying assumptions require critical analysis.

Deficit theory assumes that it is the children who are deficient or lacking in readiness, motivation, experience, language and/or understanding; little emphasis is given to the possibility that systems may be failing the children. Bereiter (1985) has identified three kinds of deficit explanation, namely (i) central deficit, (ii) learning deficit, and (iii) school-related deficit. Central deficit refers to lack of mental power from environmental (e.g. malnutrition) or hereditary causes, learning deficit explanations attribute the disadvantage to poor teaching, while school-related deficit explanations consider that the disadvantage stems from school learning requirements being different from what children have already learnt. The usual response within this deficit view is the provision of compensatory programmes to attempt to remedy the deficits.

Difference theory begins to take into account the wider social contexts in which children are located. It recognizes cultural differences and the discontinuities that can occur when children move from the culture of their families to the predominantly middle-class, western culture of the schools. An extension of cultural difference as an explanation is cultural domination (Bereiter, 1985) which attributes education disadvantage to the subjugating processes (largely played out through the school) of a dominant culture imposed on minority children. Educators and others who adopt this perspective endeavour to lift the cognitive, social and academic attainments of children (particularly those from diverse or ‘underprivileged’ backgrounds), but may or may not recognise that early childhood centres/schools and teaching may need to change to accommodate children of all cultures.

Empowerment or enhancement theory is premised on understandings that families and children have certain strengths and expertise which can be built on or extended. It is also based on the belief that people can change their circumstances, and that parents can become more effective advocates for their children, provided they have access to appropriate knowledge. Those who hold this view work towards genuine partnerships with families, in the interests of enhancing their children’s academic and social achievement.

It can be argued that there are serious limitations with both ‘deficit’ and ‘difference’ views, but that an empowerment view holds considerable potential for those addressing the concerns outlined above and supporting the initiatives already operating in New Zealand. These theoretical positions tend to reflect the differences between (i) ‘experts’ knowing what is best for families and children, and (ii) people with expertise working with families and communities in true collaboration to promote children’s development and learning. A critical review of the literature also suggests the need to examine carefully the notions of

'empowerment' and 'partnership' in particular studies, because in some contexts these terms can be used as rhetoric to mask efforts to control parents and promote the values of school staff at the expense of important local cultural values (Crozier, 199841, 199942). More generally, there is a need to be wary about the language embodied in the research studies analysed for this best evidence synthesis. Adopted uncritically, language may carry with it a 'mental set' that is unhelpful when the focus is on making a positive difference for children. Therefore, in keeping with post-structuralist analysis (see Lye, 199743, below), the assumptions embedded in such language, for example, 'interventions' (considered later in this report), require careful attention.

Bronfenbrenner’s (1979)44 ecological model is also relevant to this analysis. This model portrays children as intimately located within three settings, namely the family, early childhood or school, and community. In these immediate environments children interact with significant others. These three ‘microsystems’ are nested within enveloping ecological systems which include economic activity (available employment) and support systems (e.g. library resources), which in turn are nested within broader institutional, ideological and cultural values. Within these various systems there are reciprocal and interdependent relationships. The model provides a useful way of examining how interactions between family, community and early childhood/schools systems (and the broader systems within which they are nested) influence children’s development and achievement. New Zealand researchers such as McNaughton (199545, 200246) have used and adopted this model to investigate and explain the processes by which literacy learning and development are co-constructed in a community’s practices.

It is important to note that many research reports clearly document the highly complex nature of the relationships between various community/home factors and children’s development and achievement. For example, the Dunedin Multidisciplinary Longitudinal Study47 showed that the IQ of a number of case study children dropped significantly at a time of emotional stress in the home. However, the study also demonstrated that for every child for whom this happened, there were five children for whom no similar link could be made. Examples of this kind, together with a recognition that families and society are not static but ever-changing (economically and socially), signal the need to consider, briefly, theories that may help make sense of the complexity inherent in the functioning of a dynamic society, and hence draw more valid conclusions about implications for future policy. Two theories which can assist this process are complexity theory and chaos theory (Nechyba, McEwan & Older-Aguilar, 1999)48.

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**Complexity theory** (Davis, Sumara & Luce-Kapler, 2000)\(^{49}\) is concerned with understanding complex systems (as distinct from ‘complicated’ systems). Complex systems are considered to be spontaneous, unpredictable and volatile, self-organising, self-maintaining, dynamic and adaptive. Often they are characterised by biological terms such as organic, ecological and evolutionary. Bronfenbrenner’s ecological nested model obviously fits within complexity theory\(^{50}\), as do socio-cultural, constructivist and enactivist learning theories. This view of how (for example) economies, weather systems and social systems function (and how learning occurs) differs from a ‘complicated’ view. A ‘complicated’ theoretical position assumes mechanical, cause and effect processes in which fundamental parts of a system can be identified and predictions made about their behaviours under certain conditions. This is possible with inert systems, such as refrigerators, but not with systems that are ‘living’. Complexity theory highlights the need to question what appear to be simplistic explanations. This is particularly evident when the cautions inherent in chaos theory are taken into account.

**Chaos theory** can be seen as complementary to complexity theory. Chaos theory was suggested by Nechyba et al (1999)\(^{51}\) as a possible means of accounting for the fact that the same environmental factors can have different impacts on different children. In their understanding (Nechyba et al, 1999:112), chaos theory is

\[\ldots a \text{ theory that states that small differences in initial conditions may cause large differences in outcomes, and that certain influences may cause dramatically different paths depending on the initial conditions.}\]

This is essentially the view of Lorenzen (2002)\(^{52}\) too. Chaos is considered to be a natural state associated with uncertainty. This way of explaining processes is different from both ‘deterministic’ and ‘random’ explanations. According to Lorenzen (2002), chaos theory indicates that it is possible to predict behaviour only if initial conditions are known to an infinite degree of accuracy – which is never possible. Hence it is impossible to predict with certainty what is going to happen next. Further, it is difficult to prove causality in most cases; usually several alternative explanations can be given for every occurrence. This means that statistical methods cannot be relied upon to reveal the mechanisms by which home and community factors influence children’s achievement (Nechyba et al, 1999)\(^{53}\). Lorenzen (2002) indicates that acceptance of chaos theory does not necessarily lead to inertia or paralysis. Rather, it indicates that contexts in which people live have considerable impacts on them, and that the feature of uncertainty means that there is hope that opportunities for change can be created. Another important understanding stemming from chaos theory in relation to educational contexts, is that if an initial condition is overlooked (which could easily occur) and a small mistake is made in a policy decision as a result, then the mistake is likely to be magnified as the policy takes effect in practice. This highlights the need for care when reporting and synthesizing the results of research, and also the need to indicate clearly

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\(^{50}\) This view is reflected in the work of Phillips, McNaughton and MacDonald. See Phillips, G., McNaughton, S. & MacDonald, S. (2001). *Picking up the pace: Effective literacy interventions for accelerated progress over the transition into decile one schools.* Final report to the Ministry of Education, Wellington.


any uncertainties involved. This caution is consistent with the realist synthesis approach described above.

Complexity theory and chaos theory have elements in common with poststructuralism (Lye, 1997)\(^54\) which acknowledges the complex interrelations of discourses and meanings and hence the ambiguity and tentativeness involved, and in educational contexts, the agency of the individual in negotiating identity and participation within the complexities of everyday life. Derrida (cited by Jones, undated)\(^55\) developed deconstruction as a way of uncovering the multiple interpretations of discourses, and argued that all text or messages have ambiguity, and that because of this “…the possibility of a final and complete interpretation is impossible”. Post structuralism rejects the notion of foundationalism which assumes that systems are stable and unproblematic. The implications of this position for this synthesis are that (i) the complexity of much of the evidence needs to be made explicit, (ii) evidence that is presented in reports in a taken-for-granted way needs to be examined critically within this synthesis, and (iii) potential for change can be considered inherent in the various structures and processes examined. In other words, there is no inevitability about current findings which appear to be negative.

**SUMMARY**

In summary, the key focus in this synthesis has been on what makes a positive difference for children in New Zealand communities. A major attempt has been made to be systematic and rigorous in the use of evidence, without losing the richness of meaning that qualitative data can offer, particularly in understanding the processes that matter. Theory has been drawn upon as a tool to assist with critical analysis of various evidence, but its use has been constrained to foreground the evidence.


PART ONE:
COMMUNITY FACTORS
Chapter 2: 
Influence of society, communities, social networks, accessible institutions and social agencies, and media

INTRODUCTION
A community has been defined as a relatively stable network of relationships among a group of people who have common interests, a network from which they draw support, friendship and a sense of identity or connectedness greater than that provided in a family alone. From a societal perspective, it is communities (and families) that create and preserve social cohesion.

However, it is also the case that migration (for example, from rural to urban, and from Pacific Island to New Zealand), and rapid changes in technology and people’s economic lives affect the dynamics of communities - to the extent that many communities may be viewed as being in a state of transformation, or being re-established. Children belong to, or may have access to, multiple and/or overlapping communities – and these change over time. Children may, for example, belong to a geographical or neighbourhood community, a playgroup community, a marae, a church community (which can be of particular significance for Pasifika children), different cultural communities (reflecting our increasingly mixed-ethnic heritages), a music community, a sports or recreational community, and to communities of adolescent peers. Text messaging among adolescents in New Zealand provides a contemporary example of the ways in which the nature of youth community, and networking through space and time, and also forms of literacy and interpersonal communication, are all being transformed by technology.

Rapid changes in technology have expanded children’s access to global influences, to new forms of social networks, to new forms of literacy – to virtual communities. Luke (1998) emphasised the impact of multinational media and popular cultures on youth. Luke (1998) cited an example of Thai youth from the community of Chiang Rai on the banks of the Mekong River for whom MTV and Nike culture have become culturally significant. Luke’s (1998) point was that these kinds of changes are pervasive, are influencing youth around the globe, and have profound implications for schooling. Goodridge (cited in McNaughton, 2000).

2002\textsuperscript{58} provided a local example of a Samoan five-year-old whose fascination with ‘mutants’ and ‘transformers’ provided the stimulus for his early writing at school.

While the relationships between community factors and children’s educational achievements and social development are highly complex, these are often the subject of strongly held personal views and public comment – especially when negative trends in youth behaviour are evident. For example, the proved cases of youth violent offending in New Zealand have almost doubled over the past decade (210 in 1991 to 403 in 2000)\textsuperscript{59}, and concerns about the level of youth violence are widely shared. However, perceptions about its origins and the relative influence of families, schools and communities tend to vary markedly depending on the standpoint of the commentator. For instance, Bali Haque, president of the New Zealand Secondary Principals Association was recently quoted as saying that the amount of violence in schools has increased in the past 15 years, and that, “What is happening in schools is coming from our communities and homes” (Scanlon, 2002)\textsuperscript{60}. Mapa et al (2000)\textsuperscript{61}, who investigated the transition of Pasifika children from Pacific Islands Early Childhood Services into New Zealand primary schools, reported that the parents noticed with alarm the use of foul language and bullying among children at schools.

The research indicates that such issues need to be addressed through the agency of the early childhood centre or the school, but are most successfully addressed when the centre or school involves, and acts in partnership with, families and communities. Chapter 7 explores more fully the research that has investigated processes and programmes which can make a positive difference.

It is evident that many social and community influences are positive for children’s achievement, but some are not. Many community influences can be potentially positive and/or negative. While the complexity of the influences of communities on children’s educational and social achievements is self-evident, it is important to understand the ways in which such influences mediate educational achievement. However, the evidence available is piecemeal and rarely linked to achievement, with significant exceptions (for example, the influence of television). In their review of the outcomes-linked evidence of the impact of community resources on children’s outcomes, Nechyba et al (1999:97)\textsuperscript{62} found that the evidence “…does not consistently suggest that higher SES or more affluent neighbors [sic] tend to increase the cognitive ability or academic achievement of children.” They did find some evidence for neighbourhood influences on crime, early parenting and school drop-out rates in the U.S. research, but concluded:

\textit{Finally, while there seems to be increasing consensus around the premise that broader neighborhood effects related to residential, ethnic and cultural communities are important, we still know little about these effects and find them difficult to quantify. [2]}


As indicated in Chapter 1, children’s academic achievement in this synthesis is taken to be that associated with school measures, but the learning that children do in their communities is also important. While it is beyond the scope of the current iteration, there is emerging a substantial research literature on situated cognition and the learning that occurs for children and youth in community and out-of-school settings (Hull and Schultz, 2001). These reviewers reported a wide variety of research (for example, on the mathematics knowledge of candy sellers in Brazil, the literacy development in adolescent diary writing, learning and literacy associated with supermarket shopping and graffiti). They argued that children who have traditionally achieved poorly in school bring with them complex alternative learning and literacy experiences and knowledges that have not been traditionally accessed by educators to support in-school learning. Hull and Schultz (2001) emphasized also the importance of a shift in thinking about what counts as literacy when technology is changing and influencing youth culture so rapidly.

Moll, Amanti, Neff and Gonzales (1992) published a landmark account of a systematic attempt to generate school curriculum out of the funds of knowledge existing in a school’s local community. For example, these researchers identified areas of knowledge based on agriculture and mining, mineral blasting, household management, religion, folk medicine, construction and repair knowledge (amongst much other knowledge) in a local community and set about to generate a school curriculum based upon these knowledges and integrally connected to them. Papua New Guinea has taken a similar approach with its primary school mathematics curriculum (Kinavai & Biddulph, 1998). Gallego, Cole and the Laboratory of Comparative Human Cognition (2001) provide an overview of a decade of research exploring the ways of improving the responsiveness of education to diverse children through developing teaching approaches that are culturally congruent with the children’s communities. A key strategy in the studies reviewed is that of educators drawing upon the funds of knowledge and resources in such communities that may not historically have been seen as important community resources for effective teaching. Such approaches have shown dramatic and systemic lifts in achievement persisting to tertiary level for groups of children who had previously achieved poorly within mainstream education (for example, Moreno, 2002).

This chapter focuses on the evidence that is available, with particular emphasis on illustrative examples that help to explain potentially negative and positive community influences on outcomes for children in New Zealand. The discussion begins by illustrating the ways in which the wider society influences outcomes for children and young people through a focus on gender. Consideration is then given to the predominantly international evidence about the influence of community and neighbourhood effects. New Zealand evidence about the influence of support networks, accessible institutions, and social agencies is then examined. Because so much of the research identifies the peer group as a key mechanism for mediating community influences, the chapter includes an in-depth focus on New Zealand research that

has exemplified peer group processes mediating outcomes. The final section of this chapter considers the influence of the media and popular culture using television and computer access at home as areas of focus. While computer access is to some extent a family factor, the use of computer games, and e-mail and the internet is increasingly providing a portal for external community, and increasingly global, influences on outcomes for children and young people.

**INFLUENCE OF SOCIETY**

The wider society influences children’s achievement and social outcomes in pervasive ways. What the wider society values, what counts as formal educational knowledge and skills, what language/s the wider community uses, what is rewarded in the workplace, community and peer group, and what is celebrated and vilified in the stories and images of the wider society, and the increasingly global popular culture, all influence our children. Because these influences are so pervasive, it can be difficult to trace the ways in which they are played out in smaller communities, families, early childhood centres and classrooms, sports and playgrounds. A substantial research literature that explores this wider influence is that related to gender and gender identity.

Gender differences in educational outcomes tend to be far smaller than differences by ethnicity or socio-economic status, and have been shown to be responsive to pedagogical practices that promote wider educational opportunities for boys and girls (Alton-Lee & Praat, 1999). Of significance for this synthesis is the availability of a varied New Zealand research literature that attempts to identify links between these outcome patterns and gendered practices in the wider society. Recent research has traced links between the social construction of masculinity and femininity and abuse and violence, giving particular import to this body of evidence.

There are many theories that attempt to explain the processes by which the wider society influences the gendered identity and behaviour patterns of children. Social learning theorists suggest that gendered behaviour patterns arise as children learn through the observation of models and processes of reward and punishment that occur ‘naturally’ in the course of social interactions. For example, being called a girl or a ‘big girl’s blouse’ can be perceived as an insult for a boy or a man in our society. Gender schema theory acknowledges the influences of rewards and punishments but rejects the notion of the passivity of the child implicit in social learning theory. Gender-schema theorists draw on cognitive-developmental theory to explain how boys and girls actively construct their own gender identity through filtering incoming information according to whether it fits with being a girl or a boy. Social constructionists focus on the importance of the interactions within families, peer groups, around popular culture, sporting groups and so on. These interactions enculturate children into gendered meanings that are shaped by, and in turn shape, identities within the social world.

Poststructural theorists are critical of the failure of these other theories to account for the disjunctions, contradictions, complexities and power issues embedded within gendered practices and the links between these and other cultural influences. Poststructural theories are

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related to complexity and chaos theories but make a valuable and added contribution to understanding processes impacting on children’s outcomes because they emphasise and make transparent the agency of individuals in negotiating complex interactions within the wider society. Because individuals have available to them multiple and conflicting discourses around gender (through family, community and media), identity is not seen to be fixed and unitary but complex and constantly negotiated and recreated as children take up and/or resist the gendered positions put to them.

New Zealand research reveals the ways in which gendered influences in the wider society permeate educational practice. For example, Norris (1999)\(^\text{69}\) found that perception of the arts as feminine is firmly established for Wellington boys at upper pre-school and school entry:

> Sometimes boys practiced what looked like conscious avoidance of activities engaged in by teachers and girls… One prime example of this was music and dancing. During structured music sessions in the créche, certain boys invariably refused to join in and sat mutely. On several occasions in the kindergarten where musical activities were free choice, I noticed boys watching with amusement as girls and teachers danced – the boys seem(ed) amused by the spectacle. [122]

Conflicts for boys between wider cultural messages and educational practice arise particularly in literacy. The area of most marked gender difference in school achievement has been in the area of literacy in NEMP at Years 4 and 8 (although the latest results for Year 8 show a reduction in the gender difference between 1996 and 2000\(^\text{70}\)). Gender differences persist in the 2000 PISA results for New Zealand 15-year-old literacy proficiency\(^\text{71}\). There is a large body of international research indicating that literacy has a problematic relation to masculinity for many boys. Sanderson (1999)\(^\text{72}\) found that Australian primary-school boys perceived literacy and reading as feminine activities undermining to their masculinity. The boys described a ‘wuss’ as a boy who ‘reads all the time, everywhere’. Synonyms for ‘wuss’ included:

> loser, a dweeb, idiot, a dink, a moron, posh pussie, a douche, a girl, a girl lover, a wimp, a wanker, a queer, gay, happy, gay farts, weird, a donkey brain, and twinkle toes


Coote (199873) found New Zealand year-10 boys in one secondary school to be slightly more positive towards reading but found homophobic associations to be particularly strong for these New Zealand children. In her study of boys in a New Zealand secondary school Stephens (1996:19274) concluded that “for these fifth form boys, becoming a man also means demonstrating that one is not being a woman”. For these upper secondary boys to do language or arts was to engage with the feminine. Stephens (1996) found Jeff’s response to be characteristic of his peers:

Jeff: Arts, English, music and languages are not a priority. Science and maths are top priority. And rugby! Rugby! Rugby!

Other New Zealand researchers and commentators have focused on the gendered patterns in physical education achievement arguing that the messages about feminine body image that girls encounter in the mass media, the wider community and sporting culture, and the school, constrain their physical achievement and well-being (Bradbury, 199075; Creighton, 199276; Burrows, 199677). Other researchers such as Wright (1996)78 and Kirk (1995)79 have argued that the active, physically tough and competitive masculinity evident in physical education practices has been linked to the higher rates of violence and behaviours leading to injury or death among young men (e.g. suicide, homicide, motor vehicle accidents).

Imo (1996)80 found that a small number of boys at intermediate level were a powerful unseen influence in bringing gendered and cultural constraints from the wider community into the classroom. She found that a peer sub-group of Samoan boys within a multi-cultural class had constrained and inhibited Samoan intermediate girls from formulating their own written questions in science. Imo reflected on her failure to protect the mauri (well-being and spirit) of the Samoan girls in her action research study because of her own lack of knowledge about wider cultural and community forces at work shaping and enforcing the behaviour of the girls.

In a study in two New Zealand secondary schools Rout (1992) found that ‘being staunch’ was a key way in which masculine norms and ideals were played out amongst boys. In a single sex school, the masculine ideal was represented by members of the first XV, and in the co-educational school by groups of boys known as ‘surfies’ and ‘metalers’. Rout reported that:

For these three groups, being ‘staunch’ meant being in control, being tough, being able to handle anything – and winning. It was their way of gaining respect and popularity from others (male and female) and respect for themselves. [171]

Rout (1992) found that staunchness was played out through verbal and physical ‘hassling’ which he saw as a form of violence:

Hassling was the means by which the violence was justified as normal ‘male’ behaviour, because it was accepted and even expected by both the perpetrators and the victims'. [173]

Rout (1992:174) found that proving masculinity meant not only hassling other boys, but also denigrating and hassling girls and women:

‘You’re throwing like a girl’ or What are yah? Queer?’

There is substantial international research literature on the links between masculinity and violence in youth cultures. Kenway and Fitzclarence (1997:120) explained:

If we consider the ongoing project of sustaining male power and masculine identity, and the individual and group performances, repressions, oppressions and contests this may ‘require’, then we can see why violence is mobilized.

There are markedly gendered patterns evident in New Zealand crime statistics. For example, although female engagement in crime is both complex and increasing, male youth predominate in violent crime statistics. Of 4024 prosecutions of New Zealand 14 to 16-year-olds in the year 2000 for offences including violence, sexual offences, drugs offences, and those involving anti-social crimes, dishonesty and property abuse and damage, 80% involved male youth.

The wider society and cultural mores are implicated, as are centres and schools, in actively contributing to gender identity formation of young people; they do so in ways that shape attitudes to school-work and behaviour and particularly violent behaviour. Many interventions have failed, because they have not addressed these wider cultural and community influences on gendered behaviour. For example, poorer literacy achievement of boys has been seen as simply reflecting a learning deficit in the boys themselves that needs remediation. While such an explanation may, in some cases, be part of the reason for some boys lower literacy achievement, the pervasiveness of different community practices around gender has an undoubted impact. That impact occurs directly and through family practices. This was demonstrated by Alton-Lee and Praat (1999), who reviewed research showing that

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New Zealand parents give their daughters books more frequently than their sons (who more frequently get computers). The review also provided evidence of the ways in which boys themselves manage the conflicting messages about masculinity and reading (for example, in doing less homework, and spending less time than their sisters and female peers in reading).

Those interventions and pedagogies that have been most successful have addressed the deeper links between cultural identity, community values and gendered behaviour and outcome patterns; for example, through valuing and celebrating literate masculinities in cultural heroes (Alton-Lee & Praat, 199984).

Of necessity this consideration of the influence of the wider society on children’s identity, behaviour and achievements has simplified complex issues. In particular, the research does not clearly explain the agency of the family in mediating, compounding or transforming wider social influences on gendered behaviour patterns. However, this research serves to illustrate the importance for educational practice, and for social cohesion, of going beyond simple deficit explanations for poorer educational achievement, and interrogating and understanding the ways in which the wider society influences our children and the choices they make. Moreover, such research has provided valuable insights about the agency of centres and schools in enhancing and celebrating gendered identities in ways that extend rather than constrain educational opportunities and social outcomes for both girls and boys.

COMMUNITY AND NEIGHBOURHOOD EFFECTS

Neighbourhood and community effects on children’s achievement have not been a focus in the New Zealand research. Recent research in both the U.S and Britain has demonstrated a significant relationship between neighbourhood quality and the well-being of children and youth (Brooks-Gunn, McCarton & McCormick 1998; McCulloch & Joshi, 200085).

McCulloch and Joshi (2000) defined neighbourhood quality in relation to poverty in their analysis of the British National Child Development Study data. They found a significant effect on cognitive performance for neighbourhood deprivation independent of other socio-economic impacts, including the family, for British children aged 4-5 years. Explanations for the influence of neighbourhoods on young children included opportunities offered by resources and services available, and the role models in more affluent neighbourhoods. This critical developmental time for transition to school has also been found to be linked to neighbourhood effects in the U.S research (Brooks-Gunn et al, 1998).

The British research outlined above did not find a neighbourhood effect independent of families for primary children aged 6 to 9 years. At this developmental stage family effects were foremost with the stresses of family poverty hypothesized as constraining the learning experiences available to children. However, McCulloch and Joshi (2000) found some neighbourhood effects on the test scores of older children between 10 and 18 years for the second most deprived quintile of British neighbourhoods. A similar pattern is evident in the


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US. Recent US research reinforced the findings of Nechyba et al (1999) that North American neighbourhood effects are significant for adolescents in terms of high school drop out rates and teen parenting.

It is noteworthy that these studies have consistently found family effects to be far greater than neighbourhood effects. Family effects can be so strong that in some studies neighbourhood effects are not evident on the outcomes scores selected. For younger children the research evidence suggests direct deprivation effects on the learning environment, but for older children the neighbourhood effects for adolescents appear to be mediated to a large extent through the peer group. The role of peer influences is considered later in this chapter with particular focus on the available New Zealand research.

In the US research residential segregation by race is considered (e.g. Nechyba et al, 1999). In the international research, cultural communities are seen to have the potential to provide particular kinds of wider support and social capital to families and children.

One hypothesis about the ways in which neighbourhood effects might impact on educational achievement is the school-mix effect - the social-class composition of schools. This hypothesis is that there are compounding effects on educational achievement when schools take in a body of children from families of similar socio-economic status. Such effects are seen to operate through such factors as peer reference group influences on children’s attitudes and engagement, influences on daily routines in schools, parental impact on school responsiveness and resourcing. Thrupp (1998) concluded from his ethnography of four New Zealand secondary schools that:

\[
\text{school mix probably does impact on school organizational and management processes so as to drag down the academic effectiveness of schools in low-socioeconomic settings and boost effectiveness in middle-class settings.}\ [197]
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The extent of the impact of the school-mix effect is contested in the New Zealand literature. In their review of peer effects, Wilkinson et al (2000) reviewed the available evidence and concluded:

\[
\text{Our estimate of school-mix effects in New Zealand is between zero and eight percent, and probably just under four percent, of the total variance in student achievement. Most of the effects are indirect, being multiplied across the layers of school organisation to yield a small influence on student learning outcomes.}\ [119]
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Nash (2002a:15)\(^{90}\) sees the school-mix effect as closer to zero. He has argued that:

… the local evidence correctly interpreted, does not suggest that students in working-class schools achieve less than those in middle-class schools when all relevant individual characteristics are taken into account (Nash and Harker, 1998)\(^{91}\). In so far as the debate about school compositions can contribute to the educational policy making process, it may enable schools to realise their real tendency to operate as institutions for the transmission of useful knowledge to students from all social backgrounds (Nash, 2002)\(^{92}\).

There may or may not be a small effect of school-mix on variance in achievement, operating variously within New Zealand schools. However, the agency of the school itself and the importance of family processes impacting on individual children’s achievement, are much stronger influences on children’s learning and outcomes.

In the New Zealand context it is likely that cultural, ethnic and geographic communities are inter-related in specific and increasingly complex ways. Traditionally for Māori, the local mountain significant to the tangata whenua is linked to a sense of place and belonging that is perceived to support a child’s sense of identity and connectedness to the land and the iwi. The NEMP results for Pasifika show that links to Māori culture provide advantages\(^{93}\). For example, when marae contexts are used in the assessment examples, both Māori and Pasifika achieve significantly more highly. With the marked increase in the mixed ethnicity of New Zealand children the multiple heritages that link families to increasingly diverse cultural communities are likely to be in interplay in the geographic communities in which children live.

INFLUENCE OF SOCIAL NETWORKS

Social networks refer to the support networks (Smith, 1996)\(^{94}\) and relationships that families and their children can access to facilitate children’s development and learning more effectively. Smith (1998:269)\(^{95}\) pointed out that children's developing social and intellectual skills are dependent on

…reciprocal interaction with more competent members of the culture, predominantly family members, who see the child as an agent and teach her or him to acquire the skills and knowledge valued by the culture.

Social networks within and beyond families can provide mutual aid and support, exchanges of information, and means of making use of community resources. These networks form an important part of the social capital available to children and they vary considerably across groups within a society. They play a role in defining and upholding standards, and in so doing

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contribute to the development in children of particular attitudes and aspirations, and a willingness to engage in certain activities (Smith, 1998).

Few studies have systematically investigated the social networks relating to parental participation in school processes and the impact of these on children’s achievement. Watson, Brown and Swick’s (1981) study of links between parental involvement and school achievement, although dated, is one of the few published studies with evidence of outcomes that considered both the family-school links and the community-family links. These researchers carried out a study using a sample of 362 homes and two suburban school districts in South Carolina, USA. The study concentrated on several home environmental factors and how they affected parent-child relationships. Environmental influences (defined as neighborhood support, home support, income, and the educational level of the home), were studied to determine their individual and collective effect on the achievement of children as they entered first grade.

The different effects on achievement of passive support from parents (‘I encourage my child to read’), active support from parents (‘I read to my child’), and non-support for children’s in-school learning were investigated. There was a significantly marked positive relationship between active parental involvement and child achievement in receptive and expressive language in the first year of school, to the extent that such involvement had a positive effect on child achievement irrespective of mother’s education effects. Passive support from parents did not show a positive link to their children’s achievement, while children with non-supportive parents scored lowest.

Watson et al (1981) pointed out that the clear distinction between non-support, passive support, and active support from parents raised at least two issues. First, why did the parents behave differently, and second, what could be done about these differing modes of parental behaviors? The researchers concluded that, in relation to the first issue, socio-economic status could be ruled out. Within the study, the paths from income and education were weak and suggested that, regardless of level of education or income, parents provided effective active support, irrespective of socio-economic status. However, the path from neighborhood support to home support revealed that the level of support provided by parents was at least, in part, affected by their social situation. Parents who perceived their neighborhood as a supportive environment, viewed themselves as partners with their children in the learning process, and had access to preschool programs, were likely to have children who scored very high on the study measures. The indication was that parents who had a support system to rely on were likely to translate their positive human relationships into a productive home learning setting for children.

Watson et al’s (1981) findings raise particular concerns in the New Zealand context because this synthesis makes it evident that many parents of young and school-age children are likely to be amongst the poorest in our society. To what extent many of these parents have access to supports that in turn strengthen their ability to actively support their children’s school

learning is a key question. In the New Zealand Living Standards Scale, Krishnan et al. (2002) identified economising on visits to family and friends as one of the seventeen indicators of economising linked to deprivation in the scale. Dependent children under 18 years were the one social group most likely to be in families affected by deprivation, and amongst these, Māori and Pasifika were disproportionately over-represented.

Ritchie and Ritchie (1997) and Rokx (1997) described traditional Māori society as providing inherent supports through multiple parenting arrangements. Rokx (1997:17) reported that:

… my early years were spent as a child in a rural Māori papakainga, embraced by a large whānau within the bosom of the hapu. I was not aware of the parameters to and within this whānau structure. My young cousins were my sleeping, eating and play mates, as were my brothers. And my grandparents, aunts and uncles and older cousins provided as much direction and parenting for me as my mother…This whānau structure provided a sound support system for my mother.

Rokx (1997) also described the traditional practice of ‘whāngai-ing’ out children from their parents to whāngai parents (caregiving relatives from the wider whānau) when the immediate family came under stress. Rokx (1997) pointed out that accelerating urban drift of Māori in the 1960s and 70s had impacted on and weakened these practices.

INFLUENCE OF ACCESSIBLE INSTITUTIONS AND SOCIAL AGENCIES

Community institutions and agencies are those which families may or may not be able to access reasonably readily for the benefit of their children’s development and well-being. Early childhood settings and schools are obviously central and critical agencies, but these are the subject of other syntheses, as are transitions within these settings.

Complexity of factors influencing achievement

The agencies and organizations that are relevant to this synthesis include medical facilities, religious and cultural organisations, libraries, music tuition centres, sports facilities and voluntary organisations. These form part of the social and cultural capital or resource available, in varying degrees, to children. The complexity of the relationships between access to local organizations and agencies and children’s achievement is explored by a major USA report on reading difficulties. Snow, Burns and Griffin (1998:128) acknowledged the reality that children who live in poor neighbourhoods are at risk of experiencing reading difficulties, but added “… it is extremely difficult to disentangle the effects of family practices from factors such as the neighborhood where the family lives, the cultural and economic community of which the family is a part.” Hill and Yeung (2000:35) also

emphasised the fact that a large number of community institutions and organizations impinge on, and have the potential to influence, the lives of children and their families. However, they pointed out that relatively little is known about the actual influence and that more needs to be understood about “…which factors have the most influence and what mechanisms transmit those influences.”

Discussing the role of the principal in creating inclusive schools for diverse children in the USA, Riehl (2000) argued that effective administrators understand community dynamics and seek to (a) position schools to take advantage of positive resources offered by other institutions, (b) buffer children (and the school) from the negative impact of other institutions and sometimes the community itself, and (c) provide services that meet children’s needs, while also strengthening the communities in which they live. This issue of school agency is taken up more fully in Chapter 7.

New Zealand evidence

The available New Zealand evidence is sparse. However, some evidence about relationships between children’s achievement and their access (and their families’ access) to various community institutions and agencies is available in reports on the Competent Children Project in Wellington (Wylie, 1999, 2001a).

The strongest finding about community networks and influences in the Competent Children Project was that formal early childhood education provided a ‘community’ context that showed a clear benefit for children’s later school achievement. Wylie (1999, 2001a) described the legacy of early childhood education as ‘powerful’, because it continued to play a part in children’s performance for at least five years after they had moved on to school. Wylie (1999, 2001a) reported that the gains for children came from the nature of the programme at early childhood education centres, which emphasised activity-based learning, and interaction with other children and other adults outside the immediate family. The quality of the teaching, and the resources available at the centre (whether they were activities and objects, or the knowledge and experiences that the other children at the centre brought with them) were also found to be significant.

Wylie (1999, 2001a) noted that the centres which provided key aspects of early childhood education quality were more likely to be those serving children from middle class families in this Wellington study. However, Rokx (1997) described a Te Ara Wā Kohanga Reo as playing a vital role in providing community support for families in a range of ways to directly strengthen the child’s learning and also the wider care of the child, the parent’s support networks and specific supports enhancing parent capability to parent well:

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I use the term ‘pseudo-whānau’ positively to describe the collaboration and company of families who became involved in ‘our’ Kohanga Reo... Support for myself in my role as parent came primarily from my Kohanga Reo whānau. Kuia supported my children through all their childhood illnesses; I received regular advice about all manner of child-rearing issues; parents shared their parenting ups and downs; and we participated in an after hours childcare service that was informal, dependable and mutually beneficial.

Rokx (1997) identified a range of formal parent support programmes\(^{107}\) intended to support Māori parenting that have been developed for different localities. She argued that the success of such programmes is dependent upon:

- the role of Māori in initiating and providing the programmes;
- the extent to which the programme is founded on the real needs of Māori parents;
- responsiveness to the inter-relatedness of whanau, wider wha nau and whakapapa links, and
- the extent to which the programme exemplifies communication processes that work for Māori and enable informed choices for Māori parents, rather than imposed solutions.

These kind of programmes in New Zealand have not generally been evaluated in ways that include multi-level effects both on the parents and the children’s educational outcomes. Given the ecological links apparent between support for parents and children’s achievement in the US research, it may be that such programmes, when effective, have more longer-term impacts than has been readily evident. Evidence relating to this aspect is discussed in Chapter 7.

**Differential impacts of accessing support**

As with the U.S and British research on neighbourhood effects, it appears that the effects of community and other support networks on educational achievement in the New Zealand context are also specific to different developmental stages for the child. With respect to data from 8-year-olds in the Competent Children Project, Wylie (1999)\(^ {108}\) found no significant findings of associations between belonging to other community organisations and children’s competencies. That study also found no clear patterns of association between parental membership of organisations, and children’s competencies. However, there seemed to be a shift in the data for 10-year-old children in the Project, and Wylie (2001a:20)\(^ {109}\) reported that, “Children who took part in performing arts or music activities outside school tended to have higher scores. Sports involvement was positively associated with scores in mathematics and logical problem-solving.” It should be noted that the children in this project represented slightly higher socio-economic levels than children nationally and there is no suggestion that the 10-year-old Wellington children’s access to

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\(^{107}\) E Tipu E Rea in Wabuiomata and Whakatane (Māori Women's Welfare League)  
Te Awhina Family Support in Hokitika (Māori Women's Welfare League)  
Tipu Ora in Rotorua (Māori Women's Welfare League)  
Awhina Mātua and Atawhaingia Te Pā Harakeke (Early Childhood Development Unit)  
Parents as first Teachers Māori Programme (Waipareira Urban Trust)  


arts or sports organizations caused their higher achievement. It could, for example, be argued that the higher achievers also made the most of opportunities available to them to participate in art, musical and sporting activities.

**Church involvement and educational outcomes**

There is limited evidence of the links between church membership and educational outcomes for New Zealand children, with the exception of growing evidence about the importance of the church for some Pasifika children. Challis (1970:114)\(^{110}\) observed many years ago that those who wrote of the social conditions where there are Pacific Islanders and did not mention the church were “…missing a vital part of the community life”. He pointed out that, for Pacific people, the church serves as a venue for customary gatherings as well as religious, and concluded, “It would be true to say that while many New Zealand people attend church to worship, the Pacific Islander finds in church a great part of his or her life.” In more recent years, McNaughton (1995\(^{111}\), 2002\(^{112}\)) and others have identified some of the influences of the church in the lives of Pasifika people, especially in relation to the development of children’s literacy. For example, McNaughton (1995:22) reported that:

> This community involvement constituted major forms of literacy activity connecting the family with their communities and achieving significant social and cultural purposes. Holding positions in church and school organizations has been common in Samoan households, reflecting the role of the church in maintaining Samoan culture and community values in New Zealand.

**Health issues within New Zealand communities**

Adverse effects of many health problems on children’s development and achievement are widely recognized, and various reports raise concerns about the fact that those children and families most in need in New Zealand do not necessarily have the means to access available health facilities\(^{113}\). In the case of hearing loss, the time delay between the diagnosis of a child’s loss and a parent’s ability to access medical care, can have significant impacts on the child’s cognitive and social development. The association between children’s health/well-being, and their development and achievement is considered more fully in Chapter 5.

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\(^{113}\) For example, a recent poverty survey carried out by The Council of Christian Social Services found that many low income solo parent families do not have enough money to live on. See NZPA (2002). Poorest families at risk: Survey. *Waikato Times*, 5 June.
PEER GROUP INFLUENCES

In much of the research on wider community influences, peer group dynamics are seen as key mechanisms through which wider social influences impact upon, and are played out for children and youth. Peer groups can range from friendship peers, to small cliques, to wider in-groups and out-groups (Wilkinson, Hattie, Parr, Townsend, [with Fung & Ussher], Thrupp, Lauder & Robinson 2000)\(^\text{114}\).

There is evidence that different peer groups can influence children’s achievement in significant ways. These seem to be specific to the developmental stage of the learner. A New Zealand study by Patrick and Townsend (1995, cited in Wilkinson et al, 2000) found that perceived social competence with peers was an important precursor to the emergence of academic intrinsic motivation in Year 1 children. In some instances the peer group rather than parents or educators is the direct source of much of the learning, scaffolding and socialization of children and youth. These processes seem to be specific to the cultural and social context in which the peer group operates. For example, for Samoan teenagers in New Zealand, Sua’ali'i-Sauni et al (2000)\(^\text{115}\) concluded that Samoan young people learn more about gender and sexual identity issues from their peers than from their parents. Such learning is seen to be associated with the Samoan adolescents’ well-being.

Complexity of influences

In their review, Nechyba et al (1999)\(^\text{116}\) explained that it is not clear how peer groups influence children’s achievement and highlighted ‘group socialisation’ and ‘internalisation’ as theories used to explain how the influence operates. For example, a group may create norms for achievement that discourage others from excelling or, alternatively, a group may serve as a role model for others to improve achievement (Wilkinson et al, 2000)\(^\text{117}\). Nash (2002)\(^\text{118}\) pointed out that any investigation to determine causal mechanisms or processes is likely to be complex. In Wilkinson et al’s (2000) view, this is partly because peer influences do not operate in isolation from other social influences. The nature of peer influence is further complicated by the fluidity of groups (young children in particular commonly change their peer networks) and the increasing and unknown effects of technology (e-mail, mobile telephones) on peer group dynamics (Kinderman, 1993, cited in Wilkinson et al, 2000).

This synthesis focuses on those peer influences that Wilkinson et al (2000) term ‘ambient’, that is, those resulting from behaviours, values, attitudes and beliefs which children bring with them to early childhood centres and schools from their families and community. Other influences that may be generated in the centre and school contexts, and influenced markedly

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by the educators in those settings (for example, through peer interactions in early childhood settings, peer tutoring or co-operative learning approaches), are addressed in the Quality Teaching for Diverse Students Best Evidence Synthesis\(^\text{119}\), and the Quality Teaching - Early Foundations Best Evidence Synthesis \((\text{in progress})^\text{120}\).

**Ambient peer influences - positive**

Within the limitations outlined above, available evidence about ambient peer influences focuses on a range of positive and negative effects (Wilkinson et al., 2000)\(^\text{121}\). Examples of peer influences that have positive effects on outcomes for children and youth include influences which:

a) provide social contexts that mediate much of the learning and development of children and young people, whether in early childhood or out-of-school settings such as after-school work, sporting or leisure contexts (Honig, Kahne & McLaughlin, 2001)\(^\text{122}\);

b) provide direct support for learning and development. For example, friends

- can provide youth with ‘safety nets’ for intellectual, creative and emotional risk-taking that can be essential to healthy development and learning (Honig et al., 2001)
- are vital in supporting children who have hearing loss (ACNielsen, 2000)\(^\text{123}\)
- provide children with an alternative primary context for some of their learning (e.g. Sua’ali’i-Sauni, Park & Anae, 2000)\(^\text{124}\);
- can (through enhanced co-operation and greater understanding of each other’s needs) help children realise that they can co-construct ideas and receive validation of these (Wilkinson et al, 2000)
- can enhance children’s motivation and attitude to school through assisting development of their self-esteem, perspective-taking, communication skills and coping with stress (Honig et al, 2001; Wilkinson et al, 2000). For example, friendship groups and other associations can reinforce values, habits, activities or goals that lead youth toward healthy development and fundamentally shape their identities as learners (Honig et al, 2001)\(^\text{125}\).

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Peer interactions can enable the home educational resources and cultural capital of an individual child to become accessible to a friendship group or wider peer group, thereby mediating wider community effects on individual outcomes in and out-of-school. Alton-Lee (1984)\(^\text{129}\) found Christchurch children’s access to information in class to be mediated by their social status in class, that was in turn linked to the socio-economic status of their families. Ability to borrow, and access to interaction with peers who in turn had high family resources (e.g. mobility, books, relevant discussion, curriculum-relevant experiences) was subtly linked back to the child’s own access to resources. Teachers have been shown to have considerable agency in optimising learning community effects in peer groups. For example, New Zealand teacher Tania McBride optimised peer sharing of resources through a variety of strategies. She brought a range of community resources into the classroom to ensure no child was restricted to home resources, named what counted as a resource as a key lesson, identified for the whole class community who was to have which resource, and structured systematic opportunities for children to learn from each other’s experiences and information sources\(^\text{130}\).

**Ambient peer influences - negative**

Wilkinson et al (2000)\(^\text{132}\) described the negative outcomes that peer influences can also have. They can create barriers to learning and development and, particularly among urban youth of various ages, foster destructive values and behaviour (Honig et al, 2001\(^\text{133}\)). Clues about potentially negative impacts of peer influences, emanating from community and family beliefs and values, on children’s development have also emerged in a range of research studies in New Zealand.
For example, peer interactions can play out racist attitudes prevalent in communities. The Smithfield Project\textsuperscript{134} found a range of racist discourses to be evident in parental interview responses around the way parents identified themselves by ethnicity. For example, the following excerpts are illustrative of views held by New Zealanders of Pakeha or European ancestry about Māori, Samoan and Asian peoples (Hughes et al, 1996\textsuperscript{135}):

> I'm not a believer in there being any segregation in New Zealand. I'm sick and tired of what's happening in New Zealand at the moment. I'm not racist or I wasn't. I'm tired of the Māoris. I'm sick of picking up the papers and seeing the Māoris want this and that. [21]

> Born here. If people are of Samoan culture they should stay Samoans. There's too much mixed marriages particularly in places like [name of New Zealand province] – you don't know what colour is going to come out. Not that I'm racist … It's too dark [in a New Zealand province], thank goodness we don't have them … here. They (parents here) look after their kids. [There] they let the kids run loose. Māoris are New Zealanders. My comments are about Islanders. Māoris were here first. I would not like my sister to marry an Islander. I'd disown her. I don't mind the term Pakeha. [22]

> Anyone who is a New Zealand citizen. This includes Māoris or whatever. No need for terms such as Pakeha or Māori because we're all or should be New Zealanders together. Asians could be classified slightly differently, who are swamping New Zealanders and taking us over. They could be classified as Asian New Zealanders. I think it's a shame what is happening in New Zealand. Māoris are getting far more support from the State. They say that Māoris are getting far more support from the State. They say that Māoris aren't getting a fair deal in education, well it's not the education system that's failing but the fact that their parents aren't pushing them hard enough. [22]

In their discussion of the culture of competition under the ‘Tomorrow’s Schools’ model, Fiske and Ladd (2000)\textsuperscript{136} reported that the principal of Taita College used creative landscaping to obscure the prominent view that the school marae provided passing motorists. He perceived that marketing and enrolment were being constrained because the community perception was that the College had a higher Māori role than it did in fact have.

There exists a range of studies that suggest racism is prevalent in children’s experiences and interactions in New Zealand schools. In one of the three schools implementing an ‘eliminating violence’ programme, Moore, Adair, Kruiswijk and Lysaght (1997)\textsuperscript{137} reported data on racial name-calling across class levels - after the intervention had been carried out. They found a steady increase in racial name-calling across the secondary school. At Year 9 level, 11% of children reported engaging in bullying behaviour of this kind. By Year 10, 15% reported engaging in such bullying. The percentage of children reporting such engagement increased to 27% at Year 11, 30% at Year 12, and to a very high level at 70% at Year 13.


New Zealand research on the experiences of Samoan\textsuperscript{138}, Japanese\textsuperscript{139}, Jewish\textsuperscript{140}, Chinese\textsuperscript{141}, Somali\textsuperscript{142} and Sri Lankan\textsuperscript{143} children has shown that ESOL and refugee child involvement in peer interaction can be an experience of bullying, harassment, repeated accent mimicking, put-downs, scoffing, indifference, exclusion\textsuperscript{144} and physical violence from peers. Fleras and Spoonley (1999)\textsuperscript{145} found that one in four new immigrants to Auckland reported experiencing overt racism\textsuperscript{146}. The extent to which a child experiences inclusion, involvement and caring opportunities to develop English as an instructional medium is influenced by the extent to which school and teacher pedagogical practices support learning community, as well as curriculum and language learning.

Racist comments in New Zealand primary, intermediate and secondary classrooms, predominantly those directed by Pakeha boys to Māori boys, have been reported by Alton-Lee, Nuthall and Patrick (1987\textsuperscript{147}; 1995\textsuperscript{148}) and Alton-Lee, Town, Stevenson, Diggins and Molloy (2000)\textsuperscript{149}. The use of remote microphones revealed racist name-calling that was not evident to the observers present in the room. Interestingly, although these children had the use of ‘on’ and ‘off’ switches for their microphones, they did not see racist comments as reason to turn their microphones off - although the comments were still spoken in such a way that they were not audible to adults present. The following excerpt from a class lesson in social studies shows both the public speech, and the private utterances between Joe (Pakeha) and Ricky (Māori) (in italics):


\textsuperscript{146} The extent to which a child experiences inclusion, involvement and caring opportunities to develop English as an instructional medium is much influenced by the extent to which school and teacher pedagogical practices support a learning community as well as curriculum and language learning.


Teacher: Because White people...

Joe (to Ricky): Honkies

Ricky (to Joe): Shut up!

Teacher: Europeans, we were....

Joe (to Ricky) Nigger!

Teacher: Watch this way please, Ricky - were often wanting to get things...

Joe (to Ricky): Black man! Samoan!

The conversation above deteriorated into a physical kicking fight between Ricky and Joe for which Ricky, not Joe, was reprimanded. Joe’s use of the term ‘Nig nog’ appeared to reflect the frequent use of the term ‘Nig nog’ in a then screening British ‘comedy’ programme that was characterised as racist by reviewers.

The researchers carried out a systematic analysis of the relationship between abusive comments and time spent on content learned and not learned. They found abusive comments, including racist comments to occur most frequently during time spent on curriculum content that was not learned by both those who received and those who gave the abuse (Alton-Lee & Nuthall, 1990).

In the course of an interview, Joe was asked about his use of the words ‘Nigger’ and ‘Nig nog’.

Interviewer: Where would you have seen or heard that word? Do you know?

Joe: Yeah my brother. He hates ethnics.

This example has been used to trace links between community attitudes and peer racism but it also provides insight into a nexus where curriculum, the teacher’s use of pronouns, the media, and community attitudes appear to work together to provide an environment wherein racism flourished in the peer culture. The attitudes held by Joe, combined with the teacher’s inadvertent use of his own cultural positioning ‘We, Europeans’ contributed to the position of Māori Ricky as ‘other’ and ‘ethnic’ - outside of the ‘we’ of the class grouping.

There is also research making apparent the ways in which homophobia in the wider society impacts on gay youth in New Zealand through peer interactions. Town’s (1998; 1999) research provides an example of a closeted gay first-fifteener (school rugby player) who explained that even he had to hassle and bully out gay boys. The reason was to help hide his own gay sexual identity. He saw exposure as so threatening to his self-esteem as an accepted mainstream rugby hero, that he contemplated suicide were his identity to be uncovered, and

found joining the male heterosexual youth culture in bullying gay peers to be a form of self-protection that was necessary.

While family effects are primary on children’s attitudes, research indicates that peer cultures can also have an impact on children and young people’s aspirations and attitudes to educational success (Nechyba et al., 1999). Any investigation of these effects is likely to be complex (Nash, 2002). Nash’s research indicated that commonly used ‘constructs’ such as ‘peer pressure’ and ‘peer effects’ may be less than helpful in furthering educators’ understanding. Rather, research should investigate “… the ways in which student peer groups have a causal influence on educational performance” (Nash, 2002:17). Wilkinson et al (2000) explored a range of theories that variously explain the processes involved, through, for example, social norms (developed by the peer group that constrain or challenge behaviour), expectancy for success, social facilitation, modelling, and ‘social loafing’.

In some New Zealand and Pacific research, peer influences (often related to gender identity or social class cultures), have been found to play a key role in influencing youth aspirations. Marie (1998), for example, recorded the negative effects of peer pressure reported by New Zealand women who were reflecting on their secondary school education. Many of the women said that the fear of losing friends was so strong that they chose to conform to the mediocre expectations of peers rather than endeavour to excel in their academic work. They tried to avoid the envy and jealousy that would inevitably be expressed by others if they were seen to be ‘brainy’. Alton-Lee and Praat (2000) reviewed a range of international research that suggested that similar kinds of processes can also work amongst male youth cultures.

White’s (1997) ethnographic case-study investigation also explored the influence of the peer group at secondary school level in Fiji. She found that, among the competing factors in the lives of Fijian secondary children which influence their academic achievement, peer pressure was very significant. In one girls’ secondary school it was a positive; girls encouraged and supported each other to achieve as highly as possible. In the school which was the focus of White’s in-depth research, however, peer pressure proved to be a negative influence on achievement, completely over-riding parental expectations. Only a few children who, for various reasons, were able to withstand it, were able to succeed at higher levels.

Given the evidence of the impact of peer culture on children’s achievement, further investigation of the complementary ways in which New Zealand communities, families and

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154 Marie, G. (1998). "I Never Understood What Was So Wrong With Me": The Influence of Girls’ Childhood Experiences on Learning and Education. *New Zealand Journal of Educational Studies, 33*(2), 193-209. The study used ‘testimonies’ or autobiographical writing to document the impact of a wide range of factors on the learning of women who were taking the first steps into formal tertiary education by attending a Bridging Course for Women at the University of Waikato.
156 White, C. M. (1997). *Cultural continuity and discontinuity between the home, the school and the peer group and their impact on academic performances. The “multiple worlds” of fijian students.* PhD., University of Washington.
schools can work together to support healthy peer cultures could assist in enhancing the positive effects of such groups\textsuperscript{157}. 

**INFLUENCE OF MEDIA**

As signalled at the outset of this chapter, there is a range of evidence available internationally that indicates television in particular influences children’s learning, their engagement with schooling and their achievement. This section focuses on the way in which the wider community impacts on children through the media, with particular attention to television. It is noteworthy that between 1988 and 2000, the period during which much of the research reported in this section was conducted, there was a marked shift in the local content in New Zealand television targeted specifically at children\textsuperscript{158}. In 1988 specifically local content in children’s programmes constituted 16\% of all programme content. By 2000 children’s programmes with local content had reduced by over a third to just 10\% of all programme content.

For children, the ‘media’ obviously includes the influence of television (or the effect of watching television for varying periods of time), but the category extends to the impact of engagement in numerous aspects of popular culture, such as viewing movies and videos, playing computer games, listening to music and CDs, internet use and, increasingly, cellphone use.

**Popular culture and shared scripts**

Various media have the potential to influence children’s achievement in diverse ways. However, as McNaughton (2002:194)\textsuperscript{159} pointed out, ‘popular culture’ in a multicultural society plays an important role; it results in the development of

\[\ldots\text{ certain shared scripts (knowledge of patterns of events and characters) with which many families and children across all communities are familiar. In urban New Zealand, for example, these include those centred on sports, similar urban settings (often including proximity to beaches), television series, films, and, increasingly, the use of the Internet and electronic games.}\]

McNaughton (2002:194) also notes that Dyson’s 1997 studies of children’s writing in the USA confirmed the pervasive presence of experiences common to all children in urban settings. Dyson’s research tracked the sources of texts created by children from their knowledge of sports teams and popular songs gleaned from television, radio stations, family members, and peers, as well as their knowledge of stories and characters from television series and films. Dyson (1999:141)\textsuperscript{160} reported that children easily transfer “…unofficial cultural materials to official school contexts”, including cartoons, video games, recent films, and radio songs.

\textsuperscript{157} Wilkinso, et al (2000) documented various ways in which schools try to foster and harness peer support to promote achievement.


Popular culture and children’s learning in New Zealand

Alton-Lee, Nuthall and Patrick (1993) traced 11-year-old New Zealand children’s use of television cartoons, drama, documentaries and advertisements, and popular songs, as the children’s utterances to themselves and their peers made transparent the way they made links from these existing knowledge sources to their new learning about New York city. Tests and interviews carried out with these children a year later revealed that these associations supported their learning and assisted their memory processes in numerous and specific ways. For example, one child remembered the use of Hudson River barges to dispose of city rubbish through making links to the television cartoon ‘Topcat’ which had featured the cartoon animal travelling on one of the rubbish barges.

Further evidence linking children’s achievement to the influences of some forms of media, namely television/video viewing and computer use, is reported below, but more exploration of the effects of children of these and other media would be helpful.

The influence of television: Direct impact on children’s development

Wylie (2001b), in a review of international research on television viewing and its relation to children’s cognitive, physical, social, and emotional development, noted that a wide range of research studies have revealed both positive and negative effects. She cited a 2001 New Zealand review by Walters and Zwaga in which they concluded that viewing moderate amounts of non-violent television stimulates children’s creative abilities, enhances their educational performance, develops their curiosity and improves their spoken vocabulary and language development. However, an international study by van de Voort (cited by Wylie, 2001b) which summarised several experimental studies, found that language is the minor player in television; it is the moving image that has greatest impact on children. Television was found to allow better long-term memory of a narrative but, compared with the written word, was far less effective in introducing new ideas and providing room for thought. Other studies cited by Wylie (namely, Lealand’s 1995 New Zealand study, and Wright et al’s 1990 American study) revealed that parental discussion with children while they are viewing television can help the children clarify ideas and stimulate thinking. Negative effects relate to children’s physical and emotional development, largely stemming from extensive viewing, particularly of violence. Van der Voort’s review also indicated that the combination of reading with television viewing has adverse effects on reading performance in the short term; no longer term studies had been done at the time of the review.

Powell, McCormack and Smith (2001) also reviewed current literature exploring relationships between television viewing and children’s development. They too found that television can influence children’s cognitive and social development in positive and negative ways – depending on the nature of the programming. They cited research studies showing that well-designed programmes can help children gain knowledge and cognitive skills, whereas their reading skills and attention patterns may be negatively affected if they watch programmes such as cartoons. Powell et al (2001) also cited Zielinska and Chambers (1995)

who noted that, while television has the potential to counter ethnic and gender stereotypes, and positively influence pro-social behaviour such as empathy and co-operation, it can also have the reverse effect. Powell et al (2001:26) concluded that “The general consensus of the literature is that all television has the potential to educate and influence the development of young children.” They pointed out that recent research highlights the active role that children have in constructing meaning from television. Children play and engage in other activities while they watch television. They are participating and actively collaborating in the production and negotiation of ‘cultural meanings’. The result, according to Powell et al’s (2001) review, is that television has a strong influence on children’s understanding of their world. This finding may help to explain some of Wylie’s (2001b:6)\textsuperscript{164} findings, for example, that television viewing is more positively related to children’s academic development than their social development.

\textit{Television watching has more association long-term with children’s literacy and mathematics than with their social skills or dispositions, such as perseverance. There are several reasons why this might be so. First, in the Competent Children project, social skills and dispositions appear to be more contextually dependent and less stable over time than literacy and mathematics.}

The influence of television: Indirect impact - amount of time spent viewing

There is a range of data relating to New Zealand children’s achievement and the amount of television viewing in which they (and in some cases their parents) engage. These data come mostly from the longitudinal Competent Children Project in Wellington, and New Zealand’s participation in TIMSS (Third International Mathematics and Science Study). However, even time spent watching television is problematic, as Wylie (2001b:4) has pointed out:

\textit{Observational studies of family and children’s use of television have noted that television viewing is often interwoven with other activity, including conversations, play, and computer use, leading to cautions about estimates of children’s viewing time.}

Caution is therefore needed when reviewing any available data. Wylie (1999:31)\textsuperscript{165} reported that 8-year-old children in the Wellington study, “…who, on average, watched less than an hour’s television a day scored higher than others for Mathematics and Literacy.” She noted that,

\textit{Earlier television-watching habits also had an impact over time. Children who had watched television for more than 3 hours a day at age 5 had lower scores for Mathematics and Literacy. Parental television watching also showed a similar pattern, with children from parents who watched less than an hour a day on average scoring higher for Mathematics and Literacy (reading). This advantage was particularly marked for children from low-income families.}

The study also found that the children who watched high amounts of television at age 5 years were the ones who tended to do so at age 8 years. Despite detecting no relationship between

\textsuperscript{164} Wylie, C. (2001b). Making Sense: Relations between literacy, television and computer use and other uses of children’s time. Wellington: NZCER.

children’s favourite type of programme and their competency, Wylie (1999:17,18) commented that,

We cannot tell from this study whether it is the content of TV itself that works against children's development of reading, or the amount of time it absorbs, at the cost of practising other activities which are more helpful to children’s competency development.

Judging by conclusions reached by Wylie (2001a:20) with 10-year-old children in the Wellington Project, the latter explanation seems the more likely. She found that children who viewed television for more than two hours a day on average tended to have lower mathematics and literacy scores than others. She concluded, “Television takes time that could be spent more profitably, providing less of the kind of stimulus or uses of language and symbols which other activities make available to children.” This is consistent with van der Voort’s conclusion (cited in Wylie, 2001b) that children's watching of television for long periods of time before starting to learn to read may displace some of the space which reading could occupy. Wylie (2001a:21) also found a pattern for parental viewing similar to that in the data for 8-year-old children. “How much time children spend watching television reflects how much time their parents spend watching. Large amounts of time spent watching each day by parents (> 3 hours) are also linked with low competency scores for children.”

The TIMSS results generally support Wylie’s findings - until the senior secondary school level. For example, Martin, Mullis, Beaton, Gonzalez and Smith (1997:115), reporting New Zealand 9-year-olds’ 1994 science achievement, concluded that, “In general, beyond one or two hours television viewing per day, the more television fourth graders reported watching, the lower their science achievement.” New Zealand was not the only country where this occurred. The authors noted that, “In more than half the TIMSS countries, the highest science achievement was associated with watching from one to two hours of television per day.” Conversely, “In most countries … students watching more than four hours of television per day had the lowest average science achievement.” The data showed that, of New Zealand 9-year-olds, 19% fell into this latter viewing category – exceeded only by Hungary with 20%. This contrasted with 15% for Australia, 17% for the USA, and 18% for England. It is instructive to compare New Zealand 9-year-olds’ average science achievement scores with the number of hours they watch television and video programmes (Table 2.1 below).

Table 2.1: Comparison of NZ 9-year-olds’ science achievement with hours of television/video viewing

<table>
<thead>
<tr>
<th></th>
<th>&lt; 1 hour</th>
<th>1-2 hours</th>
<th>3-4 hours</th>
<th>&gt; 4 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>% children</td>
<td>Mean achievement</td>
<td>% children</td>
<td>Mean achievement</td>
<td>% children</td>
</tr>
<tr>
<td>36%</td>
<td>538</td>
<td>31%</td>
<td>554</td>
<td>15%</td>
</tr>
</tbody>
</table>

(Martin et al, 1997)

The table clearly shows a marked drop in science achievement from those children who view television/video for 1-2 hours per day (mean score of 554) to those whose viewing exceeded 4 hours per day (mean score of 487). Elley (1992:XIII)\textsuperscript{169} reported the same kind of trend in the area of literacy. “Television viewing occupies much of students’ out-of-school discretionary time. … Those who watch TV often, tend to score at lower levels than those who watch less, as a general rule.”

A similar result was reported by Chamberlain, Chamberlain and Walker (2001:52)\textsuperscript{170} from a 1998 TIMSS follow-up study of 9-year-old children’s science and mathematics achievement, as shown in Table 2.2 below.

\textit{Table 2.2: 1998 Year 5 children’s achievement (mean scores) by time spent viewing television and videos}

<table>
<thead>
<tr>
<th>Level of viewing</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>No viewing</td>
<td>465</td>
<td>510</td>
</tr>
<tr>
<td>4 hr/day or less</td>
<td>495</td>
<td>530</td>
</tr>
<tr>
<td>More than 4 hr/day</td>
<td>445</td>
<td>458</td>
</tr>
</tbody>
</table>

\textit{Note: Mean scores are approximations derived from Chamberlain et al (2001:52)}

It is clear from this table that, in both mathematics and science, children who were high television/video viewers (>4 hours/day) scored significantly lower than moderate or low level television viewers. Although, overall, only 16\% of the Year 5 children tested fell into the high viewing category, it is important to note that,

\textit{In 1998, Māori and Pacific students (at 24\% and 23\% respectively) were twice as likely as their Pakeha/European counterparts, and three times as likely as Asian students, to be heavy television viewers (i.e. watch more than four hours on a school day.)}

(Chamberlain et al, 2001:52)\textsuperscript{171}

By senior secondary school (F6/7, or Year 12/13), Garden (1998)\textsuperscript{172} found that, although watching television/videos was the most commonly reported out-of-school activity, there was no significant correlation between hours spent viewing and mathematics/science literacy (even though 27\% of children reported viewing times of 3 hours or more daily.) It is possible that, by this level, those who tended to view the most television had dropped out of school, or alternatively, did not take part in the 1995 TIMSS study.


Summary of influence of television

The data reported here seem to indicate that television viewing provides one index of family processes that relates to children’s achievement. Television viewing can have potentially positive or negative effects.

- Television viewing has the potential to enhance children’s achievement, particularly their academic achievement, but questionable programmes can influence them in adverse ways. The educational value of television clearly requires greater investigation (Powell et al, 2001)\(^\text{173}\).

- Watching a moderate amount of quality television that is appropriate for a child’s developmental level and associated with family discussion, sharing and enjoyment is related to higher achievement than excessive television viewing. An exception occurs in countries where sub-titles are used frequently. Television can enhance children’s literacy in other languages through sub-titles\(^\text{174}\). Apart from that exception, longer time spent in television watching displaces other child activities and family processes, can detract from sleep and exercise, and can increase young children’s anxiety about the world.

- Previous television watching has almost as much bearing on children’s competency scores as their current watching. Wellington children who watched more than two hours a day on average at ages five and six tended to have lower mathematics and literacy scores that others. At age eight years children who watched one hour or less of television a day, including those who watched no television a day, scored higher, on average, than the higher viewers on many competencies (e.g. perseverance, social skills with peers, communication, mathematics, fine motor skills, reading writing, and logical problem-solving). This pattern of negative association of high television viewing with achievement was evident not only for child viewing but also for children whose parents spent longer per day viewing television.

- For older children (aged 10 years) the New Zealand evidence shows more than three hours television viewing per day to be related to markedly lower achievement in science and mathematics, but a little television viewing on average is related to higher achievement at this age than no television viewing.

- Older children are able to make links between their in-school learning and what they learn on television, especially from quality programmes.

- For all but senior secondary children, viewing television/video programmes for more than 4 hours daily puts children’s achievement at risk. A relatively high proportion of Māori and Pasifika children are in this category. It is not evident from the data, however, what factors contribute to some children’s high levels of viewing, although there is the possibility that they model themselves on parents’ viewing habits. Further research into the role of parents in shaping the viewing environments of children, especially very young children, is also needed (Powell et al, 2001)\(^\text{175}\).

- There is ongoing debate about the use and value of television for children aged 0-5 years. There is some evidence that television watching for short periods that includes

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interactions with parent and whanau can be beneficial for children’s learning. There is also some evidence that television viewing can support the learning of a second language.

The influence of computer use

Wylie (2001b) reviewed a number of studies on the impact of computer use on children’s development and achievement. She found that children seem to spend less time on computers than viewing television (although the time factor becomes less clear when children are playing computer-type games on a television set). Researchers are interested in the contribution of such computer games to increasing violence, and Wylie cited a recent study in the USA which reported that the amount of aggression and violence has increased with each new generation of games. However, this issue appears to be complex and controversial. For example, according to a secondary source (the reliability of which is unknown), Geoffrey Goldstein has argued that most such studies are flawed, and that it is necessary to distinguish between aggressive play and aggressive behaviour. According to O’Hare (2002a), studies have shown that aggressive or violent media tend to increase aggressive play (in the harmless virtual world of video), but do not increase aggressive behaviour, and do not desensitize children because they know it is not real. O’Hare (2002b) also cited other studies which suggest that video game play can have positive effects. Game playing:

a) may help adolescents to master and control their competitive and aggressive feelings,
b) may help adolescents address, to some extent, feelings of inadequacy and incompetence, and
c) has enormous educational and therapeutic potential for children (e.g. health education for adolescents; therapeutic and educational value for young children suffering from cerebral palsy, brain damage and Down’s Syndrome).

Other key findings that Wylie (2001b) noted in the studies she reviewed, and also in the Competent Children Studies (Wylie, 2001a) were:

a) the association between New Zealand children’s literacy performance at age 10 and their access to a home computer was less marked than was the association with television viewing;
b) overseas studies indicate that family computer ownership appears to contribute to children’s reading comprehension (and, to a lesser extent, vocabulary) rather more than specific use of a computer;

177 Wylie cites a 1999 Waikato study of 383 children by Lealand which revealed that 77% reported watching television daily, compared with 31% playing a computer or video game, and 9% using a computer.
178 Goldstein is a US psychologist who specializes in violent behaviour and is the author of Why we watch: The attractions of violent entertainment.
180 O’Hare, N. (2002a) The games of our lives. NZ Listener, 26 October – 1 November, 16-23.
181 O’Hare, N. (2002b) Surfing the beta wave: Why video games are good for your health. NZ Listener, 26 October – 1 November, 38.
c) children have made gains from involvement in computer-based, after-school clubs, a
finding consistent with early data from the New Zealand *Computers in Home* pilot
project;
d) there was no association between computer use to play games (educational or
otherwise) and children’s literacy scores at age 10;
e) moderate game-playing has little negative influence on children’s social relations or
skills, and can actually generate more social interaction;
f) research on the relationship of computer use and children’s development is only
beginning.

Further data exploring the impact of computer use on New Zealand children’s achievement
is found in Chamberlain et al’s (2001)\(^{183}\) analysis of TIMSS results in mathematics and science
for New Zealand Year 5 children. They noted that in 1998 two-thirds of the Year 5 children
involved in the study reported that they had a computer in their home, although there was a
spread across ethnic groups, as indicated in Table 2.3.

*Table 2.3: Computers in the homes of Year 5 children by ethnic group 1998 (% children)*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>76%</td>
</tr>
<tr>
<td>Pakeha/European</td>
<td>73%</td>
</tr>
<tr>
<td>Māori</td>
<td>54%</td>
</tr>
<tr>
<td>Pacific</td>
<td>45%</td>
</tr>
</tbody>
</table>

These figures represent an increase since 1994 of between 10% and 14%, and it seems likely
that currently, they would be proportionately greater again.

Chamberlain et al (2001) then compared the children’s mean mathematics and science
achievement with home computer availability, as shown in Table 2.4 below.

*Table 2.4: Year 5 children’s mean scores compared with a computer in the home (1998)*

<table>
<thead>
<tr>
<th>Computer in home?</th>
<th>% of children</th>
<th>Mean scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>66%</td>
<td>Mathematics</td>
</tr>
<tr>
<td>No</td>
<td>34%</td>
<td>Mathematics</td>
</tr>
</tbody>
</table>

Adapted from Chamberlain et al (2001:49)\(^{184}\)

The table shows that children with computers in their home scored well above those without
computers, in both mathematics and science. These figures seem to confirm one of the

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findings mentioned by Wylie (2001b)\textsuperscript{185}, namely that family computer ownership seems to contribute to, or in some way be associated with, children’s scholastic achievement.

\textbf{SUMMARY}

Children’s learning is influenced by the communities in which they live, and these communities provide enormous potential for learning based on the real world experiences of children.

Children’s gender identity is influenced significantly by the surrounding society, and their gender identity in turn influences children’s perceptions of different school subjects, their achievement in those subjects, and also their behaviour towards others. The evidence shows that negative gendered patterns can be changed, but deficit explanations are unhelpful in the process.

Overseas research indicates that neighbourhood deprivation has an adverse impact on young children (up to 5 years) and to some extent on children in the 10 to 18 year old group – although family effects are much greater.

Cultural communities can provide wider support and social capital to families and children. Active parental support of children, which has positive effects for children’s achievement, is partly dependent on a sense of living in a supportive community. This is especially true for Māori parents, and for Pasifika parents for whom the church plays a centrally supportive role. Active support is associated with parents perceiving themselves as partners in their children’s learning processes.

ECE centres are part of the community of most young New Zealand children. Children’s attendance at ECE centres has been found to have a powerful and continuing effect (for at least another 5 years) on children’s achievement. One of the factors involved in this positive effect is interaction with children and adults beyond the immediate family.

Peer influences are complex and can operate in both positive and negative ways. In some instances the peer group is the major source of learning and socialization. Ambient positive influences include the provision of:

\begin{enumerate}
  \item positive role models and supportive social contexts for learning,
  \item ‘safety nets’ for intellectual and emotional risk-taking,
  \item understanding to enable children to cope, communicate and otherwise realise their potential as learners and people, and
  \item settings for sharing educational resources and cultural capital.
\end{enumerate}

\textsuperscript{185} Wylie, C. (2001b). \textit{Making Sense: Relations between literacy, television and computer use and other uses of children's time}. Wellington: NZCER.
Ambient negative peer influences that can create barriers to learning include:

a) the playing out of community racist and gendered attitudes – with their attendant alienation and exclusion of minority group children,

b) relatively powerful negative role models, and

c) pressures to conform to mediocre achievement norms.

Rapid changes in technology (computing, email, television, cellphones) are pervasive and provide children with expanded access to global influences. The media can also have a considerable influence on children’s achievement, in diverse ways. Popular culture can provide children with ‘shared scripts’ and experiences of considerable personal interest that serve as valuable springboards for literacy and other learning. Television can have both a direct and indirect impact on children’s learning. For example, it can stimulate children’s curiosity, thinking and creative abilities, particularly if children discuss their viewing with understanding adults present. However, excessive viewing of television (that is, 3-4 hours or more per day) is associated with significantly lower achievement by primary school aged children. A relatively high proportion of Māori and Pasifika children fall into the excessive-viewing category.

Computers appear to have considerable potential to support children’s educational development, but this potential is still to be realised, and further investigation into the effects of computer games on children is required. There seems to be a link between computer availability in the home and children’s achievement; children with computers at home achieve more highly than children who live in homes without computers, but the nature of this link is unclear at present.
Chapter 3:
Cultural communities, ethnicity and education

INTRODUCTION

Extensive national and international data link achievement with ethnicity, giving rise to concern regarding the apparent associations between children’s ethnicity and their development, early childhood experiences and school learning. These achievement patterns reflect interactions between educational agencies and cultural and ethnic groups within the wider society. Such interactions are influenced not only by the understandings culturally diverse children bring to their formal education, but also by multiple factors within early childhood centres and schools - for example, through the languages of instruction, the heritages and cultural positionings reflected in the curriculum, the extent to which pedagogy is responsive to diversity, and the ethnicities, heritages, attitudes and cultural responsiveness of the educators.

There is serious discussion and contention in the research literature around three views held about the links between ethnicity and education outcomes. The first view is that ethnicity of itself may influence children’s achievement, a view that tends to carry a deficit presumption about some ethnic and more particularly, minority groups. The second view is that variations in group-performance by ethnicity reflect different resources available to some ethnic groups by income, socio-economic status and other associated family conditions and processes (such as poor health, lack of resources, excessive television viewing and dysfunctional family life). The third view is that cultural differences and cultural matches/mismatches between schools and families contribute to differences in achievement for different cultural and ethnic groups. This chapter considers: (i) the nature of ethnicity; (ii) associations between ethnicity and achievement, (iii) the complexity of interrelationships between ethnicity and other factors, and (iv) the ways in which cultural matches and mismatches between formal education and children’s ethnic and cultural heritages shape different achievement patterns for different groups. The view taken in this synthesis on the basis of the available evidence is that current concerns about the achievement of many Māori and Pasifika children are well-founded. Addressing these concerns effectively requires, firstly, identifying the multiple interacting factors and, secondly, action guided by empowerment theory, not deficit theory.
The meaning of ethnicity

‘Ethnicity’ is complex and dynamic in nature, and is usually self-defined. It generally denotes a group of people with a distinctive and shared cultural, ancestral and physical heritage which provides a sense of group identity, belongingness or social connectedness (Statistics NZ, 1999a186; Adams, Clark, Codd, O’Neill, Openshaw & Waitere-Ang, 2000187; Hughes, Lauder, Dupuis, Watson & Strathdee, 1996188; Ministry of Social Policy, 2001189; Smith, 1999190). The cultural traditions are those from which families draw their values, beliefs and practices; some families are more connected to these than others.

Mixed ethnicity

Some families are connected to more than one ethnic group, and children of ‘mixed’ marriages may draw upon two cultural traditions, although they may identify more strongly with one than the other. The 1996 New Zealand census data indicated that approximately 46% of Māori adults in New Zealand cohabited with, or had married non-Māori. This may help to explain the fact that in the 2001 census (Statistics New Zealand, 2001b)191 18% of children identified with more than one ethnic group, compared with 6% of adults.192 From an Australian perspective, Luke and Luke (1999)193 contend that interracial families are sites for the development and articulation of ‘hybrid’ identity. Mixed ethnicity and its possible links to children’s achievement seems to be an important area that has been largely overlooked by researchers in New Zealand.

Broad ethnic groupings obscure heterogeneity

As noted earlier, caution is required when considering the findings of research, because the usual ethnic groupings of ‘Māori’ and ‘Pasifika’ (and probably Asian) children in New Zealand research studies obscure the fact that, while there are commonalities within these broad groupings, they are not homogeneous groups. There are diverse ethnic groups within Māoridom (Adams, Clark, Codd, O’Neill, Openshaw, & Waitere-Ang, 2000)194 and Pasifika people (Coxon, Ana, Mara, Wende-Samu & Finau, 2002195, 196). Pasifika children, for example, comprise Samoan (Samoan people make up half the Pasifika population in New Zealand), Cook Islanders, Tongan, Niuean, Fijian and Tokelauan (Ministry of Pacific Affairs, 2002)197. It should also be noted that over half (58%) of Pasifika children under 5 years of age, 21% identified with more than one ethnic group.

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192 With children under 5 years of age, 21% identified with more than one ethnic group.
people living in New Zealand in 2001 were born here; in the case of Cook Islands people and Niueans the proportion is 70%.

Coxon et al. (2002:10,11) described the inherent cultural diversities among Pasifika peoples in New Zealand. These peoples comprise a multi-ethnic group, whose members do not share the same indigenous language or culture. There are also intra-cultural diversities, including those differences which are associated with having very youthful populations. Some groups incorporate traditional diversities and differences based upon village or islands heritages and, in such cases, identification as a member of a particular island (e.g. Pukapuka) takes precedence over affiliations to a national birthplace (in this case, the Cook Islands).

Coxon et al. (2002) noted that the emergence of a visible middle class amongst some Pasifika communities means the general socio-economic patterns that have united Pasifika peoples in the past are shifting to a degree. They concluded that these diversities (and others) affect and reflect the nature of the interactions between groups of Pasifika learners and educational institutions, and they pointed out that there is the potential for these interactions to be infused with complexities. Cross-generational diversity within Pasifika and other peoples (for example, stemming from younger family members being born in New Zealand) also contributes to such complexities.

**Ethnic diversity**

Clearly, New Zealand now has a very diverse ethnic population, with the ethnic diversity of the youth population greater than that of the rest of the New Zealand population (Statistics NZ, 1999a). The ethnic composition of children in New Zealand schools in 2001 is shown in Table 3.1 below. Given the heterogeneity of Māori and Pasifika people, and acknowledging that ‘Asian’ peoples in New Zealand are also particularly heterogeneous by cultural heritage and recency of immigration, the diversity is even greater than Table 3.1 shows.

**Table 3.1: Ethnic composition in New Zealand schools in 2001**

<table>
<thead>
<tr>
<th>Pakeha/European</th>
<th>Māori</th>
<th>Pasifika</th>
<th>Asian</th>
<th>Other NE*</th>
<th>Foreign fee-paying</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.0%</td>
<td>20.4%</td>
<td>8.0%</td>
<td>5.9%</td>
<td>1.2%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

* Other non-European: Arabic, Middle Eastern, African

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199 Statistics NZ. (1999a). Children: New Zealand Now - 1998 Edition, Wellington: Statistics New Zealand. The same data indicate that the ethnic diversity of the youth population has been increasing in recent years. Over the past three censuses the proportion of young Europeans has fallen from 77.2% to 66.8%, while the proportion of Māori, Pacific and Asian young people has increased.
ETHNICITY AND ACHIEVEMENT

Most outcome studies show that there is marked variation within Māori and within Pasifika achievement, with some of these children achieving very highly, on average. However, overall both groups achieve significantly below the overall New Zealand mean for many curricula areas, and in many cases below international mean achievement levels. There are some important exceptions. For example, Māori children who stayed on at school and participated in the TIMSS Year 12 study performed above the international mean score in science. Appendix A provides some examples of associations of New Zealand children’s achievement and their ethnicity drawn from data from the following studies: (i) TIMSS (Third International Mathematics and Science Study); (ii) NEMP (National Education Monitoring Project), (iii) the SEA (School Entry Assessment), (iv) IEA (International Association for the Evaluation of Educational Achievement) on reading achievement, and (v) PISA (Programme for International Student Assessment).

In New Zealand particular attention has been paid, especially in recent years, to the achievement of Māori and Pasifika children, and how this may or may not be related to the cultures of their families and communities. As a result, there is a growing body of research data on ‘Māori’ and ‘Pasifika’ children’s achievement. At present, research data on specific ethnic groups within these two broad socially constructed categories which would inform this synthesis is limited. Therefore, in order to provide useful information in areas of particular concern, this synthesis draws on some of the relevant data that is currently available, while also recognising its limitations.

Comparison of Māori, Pasifika and ‘other’ children’s achievement as ‘measured’ by international and national assessment studies

The picture of achievement taken over the five sets of data shown in Appendix A (TIMSS, NEMP, SEA, IEA and PISA), is remarkably consistent. That pattern is as follows: the achievement of the three groups Pakeha/European children, Asian children, and ‘Other’ non-European children is at a similar level and, for the most part, is significantly higher than that of Māori and Pasifika children. There are exceptions in the NEMP assessments in those cases where tasks developed to ‘measure’ particular knowledge and skills used Māori contexts (for example, a marae context in social studies, a kai moana context in science). On these tasks Māori and Pasifika children performed significantly better than other children. Māori children’s achievement is similar to that of Pasifika children in most cases. Where there is a difference between these two ethnic groupings, it is the Māori children who demonstrate higher achievement, at least through primary and middle schooling. The 2001 data show this pattern changes at senior secondary school, with a significantly greater proportion of Māori than Pasifika children leaving schooling early (63% of Māori are retained to age 16 compared to 84% of Pasifika children). This change is also evident in the number of children obtaining Year 12 qualifications. Recent Ministry of Education data\(^\text{200}\), shown in Figure 3.1 below, reveals that only 41% of Māori leavers in 2001 had Sixth Form Certificate (or equivalent) or higher qualifications, compared with 55% of Pasifika leavers. This retention pattern is of particularly concern for Māori children in schooling.

Reporting on the differences between the literacy achievement of Māori and Pasifika children and other children at junior school level, McNaughton (2002:83) pointed out that earlier underachievement can have a serious adverse effect on children’s continued learning.

*After several years of instruction, significant and substantial differences in literacy achievement have appeared between Māori and Pacific Islands children in schools serving economically poorer communities and other New Zealand children. The differences are particularly marked in reading comprehension and writing for a variety of purposes. The beginnings of these differences can be seen in the profiles for the five to six-year-old children described here, and the picture, like similar patterns elsewhere, is one of low levels of progress constraining further progress.*

The ongoing constraints of low levels of progress at junior school appear to be particularly marked for Māori children. Discussing this issue, Moewaka Barnes (2001) noted that at senior secondary school level in 1995, retention rates were closely related to achievement in education. The data showed that non-Māori children were almost two times more likely to reach the seventh form than Māori children, and Māori who left school with fewer qualifications than non-Māori were less likely to continue with further education, particularly degree and diploma courses. Māori were half as likely to go on to tertiary level and those who did so were more likely to undertake skills training or certificate courses than diploma or degree programmes. However, recent data show an increase in Māori going on to further training and tertiary with a particularly marked rise in enrolments in Wananga (a four-fold increase between 2000 and 2001).

**Ethnicity and social achievement**

To investigate achievement in its broader sense, New Zealand data on children’s social achievement and ethnicity must be considered. The Competent Children longitudinal study...
carried out in the Wellington region (Wylie, Thompson & Kendricks, 1996; Wylie & Thompson, 1998; Wylie, Thompson & Lythe, 1999; Wylie, Thompson & Lythe, 2001), although not drawing on a sample that was representative nationally (including socio-economically), provided useful information about social achievement and ethnicity. In summary, the data from this study indicated that there were significant differences favouring Pakeha/European children over Māori/Pasifika children with respect to communication and social skills with adults at ages 5 and 8 years, and communication-only at age 6 years. However by age 10 years, significant differences in social achievement were no longer evident.

Limitations of data relating to ethnicity and achievement

Data such as that above, it must be stressed, are limited in what they reveal, for two reasons. Firstly, as indicated, only a few of the assessment contexts appear to have been culturally appropriate for Māori and Pasifika children. The assessment data may therefore underestimate the achievement of these children. Secondly, the data obscure the fact that there was wide variation in the scores of children from every ethnic group. As Davies (2001) noted, with respect to a summary of School Entry Assessment data for the years 1997-2000, the results do not disclose that children in each ethnic category actually achieved across the range of scores. This issue was addressed by Gilmore (1998: who graphed the degrees of achievement of children in the various ethnic groups on the three School Entry Assessment instruments. For example, relevant data on Checkout/Rapua (number assessment) are shown in Table 3.2.

### Table 3.2: Distribution by ethnicity of scores on SEA Checkout/Rapua (1998)

<table>
<thead>
<tr>
<th></th>
<th>Pakeha/Asian</th>
<th>Māori</th>
<th>Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert – highest score</td>
<td>25%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Competent – medium</td>
<td>65%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Novice – lowest score</td>
<td>10%</td>
<td>32%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Percentages are approximations drawn from Gilmore’s (1998) data.

This table reveals that some Māori and Pasifika children were achieving at the highest level, and some Pakeha/Asian children were achieving at the lowest level on this particular assessment. Gilmore concluded that, given the variation in the competence of the children, “…schools should be cautious in making assumptions based on ethnic grouping.” To illustrate further, at the other end of the school system, the 1995 TIMSS achievement data on mathematics for Year 12/13 children (Garden, 1998) is set out in Table 3.3 below.

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Table 3.3: Distribution by ethnicity of TIMSS scores for Year 12/13 – range of scores (1995)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Range of Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakeha/European</td>
<td>275-850</td>
</tr>
<tr>
<td>Māori</td>
<td>240-750</td>
</tr>
<tr>
<td>Pacific</td>
<td>250-650</td>
</tr>
<tr>
<td>Asian</td>
<td>300-750</td>
</tr>
</tbody>
</table>

As with the SEA results, the data in Table 3.3 indicate that a number of Māori and Pasifika children were achieving relatively high results, while a number of Pakeha/European and Asian children were achieving relatively low results. A similar pattern of results is apparent in the TIMSS 1998 mathematics and science data for Year 8/9 New Zealand children (see Chamberlain & Walker, 2001:42,62). In other words, national results based on total mean scores for each ethnic group mask the achievement of individuals within each ethnic category.

Data detailing the achievement of children in specific ethnic groups within the broad groupings of Māori and Pasifika have not been available for this synthesis. Given the diversity of Māori and Pasifika peoples, it is possible that there are achievement differences between children in various ethnic groups within these two umbrella collectives that are not yet adequately explored and reported.

THE COMPLEXITY OF LINKS BETWEEN ETHNICITY, FAMILY RESOURCES AND ACHIEVEMENT

The complex connections between ethnicity, socio-economic status and achievement are explored in a range of New Zealand and international studies. For example, Phillips, McNaughton and McDonald (2001:21) noted that, “…Māori and Pacific Islands children in low-decile schools are disproportionately represented in the under-achieving group.” This is consistent with a finding reported by Snow et al (1998) in the USA that low SES children are at risk in low SES schools. Other New Zealand researchers have concluded that ethnicity may not be significant for some achievement outcomes when other factors are considered. For instance, based on the data from the longitudinal Competent Children Study in Wellington, Wylie (2001) concluded that,

While we found some differences in mathematics and literacy scores for children who came from different ethnic groups, most of these differences were reduced or were no longer significant once we took family income and maternal qualification into account. In other words, it is the resources available to children which matter to their progress, not their culture or ethnicity.

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Hohepa (1997)\textsuperscript{214} has also argued that family resources play a significant role in Māori children’s educational achievement. In New Zealand the burden is greater for Māori and Pasifika families, particularly low income families, because they live in, and have to financially support, two sets of cultures – their own ethnic culture and the wider New Zealand societal culture, especially as manifested in the school (Easting & Fleming, 1994)\textsuperscript{215}.

Barker and Maloney (2000:36)\textsuperscript{216}, in their final regression results on the cognitive achievement of children in the Christchurch Health and Development Study, reported that Māori and Pasifika children performed relatively well. “In fact, holding other factors constant, the average test performance of Māori or Pacific Island children is higher than that of other children.”

Other researchers who have emphasized the significant role of socio-economic status in educational achievement include Chapple, Jeffries and Walker (1997)\textsuperscript{217}, who considered data on the participation and performance of Māori children. They concluded that contentions of a widening gap were ‘a myth’ and that socio-economic status mattered significantly for both Māori and non-Māori school performance. They noted that there was substantial diversity amongst the Māori community in terms of educational performance, and argued that there was ‘little strong evidence’ that the participation and performance gap between Māori and non-Māori was widening across the dimensions surveyed in their study. However, they also acknowledged that, in some studies, ethnicity appeared to have had an impact on performance independent of individual socio-economic status. In their view (Chapple et al, 1997:125), a possible explanation for this finding was that

\textit{...being Māori is a proxy for other family resource factors such as cultural capital, parental inputs of time, income, and other physical assets like home ownership which yield an implicit income for which socio-economic status is a poor proxy. Other possibilities include (singly or through an interaction) supply side barriers in schools, differences in Māori tastes and preferences, and peer pressures.}


\textsuperscript{216} Barker, G. & Maloney, T. (2000). Final Regression Results on the Cognitive Achievement of Children in the Christchurch Health and Development Study with Corrections for Attrition from this Longitudinal Study. Treasury Working Paper 00/6. The authors acknowledged, however, that the proportion of Māori and Pacific children in the study was lower than that found in the New Zealand child population, and that there was a higher attrition rate of Māori and Pacific children than others in the study – both of which may have had a bearing on the achievement results.

Chapple et al (1997) suggested that there was strong evidence that Māori on average perform worse because they do not have the resources to succeed. These same authors also argued that there was substantial evidence against schools as an independent primary cause of the performance gap between Māori and non-Māori, and that the empirical evidence in favour of this proposition was weak. They acknowledged, however, that

\[\ldots\] the notion that there is an interactive effect between school barriers and secondary cultural characteristics of Māori as an involuntary minority is a substantially stronger argument logically and empirically than a simple school barriers argument. How much of the remaining gap this interaction can account for is an open question. [121]

Importantly, the writers pointed out that the relative causes of disparities were likely to differ at different points of the education system, and noted that the longer the child was in the education system, the stronger would be the influence of past performance, rather than current family resources or current school ‘compensatory’ interventions. They concluded (Chapple et al, 1997:127),

\[\ldots\] we do not believe that the research which we have critically surveyed supports a unicausal theory of the performance and participation gap, despite our primary emphasis on multiple family resource factors. The lack of one ‘smoking gun’ is not surprising. One conclusion of our survey that we would wish to strongly emphasise is the considerable diversity in Māori society: unicausal explanations are hardly possible amidst such substantial diversity.

Commenting on Māori/Pakeha achievement differences, Nechyba et al (1999) reported that some of the most ‘insightful’ New Zealand research (namely, the Christchurch Health and Development Study) was increasingly confirming that these differences declined or disappeared once other background variables were controlled for. Initially, taking a cultural domination stance, they (Nechyba et al, 1999:105) noted that,

\[\ldots\]there is a strong sense among certain groups in New Zealand that a great part of the explanation for the relatively poorer performance of Māori and Pacific Island children lies in the fact that they are members of minority cultures lost in institutions shaped primarily by Pakeha needs.

However, Nechyba et al (1999) suggested that recent research in New Zealand seemed to indicate that this point ‘may have been overstated’. They pointed out that evidence from the Christchurch Health and Development Study consistently suggested that group differences in child outcomes can be fully explained by variables other than culture (at least for this Christchurch sample). The authors acknowledged that historical circumstances have yielded a situation in which Māori were, in general, less economically privileged than the average New Zealander, and also that Māori have argued that it is precisely because of the decline in the Māori culture and language that Māori children are ‘at-risk’. Nechyba et al (1999:108) also acknowledged that,

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If the reclamation of Māori culture succeeds in supplanting elements of a culture of poverty and lowered expectations with norms conducive to academic and scholastic achievement, the policy of reviving Māori language and culture in part through the schools may indeed lead to improved life success for Māori children. Continued research on the progress of Māori children is therefore important not only to New Zealand but also to broader international insights regarding the role of culture and language in contributing to child outcomes.

Role of culture and language in New Zealand children’s achievement

Bishop and Berryman’s (2002) study is an example of research focused on the role of culture and language in Māori children’s outcomes, rather than socio-economic factors. Their research (which is ongoing) is exploring the achievement of Māori children in terms of issues stemming from cultural differences and matches/mismatches between schools and families. They are investigating the influences of these factors on Māori children’s achievement and are particularly interested in the ways in which these influences are experienced by Māori children in the classroom.

Bishop and Berryman (2002:2) point out that historically New Zealand schools were organised monoculturally, and Māori children often found that,

…their cultural knowledge was unaccepted or belittled, their intentions and motivations misinterpreted, and their language and names mispronounced.

The researchers consider that this constituted a systematic assault on the children’s identity and well-being as Māori people, and resulted in confusion which was often manifested as frustration, inadequacy and failure at school. It was, in the authors’ (Bishop & Berryman, 2002:2) view,

…a classic example of the results of … epistemological racism, that is, racism that is embedded in the very fundamental operating principles of the dominant culture.

Bishop and Berryman (2002) note that a wide range of deficit theorizing still exists in New Zealand (for example, that Māori are genetically pre-disposed to psychiatric disorders) and that these ideas continue to have a major negative effect on the successful participation of Māori people in mainstream society in general and education in particular. These deficit theories collectively blame the victims by projecting a ‘pathology’ perspective, that is, by assuming that the problem stems from lack of inherent ability, lack of cultural appropriateness or limited resources.

The researchers (Bishop and Berryman, 2002) suggest that the solutions to marginalisation do not lie in the culture that marginalizes. Rather they believe that solutions to structural issues of power and control involving initiation, benefits, representation, legitimisation and accountability can be addressed in education by reference to Māori culture. Kaupapa Māori theory, which builds on experiences in educational settings and research, focuses on the centrality of an analysis of power relations and offers an alternative approach to interpersonal and group relationships and interactions than that commonly promoted.


222 This in turn confused their ‘well-meaning but poorly trained teachers’, who were doing their best to treat all children the same. Bishop, R. & Berryman, M. (2002). The Experiences of Indigenous Māori Students in New Zealand Classrooms: Research in Progress. University of Waikato, Hamilton, New Zealand.
Bishop and Berryman (2002) describe this as an approach that is based on Māori aspirations and Treaty of Waitangi guarantees for the revitalisation of Māori language, culture and identity as part of creating new power relationships based on self-determination. They note that in Kaupapa Māori contexts the interrelationships and interaction patterns that develop draw from Māori cultural aspirations and sense making processes (ways of knowing) rather than on those imposed by another culture. In short, they advocate an empowerment model instead of a deficit model. Although the numbers of Māori in Kaupapa Māori education settings at senior secondary level are relatively small, there is emerging evidence of higher achievement for Māori children in Kura Kaupapa Māori. In the Ministry of Education’s School Sector Reports, Māori achievement at Years 11 and 12 has been higher for Māori in Wharekura Kaupapa Māori during 2000 and 2001 than for Māori in bilingual units, or for Māori in mainstream English-medium secondary schools.

The scoping exercise of Bishop and Berryman’s research involved a cross-section of New Zealand Māori children at junior secondary school level (Years 9 and 10: ages 13 - 14 years), within a range of schooling types including state secondary schools, Paerangi boarding schools and wharekura (Māori-medium secondary schools). Both quantitative and qualitative data were gathered. Experiences surrounding the transition to secondary schools, that is, from year 8 to year 9, were also explored. The research focused on children’s achievement and explored the relative effects of various factors on achievement, as understood by the children themselves. Teacher, parent/caregiver and whanau perspectives were also sought and incorporated.

The first major finding of the scoping exercise was that the research participants were well able to articulate, conceptualise and theorise their experiences.

Secondly, marked differences were identified between the descriptions and explanations of the lived realities provided by the children involved, their parents and especially by their teachers. The teachers spoke of the children’s deficiencies as being the major barriers to their progress and achievement. In relation to this, the researchers also noted that the strong preponderance among teachers of theories that pathologise Māori children’s lived experiences limited teachers’ interactions with Māori children in culturally and academically engaging ways. This finding of strong deficit theorising about Māori achievement by teachers is consistent with what an ERO (1995) survey found 272 schools identified as barriers to children’s learning. The schools predominantly identified children and their families as the main barrier to learning. At the extreme end of the deficit theorising continuum in Bishop and Berryman’s (2002) research there were examples of overt and covert racism where Māori children experienced exclusion on the basis of their racial characteristics. Parents and children identified a combination of structural and cultural relationship barriers that limited their satisfactory progress and achievement. The teachers in the study, as a group, were very

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uncertain as to where solutions might lie. In contrast, the children, and their parents to a lesser degree, were able to point to a number of very positive and attainable solutions to their problems.

The third major finding was that many structural issues limited the achievement of Māori children in schools, and these needed to be addressed prior to, or in conjunction with, classroom changes. These included:

- problems associated with the transition from primary to secondary school,
- barriers to positive home/school relationships; for instance, the prior and current experiences of many people involved in the parenting of Māori children (for example, past schooling experiences, unemployment, solo parenting, nutrition) limit their abilities to interact in a positive manner with teachers and the schools, and teachers are unaware of the need to deal with this issue,
- school management issues such as the preponderance and pervasiveness of bells and timetables overwhelm many Māori children.

Other structural issues identified included holding children back, expulsions/suspensions, streaming and banding; disproportionate numbers of Māori children ended up in the lower streams or bands, or being classified as ‘special needs’. It was also obvious that timetabling favoured the interests, skills and needs of majority non-Māori children.

The study also identified a number of classroom factors that limit the achievement of Māori children but these are more appropriately dealt with in other syntheses focused on schooling factors. The key factor relevant to this synthesis involved barriers to parental engagement.

As noted, Bishop and Berryman’s (2002) project is in progress and additional findings, including those relating to achievement, will be available in the research report to be published by the Ministry of Education. Emerging findings show markedly higher achievement patterns for Māori after their teachers have participated in the Te Kotahitanga Professional Development Programme.

Lack of Māori participation and poor outcomes for Māori children have also been considered by Moewaka Barnes (2001). She cited recent New Zealand studies which identified a lack of involvement in decision-making, mainstream dominance, and unequal power relationships in the education system, as some of the reasons for these difficulties, but pointed out that the Community Action on Youth and Drugs Project used an effective approach in bringing about and supporting change for young people. This approach saw community organisations working across sectors, including schools, communities and whanau, and Moewaka Barnes concluded that greater whanau and community participation was important in addressing a range of disparities for Māori, including those in education and health. Whanau provides mutual support and can also provide the cohesion and stability to support other social structures such as hapu and iwi. These characteristics are consistent with those identified by Rokx (1997), discussed previously in Chapter 2.

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Moewaka Barnes (2001) also cited a recent study by Stewart which found that the Māori parent community had high aspirations for the future of their children, but often felt excluded by school practices. The role of the Māori parent community was described as being mainly ‘spectators’ and the co-operation appeared to be just ‘casual occurrences’. Another recent study (Edwards, 2001, cited in Moewaka Barnes 2001) of young Māori in South Auckland found that schools played an important role in defining children’s perceptions of themselves and their cultures. The study suggested that parental exclusion was likely to be transmitted to their children, and that the school culture and the school approach to diversity would play a role in how pupils saw themselves.

On the basis of a series of studies in New Zealand classrooms in which children’s experience was linked to learning outcomes, Alton-Lee and Nuthall (1992)\(^{230}\) concluded that the ways in which ethnicity influences children’s engagement with curriculum, teachers and peers is inextricably inter-linked to other aspects of both the children’s identity, and community influences. Alton-Lee and Nuthall’s (1992) perspective on the child’s culture was that it needs to be understood as arising out of the intersection of the individual’s gender, race, family’s social class and other significant cultural group membership. Accordingly, they attempted to make transparent the complexity of cultural positionings for individual children:

*For Māori students cultural positioning may be different within Pakeha perspectives of social class and Māori perspectives on mana (reputation, status and power) conferred by whakapapa (ancestry and lineage), iwi (tribe), hapu (sub-tribe) and whanau (extended family grouping). The cultural perspectives on appropriate female and male roles, behaviour, aspirations and social interaction within a working class family may produce markedly different cultural positionings for working class girls and working class boys. [9]*

Alton-Lee and Nuthall (1992) provided examples of the complex ways in which cultural positionings of teacher and children were played out through the process of curriculum engagement. Chapter 2 of this synthesis provides examples from this research programme\(^{231}\) of the ways in which a Pakeha teacher’s unintended ‘othering’ of Māori children as not part of the collective ‘we, Europeans’ impacted on a Māori boy and his Pakeha peers. The complexity of different cultural positionings by gender and ethnicity, for example, meant that for Māori boys in these studies, the experience of racism came from their friends (all boys together on some occasions; ‘us’ Pakeha and ‘you’ Māori - not one of ‘us’, on other occasions) rather than from their lesser-known peers. The teacher’s inadvertent ‘othering’ not only undermined and contradicted the purposes of the social studies unit, which was to enhance appreciation of cultural difference, but also provided a catalyst that supported peer racism.

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Overseas findings relating to culture, language and achievement

The complexity of classroom interactions and cultural perspectives were the subject of a landmark review of international research by Cummins (2001)\textsuperscript{232}. Cummins explained that, in social conditions of unequal power relations between groups, classroom interactions are never neutral with respect to the messages communicated to children about the value of their language, culture, intellect, and imagination. Reflecting on current interventions to boost achievement, he pointed out that these are increasingly seen by policymakers as an exercise of instructional technique that can be scripted and controlled in scientifically supported ways. He suggested, however, that a focus on human relationships assigns at least equal weight to the ways in which identities are negotiated in the interactions between educators and children. He noted that the groups that experience the most disproportionate school failure in North America and elsewhere have been on the receiving end of a pattern of devaluation of identity for generations, in both schools and society, and that consequently, any serious attempt to reverse underachievement must challenge both the devaluation of identity that these children have historically experienced and the societal power structure that perpetuates this pattern. In Cummins’ (2001:652)\textsuperscript{233} words,

\ldots students in subordinated groups are empowered or disabled educationally as a direct result of their interactions with educators in the schools. These interactions among educators, students, and communities are never neutral; in varying degrees, they either reinforce or challenge coercive relations of power in the wider society. Traditionally, schools have reflected the societal power structure and constricted students’ academic and intellectual possibilities in much the same way that their communities have been devalued and excluded in the wider society. The influence of the societal power structure is mediated by the way educators define their roles in relation to students’ language and culture, community participation, pedagogy, and assessment.

Cummins (2001)\textsuperscript{234} argued that, rather than the more typical initiatives that focus on remediation of presumed child deficits (and monitoring compliance of these initiatives through top-down, mandated, highstakes standardized tests), what is required is curriculum and teaching focused on empowerment, understood as the collaborative creation of power. The cultural, linguistic, imaginative, and intellectual resources that children bring to school, resources that reflect the funds of knowledge abundantly present in children’s communities, must be acknowledged.

Cummins (2001) also outlined the pernicious role that assessment can play in both legitimizing deficit views and ‘disabling’ minority children. In his view, assessment has been used to locate the ‘problem’ within the minority children. In other words, assessment can support a deficit model. This in turn can deny children their culture. Cummins (2001:654) put it this way:

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\end{quote}


When we choose to frame discourse about underachievement primarily in terms of children’s
deficits in some area of psychological or linguistic functioning, we expel culture, language,
identity, intellect, and imagination from our image of the child, and we eliminate these
constructs from our image of the effective teacher of these children, and from policies that
might guide instruction.

Cummins (2001) concluded that considerable research findings across countries suggest that,
for dominated minorities, the extent to which children’s language and culture are
incorporated into the school program constitutes a significant predictor of academic success,
and that children from dominated communities will be empowered in the school context to
the extent that the communities themselves are empowered through their interactions with
the school. He argued that when educators involve minority parents as partners in their
children’s education, parents appear to develop a sense of efficacy that communicates itself
to children, with positive academic consequences.

THE NEED FOR FURTHER NEW ZEALAND RESEARCH

Given the number of significant studies in New Zealand and beyond (for example, Snow et
Academy Press.}) which describe the complexities surrounding ethnicity and achievement, and the
range of other factors which are strongly associated with children’s achievement, there is an
obvious need to explore these ‘other factors’ and their inter-relationships in more depth, so
that efforts to ensure high achievement for all New Zealand children, regardless of their
ethnic backgrounds, can be more fully informed.

It is evident that different ethnic groups hold particular values and have particular social
practices. From the research findings considered in this chapter it is clear that these
differences need to be identified, understood and accommodated if a measure of cultural
continuity is to be achieved between what children experience in the diverse cultural settings
of their homes and communities in New Zealand, and what they experience in the early
childhood and school settings. A study which investigated problems contributing to Tongan
Achievement.* New Zealand Journal of Educational Studies, 33(1), 23-38.}, who explored an aspect of
Tongan culture which could be considered the backbone of the whole cultural framework,
namely fetokoni’aki (helping one another). Inherent in this is group work. This particular
cultural practice did not necessarily aid the education of Tongan children; if they grouped
together and one of the group displayed negative behaviour in class, then the rest would tend
to copy that child. As Fusitu’a (1998:29) explained,

\begin{quote}
The Tongan way is group work, the women weave together, make tapa cloth together, the
men work in the plantations together, so when they come here they do the same things. Even
the kids ... when they’re in their groups a kind of pattern occurs where, if one boy steals for
fun the rest will do it, even the ones who had not stolen before. If one in the group wants to
skip school the rest will also do it ... if they’re in the classroom and one doesn’t like what’s
happening and becomes disruptive, the others will follow accordingly in support of his
actions. This is bad grouping - fakatamaiki ...
\end{quote}
As a result of the study, Fusitu’a recommended that educators attempt to harness the positive aspects of fetokoni’aki more effectively.

In Australia, Richardson (1994) also explored differing social practices, and found that Asian families (and working-class families) encouraged their children at home to read every word of text correctly or with precision – at the expense of reading for meaning and interest. New Zealand studies suggest that similar differences exist between some families and current New Zealand curriculum and early childhood centre/school requirements in perceptions of what constitutes early childhood education (Farquhar, 1993), reading (Tagoilelagi, 1995) and mathematics (Meaney, 2000). Parents in these families have developed their particular perceptions in the course of their own school and community learning experiences, and are likely to hold them fairly firmly, as Meaney found when exploring ways to involve a Māori community in mathematics curriculum development. Further discussion of these factors is contained in Chapters 6 and 7.

SUMMARY

Culture and ethnicity are integrally associated with educational outcomes. There are patterns of lower mean achievement of Māori and Pasifika children that give rise to profound concern. While these patterns are prevalent, it is also evident that there are very high achieving Māori and Pasifika children, and that when assessment processes reflect Māori contexts for learning, Māori and Pasifika children characteristically achieve more highly than non-Māori and non-Pasifika children. Some researchers have concluded that ethnicity is not of itself salient because of the confounded relationship between family income, poverty, social class and educational outcomes. Because Māori and Pasifika children are disproportionately represented in low income families, it is perceived that Māori and Pasifika ethnicity is an indicator of higher prevalence of poverty - and this argument has been advanced on the basis of longitudinal studies carried out in Wellington and Christchurch. There is strong evidence elsewhere in this review (for example, of higher poverty rates amongst Pasifika and Māori parents of children in schooling and the disproportionate prevalence of hearing loss amongst 13% to 14% of Māori and Pasifika children) that clearly implicates the lower income of Māori and Pasifika families in differential outcomes from schooling.

As explained elsewhere in this synthesis, the importance for educational outcomes of family income and associated factors should not be under-estimated. However, international and New Zealand research is increasingly making transparent the centrality of culture to the matches and mismatches between schooling practices and the traditions and practices of ethnic and cultural communities. There is evidence of widespread deficit assumptions by New Zealand educators, that have hampered progress in positively addressing the ways in which culture mediates schooling success to ensure better outcomes for diverse children. Recent New Zealand research studies and work in progress have shown high levels of

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achievement for Māori and Pasifika children in low decile primary and secondary schools. These marked shifts in achievement are apparent when deficit assumptions around ethnicity are challenged, and comprehensive pedagogical and partnership practices are employed and resourced to ensure stronger continuities between whanau, aiga, homes, schools and cultural communities.
PART TWO: FAMILY FACTORS
INTRODUCTION

A key message of this synthesis is the pre-eminence of family influences on children’s educational achievements. The research on neighbourhood effects, in particular, is notable for very small or nil effects in contrast with the much greater impacts on children’s outcomes linked to family factors (see Chapter 2).

Hill and Yeung (2000)\textsuperscript{241} point out that the term ‘family’ has no fixed meaning, and that it can vary from culture to culture. In the New Zealand context it refers not only to the nuclear family of parent/caregivers and child/children but also to the extended family/whanau of grand-parents, aunts, uncles and cousins, especially in those cases where children have frequent personal contact with a range of relatives.

As with ‘community’ the term ‘family’ has complex meanings. For example, some children’s principal caregiver is a grandmother, an aunt, a foster parent or a stepmother. A family may be a sole parent family, or it may be a reconstituted family formed through remarriage\textsuperscript{242} or a cohabitation relationship. Some children move regularly between, have regular contact with, and are part of two (or more) households. In fact, a relatively large number of New Zealand families are in a process of change\textsuperscript{243}. Discussing the implications of such changes in family structure and living arrangements, Kellaghan, Sloane, Alvarez and Bloom (1993:73)\textsuperscript{244} pointed out that it is becoming increasingly difficult to describe a ‘typical’ family. They note that

...some current changes in the family can create specific problems for children’s development, including their school learning. These relate to working parents, one-parent families, blended families, and families in which parents come from a cultural background that differs from that of the culturally mainstream school.

In New Zealand Māori society, the basic social unit, and the essence of being Māori, is considered to be the whanau (Shivnan, 1999)\textsuperscript{245}. The whanau is usually kinship based and includes the extended family.

\begin{itemize}
\item Recent figures from Statistics New Zealand show that just over one in three marriages have one or both partners who were previously divorced or widowed.
\item Data from Statistics New Zealand reveals that in 1996 just under one quarter of children under the age of 15 years (i.e. 189000 children) lived in sole parent families and that this represented an increase of 56.8% since 1986 (i.e. sole parent families increased from 15.7% to 23.6%).
\end{itemize}
National and international researchers across a range of disciplines have explored the processes through which family and home environments contribute to children’s development and learning. For example, Monks et al (2000:855)\(^{246}\) report that

\[\text{Research has shown that parents and families play a particularly important role in the development of the gifted child – especially in the affective domain, in the nurturing of self-concepts, values, attitudes, motivation, interests and commitments.}\]

British researchers Foley, Roche and Tucker (2001:5)\(^{247}\) argued that, “Families, themselves structured by external material and cultural forces, both subtly and directly shape children’s lives.” In a major synthesis of literacy research in the USA, Braungar and Lewis (1998)\(^{248}\) concluded that literacy is deeply embedded in the processes of family life, and is mediated through interpersonal interaction with children through the provision of literacy materials in the home, and through the provision of a positive emotional and motivational climate. In New Zealand, Smith (1998)\(^{249}\) has emphasised the importance of children’s interactions with the more competent members of the culture (predominantly family members). She describes families as having a key function in providing responsive learning contexts which allow children to gradually take more and more initiative in their own learning, work cooperatively on shared tasks with others, and provide responsive feedback. The key elements of this process are dialogue, social interaction and graduated assistance based on the child’s existing skills and knowledge.

\[\text{While in the early years the emphasis is on heavy scaffolding and a dominant role for the more skilled other, responsive learning contexts move as quickly as possible to give the learner more opportunity for self-regulation, responsibility and initiative. This increasing independence of the child from help and control requires a supportive but not restrictive family context. [Smith, 1998:269]}\]

Wylie’s (2001a:33)\(^{250}\) research findings also demonstrated the importance of children’s interactions with others. She reported that the data from the five-year longitudinal Competent Children Study showed, quite clearly, that “there is no single ingredient or recipe which will guarantee that every child will be competent in all, or any, aspect of life” but that a few things do matter, and important among these is how children interact with adults and others. School and home experiences between the ages of 5 and 10 had made a difference to the children in this study. Earlier experiences and resources had also made a difference, before a child had even reached school. Good quality early childhood education and experiences at home, or later out-of-school activities using language, symbols, and mathematics, had also made improvement more likely.

Children who attended decile 1-2 schools scored lower than others for the literacy measures and mathematics, and these were the children who were less likely than others to

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report home activities and interests that would complement their work at school. Wylie’s (2001a) analysis indicated that children in low income families had lower scores, not because of their attitudes or social skills (their average scores on measures for these were no different from those of children in middle income families) but because low income families had lower levels of parental education, and fewer experiences and resources of the kind which use and extend language and mathematics use.

Some family factors have been characterized as ‘static’ and others as ‘dynamic’. Static factors include ethnicity, socio-economic status, family structure (although this can change), parental education level, and perhaps resources in the home. These are considered in Chapters 4 and 5. More dynamic factors relate to family health and well-being, mobility, parental choice for children, and especially family processes. These are addressed in Chapters 5 and 6. Of the two classes of factors, the more dynamic ones seem to hold greater value for this synthesis.

Given the limitations of statistical analyses of research data using correlational methods (outlined in Chapter 1), it should be noted that many of the studies cited in Part 2 of this synthesis which appear to show effects of family background on children’s achievement have a correlational design. Teale (1986, cited in Benjamin, 1993:2) argues, such research, “…provides no direct evidence for cause-effect relations.”

Two other issues are relevant to this discussion. Firstly, many families, although remaining the basic units of social and economic organization in society, are themselves changing. Hill and Yeung (2000:18-19) list a number of such changes. Those relevant to New Zealand include:

- Shifts in partnering, with later marriage and cohabitation more socially acceptable
- Increased inequality in family income and earnings
- Immigration increasing diversity and raising issues of racial and ethnic inequality
- Increased exposure to mass media, especially TV
- Information technology growing as a new source of inequality.

Secondly, children themselves are not passively shaped by family influences. Rather, as Braun (2001) has recognized, children actively contribute to their own development – and also to the development of siblings and peers. This is evident in Wylie’s (2001a) research. She found that it is possible for children to overcome factors usually associated with low achievement. For example, The Competent Children Study revealed that children from low income homes and homes with low parental education, “…can go over these hurdles when they also take part in activities and interactions which feed their use and enjoyment of literacy and mathematics, and of words, patterns and other symbols generally.” (Wylie, 2001a:34)

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Consideration of family factors involves emphasising positive forms of achievement, identifying areas of difficulty (as discussed in Chapter 1) and also recognising that family influence is not just one-way, parent-on-children. Rather it is two-way; children in turn have an influence on their parents. The Well-Being Research Network in the USA (Hill & Yeung, 2000) considers that investigation of the influence of children on their parents is as important as the influence of parents on children; this is to avoid biased estimates of parental influence on children. In the Network’s view, “…misinterpretation of empirical findings regarding parents’ influence on children is possible if assumptions are made that children’s influence on parents is unimportant.” (Hill & Yeung, 2000:35) 256

Accepting the dual influences mentioned above, it is helpful to review data which reveal ways in which parents mediate their children’s affective and cognitive development, thereby helping them to regulate behavior and emotions, motivating them to learn, and buffering stress for them. This process of mediation provides the structure that permits children to learn effectively in school (Weiss, 1989, cited in Bowman, 1997). The research indicates that parents are ‘significant agents’ who inhibit or facilitate their children’s education. According to Bowman (1997:165), family factors that have been found to be associated with children’s school readiness and achievement include:

- parental aspirations and expectation for achievement
- parental strategies for controlling child behavior
- maternal teaching style (affective and contingent)
- parental aspirations
- linguistic orientation
- beliefs about the causes of child success and failure in school
- children’s home environment.

Many of these relate to home processes and are examined in detail in Chapter 6.

Family factors have been grouped into those associated with socioeconomic circumstances (Chapter 4); other factors including parental education, family structure, home educational resources, mobility, child health and well-being, and parental interactions with the education system (Chapter 5); and home processes such as those above, considered by Kellaghan et al (1993) to be perhaps the most important factors of all (Chapter 6).

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Chapter 4: 
Parental employment and income – socioeconomic factors

INTRODUCTION

Three of the categories in the overall framework of this synthesis relate to parental endowment. Parental employment and income is the first, parental education the second, and home resources the third. This chapter focuses on the first of these. (See also Chapter 3 for a discussion of some studies which consider socio-economic status in relation to ethnicity.)

The complex connections between socio-economic status and school achievement are explored in a range of New Zealand and international studies. For example, Nechyba et al (1999:37) concluded that:

… parental income is often correlated with child outcomes. However, the best empirical research increasingly suggests that income is generally not a strong causal channel through which child outcomes improve significantly and that policies aimed at raising family incomes are likely to have only small effects. The observed income effect probably operates through other causal channels. An important caveat is that almost all research is focused on the US, where lower-income households already have higher incomes than poor households of many countries. Thus, income may still play a role in conditions of extreme poverty. Furthermore, income may have more appreciable effects in some special circumstances, most notably in the very early ages of at risk-children.

Cochrane (cited in Hutmacher, Cochrane & Bottani 2001) reported that more than 30 years of research into specific interventions had demonstrated that, while schools could teach, and children could learn more than would be predicted by the socioeconomic status (SES) of parents (and that money mattered in the delivery of this more effective education),

At the same time, the social and cultural context of a student’s home and school environment remains an important determinant of educational outcomes. [113]

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DATA ON SES IN NEW ZEALAND

Socioeconomic factors include parental employment, household income and occupational status. A range of studies shows that these vary across ethnic groups in New Zealand. For example, data from the New Zealand Poverty Measurement Project in 1993 (Waldegrave & Pole, undated:4-5)\(^{260}\) revealed that, “The incidence of poverty was more than two and a half times greater among Māori and more than three and a half times greater among Pacific Island families than it was among Pakeha families.”

Recent data from the 2001 Census (Statistics NZ, 2002a)\(^{261}\) indicate that whereas the median income for New Zealanders in 2001 was $18500, that for Māori and Pasifika people was identical at $14800, almost $4000 below the overall median. The median income figures for Māori and Pasifika females was even worse at $13200 and $13000 respectively. These income figures for Māori and Pasifika females assume considerable significance when put beside the fact that it is generally females who head one-parent families. In 2001, 31\% of children under the age of 15 years lived in single-parent families (Statistics NZ, 2002b)\(^{262}\) and, of these children, 61\% lived in a household with an income of $20000 or less.

Earlier data (Ministry of Social Policy, 1999)\(^{263}\) reveal that for children under 18 years of age in 1996, 24\% overall lived in a one-parent family, but for Māori and Pasifika children the percentages were 41\% and 29\% respectively. A far greater proportion of Māori and Pasifika children than other New Zealand children, live in households with low incomes. This is confirmed by other data from the 1999 Ministry of Social Policy document. With respect to children under 15 years of age, the 1996 figures show that the percentage living in households with no parent in paid employment were Māori 41\%, Pasifika 38\%, Asian 30\%, and European 14\%. The percentages are much worse for children in single-parent families. Whereas only 9\% of children in two-parent families had parents unemployed, the percentages for children in one-parent families were Māori 74\%, Pasifika 73\%, Asian 70\% and European 58\%. Considered from the perspective of children in families in the lowest two quintile income groups in 1996, 26\% of children in two-parent families were in this category, but in the case of one-parent families, 59\% of Māori children, 59\% of Pasifika children and 30\% of European children fell into this category. These data suggest that many single-parent families, particularly Māori and Pasifika families, are likely to have few economic resources of their own to support their children’s education.

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To put a human face to these data, it is useful to consider the actual numbers of children involved. The incidence of poverty\(^ {264} \) among New Zealand children in the year 2001 is shown in Table 4.1 below.

**Table 4.1: Incidence of poverty among NZ children in 2001**

<table>
<thead>
<tr>
<th>Age of children</th>
<th>% of children</th>
<th>Approximate no. of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 yr</td>
<td>19%</td>
<td>54 255</td>
</tr>
<tr>
<td>3-4 yr</td>
<td>21%</td>
<td>(0-4yr) 55 420</td>
</tr>
<tr>
<td>5-10 yr</td>
<td>16%</td>
<td>138 391</td>
</tr>
<tr>
<td>11-17 yr</td>
<td>20%</td>
<td>Total: 248 066</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand (2001b)\(^ {265} \)

Table 4.1 shows that almost a quarter of a million New Zealand children are living in households that are below the poverty line. Two examples from Mikaere and Loane (2001:8)\(^ {266} \) illustrate what this means for such families (in this case Māori families in the Turangi/Taupo region). In one case the children were being subjected to disciplinary action by their school for continued failure to complete their homework, but investigation showed that the household consisted of two families in a two-bedroom house with eight children. As the school counselor said, the complaint about the children not doing their homework was irrelevant in these circumstances. In the other case, a parent commented on the difficulty her daughter experienced at school as a result of not wearing the regulation shoes:

...if she hasn’t got the right shoes the teacher will send them home - we come into the school to see the teacher and we have said, are you teaching the kid or her shoes? - we can’t afford them!

As Mikaere and Loane pointed out, when schools do not take account of such family circumstances the result can be a decline in the self-esteem of the children in their care. Another serious consequence for some children in poverty is a poor standard of health\(^ {267} \). (See Chapter 5.)

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\(^{264}\) The measure of poverty is the more conservative of two used by the Ministry of Education and means household income (after housing costs) that is less than 50% of the median income for 1998, adjusted for inflation. This means that children in poverty are those living in households whose income is in the bottom segment of the lower quartile of incomes in New Zealand.


\(^{267}\) This is illustrated in a recent New Zealand Herald article ‘Children are still the main casualties’ (23 December 2002:A19) by Innes Asher, Diane Roberston and Susan St John who report record levels of Auckland children being treated for serious skin infections and pneumonia, the latter having the potential to result in permanently damaged lungs and severe ill-health.
NEMP data confirms that the majority of Māori children are in low decile schools. For example, in the 2001 national sample of Year 4 children, 58% of the Māori children were in decile 1-3 schools – 27% in decile 1 (Crooks, 2002). Pasifika children also make up a disproportionate number of those in low decile schools. Ministry of Education figures for July 2000 relating to Pasifika children enrolled in schools where they comprise more than 15% of the school roll (accounting for 75% of Pasifika children) show that 85% are in decile 1-3 schools, more than half (51%) being in decile 1.

SES AND NEW ZEALAND CHILDREN’S ACHIEVEMENT

Considerable data exist comparing children’s school achievement with socio-economic level. In many studies the socio-economic status (SES) considered is that of the school the children attend, rather than the SES of their individual families. For example, a comparison of New Zealand Year 8/9 children’s mean mathematics and science scores from the TIMSS results with their school decile rating is shown in Table 4.2 below.

Table 4.2: Some 1998 results from TIMSS by SES – mean scores

<table>
<thead>
<tr>
<th></th>
<th>Low decile (Decile 1-3)</th>
<th>Medium (Decile 4-7)</th>
<th>High (Decile 8-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maths – Year 8/9</td>
<td>453</td>
<td>476</td>
<td>530</td>
</tr>
<tr>
<td>Science – Year 8/9</td>
<td>471</td>
<td>498</td>
<td>544</td>
</tr>
</tbody>
</table>


Analysis of these data shows, in both subject areas, that although there is a difference in the mean scores between low and medium children, the difference is not significant. However, the difference in mean scores between low/medium and high decile children is statistically significant in both subject areas. That is, the mathematics and science achievement of children in high decile schools is considerably above that of children in schools rated decile 1-7.

A similar pattern is evident in some of the data from the New Zealand National Monitoring Project as shown in Table 4.3 below.

**Table 4.3: Some NEMP results by SES**

<table>
<thead>
<tr>
<th></th>
<th>SSD*</th>
<th>Low decile (Decile 1-3)</th>
<th>Medium (Decile 4+)</th>
<th>High (Decile 8-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 - 1997</td>
<td>SSD*</td>
<td>On 85% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 4 - 2001</td>
<td>SSD*</td>
<td>On 87% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 8 - 1997</td>
<td>SSD*</td>
<td>On 77% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 8 - 2001</td>
<td>SSD*</td>
<td>On 75% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 - 1999</td>
<td>SSD*</td>
<td>On 53% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 8 - 1999</td>
<td>SSD*</td>
<td>On 63% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 - 2000</td>
<td>SSD*</td>
<td>On 86% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 8 - 2000</td>
<td>SSD*</td>
<td>On 48% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td><strong>Reading/Speaking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 - 2000</td>
<td>SSD*</td>
<td>On 87% tasks</td>
<td>Scored lowest on 51%</td>
<td>Scored highest on 6%</td>
</tr>
<tr>
<td>Year 8 - 2000</td>
<td>SSD*</td>
<td>On 57% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 - 1998</td>
<td>SSD*</td>
<td>On 83% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
<tr>
<td>Year 8 - 1998</td>
<td>SSD*</td>
<td>On 72% tasks</td>
<td>Performed lowest</td>
<td></td>
</tr>
</tbody>
</table>

* Statistically Significant Difference. Source: National Education Monitoring Reports\(^\text{271}\)

With one exception (Māori children in Year 4 and Year 8 performed significantly better than non-Māori on tasks that involved reading in Māori\(^\text{272}\)), these data show a consistent pattern of children in low decile schools (decile 1-3) scoring lowest on the NEMP tasks. There was no case where medium decile children achieved more highly than high decile children, although the difference in scores between medium and high was often less than the difference between medium and low.

Crooks (2002)\(^\text{273}\) provided a more in-depth analysis of NEMP data by SES for both Year 4 and Year 8 children across all NEMP tasks for the four years 1997-2000. His data show that Decile 1 children scored significantly below all other children on a relatively high proportion


\(^{273}\) Crooks, T. (13 February 2002). *Submission to Education and Science Committee, Parliament: Enquiry into Decile Funding in New Zealand Schools.*
of tasks (47% at Year 4, and 35% at Year 8). He concluded that, “…school decile ratings are strongly related to children’s performance levels on assessments in almost all curriculum areas (physical education was the notable exception)” (Crooks, 2002:2).

Recent Ministry of Education data analyzing participation in early childhood education by ethnicity and school decile (see Figure 4.1 below) reveal that those in lower decile schools, particularly decile 1 schools, have had less early ECE than those in higher deciles. For example, decile 1 children’s attendance in ECE ranges from about 70%-90%, decile 2 from approximately 80%-93%, and decile 10 from roughly 92%-98%. At all decile levels, Pakeha/European children’s ECE attendance is greater than for all other ethnic groups. Given the evidence about the relationships between ECE and positive outcomes for children (see, for example, Chapter 2), the lower ECE participation rates of many of those in lower decile schools may be a key factor in the lower performance levels of children in those schools.

Figure 4.1: Participation in ECE by ethnicity and school decile

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Varying family circumstances and levels of ECE participation appear to be reflected in the differences in children’s achievement by SES which is apparent even on entry to school. Table 4.4 below shows data on New Zealand children’s School Entry Assessment results taken from Gilmore (1998)\textsuperscript{275}.

Table 4.4: Some 1998 SEA mean scores by SES – five-year-old children

<table>
<thead>
<tr>
<th>Task Areas</th>
<th>Lowest (Decile 1-3)</th>
<th>Medium (Decile 4-7)</th>
<th>Highest (Decile 8-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checkout/Rapua - Maths</td>
<td>14.8</td>
<td>18.2</td>
<td>20.5</td>
</tr>
<tr>
<td>Tell Me/Ki Mai (Language)</td>
<td>9.9</td>
<td>11.5</td>
<td>11.9</td>
</tr>
<tr>
<td>Concepts about Print</td>
<td>7.9</td>
<td>9.8</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Gilmore’s (1998)\textsuperscript{276} analysis of the data revealed a significant difference in achievement between the three decile groupings with the highest achievers being in the highest decile group, and the lowest achievers being in the lowest decile group.

Waldegrave and Pole (undated)\textsuperscript{277} cited figures from Nash and Harker (1998) which showed that achievement continues to vary with SES at senior secondary level. 1995 data indicated that in co-educational secondary schools with 400 or more children, 45% children in decile 1 schools achieved a C bursary, as against 83% of children in decile 10 schools. At the same time, 32% of children in decile 1 schools left school before Year 12, compared with 14% of children in decile 10 schools. Waldegrave and Pole concluded that New Zealand children from lower socio-economic areas were much less likely to gain formal educational qualifications than those from higher socio-economic areas.

A difficulty with much of the data examining achievement and SES is that the results are based on the decile level of the institution (usually school), not the SES of the child’s family. A school rated as decile 4 may in fact be catering for children from very low SES to high SES homes\textsuperscript{278}. It is probably not surprising therefore that a range of scores is often evident within schools of different decile levels. It is particularly important to recognise that, as with the ethnicity-associated data, mean scores mask the fact that some children in low decile schools achieve at a level equivalent to some children in high decile schools. For example, with respect to the SEA mathematics data referred to in Table 4.4 above, nearly 30% of high decile school children performed at an ‘expert’ level, but so too did approximately 10% of low decile school children – and this pattern of achievement was relatively consistent across the three SEA task areas.

\textsuperscript{277} Waldegrave, C. & Pole, N. (Undated). Taking our Opportunities: Social Cohesion and the Knowledge Divide in Aotearoa, New Zealand - Catching the Knowledge Wave.
\textsuperscript{278} This is apparently the case at Te Huruhi primary school, Waiheke (personal communication with the Principal).
Nevertheless, even when children’s family SES is used, differences in achievement remain. This is clearly illustrated in the most recent PISA study (Sturrock & May, 2002)\(^\text{279}\) as shown in Table 4.5 below.

**Table 4.5: PISA 2000 results for New Zealand 15-year-olds by SES (mean scale scores)**

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium-low</th>
<th>Medium-high</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>490</td>
<td>520</td>
<td>548</td>
<td>574</td>
</tr>
<tr>
<td>Mathematics</td>
<td>499</td>
<td>528</td>
<td>556</td>
<td>581</td>
</tr>
<tr>
<td>Science</td>
<td>490</td>
<td>517</td>
<td>546</td>
<td>574</td>
</tr>
</tbody>
</table>

*Source: Sturrock & May (2002)*\(^\text{280}\)

These figures indicate a strong relationship between the mean scores and groupings of the PISA International Socio-Economic Index of Occupational Status. There is a remarkably steady increase in achievement in each of the three subjects as group SES status increases. A comparison of these results with the 1998 Year 8/9 TIMSS mathematics and science results in Table 4.2 reveals a marked similarity. The difference between the lowest and highest mean scores in both sets of data is approximately 80 points. This relationship between achievement and SES seems to be worldwide. Discussing the PISA2000 results for 15-year-olds in 28 OECD and four other countries, Sturrock and May (2002:97)\(^\text{281}\) noted that,

*In all countries examined, students with higher family socio-economic status had higher achievement than students with lower family socio-economic status. New Zealand was no exception. In this country the gap was relatively wide.*

However, Sturrock and May (2002) also reported that in New Zealand not all children from lower SES backgrounds performed poorly compared with OECD mean scores.

Further support for Waldegrave and Pole’s conclusion (above) that lower SES children are less likely to gain formal educational qualifications, is provided by Ferguson and Woodward (2000)\(^\text{282}\) whose Christchurch-based data, “…suggest that able children from professional or managerial family backgrounds are about 1.5 times more likely to enter university than are children of similar ability from low SES families.” At the school level, Mayer (2002:20)\(^\text{283}\) contended that, “Research consistently finds that low parental income is associated with lower scores among children on tests of cognitive ability.” Mayer’s data also suggested that low income in children’s early childhood years (that is, 0 – 5 years) can have lasting effects on the children’s academic achievement, although not on emotional or social outcomes. Although Mayer concluded that more research is needed to investigate the impact of varying

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levels of income on children’s achievement at different ages, her findings are consistent with data from the Competent Children Study in Wellington. Wylie (2001a:28)\(^{284}\) reported that,

> *Children whose family income was more than $60,000 at age 5 or younger continued to show higher scores for all the competencies at age 10. At the other end of the scale, children whose family income was below $30,000 at age 5 or younger continued to score lower than others on some competencies at age 10, regardless of whether their family income had improved.*

She found that children from low income homes had lower average scores for mathematics, reading comprehension and writing – that is, the subjects children need to be competent in to succeed at school and to secure later employment. It is important to note that Wylie (1999a)\(^{285}\) found no one-on-one match between family income level and children’s achievement at the individual level, but group level differences were particularly marked for those at either end of the income gradient. Wylie’s findings of group level differences are consistent with the NEMP data, which is based on school decile level rather than individual family income. In a recent analysis of NEMP results, Crooks (2002)\(^{286}\) showed that the greatest differences in achievement between decile levels occurred for children at both extremes. The achievement of children in decile 1 schools was significantly below that of those in decile 2 schools in all curriculum areas, and the achievement of children in decile 10 was significantly above that of children in decile 9 schools in eight of twelve curriculum areas.

Another significant finding of Wylie’s (1999a)\(^{287}\) study was that able children from low-income homes who started in the top achievement band at age 5 years, were more likely than middle- and high-income children to slip from that band by age 8 years. As a result of a subsequent study, Wylie (2001a)\(^{288}\) concluded that the lower overall scores of children from low income families had nothing to do with the children’s attitudes or social skills; their average scores on measures of perseverance, individual responsibility and communication were no different from those of middle income children.

**Other issues relating to income and children’s achievement**

There have been suggestions that the source of family income is related to children’s achievement, and in particular that children from homes that are reliant on welfare benefits achieve at a lower level than children from homes with comparable incomes resulting from parental paid employment. However, in Wylie’s (1999a)\(^{289}\) study, data indicated that this was not the case. State benefits were the main source of income for 16% of the families in the Wellington Competent Children Study. She concluded,

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\(^{286}\) Crooks, T. (13 February 2002). Submission to Education and Science Committee, Parliament: Enquiry into Decile Funding in New Zealand Schools.


Contrary to some stereotypes, children were not disadvantaged by their parents’ receipt of state benefits. Their scores were no different from others in the same income brackets. It is the income level which affects children, not the source of income. 

There are questions remaining, however, about the period of time that a family is receiving a particular level of income, and about the timing of this in relation to the child’s age and development. Wylie (1999a)\(^{290}\), for example, found that a family’s income when their children were preschoolers was just as important, or probably more so, than current income level, especially in the case of low income families. This is consistent with an international review undertaken by Hill and Yeung (2000:20)\(^{291}\) which revealed that, “…it is the youngest children who are most susceptible to poverty.” In terms of the duration of low income and its effect on children achievement, it appears that little is yet known. As Tabberer (undated:123)\(^{292}\) noted in relation to the UK setting, “We need to understand the impact of temporary as well as recurrent poverty on educational experiences and outcomes…”.

THE PROBLEMATIC NATURE OF SES AND CHILDREN’S ACHIEVEMENT

Despite the fairly extensive data which suggest that children’s achievement is a function of SES, this issue, like that of ethnicity, is complex and arguable. For example, with respect to children in the Christchurch Health and Development Study, Maloney (1996)\(^{293}\) concluded that family income had no effect on children’s cognitive achievement at age 11 years, and Barker and Maloney (2000:38)\(^{294}\) found in their regression analysis that, “…there is no statistical evidence of any effects of the mother’s work status on the child’s reading ability.”

In a New Zealand case study, Young-Loveridge (1989)\(^{295}\) investigated the mathematical achievement of six 5-year-old children. Two of the children were low achievers but came from high SES homes, and the other four were high achievers – two from low SES homes, and two from high SES homes. Young-Loveridge (1989) reported that home processes made the difference, not SES. (See Chapter 6.)

These findings are consistent with those of some international studies. For example, in a major USA report, Snow et al (1998:31)\(^{296}\) acknowledged what they describe as an important conceptual distinction in a ‘groundbreaking’ meta-analysis by White (1982):


White discovered that, at the individual level, SES is related to achievement only very modestly. However, at the aggregate level, that is, when measured as a school or community characteristic, the effects of SES are much more pronounced. A low-SES child in a generally moderate or higher-SES school or community is far less at risk than an entire school or community of low-SES children.

Snow et al (1998:127)\textsuperscript{297} concluded that,

\begin{quote}
SES differences among children are relatively weak predictors of achievement. Thus, all else being equal, coming from a family of low SES…does not by itself increase a child’s risk for having difficulty in learning to read...
\end{quote}

In New Zealand, Phillips, McNaughton and MacDonald (2001)\textsuperscript{298} have demonstrated clearly in their literacy work in South Auckland schools, that low family income and low decile schools are not necessarily barriers to children learning to read well, and in another New Zealand study Gilmore (1998:8)\textsuperscript{299} has cautioned against attributing significance to SES: “It is essential that teachers and the community avoid making assumptions and generalisations on external grounds such as socio-economic status.” Another reason for such caution, according to Snow et al (1998:125)\textsuperscript{300} is that, “…teasing apart the various aspects of the environment associated with low SES is virtually impossible.” As Hill and Yeung (2000)\textsuperscript{301} observed, most studies do not address the intervening mechanisms through which family characteristics (such as income, employment) affect children’s achievement and well-being.

The uniqueness of family circumstances was noted by Berwick-Emms (1989)\textsuperscript{302} in her doctoral investigation of home factors that influence the development and achievement of young children in Christchurch. While acknowledging that there is a broad association between children’s achievement and both SES and culture, she found that these differences do not account for the differential achievement of individual children. She reported that children with superficially similar backgrounds and abilities can come from homes with significantly different family enculturation processes and practices. White (1997:8)\textsuperscript{303} reached a similar conclusion in her ethnographic doctoral research of secondary children in Fiji. Her data revealed that some children achieved highly in circumstances where their peers with seemingly similar family backgrounds did not. She concluded that “…academic performance is largely the outcome of the strategies that individual students adopt to deal with competing expectations.” The strategies children used were largely developed from specific experiences.

\begin{thebibliography}
\end{thebibliography}
in their home environments. Home processes and their links to children’s achievement are discussed in Chapter 6.

Another significant finding into the link between SES and children’s achievement comes from a research study by Lubienski (2000)\textsuperscript{304} in the USA. Lubienski investigated the achievement of a class of 7th graders on open problem-solving in mathematics. She found important differences in the problem-solving strategies used by children from higher SES homes and lower SES homes – even for children with similar high achievement. The higher SES children were intrinsically motivated to solve problems and grapple with mathematical ideas, whereas the lower SES children were more concerned with getting clear direction to enable them to complete their work. Lubienski (2000:465)\textsuperscript{305} observed that,

\begin{quote}
…the lower SES students (especially the high achieving females) seemed more concerned about getting the algorithm that would allow them to complete assigned work than about grappling with or understanding mathematical ideas for their own sake.
\end{quote}

This view of learning held by the lower SES children is of concern, given the greater emphasis on investigation, problem-solving and communication in mathematics today, and the greater emphasis on critical literacy, which require children to be more questioning and self-motivated than in the past. However, this concern can be addressed effectively through a range of initiatives. For example (as indicated in Chapter 7 of this report), it is possible for parents to add to their strategies for helping their children, which can result in the children changing their views about what learning involves.

The findings of these and other studies clearly signal the need for caution when examining apparent relationships between SES and achievement, particularly when assumptions about ‘causal’ relationships are likely to be made. Research in New Zealand and beyond suggests that family factors other than SES may be equally or perhaps even more influential. These are examined in the following chapters.

**SUMMARY**

A significant proportion of New Zealand children live in homes that have scarce economic resources, or worse, and about a fifth are living in families in poverty. The incidence of poverty is more than two and a half times greater among Māori, and more than three and a half times greater among Pasifika families, than it is among Pakeha families. As a group, the achievement of these low SES children is significantly below that of children from middle and higher SES homes in all curriculum areas, according to national data from SEA, NEMP, TIMSS and PISA, and data from the Wellington-based Competent Children Study. The lower achievement of children in low SES homes is evident on entry to school, and extends right across primary and secondary school and into tertiary education. If does not, however, include social achievement.

The limitations placed on achievement by very low income and poverty have a greater impact on younger children than older children; this can adversely affect their academic achievement


throughout their entire schooling. There is also some evidence that able children from low SES homes who have high achievement at age 5 years are more likely than middle to high SES children to slip from the high achieving band by age 8 years.

Factors that seem to adversely influence the achievement of low SES children include very limited family resources (see Chapter 5), and perspectives within some low SES families that do not support school achievement (e.g. finishing tasks rather than making meaning).

The association between low achievement and low SES (when children are considered as a group) is highly complex. It is not inevitable that living in a low SES family means low achievement for a child; the association does not hold for some individual low SES children who are high achievers.

Although, overall, SES is highly influential with respect to achievement, it appears that other family factors, such as emotional climate, family interactions, activities and literacy practices, can also be highly influential. These are examined in Chapters 5 and 6. Chapter 7 describes ways in which some of the negative effects of low SES can be addressed.
Chapter 5:  
Other family factors

PARENTAL EDUCATION

Higher levels of parental (particularly maternal) education appear to contribute favourably to children’s achievement. Enhancing parents’ own skills, and working with them to enhance their understandings of how children learn will assist them in helping their children more effectively.

The Competent Children Project (a Wellington based study) found that children’s performance in mathematics and literacy benefits from their parents’ own education. Further, it appeared that parental education levels seem to matter more the longer children are at school, and they carry more weight than family income levels.

At age 10, children whose mothers had left school without a qualification had lower average scores than others, and children whose mothers had a university degree had higher average scores (Wylie, 2001a:26)\(^{306}\).

Similarly, the Christchurch Health and Development Study indicated that parental education levels have a significant positive impact on their children’s achievement (Barker and Maloney, 2000:36-37)\(^{307}\):

The educational attainment of parents have some of the strongest and most consistent effects on the test performance of children in this study, and these persist under both the value-added and level specification, controlling for other factors such as income. The higher the qualifications of parents, the higher the average scores on the Burt Word Reading Test.

However, the study also found evidence that the effects of the parents’ qualifications on the child’s reading ability vary by family background and school characteristics (Barker & Maloney, 2000).

Higher levels of parental education may assist children’s achievement in various ways. For example, the children in the Competent Children study whose mothers had low level qualifications seemed more likely than others to have a narrower range of experience. They

\(^{306}\) Wylie, C. (2001a). Ten Years Old & Competent - The Fourth Stage of the Competent Children Project: A Summary of the Main Findings. Wellington: NZCER. The Competent Children Study looked at mothers’ qualifications only, because most of the parents interviewed were mothers, particularly in one-parent families. Paternal qualifications may show similar trends, though overseas research indicates that maternal education is more closely related to children's performance than paternal education, probably because in many families mothers spend more time with children.

were less likely to use a public library, to belong to groups outside school, or to take part in music activities. These factors were all related to higher scores on the competency measures (Wylie, 2001a:26-27).

On the other hand, these children were more likely to spend longer watching television, both at age 10 and at earlier ages. Children who regularly watched television for more than two hours a day tended to score lower than others. Children with lower-qualified mothers were more likely than others to find school interesting. But they also found the work of school more challenging, perhaps because it was less related to their experiences before they came to school, and now to their experiences outside school.

It has also been found that children with more highly qualified mothers (at least in the United Kingdom) are much more likely to have used workbooks at home and to have obtained private tuition for their children than the children of mothers with lower levels of educational qualifications (West, Noden & Edge, 1998).

Overseas research is consistent with New Zealand findings that the mother’s level of education is one of the most important factors influencing children’s reading levels and other school achievements. More highly educated mothers seem to have greater success in providing their children with the cognitive and language skills that contribute to early success in school (Sticht & McDonald, 1990, cited in Benjamin, 1993). Also, children of mothers with high levels of education appear to stay in school longer than children of mothers with low levels of education (Benjamin, 1993).

Given these various data, it is somewhat disturbing that in New Zealand Māori parents are far more likely than other parents to be without a formal qualification. 1996 data (Ministry of Social Policy, 1999) reveals that the percentages of children under the age of 18 years living in families where parents had no formal qualifications were: Māori 62%, Pasifika 64%, European 35%, and Asian 31%, although these figures had improved markedly from 10 years previously, and have probably improved again in the last six years. More recent data for children, but this time children aged 5-17 years, show that in 2001 the percentages of children living in families where parents had no formal qualifications were: Māori 37%, Pasifika 28%, European 26% and Asian 12%. Once again, one-parent or single-caregiver families (in which Māori are disproportionately represented) fare worse than two-parent families, the percentages being 31% and 17% respectively.

With regard to reading, studies have shown that parents’ reading disabilities tend to be associated with a higher than normal rate of reading disabilities in their children:

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312 It is likely that these figures have improved in the last six years because the percentage of children living in families where parents had no formal qualification had been declining steadily from 1986. However, it is probable that the gap between Māori/Pasifika and European/Asian remains.
Although parental reading disabilities are not completely predictive of their children’s reading disabilities, the substantially greater risk at least warrants very close monitoring of their children’s progress in early language and literacy development (Snow et al., 1998:120,127).\footnote{Snow, C. E., Burns, M. S., & Griffin, P. (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press.}

Benjamin (1993)\footnote{Benjamin, L. (1993). Parents’ Literacy and Their Children’s Success in School: Recent Research, Promising Practices, and Research Implications - Education Research Report. Washington: U.S. Department of Education.} found that low-literate parents, particularly mothers, are more likely to exert a positive influence on their children’s academic achievement when they are able to enhance their own literacy skills. However, data in Chapter 7 indicate that even without prior enhancement, parents can have a positive impact on their children’s literacy development.

**FAMILY STRUCTURE**

Family structure, in itself, does not appear to be a significant factor in children’s achievement and development. However, consequences of changes in family structure (such as time constraints, or financial or emotional difficulties) may have an effect.

In an earlier strategic research initiative literature review carried out for the Ministry of Education, Nechyba et al (1999)\footnote{Nechyba, T., McEwan, P., & Older-Aguilar, D. (1999). The Impact of Family and Community Resources on Student Outcomes. Strategic Research Initiative Literature Review. Wellington: Ministry of Education.} examined a range of studies which focused on family structure. They noted that larger numbers of siblings tend to be associated with less cognitive development and lower educational attainment, but that there was increasing statistical evidence that this relationship is spurious and actually reflects the presence of other unobserved environmental or genetic factors in the home. Similarly, they found only limited evidence that the configuration of siblings (the number of girls relative to boys) affects outcomes.

Commenting on the ‘vast’ literature which explores the impact of parental divorce on child outcomes, they pointed out that, while there is a consistent negative association between these, the roots of this are not entirely clear, and suggested three possible theories. Firstly, they suggested that the effects of divorce might actually reflect genetic influences, although they acknowledged that the evidence for this was inconclusive. Secondly, they acknowledged that home environments might be quite stressful prior to the dissolution of the marriage. The authors noted that this could be the true cause of negative outcomes, rather than the trauma of divorce, and that some evidence points to this interpretation. However, in their view, it is difficult to separate this aspect from hereditary explanations. Thirdly, according to Nechyba et al, divorce may negatively affect outcomes by reducing the family income, although their evidence suggested that direct effects of income were not large.

The analysis of Nechyba et al (1999)\footnote{Nechyba, T., McEwan, P., & Older-Aguilar, D. (1999). The Impact of Family and Community Resources on Student Outcomes. Strategic Research Initiative Literature Review. Wellington: Ministry of Education.} suggested that single parenthood was also negatively correlated with outcomes, particularly among lower-income families, but the causal
meaning of these results was unclear. They offered several explanations for this, ranging from the lower-quality home environments of single-parent families, to hereditary factors.

* A quite robust finding is that children have lower outcomes when their mothers choose to live with, but not marry, another partner. Again, the causal channels underlying this observed correlation may include factors such as heredity or neighborhood effects; if such variables are omitted from the analysis, then their effects are confounded with family structure. Finally, neither parental age nor non-traditional family structures such as gay parents have been found to have strong impacts on outcomes. [36]*

**About New Zealand families**

Children in New Zealand now live in a variety of family and household types. Although most children live with two parents in a one-family household, there is a growing diversity of living arrangements as a result of trends such as growth in the number of never-married sole parents, increases in marital dissolution and de facto marriages and growing ethnic diversity (Statistics New Zealand, 1999)317.

It is important to note that the word ‘family’ has a different meaning in different cultural contexts. For example, Pakeha tend to view the family as the small nuclear family of parents and children, with rights and responsibility focused on the mother and father, whereas for Māori it refers to a much larger extended family where children are seen as not only belonging to their parents but to the wider kinship group (Kinloch, 1978; and Metge, 1995, both cited in Smith, 1998318).

Smith (1995:23)319 discussed a definition of whanau, referring to an ‘extended family’ situation. He described whanau as a “collective concept which embraces all the descendants of a significant marriage, usually over three or more generations”. However, he pointed out that whanau also refers to the more recent notion derived from its usage in describing “a group of Māori who may share an association based on some common interests such as locality, an urban marae, a workplace and so on”, and noted that the traditional term has acquired more flexible definition over time in order to take account of changing socio-economic circumstances of contemporary Māori society resulting from the rapid relocation into the cities.

Smith (1995) argued that, despite the historical pressures of assimilation and the strong presence of the dominant Pakeha family model within society, the supportive and nurturing context of the whanau has managed to survive as a functional entity to the present day, albeit in modified forms. The whanau is still regarded as an integral part of formal Māori social organisation today. He cited a Report to the Ministry of Māori Development (compiled in 1990 by a group of distinguished Māori Kaumatua and academics) which identified the multiple pressures on Māori attempting to maintain functional whanau structures:

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317 Statistics NZ. (1999a). *Children: New Zealand Now - 1998 Edition*. Wellington: Statistics New Zealand. This publication has considerable detail regarding differences between ethnic groups. For example, Māori children and, to a lesser extent, Pacific Island children are more likely than European children to live with only one parent, while Asian children are less likely to.


Māori people today are faced with a range of social conditions which are not conducive to maintaining strong whanau. These conditions include:

- the alienation of individual Māori from whanau, hapu structures
- high levels of welfare dependency
- the influence of the modern Pakeha family i.e. nuclear
- new types of family e.g. single parent
- high levels of unemployment
- failure of the system (Smith, 1995:28-29)

These multiple pressures are reflected in statistics which indicate that Māori male and female in all age groups are more likely to be separated, divorced and widowed than non-Māori. Smith (1995) reported that in 1981 for example, 25% of Māori women and 17% of Māori men aged 45-49 years were separated, divorced or widowed, compared to 11.3% of non-Māori women and 9.6% of non-Māori men in that age group. Percentages of separated or divorced people, both Māori and non-Māori have increased more than four fold over the last 20 years.

Family structure and achievement

Data from New Zealand’s participation in two international studies suggests that, overall, children in two-parent families have a higher level of achievement than children in other family structures, including children in two-parent families which contain other adult members. Results for Year 5 children’s mathematics and science achievement (Chamberlain, Chamberlain & Walker 2001) and 15-year-olds’ reading achievement (Sturrock & May, 2002) are set out in Table 5.1 below.

Table 5.1: Year 5 and 15-year-old achievement (mean scores) by family structure

<table>
<thead>
<tr>
<th></th>
<th>2-parent</th>
<th>1-parent</th>
<th>2-parent+</th>
<th>1-parent+</th>
<th>Not with parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>Mathematics</td>
<td>508</td>
<td>478</td>
<td>455</td>
<td>440</td>
</tr>
<tr>
<td>Year 5</td>
<td>Science</td>
<td>540</td>
<td>505</td>
<td>487</td>
<td>468</td>
</tr>
<tr>
<td>15-yr-olds</td>
<td>Reading</td>
<td>542</td>
<td>510</td>
<td>502 (other)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Mean scores are approximations. Mathematics and science scores are extracted from Chamberlain et al (2001:46), and reading scores from Sturrock & May (2002:103).

Despite these results, it appears that family structure, in itself, does not necessarily have a significant impact on achievement and development. In the Christchurch Health and Development Study, although children from single-parent families scored lower on the Burt Word Reading Test than children from two-parent families, once other factors were held constant there was no statistical evidence that family structure had any impact on reading

ability (Barker & Maloney, 2000). Similarly, the Competent Children Study in Wellington determined that family type and changes in family type were not linked to children’s competency levels (Wylie, 1999a; Wylie, 2001a).

International research also indicates that family structure in itself is not as important as the effect it has on the ability of families to invest time and resources into their children (Honig, Kahne & McLaughlin 2001; Weisner & Garnier, 1992; Yeung, Duncan & Hill, 2000). However, children’s achievement and development may be affected if there are adverse outcomes of changes in family structure such as through divorce, separation or death of a parent.

Rodgers and Prior (1998, cited in Braun 2001) recently reviewed research evidence from more than 200 research reports of the impact of divorce and separation on children. The review showed that parental separation should be seen not as a single event but rather as a process beginning before, and continuing after, the separation. The review also challenges some popular views about outcomes for children (Braun, 2001:241):

The age at which separation occurs is not important in itself, boys are not more adversely affected than girls, and the absence of a parent figure is not the most influential feature of separation for children’s development.

Outcomes for children have been found to be affected by a number of factors (Braun, 2001:241; Smith & Taylor, 1998:210):

- finances: hardship can limit educational achievement
- family conflict, which can contribute to behavioural problems
- parents’ abilities to recover from the distress of separation, which affects children’s ability to adjust
- multiple changes in family structure which increase the probability of a poor outcome for children
- quality contact with the non-resident parent, which can improve the outcome for children
Long-term adverse outcomes apply to a minority of children, with short-term distress at the time of separation usually fading with time. However, the review of research shows that this minority of children of separated families are twice as likely as their peers from intact families to:

- live in poor housing
- be poorer as adults
- have behavioural problems
- perform less well in school
- need medical treatment
- leave school and home when young
- become sexually active or pregnant, or parent, at an early age
- have depressive symptoms, and a high level of smoking, drinking
- drug use during adolescence and adulthood


There is clear evidence that divorce and separation are stressful for children and that their well-being and development can be adversely affected, although the differences between children in divorced and intact families are quite small, and these effects seem to be diminishing in current social contexts where divorce is an accepted part of many children’s experience. Nevertheless, the effects of divorce cannot be dismissed lightly, as Edgar (1993, cited in Smith, 1996:46\footnote{Smith, A. B. (1996). Research on the Effect of Marital Transitions on Children. In A. B. Smith & N. J. Taylor. (Eds.) Supporting Children and Parents Through Family Changes (35-51). Dunedin: University of Otago Press.}) observed:

While it is true that Australian studies, and some of the better United States studies, show that divorce in and of itself does not explain the damage done to children’s adjustment and well-being, in my view it is absolutely misleading to turn this into a claim that divorce has no damaging effects on children. Time and again the research shows that divorce, of all major family events, is associated with repeated disruptions and disjunctions in the child’s life.


At the societal level, children and youth contribute to and are affected by such things as good social relations and level and quality of social capacity in terms of ability to live and work peacefully and productively with others. Children and youth impact society’s quality of life through their character, civility, spirituality, and tolerance as well as their activities in terms of environmental lifestyle and voluntary community involvement. Children’s and youths’ well-being is influenced by a number of conditions at the societal level, including the society’s standard of living, income distribution, health care system, and child care system.
The quality of family ties is more important than family structure, so policies need to encourage good family relationships rather than certain kinds of family structure (Hill, 2002). It also matters what resources are available to children. Those in two-parent families may have more adequate economic resources and greater facility for time input from parents (Hill & Yeung, 2000).

Family dissolution may often be accompanied by dramatic drops in living standards, movement to different residences, a reduction in the time parents spend with children and, as a consequence, a serious compromise in their ability to monitor children's behavior (Hill & Yeung, 2000).

Changes in family structure where a key effect is loss of income may have long lasting effects on achievement and development:

Results from both the college attendance and college completion estimations show that students from disrupted families are significantly less likely to attend and complete college than students from intact families, but that much of the effect of family structure fades when family income is included in the model (Ver Ploeg, 2001:178).

Honig, Kahne and McLaughlin (2001) cited a number of studies which have found that higher achievement across different family structures is associated with parents who have strong roots in their neighborhoods - roots that can provide additional support and supervision for youth, and networks for personal and professional advancement.

Rather than any particular family structure, supportive parenting behaviours, such as sharing meals, leisure activities, home activities, and reading or helping with homework, have been found to correlate positively with children's academic performance (Cooksey & Fondell, 1996, cited in Yeung et al, 2000). See Chapter 6 for an examination of home processes.

**RESOURCES IN THE HOME**

Having a range of family resources, both human and material, seems to make a positive difference for children, but the circumstances surrounding the deployment of these resources can be complex. Hill and Yeung (2000:27) for example, concluded that, “...based on the literature in sociology, psychology, and economics, the determinants of parental investment are multi-dimensional.”

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336 Hill, M. (2 May 2002). *Voices of Children.* (MSD Seminar - OHTs)
International research findings cited by Hill and Yeung (2000) showed that family economic resources have a clear effect on the experiences parents can afford to provide for their children. High-quality daycare, schooling, and a more stimulating home environment can all contribute to a child's healthy development. Recent studies also showed that a low income puts children at risk intellectually, emotionally, and physically because economic distress tends to limit the psychological resources parents can bring to bear on raising their children who are then likely to experience a less stimulating home environment during a critical developmental period.

Hill and Yeung (2000)\textsuperscript{342} cited research which shows that the psycho-sociological resources provided by parents such as paternal warmth, involvement, and consistent parental supervision provide children with a sense of security and facilitate their adjustment and achievement. Consistent with the view that children also influence their parents, parental investment actions may also be affected by ability or ‘endowment’ of their child(ren). They can be affected too by the behaviour of their child(ren).

Hill and Yeung's (2000)\textsuperscript{343} review of the international research literature revealed that the socioeconomic status of parents and presence or absence of parents in children's homes set boundaries on available resources and constraints that affect parents’ decisions to invest directly. In particular, parents with higher educational attainment tend to have a higher quality investment in children. On the other hand, time spent earning income can often mean little time for involvement with children. The socioeconomic characteristics of parents can also affect their investment behavior through indirect effects on their parenthood beliefs, self-efficacy, and their aspirations for children's achievement. Further, the power relation between parents themselves can mediate the effects of parents’ socioeconomic characteristics on the nature of their involvement with children and affect the relative contribution from the spouses. In addition, from a developmental perspective, children's age, gender, aptitude and health, as well as the life cycle stage which the parents are in, and the living arrangements of parents and children relative to one another, will affect the nature of interactions between them, as well as parents’ expectations for their children.


Further information about the processes involved in, and the influences of, family resources is provided by Adams, Clark, Codd, O’Neill, Openshaw and Waitere-Ang, (2000)\(^{344}\), in an examination of Family Resource Theories. They suggest that, in western societies, these theories can explain not only social inequality and social stratification but also social mobility. People can move between and within classes in part because of their levels of access to the family resources necessary for achievement in the education system. The theories thus may explain why members of some middle-class families do not achieve in the education system, while members of some working-class families do achieve well. In addition, these theories help explain how, to some extent, one level of family resource can compensate for another. For example, if a family has fewer economic resources (for example, where the main income earner has been made redundant), but strong academic knowledge (such as literacy learning), then the family can still provide their children with sufficient resources to do well in the education system.

Adams et al (2000)\(^{345}\) also make the important point that Family Resource Theories help set the issue of family resources in a wider context. The theories are primarily based on the premise that educational success is not achieved on a level playing field. Not all children start in the education system equally well-resourced, or with equivalent literacy backgrounds. Some start well ahead of most; others start way behind. At a deeper level, given the financial and cultural resources necessary to succeed in a Western-oriented education system, the debate leads to questions about the unequal distribution of resources within a society.

New Zealand research has clearly demonstrated the links between access to resources at home and child achievement (Ministry of Education, 2001)\(^{346}\). For example, the Competent Children at Six Project\(^{347}\) found that family resources were the strongest influence on children’s academic-related competencies at ages five and six. As Wylie (1999a)\(^{348}\) noted, what happens at school comes more easily for children from well-resourced homes, because they are able to draw on knowledge already in the family. The Third International Mathematics and Science Study also demonstrated links between home resources and children’s achievement.

Table 5.2 below sets out the results of two international studies (TIMSS-98) in which New Zealand Year 5 and Year 9 children have participated. The results exclude data on computers in homes because this was discussed in an earlier chapter of this synthesis.

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Table 5.2: 1998 New Zealand Year 5 and Year 9 children’s achievement (mean scores) by home resources

<table>
<thead>
<tr>
<th>Year 5</th>
<th>Dictionary, study desk, and calculator</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>75%</td>
<td>495</td>
<td>530</td>
</tr>
<tr>
<td>No</td>
<td>25%</td>
<td>456</td>
<td>486</td>
</tr>
<tr>
<td>Books</td>
<td>&gt;100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>56%</td>
<td>505</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>26-100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26%</td>
<td>485</td>
<td>510</td>
</tr>
<tr>
<td></td>
<td>&lt;26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18%</td>
<td>420</td>
<td>450</td>
</tr>
<tr>
<td>Year 9</td>
<td>Home education resources index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td>545</td>
<td>565</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>482</td>
<td>505</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>418</td>
<td>420</td>
</tr>
</tbody>
</table>

Note: Mean scores are approximations. Year 5 scores are extracted from Chamberlain et al. (2001:48) and Year 9 scores from Chamberlain & Walker (2001:84). The Year 9 Home Education Resources Index was constructed from the same resources as for Year 5 children, but also included parental educational level.

Table 5.2 shows very clearly that at both the Year 5 and Year 9 levels children with the least educational resources in the home had markedly lower achievement than their peers who had medium and high levels of resources. Sturrock and May (2002:106) reported the same pattern for New Zealand 15-year-olds in the area of language literacy: “…the more educational resources reported in the home, the higher, on average, the students’ reading performance.”

Unfortunately, the reality for some families is that it is difficult enough to find affordable housing and provide adequate food and medical care. Financial constraints make it very difficult, if not impossible, to provide their children with books, a computer and study desk, holidays away from home and visits to places of interest, or academic assistance. Children in these low-income families are therefore restricted in their opportunities to learn about and understand their world (Batten, Withers & Russell, 1996), and restricted resources may also have a negative impact on the range and quality of interactions within families. The nature and significance of these family processes are discussed in Chapter 6.

The Ministry of Education (2001) describes much of the assistance to schools in low decile communities as revolving around ameliorating the impacts of the lower levels of resources that these children are able to access outside school. Higher resources are provided for low decile schools to assist them in reducing the learning barriers children face, and assistance with the provision of home resources such as computers, books and other homework facilities. One of these homework facilities was not in fact located in family homes, but

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established as a homework centre for Tongan secondary children in a local high school. Fusitu’a & Coxon (1998) reported that these Tongan children, who were concerned about their lack of achievement, gained confidence over time, saw the centre as a chance to improve their results, and believed that it helped them ‘a great deal’. Having tutors available at the centre of the same ethnic origin was a key feature of this project.

The significance of resources and social capital was highlighted in a recent international review of research (Cochrane, 2001) which cited evidence that minority children benefited to some extent from schools and their resources. For example, Catholic schools in the US have been effective in improving the test scores of children in minority groups, and Cochrane (2001) suggested that this outcome reflected the existence of cultural capital within those schools. He explained that the culture and processes of Catholic schools has been found to be similar to the high-SES public-school processes that have also improved minority test scores, and suggested that there is cultural capital that is not as readily available in the schools which many poor and poor minority children attend. In the US there are marked differences in resources, and in human and social capital, between poor central-city districts and suburban districts. Reporting on a county-wide initiative in Virginia (in the early 1990’s) aimed at improving minority test scores, Cochrane noted that the initiative had succeeded in providing the resources and mixture of SES and race/ethnicity within schools (some of which had 20+ languages represented), and test scores had improved for African-American and Hispanic/Latino children. In Cochrane’s view, … a case can be made not only for better SES mixes in schools, but also for better information on the communities students live in and their social/cultural capital and human resources. [124]

**Literacy resources**

There is overwhelming evidence that literacy resources in the home, both materials and experiences, are crucial for children’s literacy development and achievement (Elley, 1992; Literacy Experts Group, 1999; Snow et al, 1998; Tabberer, undated).

The evidence indicates that in order to create an effective home literacy environment, families need a range of specific resources. Families need relevant economic resources (to buy books, computers and other educational materials) and cultural resources. In particular, parents need to possess quite specific educational resources, knowledge and practices in order to provide a rich home literacy environment (Adams et al, 2000).

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In a 1993 study of almost 1400 New Zealand families, Nash (cited in Adams et al, 2000) found that at least a third of all children were brought up in homes where neither parent had gained any national school qualification, and that only 10 per cent of children lived in homes where both parents had gained at least a sixth form qualification. He concluded that the material and symbolic resources of literacy were distributed unequally in New Zealand society. The study also found some significant links between social class and various measures of reading achievement; children from professional backgrounds had a reading comprehension level about half a standard deviation higher than the average. However, when other indicators of literate homes were considered, the single most powerful variable relating to reading attainment and social class was the number of books owned. More than half the professional families owned at least 300 books, as did one quarter of intermediate and self-employed families, but this level of literate resources was reached by no more than 1 in 8 working-class families. Nash commented that while book ownership may appear to be a crude indicator of the links between cultural capital, class and reading achievement, it nevertheless seemed to “…represent a slice of a much more complex reality of practices” (cited in Adams et al, 2000:281).

According to Adams et al (2000), early literacy development encapsulates the complexity of the relationship between language, reading and the social and cultural contexts of the home and community. The act of becoming literate varies according to the particular social and cultural contexts within which the young (less than five years) child is operating. Parental qualifications, educational backgrounds, family class location and parental knowledge of literacy learning all work together, or against, families being able to provide effective environments where early literacy development can occur. As Adams et al (2000:281) noted, “A head start before school can mean a head start in school, and this often leads to a head start in life as well.”

Although poverty may be a risk factor associated with beginning reading development, current reading research literature generally does not consider the economic status per se of families to have a significant causal effect on literacy acquisition. For example, Stewart (1995, cited in Adams et al, 2000) found that the home literacy environments in her study of low-income families were all reasonably conducive to young children’s literacy development and future school success, but there were differences in the ways that some of the parents provided support for their children’s literacy. In other words, low-income home environments can provide reasonably sufficient opportunities for children to engage in literacy-related activities.

Adams et al (2000) summarised studies which found that the four areas of book ownership, home language use, general print exposure, and home literacy activities are significant in promoting beginning reading achievement in low-income home environments, and argued that without books in the home, it is more difficult for young children to become interested in early childhood literacy activities and to become familiar with the conventions of print. In a major US study, Adams (1990) noted that young children from low socio-economic status families were exposed to low levels of print, and that print was used primarily for entertainment and day-to-day activities. Children from families where parents used print in

more elaborate forms found learning to read at school easier than children from home environments with less print exposure.

New Zealand research has indicated that the practice of teachers sending books home with children for them to read to family members can be very effective in increasing reading progress and creating links between school and home (McNaughton, 1995)\textsuperscript{363}. However, as Phillips, McNaughton and MacDonald (2001)\textsuperscript{364} emphasized, the materials sent home must be relevant for children, that is, they should be written to engage children’s interest, draw on their cultural and social identities, and have meaning as a central focus.

Hohepa’s (1997)\textsuperscript{365} research confirmed the importance of relevant resources. Her studies showed that relevant Māori language resources (for example, native or fluent speakers, contexts for family Māori language use), as well as Māori literacy resources (for example, Māori language books, family literacy practices, knowledge and expertise) available in homes are also heavily implicated in literacy education of children in and through Māori.

There are various outside organizations in New Zealand which contribute to resources in the home. For example, according to a newspaper report, Tainui Primary School in Tokoroa (a decile 1 school) was assisted by a $5000 grant from Trust Waikato to provide each of its 200 children with personal copies of a dictionary and either a thesaurus or atlas to help them with homework (Holt, 2002)\textsuperscript{366}. No data are yet available about whether this improved children’s achievement.

On a much larger scale, the ‘Books in Homes’ programme (Croft & Dunn, 2002)\textsuperscript{367} has distributed books as personal property to children in decile 1-3 schools throughout New Zealand to help increase their home literacy resources. In 1997, one year after the programme was established, Elley (1997)\textsuperscript{368} reported significant improvement in reading test scores. There was a suggestion that book ownership was a significant factor in this. Elley (1997) noted that virtually all the teachers involved reported a serious lack of suitable books in their pupils’ homes, observations which were supported by interview data:

\textit{We interviewed 120 pupils altogether, spread evenly over Year 2, 4 and 6. As the pattern of their responses was similar across the year levels, their responses have been combined for this summary. Most of these pupils (71\%) reported owning fewer than 10 books of their own at home (apart from the Duffy books). [16]}


Elley (1997) also reported that:

In one survey, I asked every teacher whether they thought that the money spent on the project might be better spent on purchasing books for the school library, and be made regularly available to all. After all, the school was contributing much to the Project, and receiving little in return by way of material resources. Every teacher disagreed with this suggestion. All claimed that access to books was not as important for these pupils as ownership. Once children own attractive books of their own, and are encouraged to read them, they can share them regularly with family and friends and return to them often. In a situation where school and class libraries already exist, ownership is more likely to change attitudes, and enhance skills than additional books in the library. [33]

The researcher noted that surveys of parents’ attitudes were very positive, and that an additional book order scheme (for packs which cost $5) organised through the schools, showed large increases in spending by parents.

In 1996, 75 schools placed orders for the book packs, and 2439 books were ordered. By contrast, in 1997, 107 schools placed orders and 3244 books were ordered, an increase of 805 books. The 1997 figure represents an outlay of $16,220 spent on books by the parents of children in lowest-income areas. Such a figure suggests very strong support for the message of the Duffy programme. Apparently the cycle of booklessness is being broken. Providing quality books to children without charge seems to encourage parents to buy more of them. [28]

Although there was evidence of positive parental reactions, and fourteen of the 40 teachers spoke of positive responses from parents, most said they had had little reaction. Elley (1997) pointed out that regular contact with parents was the exception in most of these schools. However, some schools invited parents to assemblies when Duffy books were distributed, and the comments then were reported to be typically very positive. A few schools reported an increase in the amount of reading by parents, with their children.

More recently Croft and Dunn (2002) have found that the gains reported by Elley (1997) have been maintained, and slightly improved, for the same sample of children four years later. Children who have been recipients of books under the ‘Books in Homes’ scheme now number 78000. The scheme has also been extended to younger children. ‘Kids at Home’ provides a birthday gift of a book to 4-year-old children in decile 1 localities in the expectation that it will help foster a love of books and develop familiarity with print as an important foundation for reading.

Information Technology resources

Accessing information technology at school and at home, and developing the knowledge and skills to understand and use it, are now emerging in international research (see, for example, Hill & Yeung, 2000) as issues of importance to children.

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In New Zealand, findings from the Wellington-based Competent Children Project suggest that computer activities positively correlate with children’s achievement. Wylie (2001a)\textsuperscript{371} reported that both current and previous family computer ownership were associated with higher scores for children. Computer activities associated with higher scores for children at age 10 were word-processing, the use of graphics, and the use of CD ROMs. In this study (which was not a national sample) 71% of the children and families involved had a computer at age 8 compared with 57% at age 6. Children used computers mainly to play games. However, a third also did word processing, a quarter used graphics, and 13% used CD ROMs for information or projects. Only 1% mentioned use of the Internet or e-mail. Overall,

Computer ownership showed positive associations with children’s competencies. The particular uses of the computer which appeared to benefit children at age 8 were word processing, using graphics packages, and accessing information through CD ROMs. (Wylie, 2001a:32\textsuperscript{372})

Within New Zealand, some groups of people are less likely to have access to computers in their homes. For example, in 2001, only 19% of Pasifika people were living in households with access to the Internet, compared with 42% of the overall population (Ministry of Pacific Island Affairs, 2002\textsuperscript{373}).

However, various initiatives have been taken to make computers more accessible. For example, the Computers in Homes project (launched at Cannons Creek School, Porirua and at Panmure Bridge in Auckland during the middle of 2000) aimed to empower the communities of decile 1 (low socio-economic) schools with the tools and skills to become active participants in online activities. The scheme gave 50 families in New Zealand a computer, a phone line where necessary, Internet access, training and technical support. The families signed an agreement and paid $50 dollars to take part in the programme. The major objectives of the project were to provide parents with computer skills and to encourage children to use these new technologies as a learning tool. Waldegrave and Pole (undated:17)\textsuperscript{374} reported that:

The results from the first evaluative follow up were very positive. Almost all the parents were using email, and websites for news and information, like job vacancies. Some also used the internet for shopping and banking. Half the Canon’s Creek parents used the school website for a variety of purposes. Parents and children played computer games together. Half the parents taught their children skills on the computer and the other half learnt skills from their children. The children reported emailing and using the websites.


\textsuperscript{373} Ministry of Pacific Island Affairs. (June 2002). Pacific Progress: A report on the economic status of Pacific Peoples in New Zealand. (Summary version), Wellington: Ministry of Pacific Island Affairs and Statistics New Zealand.

MOBILITY

There is a suggestion in the international literature that frequent mobility may be detrimental to child outcomes (Nechyba et al, 1999; Rumberger, 2002). Children who have frequent changes of school (for a variety of reasons) tend, on average, to have lower levels of achievement than their less mobile peers. However, after reviewing many studies of children’s mobility, Rumberger (2002) concluded that mobility may be a symptom rather than a cause of lower achievement. Mobile children tend to have personal and family problems that contribute to their mobility, and it is these problems rather than mobility itself that are strongly linked to lower achievement. In many cases mobile children come from poorer families and have lower achievement before they become mobile.

In the UK, the Office for Standards in Education (Ofsted) (2001) reported that a high proportion of poor child behaviour was associated with late admissions during the school year. However, Ofsted also found marked variations in the extent to which the late admissions disrupted child learning and/or were associated with misbehaviour. They found in the English context, that schools with major problems in this regard had failed to set up systems to meet these children’s needs on entry.

International comparisons show New Zealand child mobility (school changes during the year) to be highest of all countries in the Third International Mathematics and Science Year 5 and Year 9 studies (Chamberlain et al, 2001; Chamberlain & Walker, 2001). In fact, 47.5% of 12 to 15-year-olds changed address between the 1991 and 1996 Censuses (Statistics NZ, 1999b). Further, certain segments of the New Zealand population (including important segments of the Māori population) are significantly more mobile, often changing neighbourhoods and schools yearly or even more frequently (Nechyba et al, 1999).

In the New Zealand Competent Children Project, at age 10, 68% of the study children were still in the same school they started in; 23% were at their second school; and 7% were at their third school. Two percent had attended four or more schools by the time they had reached their fifth year of formal education (Wylie, 2001a). Relevant findings were as follows:

Children who had attended 4 or more schools by age 10 had lower scores for curiosity, communication, writing, and reading age (Wylie, 2001a:141383).

Children from middle and high income families were more likely to have stayed in one place or moved only once. By contrast, children from low-income homes have experienced more changes in their families and more shifts in houses (Wylie, 1999a:21384). But moving house was not associated with any differences in children's competency levels (Wylie, 2001a:31385).

While the findings from the Competent Children study appear to support those in the international research linking high mobility and lower achievement, this area requires further investigation in order to determine with any confidence the extent to which this factor affects New Zealand children’s achievement, and the extent to which school-parent partnership practices could be pro-active in ameliorating risk factors.

CHILD HEALTH AND WELL-BEING

Children's health and well-being encompass conditions that either directly (for example, loss of hearing, impaired vision) or indirectly (for example, absences due to illness, emotional turmoil resulting from abuse, malnutrition) could be considered to affect the children's achievement. In New Zealand, statistics indicate that poor health is a particular issue for some ethnic and socioeconomic groups. For example, Wylie (1999a)386 found that children from middle and high-income families were more likely to be in good health, and that, while many children from low-income homes were also in good health, other low SES children were far more likely to experience chronic health problems and require regular medication. Moewaka Barnes (2001)387 also discussed the links between low socio-economic status and poor outcomes in areas such as health and education. She pointed out the strong associations between both lower socio-economic status and poor educational qualifications, and suicidal behaviours among New Zealand youth. These findings are consistent with Mayer's (2002)388 conclusion that child well-being is related to parental income in every country for which data are available; the children of high-income families are healthier than others.

Nutrition

There is considerable evidence linking children’s nutrition to educational outcomes. If children are malnourished, have nutritional deficiencies, or are obese, then their learning is likely to be affected. Numerous studies in New Zealand and overseas have demonstrated a link between nutrition and learning, and shown the beneficial effects of restoring nutrition to

appropriate levels (see, for example, Birkbeck, 1994; Boyes, 1997, 1999; GP Weekly, 1997; Pollitt, 1994; PTA, 1993; Strong, Undated; Symons, Ginelli, James & Groff, 1997; Tucker, 2000; Wette, 1992; Williams & Leherr, 1998). For instance, Williams & Leherr (1998) reported that reducing malnutrition improved children’s achievement in Ghana, while the GP Weekly (1997) cited recent evidence showing that iron deficiency in teenage girls affects their mental performance and that restoring iron levels improved verbal learning and memory.

A report published by the World Bank (1997) pointed out that methodological problems had prevented studies of nutrition programs from being able to clearly measure the effect of children’s long-term nutrition on their academic achievement. However, the report noted that a unique longitudinal survey in the Cebu metropolitan area of the Philippines had overcome some of the methodological problems, and investigated how early childhood nutrition influences schooling decisions and academic achievement. The study was based on a dynamic model in which early childhood nutrition affects children’s cognitive development and their apparent readiness for school and thus their parents’ choice of when to enrol them in school. Prolonged childhood malnutrition can impair mental development both directly (by compromising the structural development of the brain) and indirectly (by suppressing a child’s motor activity and thus lessening environmental stimulation), and the report notes that the direct effect of malnutrition is believed to operate largely in the first two or three years of life.

The Cebu Longitudinal Health and Nutrition Survey collected data on early childhood health and nutrition and on subsequent school performance (as measured by achievement tests) for a sample of 3289 children and, more recently, for the younger siblings of the original (index) children. The Survey tracked the original children and their households over 12 years, beginning shortly before birth, when their mothers were seven months pregnant. It collected health and nutrition data, including measurements of both mother and child, every two months for the first two years of the child’s life, along with household and community-level information.

Biddulph Educational Consultants  Community & Family Influences BES (Jan 2003)
The resulting data set had two critically important features. Firstly, the survey tracked the same children, allowing the study to overcome a common methodological problem in achievement studies, and secondly, the data set contained detailed data on the younger siblings of the original children, which allowed the study to control for unobserved differences in home environment, including parents’ views of education’s importance and thus their emphasis on and investment in their children’s schooling.

The initial survey was conducted from 1983 to 1986; follow-up surveys of the index children and their younger siblings were conducted in 1991-92, when the index children were about eight years old, and again in 1994-95. Among the younger siblings, however, only the oldest was measured in 1994-95, and only if he or she was of school age. Follow-up data from 1994-95 include scores from standard mathematics and English comprehension tests and grade repetition rates. Household questionnaires elicited detailed schooling histories, including attendance (the reliability of which was checked against actual attendance records for at least a full semester).

The researchers (World Bank, 1997) found that better-nourished children performed significantly better in school, with a one standard deviation increase in height associated with half a standard deviation increase in test scores. Better-nourished children were also significantly less likely to repeat first grade. They pointed out that,

\[ \text{... once poor nutrition diminishes a student's ability to grasp abstract concepts, the learning situation is sure to deteriorate even further. Undernourished children are increasingly likely to drop out of school as adolescents, when concepts learned in school become more abstract. In other words, only the better-nourished adolescents are likely to benefit from resources devoted to secondary and higher education. And children who have dropped out of school after only a few primary grades are unlikely to be able to pursue skilled occupations. To prevent the human and productivity losses associated with poor mental development, policy makers in developing countries need to ensure that children receive adequate quantities of energy, protein, and essential micronutrients. If malnutrition in early childhood hampers school performance, and if skills learned in school improve labor productivity, it surely follows that economic growth and improved nutrition for children are mutually reinforcing.} \]

For babies, nutrition mostly occurs through the intake of milk. Two of the Christchurch Health and Development Study researchers, Horwood and Fergusson (1998), who tracked 1000 New Zealand children from birth to age 18 years, found that longer periods of breastfeeding were associated with increased school achievement. They reported that they had controlled for factors such as mothers being better educated and economically better off. Why should breast milk make a difference? The researchers subscribe to the theory that the fatty acid in breast milk (which is not present in formula milk) promotes lasting brain development. This finding can be set alongside Ministry of Health (2001b) data on the rate of breastfeeding in New Zealand. Figures for 27042 babies (69% of the babies born) in 1999 reveal that 73.8% of the babies were exclusively breastfed, 11.4% were partially

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breastfed, and 14.8% were not breastfed at all. The data also reveal that (i) a greater percentage of older mothers, that is, 25-40 plus years, (74-77%) than younger mothers (52-69%) exclusively breastfed their babies, and (ii) a greater percentage of European and Pasifika mothers (75-76%) than Māori and Asian mothers (68%) exclusively breastfed their babies.

Discussing the links between the care of young children (including their nutritional levels), socio-economic status, and educational outcomes, Snow et al. (1998) noted that low SES families tend to receive less adequate nutrition and health services, including prenatal and pediatric care. They also pointed out that,

In other ways, too, low SES often encompasses a broad array of conditions that may be detrimental to the health, safety, and development of young children, which on their own may serve as risk factors for reading difficulties. [125]

Their evidence further indicated that individual children, even if not faced with adverse SES conditions, may be at greater risk with respect to reading difficulties than other otherwise-comparable children, for a number of reasons – for example, having a specific early language impairment, or having a hearing impairment.

Concern about New Zealand children’s nutrition in recent years has been such that a section on nutrition has been included in key findings on the health of New Zealand children (Ministry of Health, 1998), and the Ministry of Health (1997) has discussed setting out nutritional guidelines for children aged 2 – 12 years. Given the critical importance and enormous scope of this area, and the growing concern about these issues in New Zealand, it would be helpful if subsequent iterations of this synthesis explored the issues in more depth than has been possible within the constraints of this synthesis.

**Hearing loss**

Hearing loss in the early years can have a significant effect on a child’s emotional, social and educational development (Te Puni Kokiri, 2000). A number of New Zealand studies support this view. For example, Harris (1997) found that a strong relationship exists between hearing loss and speech disorders. Fitzgerald & Associates (2000) reported that the academic performance of a sample of the deaf and hearing impaired children was below that of their hearing peers; the former group also having significant social and personal development needs. Similarly, Pritchett (1998) found that 47% of severely or profoundly deaf 9 to 19-year-old readers were clustered at the low end of comprehension rankings compared with just 4% of normal hearing peers, and a recent Australian review

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(Zevenbergen, Hyde & Power, 2001) indicated that deaf and hearing-impaired children’s achievement in mathematics is significantly below that of their hearing peers. Further, Kent (2002) found that hearing impairment continues to carry undesirable stigma for adolescents.

Hearing loss afflicts Māori children more than others. In 1997/98, Māori children were likely to fail hearing tests at almost twice the rate of non-Māori children. In fact 13% of new entrant Māori children failed hearing screening tests in 1997/98, compared with approximately 7% of non-Māori new entrants (Te Puni Kokiri, 2000).

According to the Public Health Commission of 1994 (Te Puni Kokiri, 2000), one of the major causes of hearing loss is glue ear, which is associated with nasal congestion (for example, from the common cold), attendance at day care centres, household overcrowding, low rates of breastfeeding and, once again, exposure to environmental tobacco smoke. The implication is that hearing loss is likely to be associated with low socioeconomic status.

Data connecting hearing loss to New Zealand children’s social and academic achievement are also available from the Dunedin Multidisciplinary Health and Development Study. Sears, Flannery, Herbison and Holdaway (cited in Silva & Stanton, 1996) reported that 5-year-olds with a moderate degree of hearing loss stemming from Otitis Media with Effusion (OME, that is, glue ear) were significantly below their peers in speech articulation, verbal comprehension (but not verbal expression), IQ, and motor co-ordination. They were also reported to be more dependent, have a shorter attention span, have weaker persistence in trying to achieve a goal, and to be more restless, destructive, unpopular with peers, and more disobedient. In the view of the four researchers, these added up to a pattern of significant disadvantage. Considering the children over the span 3 to 11 years, the researchers found that the children had significantly lower scores in verbal comprehension, verbal expression, and reading. It seemed that early OME resulted in delayed language development. At 13 years, the researchers reported that OME children had more behaviour problems and greater inattention, while at 15 years they found that OME children were more than two years behind their peers in their reading achievement. The Sears et al study (cited in Silva & Stanton, 1996:125) concluded that, “…the late [that is, age 15 years] consequences of OME may have originated well before age five and probably well before age three.”

These data suggest a very strong link between hearing loss and children’s development and achievement, particularly with respect to social behaviour, language and mathematics development.

However, there are some positive findings. For example, Tapsell (1998)\textsuperscript{418} reported that if hearing impairment is identified before a child is 6 months old then age-appropriate language development is possible\textsuperscript{419}. Family factors are considered by Powers et al (1999)\textsuperscript{420} who found that much research suggested that deaf children of deaf parents had higher achievements. The authors suggested that the reason for this might be more complex than that often assumed, the use of sign language in the family. They argued that the evidence suggested that, at the very least, the introduction of sign language does not have a detrimental effect on achievements, and is most likely facilitative.

A positive initiative within a school setting was reported by White (1999)\textsuperscript{421} who described the use of a teacher voice-amplified system to improve classroom acoustics in Paremata School. The system made a significant difference to the children’s hearing and ability to acquire language and literacy skills. A similar scheme at Windley School in Porirua is reported to have produced similar results for the young children involved\textsuperscript{422}, including a significant improvement in the children’s on-task behaviour.

The implications of these data are that (a) early detection of hearing loss is vital, and (b) specific steps need to be taken by parents, educators and community to address such loss.

**Asthma**

Factors that are known to trigger asthma include fumes, tobacco smoke, colds and stress. Environmental tobacco smoke increases the risk of asthma\textsuperscript{423} by 50\% (Te Puni Kokiri, 2000)\textsuperscript{424}. This is a concern, given that a third of secondary school children are reportedly living in households with smokers (Mussen, 2002)\textsuperscript{425}. While New Zealand now has one of the lowest asthma death rates in the OECD (Te Puni Kokiri, 2000)\textsuperscript{426}, asthma is nevertheless the most common cause of children’s hospital admissions in New Zealand. The hospitalization rate for asthma in 1998 was 2.5 times greater for Māori than non-Māori. Obviously this results in absence from school. As McNaughton, Smith, Rea, Asher and Mitchell (1993)\textsuperscript{427} noted, New Zealand asthmatic children are at greater risk than non-asthmatic children of losing days from school.


\textsuperscript{419} See also Powers et al (1999). Early use of sign language probably helps this development.


\textsuperscript{422} In 1998, the year in which the amplified system was first trialled at Windley School, 57\% of the Year 1–3 children were found to have some degree of hearing loss, many as a result of glue ear.

\textsuperscript{423} According to Mussen (2002), secondhand smoke has a major impact on other childhood illnesses such as meningococcal disease and glue ear, and results in 500 hospital admissions per year of under two-year-olds for chest infections.


Despite these figures, New Zealand asthmatic children do not perform significantly lower in reading than their non-asthmatic peers (McNaughton et al, 1993); school absence on its own does not affect reading achievement. A study of 13-year-olds in the USA who were severe asthmatics likewise found that academic performance was not significantly associated with school attendance (McNaughton et al, 1993). The conclusion to be drawn from these data is that the reading achievement of most children who are asthmatics is unlikely to be adversely affected by this particular health condition on its own. The Dunedin Multidisciplinary Study (Silva & Stanton, 1996) which looked closely at asthma in its cohort of children, likewise made no connection between children with asthma and their achievement.

**Children’s well-being**

"Emotional and psychological distress, behaviour disorders, cognitive disadvantage and delinquency are some of the legacies of family adversity and negative parenting attitudes and practices."

(Silva & Stanton, 1996:256)

The Dunedin Multidisciplinary Health and Development Study (as reported in Silva & Stanton, 1996) has produced a range of important data relating to children’s well-being. For example, McGee, Feeham and Williams (cited in Silva & Stanton, 1996), reporting on the mental health of the cohort of children over the years, found that by age 3 years, 2% of the sample were showing hyperactive behaviours – in equal numbers of boys and girls. By age 15 years, only one quarter of these same children were identified as being free of mental health problems. These three researchers found a link between the achievement of these children and their mental health. The children

… also showed a consistent pattern of low cognitive and academic performance. As preschoolers they had poorer comprehension and expressive language skills, but not poorer motor skills, than the other children in the sample. During the early school years they showed poor reading skills. By age 15 a third were reading at or below the level of an 11-year-old, and their average reading score was close to one standard deviation below the remainder of the sample.

(Silva & Stanton, 1996:154)

It is important to note that the three Dunedin researchers attributed the children’s low achievement to their poor language and cognitive skills at age 3 years, rather than their behaviour problems, although the two were obviously linked. Thus, hyperactivity at a young age places children at serious risk not only of underachieving but also of subsequent mental health problems.

The 2% of cohort children referred to above does not disclose the full extent of mental health problems. The Dunedin study found that by age 15 years about 20% of the children in their sample had experienced some kind of mental health disorder. As the quote at the

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beginning of this section indicates, many of these disorders and other social behaviours have their origins in the family. Pryor and Woodward, also part of the Dunedin multidisciplinary team (Silva & Stanton, 1996), identified a number of factors in family relationships that contribute to both positive and negative development in children. For example, they found that acceptance of children by their parents, a lack of significant periods of separation of the parents at a young age, and egalitarian attitudes and practices (that is, allowing children to take part in decisions affecting themselves) were more predictive of effective language and cognitive performance than physical and other health factors. On the other hand, they reported that the cumulative effects of stresses (stemming, for example, from low SES, large family size, low maternal cognitive ability, maternal neuroticism, family instability) are likely to have a pervasive effect on the well-being of children. So too is lax, inconsistent discipline and parental disagreement about discipline. This can contribute to high levels of aggressive, anti-social and generally difficult behaviour. Finally, Pryor and Woodward (cited in Silva & Stanton, 1996), found in the Dunedin sample that the children at age 15 years who had behavioural or emotional disorders were highly likely to come from families with high levels of conflict (that is, open expression of aggression and anger), low levels of cohesion (that is, little commitment and support for one another), and low levels of expressiveness (that is, little open expression of feelings and actions).

The effects of early abuse may be even more substantial. For instance, a New Zealand paediatrician (Fancourt, 2002) recently reported in the media that early abuse and neglect can permanently damage children’s brains, from as early as 3 years of age. While these changes may enable traumatized children a form of survival at home (for example, by cutting off conscious thought and emotional pain), Fancourt (2002) considers the damage is such that these children can no longer access their cortex and therefore have great difficulty learning both academically and socially. She concluded that the damage is increasingly difficult to alter the older children get, so it is imperative to have early identification and help for both the children and their families.

The degree of child abuse in New Zealand is substantial. Many New Zealand children suffer from physical, sexual and emotional abuse, probably far more than official figures disclose. Between 1992 and 1997 there was an average of nine deaths per year of children under the age of 15 years from injuries inflicted by others (Ministry of Social Policy, 1999). During the years 1996-98, the death rate for Māori children was 1.59 times greater than for other children (Ministry of Health, 2001a). In 1998, 206 children of the same age were hospitalized for injuries inflicted by others, 41% due to child battering and maltreatment, and 32% of whom were under five years of age. The hospitalization rate for Māori children was 1.4 times greater than for other children (Ministry of Social Policy, 1999). In 1999 there

433 Fancourt, R. (11 Oct 2002). Damage to young brains can last a lifetime, Waikato Times. It has not been possible to examine the data on which Fancourt’s media report was based, but her report appears to raise questions about the severity of the effects of abuse in New Zealand which deserve further investigation.
were 188 children hospitalized for injuries inflicted by others, 48% due to child battering and maltreatment, and again 32% of whom were less than five years of age (Ministry of Health, 2001a). For the years 1998-99 there was a total of 6200 substantiated cases of abuse and neglect for children under the age of 17 years (2808 cases for children under 7 years of age, and 3392 cases for children aged 7 – 16 years). Of these substantiated cases, 46% involved Māori children, 34% European children, and 11% Pasifika children (Ministry of Social Policy, 1999). In the 1999-2000 year, there were 6833 substantiated cases. Of these cases, 45% involved Māori children, 35% European, and 11% Pasifika (Ministry of Health, 2001a).

Such abuse (and other factors) can lead some children to engage in anti-social behaviour, which in turn may be associated with low achievement. Moffitt and Harrington (cited in Silva & Stanton, 1996), two other researchers in the Dunedin multidisciplinary team, investigated delinquency (anti-social behaviour resulting in Police notice) among the boys in the cohort. Thirty-two boys were identified as Life-Course-Persistent delinquents (those who persisted in delinquent behaviour throughout the course of the longitudinal study). At age 13 years they were found to be poor readers, had below average IQs, were hyperactive, inattentive, anxious, displayed odd behaviours, had low self-esteem, were weakly involved at school and generally had fewer social strengths and talents than other boys. These characteristics are apparently linked to factors such as maternal alcohol or drug abuse (Troccoli, 1994), complications during pregnancy and delivery, poor prenatal and post-natal nutrition, exposure to toxic agents such as lead, deprivation of stimulation and affection during infancy, and child abuse. Such children often experience frustration, humiliation and failure in their attempts to learn. The researchers made the important observation that children with such psychological problems would tax even the most resourceful, loving and patient families. An implication of data of this kind is that some children and families are likely to need considerable support from their earliest years to achieve a measure of well-being.

Another group of children who are likely to need particular support is refugee children, some of whom are at increased risk of developing mental health related problems (Hamilton, Anderson, Frater-Mathieson, Loewen, & Moore, 2001). Hamilton and his colleagues at the University of Auckland undertook a major review of refugee children in New Zealand (and elsewhere) and indicated that these children are frequently coping with loss, stress, trauma and change. It seems that preschool children and early adolescents are the most vulnerable and that a significant number display emotional problems on resettlement. Language and cultural differences (and often low family income) pose additional challenges.

Hamilton et al (2001:25) emphasized that, “School and individual therapeutic interventions need to be interlinked to reconstruct a sense of social belonging” so that children feel safe enough to focus on academic learning and social development. In providing such support,
both schools and families need to mutually adapt; this requires an understanding and appreciation of family structure and function in each refugee culture.

One consequence of not receiving adequate skilled support can be youth suicide, which reflects a state of fragile emotional, mental and social health – and the suicide rate of New Zealand’s youth (under 25 years of age) is among the highest in the OECD, being the second leading cause of death in this age group (Te Puni Kokiri, 2000)\(^{443}\). According to a recent report to the Minister of Māori Affairs, Māori youth fare the worst; their rate is 2.5 times that of non-Māori, and risk factors include psychiatric disorder, family instability and socio-economic dis-advantage (Te Puni Kokiri, 2000)\(^{444}\).

International and New Zealand studies have pointed to a number of indicators of social disadvantage associated with suicidal behaviour. Beautrais (1995)\(^{445}\), for example, cited family characteristics and childhood experiences as apparently important risk factors for suicidal behaviour in young people. She noted that recent New Zealand studies (for example, Fergusson & Lynskey, 1995, cited in Beautrais, 1995) are consistent with a large number of overseas studies in showing that children from disadvantaged or dysfunctional family backgrounds (characterised by poor parental care, poor parental relationship, parental psychopathology, exposure to physical or sexual abuse, economic disadvantage and high residential mobility) were at higher risk of suicidal behaviour than nonsuicidal control subjects.

Although school problems, including deteriorating academic performance, disciplinary problems and truancy, have consistently been identified in the histories of children (including adolescents) with suicidal behaviour, these problems are not specifically associated with suicidal individuals and can occur in others who are emotionally troubled without being suicidal (Farberow, 1991, cited in Beautrais, 1995). Beautrais (1995) therefore concluded that (a) school problems, in and of themselves, are unlikely to be useful indicators of suicide risk unless identified in conjunction with suicide-specific risk factors, and (b) the best opportunities to reduce suicide rates may lie in reducing the incidence of mental disorders among young people, a process that would require co-operative ventures between schools, communities and health services.

One final point needs to be emphasized. As Caspi, Harkness, Moffitt and Silva, members of the Dunedin multidisciplinary team (Silva & Stanton, 1996)\(^{446}\) found, the social and intellectual achievement of individual children is almost impossible to predict in terms of the range of factors usually associated with such achievement at a group level. These researchers identified 107 children, 13.5% of their sample, whose IQs changed significantly over the years of the study. They tried to determine contextual and personal factors linked to these intellectual changes. However, in their words, “Wherever and however we looked, we could not predict change in IQ from changes in a variety of commensurate contextual and personal

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changes” (Silva & Stanton, 1996:68). They cited the example of Nigel who, at age 13 years, displayed an unexpected 22-point increase in IQ from when he was 7 and 9 years of age. This coincided with the stabilization of chaotic family living arrangements. It could be assumed that the new-found home stability allowed Nigel to finally function well intellectually. While this may be a valid assumption for Nigel, the researchers cautioned against forming conclusions of this kind. They reported that, “For every child who had a life event linked with IQ change, we found at least five children who had experienced that same event with no measurable effect on IQ” (Silva & Stanton, 1996:71), and concluded:

Although environmental experiences contribute in important ways to personality and cognitive development, the most important environmental experiences appear to be idiosyncratic, or unique to each family member.

(Silva & Stanton, 1996:69)\(^{447}\)

When considering the complex range of factors associated with children’s health/well-being and their development/achievement, it is important to recognize that children are not passive recipients of understanding and feelings, but rather they are active agents in their own social and cognitive development (McNaughton, 2002).\(^{448}\)

It is also important to acknowledge that the negative attitudes and behaviour displayed by some children are not necessarily products solely of their home and community environments. Jacka, Sutherland, Peters and Smith (1997),\(^{449}\) Mikaere and Loane (2001),\(^{450}\) McNeely, Nonnemaker and Blum (2002),\(^{451}\) and Partington (2001)\(^{452}\) have reported that some schools contribute to these attitudes and behaviour. For example, through their uncaring practices and interactions some schools inflict injustices on a proportion of their children so that children feel disaffected, alienated, a lack of connectedness, and a sense of powerlessness. These feelings in turn can result in truancy, substance abuse, violent behaviour and early sexual activity. And, as Partington (2001) points out, the children who tend to suffer most are those who are most vulnerable in the first place, that is, those who have emotional problems, or are culturally or racially different. Chapters 3 and 6 also consider these issues.

Māori well-being and mental health

A number of New Zealand studies link Māori children’s mental health and their well-being to (a) their sense of identity and culture gained within their families and whanau, and (b) the

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socioeconomic resources that families and whanau have available to them (for example, Durie, 2001; Mental Health Foundation, 1999; Te Whaita, 1997).

Various New Zealand reports indicate clearly that mainstream school culture is not always supportive of Māori children’s sense of identity and well-being. For example, Clark (1996) was commissioned by the Ministry of Māori Development to investigate the provision of education/learning centres for Māori teenagers which would be alternative (or perhaps complementary) to conventional secondary schools. Keegan (1996) reported on research which showed that immersion education provided both intellectual and emotional benefits for Māori children. These aspects are discussed in Chapter 3 and also in the Quality Teaching for Diverse Students: Best Evidence Synthesis.

Sleep

Sleep deprivation, particularly among some adolescents who keep very late hours, also impacts on behaviour and achievement, and several studies have shown that decreased performance is a function of sleepiness (Engelhardt & Walsh, 1993; McKay, 1999; Wolfson & Carskadon, 1998).

Emotional and behaviour problems (for example, those stemming from dysfunctional family life) can have an effect on sleeping patterns too (Dahl, 1999), and lack of sound sleep and consequent tiredness can affect attention, mood and behaviour.

A particularly chronic form of sleep disorder is narcolepsy, which generally first develops in adolescents. A person suffering from this disorder may fall asleep at any time, but particularly during relatively passive periods (such as listening in a classroom). According to Hood (1997) early support for teenagers with narcolepsy may help them address the difficulties of adjusting to this lifelong illness.

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PARENT AGENCY IN MANAGING INTERACTION WITH THE EDUCATION SYSTEM

The evidence suggests that the choice of school attended is generally not significant for children’s achievement, with the possible exception of children attending kura kaupapa Māori. The school attended appears to be not as important as the quality of a child’s teachers, of which there can be marked variability within schools. However, there are notable exceptions in the international and New Zealand evidence. For example, for Māori choosing Māori medium/immersion there appear to be comparative benefits throughout schooling for children’s self-concept and in senior secondary schooling for academic attainment, as evidenced by 5th and 6th form qualifications results in 2000, and 2001 (Ministry of Education, 2001). Other benefits have been reported. For example, Smith (1995) found that:

Kura Kaupapa Māori has completely turned many of these ‘indifferent’ parents around to now being avid supporters of their children’s education and advocates of the positive potential of schooling. [31]

Nga Kohanga Reo, Kura Kaupapa Māori, Wharekura and Māori medium education are part of a wider educational, social and political agenda related to Māori language, political and cultural regeneration (McKinley, 2000). McKinley (2000:45) outlined the different options available for parents of Māori children, and suggested reasons they may choose them:

Options include kura kaupapa Māori which may appeal to parents who value te reo me nga tikanga Māori as essential to their identity, and to their everyday life. Kura also offered the chance for Māori to be the essence in schools – not to be marginal, or different, or identified in relation to Pakeha dominance. Māori and education are synonymous. Bilingual units may appeal to parents who are not entirely convinced that full immersion education will equip their children with the knowledge and skills needed in the English-speaking world, but who value their Māori identity, and believe it should be incorporated in some way into their children’s education. Māori and education overlap, but remain distinct.

McKinley (2000:68) further emphasised that strategies to help support the learning needs of parents and whanau as second language learners need to be incorporated, if the Māori language and literacy development of their children are to be optimized:

Children’s whanau should be supported with information about Māori reading materials, particularly recreational reading materials, and about who are likely to be producing new Māori reading resources. They also need support to make the reading materials available, so that the inequitable situation whanau face in terms of access can be addressed.

Processes and partnerships which enable parents, educators and others in the community to work collaboratively to enhance children’s achievement are considered in Chapter 7.

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SUMMARY

Higher levels of parental, particularly maternal, education (a form of social capital) appear to contribute favourably to children’s achievement. Despite this finding, the evidence is also clear that low levels of parental education (and fluency in English) need not be impediments to their supporting their children’s learning and development in significant ways. Enhancing parents’ own competencies, and working with them to enhance their understandings of how children learn, will assist them in helping their children more effectively.

Although children from two-parent families, on the whole, have higher achievement than others, family structure, in itself, does not appear to be a significant factor in children’s achievement and development. Children in single-parent families can achieve just as highly. However, the consequences of changes in family structure, such as time constraints, or financial or emotional difficulties, may have negative or positive effects. For example, in cases of parental separation prior family stress may reduce dramatically, and result in a much more stable home environment for children, with all the attendant benefits such stability brings.

Having a range of family resources, both human and material, seems to make a positive difference for children, but the circumstances surrounding the deployment of these resources can be complex. The evidence indicates that there are a number of ways in which meagre resources can be supplemented.

The international literature suggests that frequent mobility may be detrimental to child outcomes. Children who have frequent changes of school (for a variety of reasons) tend, on average, to have lower levels of achievement than their less mobile peers. However, the data show that this too is a complex factor. There are indications that it is not so much the mobility that is the issue, but the reasons behind the mobility, and school responses to mobile children.

Child well-being is related to parental income in every country for which data are available; overall the children of high-income families are healthier than others. Children’s health and well-being encompass conditions that either directly (for example, loss of hearing) or indirectly (for example, absences due to illness, malnutrition, hyperactivity, emotional turmoil resulting from abuse or family stress) affect children’s achievement. In New Zealand, statistics indicate that abuse and poor health are particular issues for Māori and low SES children. It is clear that early intervention on such health and well-being issues is critical, especially if they are affecting young children; otherwise these problems are likely to have long-term negative effects on children’s development and achievement.
Chapter 6: Home processes

The critical role of home processes on children’s achievement has been acknowledged in the research literature for many decades. For example, Bloom (1976:2) reviewed numerous research findings and concluded,

_These studies indicate that what adults do in their interactions with children in the home is the major determinant of these characteristics [e.g. verbal ability] rather than the economic level of the parents, their level of education, or other status characteristics._

A growing body of research (for example, Benjamin, 1993; Heath, 1982; Snow et al, 1998) also suggests that how parents raise their children may be more important than the parents’ occupation, income, or educational level. For example, in the Competent Children Study in Wellington, Wylie (2001a:17) found that, “Being treated fairly, and getting help when the child needed it, were related to higher scores for children. But always having to help at home was related to lower scores.” In summary, the study found that good quality early childhood education and experiences at home, and later out-of-school activities using language, symbols and mathematics, made improvement more likely.

This chapter examines the extent to which some home processes are positively related to children’s achievement and development. The factors considered are extended family/whanau contact, academic aspirations and expectations, home activities, guidance and support, home language environment, and social functioning.

EXTENDED FAMILY/WHANAU CONTACT

There is a suggestion in the literature that extended family/whanau contact may assist children’s development and achievement, but this area requires further investigation in order to determine with any confidence the extent to which this is the case. As noted in Chapter 2, Rokx (1997) has emphasised the importance of the traditional multiple parenting arrangements within the hapu and wider whanau when Māori children are ‘whangai-ed’ out (spend time away from their parents with members of the extended family or hapu) for

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particular purposes. Three of the purposes Rokx identified could play an important role in
enhancing the child’s well-being, safety, resilience and learning environment:

…to relieve stress on the immediate family; … to be buffered against communication or
other problems with immediate family; to be a first-hand recipient of kuia and korua
guidance. /18/

Positive contact and interaction with extended family/whanau seems to be of benefit to
children. For example, there is some indication in the international literature that quality time
spent with older family members, such as grandparents, can be positive for children’s
development (Hill & Yeung, 2000). In New Zealand, Rogers (2002) cited the case of a
Māori secondary school boy from a low SES family who achieved academic and sporting
success with the consistent support of whanau members on both sides of his separated
family.

For Māori in particular, whanaungatanga, literally ‘familiness’, is an important aspect of life.
Whanaungatanga, both formal and informal, can be seen as expressions of the need to
establish and maintain the functions of extended family. For example, the tuakana-teina
relationship is a key one, that is, that of an older sibling supporting and assisting a younger
sibling (McNaughton, 2002).

At this stage it has not been possible, within the scope of this synthesis, to locate adequate
relevant New Zealand research linking this factor to children’s achievement.

ACADEMIC ASPIRATIONS AND EXPECTATIONS

In general, although parental aspirations may be high, parents’ educational expectations for
their children are often affected by how well children do in school. However, children’s
achievement may be influenced by parental expectations. The research also indicates some
variance in aspirations and expectations depending on parental ethnicity. This section
examines these issues.

The research literature draws a distinction between the terms ‘aspirations’ and ‘expectations’.
‘Aspirations’ generally refers to hopes held by parents regarding long term goals, whereas
‘expectations’ refers to year-by-year achievements.

Parental aspirations tend to be high, regardless of their children’s current achievement
(Goldenburg, Gallimore, Reese, & Garnier, 2001). However, parental expectations may affect
children’s achievement but, simultaneously, children’s achievement may influence parental
expectations. There is some disagreement about the nature of this relationship, and the

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relationship is even more complex because, as Hill and Yeung (2000)\(^{477}\) reported, research has shown that, from a very early age, less affluent children learn to limit their aspirations for things their families can ill afford, such as opportunities for trips outside the home with their parents.

A recent longitudinal study of immigrant parents in the USA (Goldenburg et al, 2001)\(^{478}\) focused exclusively on one set of factors, parents’ educational aspirations and expectations for their children\(^{479}\). Their study involved a longitudinal analysis that permitted examination of the relationship between aspirations/expectations and school performance over time, and yielded data challenging the proposition that parents’ low aspirations and expectations lead to lowered motivation and poor performance on the part of their children. To the contrary, they found high levels of parental aspirations throughout the study:

> … aspirations […] appear almost entirely independent of student achievement. Parents aspire to high levels of formal schooling, no matter how their children are doing academically. (Goldenburg et al, 2001:562)\(^{480}\)

They also found that expectations did not predict children’s achievement. Although children’s achievement and parents’ expectations began as unrelated in kindergarten, over the course of the elementary grades parents’ expectations become increasingly linked to how well their children were doing in school. Fluctuations in parental expectations were influenced by variations in children’s performance. The researchers concluded that,

> … perhaps most important from the perspective of policy and practice, children’s achievement (at least through elementary school) is not constrained by parents’ educational expectations or their aspirations. (Goldenburg et al, 2001:578)

Reviews by Hill and Yeung (2000)\(^{481}\) and Snow et al (1998)\(^{482}\) yielded contrasting findings to those of Goldenburg et al (2001)\(^{483}\) with respect to the influence of parental expectations. Hill and Yeung (2000) found that parents’ expectations about children’s performance have a direct effect on children’s commitment to school work. They also pointed out that empirical


\(^{479}\) The researchers acknowledged that a variety of factors have also been nominated and investigated as contributing to the disproportionate underachievement of many ethnic and racial minority groups in US schools, e.g., poverty; cultural and linguistic discontinuities between home and school; the hidden curriculum of the classroom that privileges Euro-American, middle-class experiences; discrimination; and low aspirations or expectations rooted in inequalities and discrimination.


research has shown that parents’ gender-role stereotypes affect their perceptions of children’s abilities in domains such as sports, mathematics, and reading, independent of their actual performance. In relation to literacy learning, Snow et al (1998) argued that parents can create a ‘press for achievement’ by such means as expressing their expectations for achievement by their children, providing reading instruction, and responding to the children’s reading initiations and interest.

In the USA, Catsambis (1998) was clear that parent expectations have a positive effect on children’s achievements at secondary level. She found that high levels of parental educational expectations, consistent encouragement, and actions that enhance learning opportunities of children are the major ways by which families positively influence the educational achievements of their teens.

Regardless of socioeconomic or race/ethnic background, families with high levels of educational expectations have the most positive effects on senior achievements. These effects are present when parental expectations are measured in the middle grades or in high school. (Catsambis, 1998:vi)

Catsambis (1998) also cited studies by a number of other researchers (using a variety of indicators and data sources) which reported that parental educational aspirations and encouragement had positive effects on children’s achievement.

However, there is evidence which suggests that parents’ beliefs and behaviours, and the relations between parental beliefs and children’s school achievement, differ across ethnic groups. For example, in a USA study, Okagaki and Frensch (1998) found that expected educational attainment was positively related to children’s school achievement for Asian-American parents but not for Latino parents. The researchers noted that, because the parenting constructs and the measures that were used were developed out of a Western psychological tradition, they may be less applicable to non-Western groups. Alternatively, they suggested that, in addition to measurement and construct inadequacies, these beliefs do not stand in isolation; the conglomeration of parents’ beliefs and behaviors that may work to facilitate children’s school achievement in any particular group may be influenced by that group’s social context. They cited the work of researchers who have found that minority children’s perceptions of prejudicial treatment were negatively related to their school achievement, and argued that oppression by the majority group forces some minority groups to seek success and rewards outside the mainstream society.

Okagaki and Frensch (1998) also found that parents’ beliefs and behaviors are related in nontrivial ways to their children’s school performance, but that the relations between specific types of beliefs and children’s grades may differ from one group to the next. They stated that, although they could not draw conclusions about the direction of the relationships obtained in their data, the fact that differences in parent beliefs across ethnic groups were

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obtained when children’s grades and parents’ perceptions of children’s abilities were statistically controlled, suggested that there may be group differences in beliefs that exist, apart from parents’ responses to children’s previous school achievement. They considered that the fact that parental beliefs and behaviors account for variance in school performance after parental education and family income have been considered is consistent with the hypothesis that parental beliefs and behaviors may play a unique role in how children do in school. For example, their research found that, in general, Asian-American parents set higher educational expectations for their children and wanted their children to have more education than other parents did. Compared with other parents, they set a higher standard for the minimum amount of education that they would accept from their children, and expected their children to complete more schooling. The Asian-American parents also set higher expectations for their children’s grades - they were less satisfied with Bs and Cs than other parents were. There is evidence to suggest that Asian-American parents believe that school achievement rests on effort rather than on innate ability. If this is the case, then their expectations for their child’s grades may not be affected by their perceptions of their child’s ability (Okagaki and Frensch, 1998).

Okagaki and Frensch (1998) concluded that differences in the relations between beliefs and school achievement across groups suggest that educators cannot assume that what works for one group of families will necessarily work for another group. The social and economic context, along with the ‘global constellation’ of beliefs parents hold regarding multiple aspects of life (for example, the importance of family, principles of child development, education, perspective of work, and their general world view) may make intervention strategies that work in some family contexts ineffective in other family contexts. Consideration of parents’ beliefs, their goals for their children, and the type of help they can offer their children, are necessary for helping parents facilitate their children’s school experiences.

Okagaki and Frensch (1998) also suggested that, if parental beliefs and behaviors are causally related to children’s school achievement, then one mediating variable is likely to be children’s perceptions of their parents’ beliefs and their parents’ expectations of them. The authors cited studies which reported that Mexican-American parents’ beliefs about racial barriers to their children’s success were related to children’s perceptions of barriers and, in turn, children’s perceptions of barriers were related to their attitudes toward school.

The influence of parental expectations is inevitably played out in the various learning areas that children are involved in, literacy being a key area. According to Snow et al (1998) there is increasing evidence that parental beliefs and attitudes regarding literacy (reading in particular) influence children’s literacy development. The values, attitudes, and expectations held by parents and other caregivers with respect to literacy are likely to have a lasting effect on a child’s attitude to learning to read because the socio-emotional context of early literacy experiences relates directly to children’s motivation to learn to read later on.


By comparison, in a recent New Zealand study by McKinley (2000)\(^{490}\), Māori parents’ goals for their children were often not specific qualifications or end-points, and included being happy at school. Happiness was seen as being very important, because the parents in the study believed that if their children were happy at school then they were more likely to want to stay at school and achieve. The parents hoped that their children would do better than they themselves had done. McKinley (2000:17)\(^{491}\) reported that,

> All the parents interviewed wanted their children to do well at school. They understood that their children could not leave school at the age of 14 or 15 and expect to find employment as many of them had. Parents knew that their children required an education to get a job and hoped that their efforts would be enough to achieve that.

In a small study of Tongan parents living in Auckland, Fusitu’a and Coxon (1998)\(^{492}\) found that a significant motivating force behind the desire of these parents for their children to be successful in school was their hope that their children would be fie’aonga (useful) to their own community. According to Pitt and Macpherson (1974, cited in Fusitu’a & Coxon, 1998)\(^{493}\), many Tongan parents were prepared to make considerable sacrifices to enhance their children’s educational achievement because they believed in socio-economic mobility through education.

Another small scale New Zealand study also identified the important role of family culture, which relates to class and race, in determining educational experiences and opportunities. Marie’s (1998)\(^{494}\) study suggested that attitudes to education within one’s family of origin have a profound effect on a child. She found that very few of the women in her study (that is, those who had attended He Akoranga Hangtira mo nga Wahine - a Bridging Course for Women) had a positive female role model for academic achievement; most of these women were the first from their families to engage in tertiary education. She noted that, historically, parents had expected children to work as well as attend school, especially in rural, working-class and Māori families, and education was considered to be of secondary importance. In many families, educating a girl was considered ‘a waste’ and the women had no access to anything other than basic education. Fear of rejection from one’s family of origin and peer group was an additional barrier they had to overcome. Marie (1998:199)\(^{495}\) noted that, “This can be one of the traumas mature students experience as they extend their intellectual capabilities through formal education. It is also a barrier they may have had to deal with as a child.”

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The interactions between social contexts, children’s achievement and parental expectations were also explored by White (1997) in a detailed ethnographic case study in Fiji, she found that secondary children’s immediate social context (mainly the influence of peers) completely overrode parental expectations in most cases.

**HOME ACTIVITIES, GUIDANCE AND SUPPORT**

Raban (2001) has reviewed a range of studies which demonstrate that, while children learn as a result of their natural curiosity and their persistence as self-motivated learners, what they learn during their first four or five years is not learned in isolation, because their activities are complemented by relationships that encourage the gradual involvement of children in the skilled and valued activities of their family and the society in which they live. This finding is consistent with Rogoff’s (1990) research. Rogoff found that caregivers arrange the environment to promote children’s learning, and to guide children’s understanding of how to act in new situations. They do this through conveying emotional cues regarding the nature of the situation, non-verbal models of how to behave, verbal and non-verbal interpretations of events, and verbal labels to classify objects and events.

Similar findings have been obtained in other studies. Although children from high-income backgrounds are more likely to have academically supportive home environments than are most children from low-income homes, a number of studies (Clark, 1983; Datnow & Cooper, 1996; Sanders, 1997, all cited in Okpala, Okpala, & Smith, 2001) have shown that when children from low-income backgrounds are exposed to an emotionally supportive home environment in which academic success is affirmed, their academic achievement scores improve significantly. In his study of high-achieving African-American children from low-income home environments, Clark (1983, cited in Okpala et al, 2001) found that the parents engaged their children in an emotionally supportive home environment, helped them with homework, and communicated clear and consistent behavioral limits to them.

Children’s productive use of their time at home has also been shown to contribute to their success (Hill & Yeung, 2000). This can take different forms. For example, parental time spent in direct learning activities, such as reading to children, has been found to have positive consequences for children’s academic achievement; quality time that children spend with siblings, peers, and relatives also appears to contribute. Not surprisingly, such uses of time are dependent on the quality of the social support network surrounding the child.

Hill and Yeung (2000) also reported that patterns of time use have been shown to vary according to mother’s marital status and employment status, and by parents’ educational attainment. The education of parents is often used as an indicator of the quality of time

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496 White, C. M. (1997). Cultural continuity and discontinuity between the home, the school and the peer group and their impact on academic performances. The “multiple worlds” of fijian students. Ph D., University of Washington.
children spend with their parents. It has been hypothesized that more educated parents spend more time with their children, especially in achievement-related activities, because they are more concerned with their children’s academic development and they are more aware of children's developmental need for positive parental involvement. However, research has shown a ‘time squeeze’ phenomenon for today’s parents, especially for mothers, in fulfilling their family and labor market responsibilities. While a number of studies of maternal employment have found few, if any, adverse effects on children and some suggest that the effect of maternal employment on children’s achievement is predominantly positive, there are also indications of adverse effects. Hill and Yeung (2000)\footnote{Hill, M. S., & Yeung, W. J. (2000). Behavior and Status of Children, Adolescents and Young Adults. Prepared for the conference on generations and gender, United Nations Economic Commission for Europe Population Activities Unit, Geneva, Switzerland. Institute for Social Research, University of Michigan.} cite research in Belgium by Van den Bergh (1996) which suggests that children both perceive and are affected by a parental time squeeze potentially attributable to employment. Sizeable portions of Flemish children in early years of school reported parents not having enough time for them and feeling a lack of satisfaction with their parents’ work situation. The children’s sense of self-esteem appeared to be impaired by feeling that their parents did not have enough time for them. Those children who reported feeling that their parents had enough time to spend with them scored significantly higher on the standardized self-perception scale used in the research.

The amount of time children spend on class work and homework is shown to correlate positively with their academic performance too. Although time spent on cognitive outcomes is important to children, research has also documented a positive association between participation in extracurricular activities and various indicators of children’s development such as a lower probability of engaging in risky behaviors, having better academic outcomes, and achieving a higher education and income in adulthood (Hill & Yeung, 2000). Interestingly, Honig et al (2001)\footnote{Honig, M. I., Kahne, J., & McLaughlin, M. W. (2001). School-Community Connections: Strengthening Opportunity to Learn and Opportunity to Teach. In V. Richardson, (Ed.) Handbook of Research on Teaching (998-1028). Washington, D.C: American Educational Research Association.} found that the amount of time youth spend in jobs outside of school also matters. Working more than 20 hours a week for certain youth appears to lessen the likelihood of dropping out of school, but for others may increase dropout rates.

Post and Pong (2000)\footnote{Post, D. & Pong, S. (2000). Employment During Middle School: The Effects on Academic Achievement in the U.S. and Abroad. Educational Evaluation and Policy Analysis, 22(3), 273-298.} also investigated the relationships between child labour and academic achievement in the United States and other countries. Their findings did not negate the possibility that early employment may teach many important values for adolescent development, such as responsibility, independence, and effort, and their study did not yield information on the effect of early employment on school grades. However, they reported that

\begin{quote}
What we do find, nonetheless, is a cause for concern about a conflict between early employment and the development of the math and science skills that are valued by all school systems. The preponderance of the evidence is that working for pay is associated with, and probably leads to, reduced learning in these two subjects. Standing by themselves, cross-national, single time-period survey data do not allow us to reject the theoretical perspective of household economic theory, which holds that families allocate their most intellectually able children to full-time schooling (because they will benefit most from it) and that they allow children who would benefit more from working to pursue part-time employment.\[291\]
\end{quote}
New Zealand’s participation in TIMSS-98 yielded data for Year 5 and Year 9 children which links their achievement to out-of-school study time. The results are shown in Table 6.1.

Table 6.1: 1998 Year 5 and 9 achievement (mean scores) by out-of-school study time

<table>
<thead>
<tr>
<th>Proportion of children</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 hr/day</td>
<td>470</td>
<td>508</td>
</tr>
<tr>
<td>1 to 2.5 hr/day</td>
<td>495</td>
<td>531</td>
</tr>
<tr>
<td>More than 2.5 hr/day</td>
<td>470</td>
<td>498</td>
</tr>
<tr>
<td><strong>Year 9</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 hr/day or less</td>
<td>21%</td>
<td>448</td>
</tr>
<tr>
<td>1 to 2.9 hr/day</td>
<td>62%</td>
<td>510</td>
</tr>
<tr>
<td>3 hr/day or more</td>
<td>17%</td>
<td>488</td>
</tr>
</tbody>
</table>

Note: Mean scores are approximations. Year 5 data is derived from Chamberlain et al (2001:54) and Year 9 from Chamberlain & Walker (2001:100).

Table 6.1 reveals that moderate amounts of study time are related to higher achievement. It is probably not surprising that a low amount of study time is associated with lower achievement, although not markedly so at the Year 5 level. What is perhaps more interesting is that high levels of study time seem to be associated with a deterioration in performance, evident at both year levels.

A similar finding has been reported in England with respect to primary children and their attainment. Farrow, Tymms and Henderson, (1999) indicated that the highest test scores were achieved by those children who reported doing homework ‘once a month’ in each of the core subjects. Homework reported more frequently than ‘once a month’ was generally associated with lower attainment. Multilevel models that controlled for important variables did not lend support to the more-is-better view of homework.

Overall, Catsambis (1998) concluded that the present research findings indicate that during high school, the most effective types of parental involvement are not those geared towards behavioral supervision, but rather, those geared towards advising or guiding teens’ academic decisions. Therefore, parents who stay well informed about important academic issues could still be helpful to high school children who may be making their own decisions about school.

New Zealand and international research indicates that good quality home experiences do make a difference for children’s achievement (Hill & Yeung, 2000; Wylie, 2001). For example, the Dunedin Multidisciplinary Health and Development Study (Maloney, 1996) found that, in childhood, experiences increase child IQ at ages 4 and 5, increase child cognitive achievement at age 5, and increase child reading performance at ages 7 and 9.

However, the longitudinal Competent Children Project in Wellington, which tracked children over five years, showed clearly that there is no single ingredient or set of experiences which will guarantee that every child will be competent in all, or any, aspect of their life. Importantly, Wylie (2001a:33) reported:

> What we learn from the children’s progress and the roles played by different parts of their experience and support at different ages is that rather than look for a specific solution, such as a given amount of homework, or sport, or art, or a particular activity, what matters is how children interact with adults and others, and how they engage in activities, particularly those that use symbols and language.

While children from families with low levels of family income and parental education face more hurdles than others, findings of the Competent Children project indicate that,

> children from these homes can go over those hurdles when they also take part in activities and interactions which feed their use and enjoyment of literacy and mathematics, and of words, patterns and other symbols generally (Wylie, 2001a:34).

As indicated earlier in this chapter, studies cited by Okpala et al (2001) support this finding that children from low-income backgrounds can make significant academic gains when part of an emotionally and academically supportive home environment.

It is important to note that the type of support children receive at home will be culturally located. For example, many Chinese parents have very exacting standards and high expectations of their children and are prepared to spend a great deal of time and effort in identifying areas where they need support. The efforts of these parents to support their children are often diametrically opposed to those of the school and may be unnecessarily harsh and undermining of children’s confidence. While these parents take children’s good points for granted, and pay special attention to their ‘weak points’ to try to help them to improve, the teacher actually emphasises the positive aspects of children’s achievements and thinks in terms of setting ‘targets’ (Ran, 2001). Chinese parents may also seek out extra

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homework for their children in the belief that this will improve their children's achievement (Ran, 2001) but, as noted above, research has indicated that too much homework can be detrimental to attainment levels (Farrow et al, 1999)\textsuperscript{515}.

Discussing the support provided by Māori parents for their children’s education in home contexts, Bishop and Barwick (In progress)\textsuperscript{516} noted that monitoring homework was reported by parents to be the most important involvement, followed by establishing a good routine in the home, and providing the best opportunities possible for the child to learn. Bishop and Barwick also noted support in the home was not too dissimilar across immersion, bilingual, and mainstream schools.

**Literacy**

In a USA Department of Education Research Report on Literacy Education, Benjamin (1993)\textsuperscript{517} reviewed significant studies which challenge the traditionalist view that one or a few variables can explain the influence of the home on low-income children's academic success. Benjamin cited Auerbach’s (1989) review of ethnographic studies of family literacy, which found that the literacy interactions of many low-income, minority and immigrant families were in fact two-way between parent and child, as opposed to the perception that they are top-down (parent-to-child) in families of this kind. Auerbach’s work also showed that less direct factors have a significant influence on children’s achievement.

\[...\text{indirect factors including frequency of children’s outings with adults, number of maternal outings, emotional climate of the home, amount of time spent interacting with adults, level of financial stress, enrichment activities, and parental involvement with the schools had a stronger effect on many aspects of reading and writing than did direct literacy activities, such as help with homework. (cited in Benjamin, 1993:2)}\textsuperscript{518}\]

Asking and responding to questions is a principal aspect of parent-child interactions about text. The frequency and manner of responding to children’s questions is therefore an important parental influence on early reading ability. One study by Yaden et al in 1984 (cited in Snow et al, 1998)\textsuperscript{519} of the interactions during parent-child reading revealed that at least a thousand questions about print and books were asked by two children over a period of several years. Studies of children’s early language development indicate that parent-child influences are reciprocal: children influence the ways that adults behave toward them, and adults influence children’s learning experiences and opportunities. Parents help children to develop oral language which serves as a basis for later literacy learning (Snow et al, 1998).

Research has also shown that family practices of literacy have a major impact on children’s achievement at school (Nash, 1993, cited in Literacy Experts Group, 1999)\textsuperscript{520}; Phillips et al,

\begin{footnotesize}
\end{footnotesize}
According to Masten and Coatsworth (1998, cited in Literacy Experts Group, 1999:13), the impact can result from both direct and indirect practices. For example, direct practices include frequently reading books to preschool children in ways which focus on meanings and which extend children’s book language; indirect practices include supporting reading at home. Such practices have been found to be associated with children’s higher achievement.

Evidence cited by Snow et al. (1998) suggests that children need parents to assist them to establish social literacy practices as a functional and important part of their lives, and to model literacy as useful for solving problems. Children learn from parents how to use literacy to engage in problem-solving activities, and various studies have demonstrated

\[\text{... the effectiveness of parent coaching in holding children's attention, asking questions, interacting with text-relevant comments, and providing feedback to their children. Those who view literacy as social practice argue that children learn the purposes of literacy in the family setting, although they may differ from family to family (Snow et al, 1998:142).}\]

According to Snow et al. (1998), aspects of literacy likely to be influenced by the family and home environment include print awareness, concepts, and functions; knowledge of narrative structure; literacy as a source of enjoyment; and vocabulary and discourse patterns. McNaughton’s (2002) research in New Zealand has demonstrated the importance of this knowledge for children’s literacy learning, and also identified differing levels of literacy knowledge across different groups of new entrants. Commenting on the strong relationship between children’s letter knowledge and their progress in reading and writing in English, McNaughton pointed out that

\[\text{differences on conventional school literacy measures, including letter knowledge, are apparent between Māori and Pacific Islands children in economically poorer schools and other children on entry to school. These children also score lower on a range of measures, such as concepts about print and other literacy-related measures.}\]

Literacy events may include bedtime stories, listening to school children’s oral reading and providing assistance as needed (Snow et al, 1998), reading cereal boxes, stop signs, and television ads, and interpreting instructions for commercial games and toys (Heath, 1982). However, literacy experiences provided in the home may need to change and evolve as children get older and progress through school, because, as Snow et al. (1998) pointed out, the opportunities provided in the home for literacy acquisition during the preschool years may contribute primarily to the child’s acquisition of attitudes toward literacy, of knowledge


\[523\text{ Literacy Experts Group. (1999). Report to the Secretary for Education. Wellington: Literacy Experts Group.}\]


about the purpose and mechanics of reading, and of skills (such as vocabulary growth and letter knowledge) that may facilitate learning when school instruction begins. Snow et al, (1998:128) suggested that once the child has begun to attend school and has started to learn to read, the contributions of home and parents may be somewhat different:

assistance with homework, listening to the child's efforts at reading aloud, the availability of resources such as a dictionary and an encyclopaedia, and so forth may be particularly important for fostering high achievement in school

Reading a diverse range of books, including seeking out library books, and enjoying selecting relevant and challenging material (as opposed to material that is too difficult) are both important. This is consistent with the findings of Phillips et al (2001) about the value of rich text activities in literacy development, and also with those of Wylie (1999a) who reported that children who read only assigned homework reading do less well than others. Generally, the amount of voluntary out-of-school book reading that children report is positively related to their achievement levels (Bardsley, 1991; Elley, 1992).

Some researchers (for example, Baker et al, 1997, cited in Snow et al, 1998), have found that parents who believe that reading is a source of entertainment have children with a more positive view about reading than do parents who emphasize the skills aspect of reading development. Children in the Wellington Competent Children study who enjoyed reading, or who enjoyed it sometimes, tended to score higher than those who did not (Wylie, 1999a). Snow et al, 1998) reported studies showing that children who are more fluent and positive about reading came from parent-child pairs who viewed reading as fun, kept stories moving with a 'semantic' rather than a stricter 'decoding' orientation, and encouraged questions and humor while reading. Children who learn from their parents that literacy is a source of enjoyment may be more motivated to persist in their efforts to learn to read, despite difficulties they may encounter during the early years.

Further studies (also cited in Snow et al, 1998) also recorded gains in children's skills when their parents were shown how to become more responsive and 'dialogic' (that is, asking and responding to questions) during shared reading. One study of parental involvement (Tizard, Schofield, & Hewison, 1982, cited in Snow et al, 1998), which was based on a model of children reading to parents, found that children who read to their parents on a regular basis

made greater gains than children receiving an equivalent amount of extra reading instruction by reading specialists at school. (Tizard et al’s research is described in more detail in Chapter 7.)

With regard to writing, the Competent Children study (Wylie, 1999a) found that all the writing activities, except copying, were positively associated with children’s competency scores. Limiting writing activity to copying “narrows the experience and limits developing capabilities as habits” (Wylie, 1999a:17). As with reading, enjoyment of writing was also found to be positively associated with children’s competency scores.

Of central interest to literacy educators and researchers are findings that children who are in communities with low employment, low incomes, or who have minority cultural and language status seem to engage in literacy and language activities that are different from mainstream children. As a consequence of this, their knowledge may not be well represented in tests of conventional literacy practices, especially at the beginning of schooling (McNaughton, 1999, and Snow, et al. 1998, both cited in Phillips et al, 2001). Phillips et al (2001) pointed out that, without deeper analysis, the identification of a gap between the achievement of these children and that of their more ‘mainstream’ peers is problematic; the broad description of the gap can mask important aspects of positive literacy development and achievement in children in minority groups.

Snow et al (1998) cited research comparing opportunities for informal literacy learning among preschoolers in the homes of middle-income and low-income urban families. This research demonstrated that children from middle-income homes had greater opportunities for informal literacy learning than children of low-income homes. Low-income parents, particularly African-American parents, reported more reading skills practice and homework (for example, flash cards, letter practice) with their kindergarten-age children, than did middle-income parents. Families from low-income backgrounds tended to engage in fewer literacy related activities such as joint reading, library visiting, the learning of words and letters, and writing - all of which are considered to be important for the development of literacy related skills, the motivation to learn to read, and the children’s possible future success in schooling (Adams et al, 2000).

Adams (1990) noted that young children from low socio-economic status families were likely to be exposed to low levels of print, and that print was used primarily for entertainment and day-to-day activities. Children from families where parents used print in more elaborate ways found learning to read at school easier than did children from home environments with less print exposure. Some studies have also shown that families and children from low-
income backgrounds tend to engage in fewer literacy related activities than families from middle and upper-income backgrounds. Adams (1990:8) concluded that “… the likelihood that a child will succeed in the first grade depends, most of all, on how much she or he has already learned about reading before getting there.”

However, Adams et al (2000:282)\(^\text{542}\) concluded that the relationships between low socio-economic status and beginning reading achievement are not straight forward and that,

*What is apparent is that particular practices within the home literacy environment have a greater effect on beginning reading achievement than income status alone. However, evidence to date suggests that middle-class homes are likely to have more effective home literacy environments than working-class homes.*

Snow et al (1998)\(^\text{543}\) reported that, with respect to verbal interaction in the home, the *number* of interactions matters. They cited Hart and Risley (1995) who found that, though poor and uneducated families provide much the same array of language experiences as middle-class educated families, the quantity of verbal interactions they tend to provide is much less. A large observational study by Hart and Risley, and a number of less rigorous studies have revealed that, “A lower quantity of verbal interaction constitutes a risk factor primarily in that it relates closely to lowered child vocabulary scores” (Snow et al, 1998:122).

Snow et al (1998) also concluded that individual children may be at greater risk than otherwise-comparable children for reading difficulties, for a range of reasons. These include the possibility that they have acquired less knowledge and skill in literacy during the preschool years, either through lack of appropriate home literacy experiences and/or as a result of some ‘inherent cognitive limitations’.

Ethnographic work by a number of researchers cited in Heath (1982)\(^\text{544}\), McNaughton (1995)\(^\text{545}\), and Snow et al (1998)\(^\text{546}\) confirms that low-income and minority group homes typically do offer opportunities for engaging in literacy practices, but these may be of a different nature from middle-class homes.

In an Australian study, Richardson (1994)\(^\text{547}\) reported significant differences between working-class and Asian families on the one hand, and those from the middle class on the other. He noted, for example, that the level of education of the parents was related to the correction strategies they used with their children. He also noted that working-class and Asian families assumed a helping style which mitigated against reading for meaning, including comprehension of the overall meaning of the text. The following points characterise the cultural model of reading practices he found to be operating in the working-class and Asian families (Richardson, 1994:335):

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• Graded readers, the source of child-parent reading, were lacking in interest and failed to promote conversational interactions between the child and the parent.

• Children were encouraged to read every word correctly, often resulting in monotonous word-calling. Some of the Asian families also experienced added problems associated with language difficulties.

• Reading was seen by both working-class and Asian families as an exercise to be completed with precision, rather than reading for meaning.

• Emphasis was placed on accuracy rather than comprehension or interest. Many of these children showed poor comprehension and little interest in reading.

In New Zealand, McNaughton (2002) has described family literacy activities as part of the socialisation activities within families and communities. These activities include reading stories with a child, reading the Bible to a child (a familiar activity in the homes of many Pasifika families), singing an alphabet song, providing materials for children to draw and write, and storytelling. Such activities can provide part of the foundation for literacy learning, as Heath observed. Heath (1983, cited in Snow et al, 1998) reported that the children of some low-income families are often exposed to elaborate narratives in the course of their everyday lives. She suggested that this experience nurtures a high level of familiarity with the structural organization of stories.

International studies have demonstrated that the home environment plays a significant role in the development of language ability in young children from low-income families. For example, Payne (1994, cited in Adams et al, 2000), examined 323 four-year-old children attending Head Start programmes, and suggested that their home literacy environments accounted for 12% to 18.5% of the variance in their language scores. In a study of 238 Australian children, Bowey (1995, also cited in Adams et al, 2000) found that the low socio-economic status (SES) children, in general, demonstrated lower preschool phonological sensitivity, which then affected their beginning reading progress.

These findings are consistent with those of Heath (1982). She described the processes by which ‘school-oriented’ parents and their children interact in the pre-school years. These adults gave their children, through modeling and specific instruction, ‘ways of taking’ from books which seem natural in school and in numerous institutional settings such as banks, post offices, businesses, or government offices. She suggested that these mainstream ways exist in societies around the world that rely on formal educational systems to prepare children for participation in settings involving literacy, and that in some communities these ways of schools and institutions are very similar to the ways learned at home, but in other communities the school ways may be in conflict with home-taught ways.

Heath analyzed how mainstream school-oriented children come to learn to ‘take’ from books at home and found that such children learn not only how to take meaning from books, but also how to talk about it. In doing so, they repeatedly practice routines which parallel those of classroom interaction. By the time they enter school, these children have had continuous

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experience as information-givers; they have learned how to perform in those interactions which surround literate activities throughout school. They have had years of experiences of the interactions that are at the heart of reading - both learning to read and reading to learn in school. They have developed habits of ‘performing’ which enable them to run through the hierarchy of preferred knowledge about a literate source and the appropriate sequence of skills to be displayed in showing knowledge of a subject. Importantly, they have developed ways of decontextualizing and surrounding with explanatory prose the knowledge gained from aspects of their experiences.

In his extensive and ongoing research in New Zealand classrooms, McNaughton (2002) has found that teachers, on the whole, know less about the expertise in literacy and language of children from diverse cultural and language backgrounds, and are less able to identify relevant knowledge and incorporate that knowledge into text reading and writing. His research demonstrated that the emergent understanding of written language that these children brought to school was less likely to be recognised by teachers, especially if this understanding was embedded in everyday family activities. This was as true for children’s knowledge of letters and letter-sound relationships (for example, embedded in their being able to write their names) as it was for their knowledge of books and their purposes (for example, embedded in listening to Bible stories).

McNaughton (2002) cited a ‘telling’ illustration of this situation in a study by Goodridge (1995) of the development of children’s writing both before school (in family activities), and over the first months at school. The seventeen children came from Māori, Pakeha, and Samoan families. All the children had been involved in a range of family writing activities before they came to school, and could write some part or all of their names. Guidance for writing some letters of the alphabet had occurred in all families. Other writing activities took place with interested and helpful family members, who often acted as scribes for what the children wanted to write.

One Māori child was fascinated with new cars and drew and labelled them; for example, identifying one as a Feroza by personally writing FOZE (the Z being written in mirror image). A Samoan child was fascinated by TV programmes about mutants and transformers. He composed letters to a friend and told stories about these transformers, which he attempted to write, in one example using the letters B, E, G, H, T, and G. [90]

However, the study revealed that the teachers of these children generally believed that they knew very little about literacy. The teachers

gave them opportunities to write texts during writing sessions, often not knowing about the topics (and the family writing activities) that were familiar to the children, and they did not know, and could not therefore identify, the nascent knowledge that the children had. They took few opportunities to identify the children’s existing knowledge of letters and sounds and incorporate this into activities. [90]

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Mathematics

The Competent Children study in Wellington found that the mathematical activities which had the strongest associations with children’s competency levels were adding money correctly, working out fractions such as using halves and quarters, telling the time and knowing times-tables. Playing card and board games had been found to be positively associated with children’s competency scores at earlier ages, but these no longer made a difference at age 10 (Wylie, 1999a). Likewise, playing computer games and programming a video or microwave were not positively associated with children’s mathematics competency either.

With respect to fractions, it is interesting to note that (Wylie, 1999a:26) found no difference between low and high SES children:

The proportion of children who used halves and quarters was much the same for all income groups. Children from the low-income groups who used halves and quarters were able to match the Mathematics scores of children from the highest income group who did not, and they scored slightly higher than these children for reading comprehension.

Activities which put knowledge and skills to use in practical contexts are the ones associated with higher scores. For example, using fractions has a marked and very positive association with children’s competency levels. This may be because children need to make a fresh assessment of each situation in which they use halves and quarters, which requires and develops analytical thinking (Wylie, 1999a).

Children's enjoyment of mathematics activities had some positive associations with their competency scores, particularly for enjoyment of numbers and measuring, though fewer than were found in relation to their enjoyment of reading or writing (Wylie, 1999a).

Ran (2001) found that cultural differences were also evident in approaches to mathematical activities. For example, some Chinese parents attended to micro aspects of the learning situation, emphasizing accuracy and perfect scores as opposed to being more concerned with macro-aspects of learning such as problem-solving. Ran (2001) argued the need for dialogue which will increase the awareness of both parents and teachers to differences in their expectations of mathematics education.

Of further interest is the possibility that mathematical experiences may assist children’s reading:

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Mathematical experiences such as playing board games, telling the time, and using fractions (e.g. halves and quarters) may help children’s reading comprehension ability by giving them confidence in thinking in terms of structure, through activities which apply knowledge in an enjoyable way. Games challenge children to think and understand. The structures a child needs to recognise in numbers are simpler than those needed for reading, and can thus provide a useful foundation (Wylie, 1999a:17).

A study by Raban (2001) showed that children encounter numbers and counting in the course of interactions with their parents from before the emergence of language and throughout the period of early linguistic development. The relationship between parental strategies and the child’s advancement in number and counting skills, however, is by no means clear and, as noted by Wood et al (1978, cited in Raban, 2001) not all parental strategies are equally effective. As Durkin et al (1986, also cited in Raban, 2001) concluded, it is only by examining social-interactive contexts in which children acquire their number words that we can envisage the complexity of the knowledge and processes children bring to bear to make sense of their early experience.

Raban (2001) concluded that young children’s accomplishments with number seemed to be linked to the quantity and quality of mediated interactions with their caregiver, but that these varied widely. A similar conclusion was reached in New Zealand by Young-Loveridge (1989). She found, in a case study of a sample of six 5-year-old children that the high scorers had

... a wide range of experiences involving numbers, a strong orientation towards numeracy by members of their families, and the opportunity to observe their mothers using numbers to solve everyday problems of their own. The low scorers, on the other hand, had few number experiences, an orientation by their families towards literacy but not numeracy, little opportunity to observe their mothers using numbers for the solution of practical problems of their own, as well as relatively low family expectations for their mastery of skills. [43]

Young-Loveridge (1989) concluded that her data indicated that what happened in individual families in terms of numeracy events was much more important in determining children’s number concept development than was the socio-economic status of the family.

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HOME LANGUAGE ENVIRONMENT

Children who have had a wide variety of language experiences - in both oral and written modes - fare better as they begin to learn within school settings. In a significant meta-analysis of international reading education research, Braunger and Lewis (1998) concluded that these experiences should include:

- **Many opportunities to talk**: descriptions and conversations with positive interactions and feedback from those around the child (Bruner, 1975; Cazden, 1988; Hart & Risley, 1995; Ninio & Bruner, 1978)

- **Experiences with stories, both oral (storytelling) and written (storybook reading)** (Holdaway, 1979; Sulzby, 1985; Teale, 1978, 1982; Wells, 1986). Storybook reading experiences are considered by many to be the most important aspect of emergent literacy experiences (Purcell-Gates, McIntyre, & Freppon, 1995), giving children the structure and syntax of written language as well as demonstrating purpose and function of reading (Heath, 1982; Morrow, O'Connor, & Smith, 1990; Sulzby, 1983; Taylor & Strickland, 1986). If children do not have this background framework upon which to hang the more explicit literacy experiences received in schools, lack of success can occur.

- **Appropriate verbal interaction between adult and child during story readings** (Cochran Smith, 1984; Ninio, 1980). Edwards (1989, 1991) found that nonmainstream parents can successfully be taught how to interact with books in ways that support successful literacy development.

- **Opportunities to draw and write** (Clay, 1979). Drawing and writing support children’s interest in and growing awareness of print in their environment.

Another important aspect of the home language environment concerns children who have limited proficiency in spoken English. The evidence indicates that they may experience reading difficulties, particularly if they speak a dialect of English that differs substantially from the one used in school (Snow et al, 1998).

In New Zealand in 1998, a significant number of children spoke languages other than English. The languages spoken, either as a sole language or one of several languages, included Māori [6.2%], Samoan [2.8%], Tongan [0.9%], Cantonese [0.8%] and Korean [0.4%]. Of the 711282 children aged 1 to 14 years who could speak a language, around 694300 or 97.6% were able to hold a conversation about everyday things in English. Almost all (98.5%) children born in New Zealand could speak English compared with 88.7 percent of children born overseas (Statistics NZ, 1999a).

Nearly half (49.4%) of all Asian children and just over 4 out of every 10 (43.1%) Pasifika children could speak two or more languages. A similar proportion (43.0%) of children who identified as belonging to ethnic groups other than the four main groups could speak another language. While 1 out of every 5 (21.7%) Māori children could speak more than one language, this was true for only 3.3% of European children (Statistics NZ, 1999a).

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Discussing the language focusing strategies of children in Te Kohanga Reo, Hohepa, Smith, Smith and McNaughton (1992) noted that these strategies can be linked to descriptions of Māori culture, and that Māori have preferred (as a teaching and learning technique) an emphasis on learners looking, listening and imitating, particularly in the early stage of learning. The strategy of modelling to young Māori language learners reflects the wider concept of ‘teaching by demonstration’. The use of modelling as a language-focusing strategy also reflects the strong cultural practice of recitation. Hohepa et al (1992:344) also noted that,

> Traditionally, great store has been set on memorisation and rote learning. Though it is now acceptable to record many kinds of information, certain things such as whakapapa, waiata and iinoi are learnt by heart in order to be delivered orally on appropriate occasions.

A reanalysis of the IEA data by Wilkinson (1998) revealed significant differences between children whose home language was English and children whose home language was not (many of whom were Pasifika children) on both comprehension and word recognition. Differences were present when socioeconomic characteristics of families were controlled for (McNaughton, 1999). A similar finding emerged from the PISA2000 study (Sturrock & May, 2002). Of the New Zealand 15-year-olds who took part, 10% regularly spoke a language other than English in their home. Given that the PISA tests were conducted in English, it is probably not surprising that these children recorded lower reading scores than their majority language counterparts. On the other hand, TIMSS-98 results for both Year 5 and Year 9 children, showed no significant difference in achievement in mathematics and science between children born in New Zealand and those born overseas (Chamberlain et al, 2001; Chamberlain & Walker, 2001).

In a significant US study, Snow et al (1998) summarized current research findings relevant to this issue as follows:

> … low English proficiency in a Hispanic child is a strong indication that the child is at risk for reading difficulty. That low reading achievement is a widespread problem among Hispanic students even when they are instructed and tested in Spanish, however, indicates that linguistic differences are not solely responsible for the high degree of risk faced by these children and that the role of co-occurring group risk factors, particularly school quality, home literacy background, and SES, must be considered…

As is the case for children with limited English proficiency, dialect differences are often confounded with poverty, cultural differences, substandard schooling, and other conditions that may themselves impose very high risks for reading difficulties. Even measuring the phenomena and their relation to achievement is confounded by the risk factor itself. The knowledge base, therefore, is spotty. Some dialects have been researched more thoroughly than others… [124]

… the occurrence of family use of nonstandard dialect and individual family SES co-vary considerably with factors such as school quality… [127]

Snow et al (1998:131) described the relationships between risk factors and reading achievement as ‘continuous and probabilistic, not categorical or deterministic’ and cautioned that misleading conclusions can be reached if ‘risk factors are not interpreted in this light’. Their analyses showed a causal relationship to reading for only some, not all, of the measures that best predict future reading ability.

In combination however, measures of various kinds of risk – individual, familial, and demographic – can provide useful estimates of future achievement levels... [131]

It is abundantly clear that some groups of children are at risk for reading difficulties because they are affected by any or all of the following conditions: ...

- they have limited proficiency in spoken English, [131]
- they speak a dialect of English that differs substantially from the one used in school... [132]

Snow et al (1998:246) concluded that:

… hurrying young non-English-speaking children into reading in English without ensuring adequate preparation is counterproductive. The abilities to hear and reflect on the sublexical structure of spoken English words, as required for learning how the alphabetic principle works, depends on oral familiarity with the words being read. Similarly, learning to read for meaning depends on understanding the language and referents of the text to be read. To the extent possible, non-English-speaking children should have opportunities to develop literacy skills in their home language as well as in English.

In their work in South Auckland, Phillips, McNaughton and MacDonald (2001) adopted a somewhat different position from Snow et al (1998). Rather than wait for Pasifika children who had less control over English in mainstream classes to gain greater facility with English, Phillips et al (2001) used reading and writing instruction to create a platform for English acquisition. These issues are addressed in the Quality Teaching for Diverse Students Best Evidence Synthesis.
The complexity of these issues in New Zealand is evident in the research of Fusitu’a and Coxon (1998), who found that, for Tongan parents, the maintenance of their language is an important issue, to the extent that some have requested that Tongan language classes be incorporated into the school curriculum. At the same time, however, all the children in the study believed their learning difficulties stemmed from their weak grasp of English, expressed the desire for more focused teaching of English, which they saw as advantageous to all subject areas:

If you help me to know more English words, how to pronounce them and writing, everything will go through, no more problems. It was a shared view that having a Tongan teacher at the homework centre using bilingual explanations did much to resolve difficulties. (Fusitu’a & Coxon, 1998:31)

Evidence from the Parents as First Teachers Project also confirms the impact of language difficulties for some groups. Livingstone (1998:43) reported that:

What does seem certain is that language difficulties did cause a selective dropout, particularly in South Auckland, and the very people who did not complete the programme, for whatever reason, could well have been those who would have derived most benefit from it.

SOCIAL FUNCTIONING

The emotional environment that children experience in the home and wider whanau is critical. Children who suffer stressful, unpredictable or violent environments are less likely to have high levels of achievement and development. As Tabberer (undated) noted, difficulties at home can be brought into school in the form of higher anxiety and insecurity. Conversely, Mikaere and Loane (2001) found that Māori children from Tuwharetoa in the Turangi/Taupo area who were doing well at school came from stable home environments. They were also strongly supported by their parents or caregivers, who themselves valued education and took an active interest in their children’s education.

The relationship that teachers have with the children’s parents is important too. The Competent Children Project in Wellington found that, generally speaking, children whose teachers felt they had a very good or excellent relationship with their parents scored highest, and those whose relationships were satisfactory or difficult, or where there was no relationship because the teacher had never met the parent, scored lowest (Wylie, 2001a).

Truancy and Challenging Behaviours

International comparisons show the proportion of New Zealand schools reporting at least 5% of children absent on a typical school day is higher than the international mean at Year 5, markedly higher at Year 9 and third highest in the final year of schooling. Truancy and absenteeism has consistently shown a negative relation to children’s achievement. New Zealand data has revealed that absenteeism during Year 11 is one of the most significant factors influencing children achievement, and at Year 9 there is a marked difference in the mathematics scores of children who have a high degree of class attendance and those who have low attendance, as shown in Table 6.2 below.

Table 6.2: TIMSS 1999 New Zealand Year 8 children’s average mathematics scores by class attendance

<table>
<thead>
<tr>
<th>Percent of children</th>
<th>High SCA*</th>
<th>Medium SCA</th>
<th>Low SCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIMSS average score</td>
<td>511</td>
<td>495</td>
<td>443</td>
</tr>
</tbody>
</table>

Note: SCA is an index of school and class attendance based on (i) absenteeism, (ii) skipping class, and (iii) arriving late at school. High means that all three are not a problem, and low that two or more are serious problems. Data from Mullis et al (2000:240).581

There are conflicting views about influences relating to truancy. While some research findings appear to link truancy with family factors, other studies explore links between truancy and schooling factors. (See Chapters 5 and 7 for further discussion.)

Fergusson, Lynskey and Horwood (1995)582 pointed out that the longitudinal design used in their study made it possible to examine the extent to which prospectively collected measures of family circumstances, behavioural adjustment and academic achievement observed prior to adolescence, were predictive of later truancy. Their analysis showed that the single strongest predictor of truancy was a global measure of family functioning and, in general, the results suggested that children reared in disadvantaged, dysfunctional or conflictual home environments were at increased risks of later truancy.

Fergusson et al (1995)583 noted that truancy has been linked to academic achievement and that it could be suggested that these linkages arise because academic failure encourages truancy in children. However, they argued that cognitive ability and academic achievement during middle childhood and early adolescence were unrelated to later truancy when due allowance was made for early behavioural adjustment and family functioning:

>>While measures of academic achievement were moderately correlated with later truancy these correlations arose largely because levels of academic achievement were related to family functioning and early adjustment with these factors, in turn, being prognostic of truancy. These results suggest that the associations between school achievement and later truancy were likely to be non-causal and to have arisen because the family and individual factors that were associated with truancy were also associated with academic underachievement. [34]<

Similar findings emerged in a study of the effectiveness of a community-based multidisciplinary intervention programme for 69 at-risk youth in Dunedin in 1997. Chalmers (2001)\textsuperscript{584} noted that truanting young people (11 to 16-year-olds) were found to be experiencing and/or displaying several of the following:

- dysfunctional family life
- chronic health symptoms
- mental and sexual health problems
- impaired interpersonal relationships
- addictions and substance abuse (alcohol, drugs)
- antisocial and/or violent behaviour
- social dislocation
- very low educational achievements (and illiteracy)
- concentrated poverty

Other New Zealand studies have explored links between truancy, low educational achievement and schooling factors. For example, Glynn (1997:1.1)\textsuperscript{585} reported concern with the growing rates of suspensions and expulsions from school of children with challenging behaviours. He noted that Māori and Pasifika children were appearing in suspensions and expulsion statistics in disproportionately high numbers nationwide. Moewaka Barnes (2001)\textsuperscript{586} reported that Māori children were vastly over-represented in suspensions, and expulsion rates for Māori had increased from 1992-1997. In 1997, although Māori made up 16% of the secondary school population, 44% of suspensions were Māori. The rate per 1000 children was 3.6 times higher than that of Pakeha children. Thirty-two percent of Māori suspensions were girls. Moewaka Barnes (2001) also expressed concerns about the negative impact of young New Zealander’s use of alcohol and other drugs. She cited a number of studies investigating these impacts (which included disruptive behaviour in school, poor attendance and poor learning outcomes), and reported that in 1997, drug-related suspensions increased, and Māori and low decile schools in particular regions were over-represented in these suspensions.

In Glynn’s (1997)\textsuperscript{587} view, issues of language and cultural identity were only slowly being recognised by schools as powerful factors influencing children’s learning and behaviour:

> Interestingly, with the advent of increasing numbers of refugee, migrant and international fee-paying students, New Zealand secondary schools are acknowledging the need to modify their delivery of curriculum and their teaching strategies and styles to accommodate language and cultural differences. However, many schools are slower to acknowledge the same needs when it comes to accommodating the language and cultural needs of their Māori students…


Effective solutions to these challenges were seen to lie within increased Māori ownership and control of the research and development of programmes aimed at addressing the behavioural and learning needs of Māori students.

Bishop and Berryman (2002) are currently exploring these issues, and their findings (some of which are reported in Chapter 3 of this synthesis) suggest that factors within school processes and structures are contributing to difficulties which children experience. (See also Quality Teaching for Diverse Students: Best Evidence Synthesis.)

Fusitu’a and Coxon (1998:28) also raised issues of cultural identity and children’s behaviour. They noted that:

…the parents still favoured tauhi faka-Tonga (Tongan child-rearing methods), stating that if this was not adhered to, anga faka-Palangi (Palangi ways of behaving) would be a consequence. They maintained that the Palangi way was inferior; that disobedience and disrespectfulness was inherent in it.

Abuse and Violence

Dysfunctional family structures can affect children’s performance and behaviour. Family dysfunction can take the form of conflict, abuse, excessive mobility, negative modelling, and disturbed parent-child relationships. Family dysfunction can also have an indirect effect on educational under-achievement and early school leaving through its contribution to youth homelessness (Batten, Withers & Russell, 1996).

A report entitled ‘Pathways from Abuse and Neglect to Offending’ pointed out that the findings of the various studies linking child abuse and neglect, parental support and supervision, and discipline, to later offending, point to a number of possible pathways to offending and to the risk and protective factors involved.

Perhaps the most obvious, and the one most commonly used in relation to aggression and violence, is the modelling of aggression, criminal behaviour or inappropriate behaviour. … children subjected to physical and verbal aggression have been shown to be more aggressive towards their parents and peers, and to be more likely to be charged with non traffic offences. There is also increasing evidence of the damaging effects of children being exposed to family violence without being directly subjected to it … When children and young people in turn act aggressively towards their parents and siblings, they are more likely to be turned out of their homes and to become homeless and then to engage in crime as a means of survival or as part of a deviant peer group. [395]

The authors discussed the ‘cycle of violence’ hypothesis as a specific example of a pathway from abuse to later offending, suggesting that a childhood history of abuse and neglect increases the likelihood of later offending, particularly violent offending.

592 Source unknown.
They noted that, while studies have found some support for this hypothesis, it is also important to caution against over-generalisations because gender and race are more powerful predictors of later offending than a history of abuse and neglect, and the majority of abused and neglected children do not go on to abuse their own children or to commit offences. In terms of maltreatment directly involving children, neglect was almost as strong a predictor of violent offending as physical abuse; neglect, inadequate supervision and support, and verbal aggression have been found to be more significant than abuse in several studies. Poverty, and social and economic stress have also been found to be more closely related to neglect than to abuse, and some have suggested that the effects of these forms of stress are mediated via the effects of neglect and poor parental supervision and support, allowing children to have access to a deviant peer group and be influenced by them.

The authors of the report concluded that the range of studies demonstrated that there are many risk factors associated with the development of offending, and multiple pathways to that outcome. Child abuse and neglect, and other forms of inadequate parenting provide some of those, and many of the social and familial factors associated with child abuse and neglect have also been identified as risk factors for later offending. These include inadequate parenting, attachment problems, erratic and harsh discipline, parental substance abuse, spousal violence, poverty, unemployment, and so on. Some of the risk factors for chronic offending are also risk factors for child abuse and neglect, including socioeconomic deprivation (including low income, poor housing, large family size and unemployment), antisocial parents and siblings, and poor parental supervision and harsh and erratic child-rearing behaviour.

Children exposed to family violence may have problems with concentration and control and, as a result, school work may suffer.

Investigators have found that children from violent homes scored significantly lower on tests of mathematical and reading abilities than children from non-violent homes. Similarly, studies show that the reading age of children exposed to violence is significantly lower than their chronological age, when tested for both accuracy and comprehension. In contrast, other children may do very well at school, trying very hard to please their parents (Shepherd, 1996:3).  

Marie (1998) discussed findings from a study of women in a university bridging course. A large proportion of the women experienced abusive home environments and recalled in detail the impact this had on their learning.

For Rose, the sexual abuse, combined with the alcoholism of her father, made it impossible for her to fully ‘attend’ at school. For Sarah the abuse was also the key factor in her lack of school success. Her mother was a professional woman with positive attitudes towards girls’ education. Sarah’s schooling began well but on her mother’s second marriage this changed. Her stepfather not only physically abused her mother but both verbally and physically abused her:

‘I know it did affect my education. I became withdrawn and uncooperative. The teachers would ask me questions and I would refuse to answer. I would either nod my head for a ‘yes’ or ‘no’ and shrug my shoulder for ‘I don’t know’. My teacher knew that wasn’t my usual attitude. . . . The physical and verbal abuse just never stopped. I just crawled into a shell and stayed there, the excitement of learning had gone, I was aged 7 . . .’

Later, a serious illness and the embarrassment of being put two classes behind other children of her age led her to stay away from school until, at 13, she quit altogether. She recalled being labelled a slow learner and physically being put at the back of the class and the effect that this had on her self-confidence. (Marie, 1998:202)


**SUMMARY**

This chapter examines the extent to which home processes are positively related to children’s achievement. Overall the data indicate that how parents/caregivers (and extended family/whanau) interact with their children may be more important than parental ethnicity, occupation, income and educational level. However, in general, children from higher-income backgrounds are more likely to have academically supportive home environments than are most children from low-income homes. Nevertheless, when children from low-income backgrounds experience an emotionally supportive home environment in which academic success is affirmed, their academic achievement can improve significantly.

The emotional environment that children experience in the home and wider whanau is critical. Children who suffer stressful, unpredictable or violent environments are less likely to have high levels of academic and social achievement. It is clear that family dysfunction, which can take the form of conflict, abuse, excessive mobility, negative modelling and disturbed parent-child relationships, can affect children’s performance and behaviour. Truancy and absenteeism (whether home, school, or peer induced) have also consistently shown a negative relation to children’s achievement, a finding which is of particular concern given New Zealand’s comparatively high truancy rate.

In terms of support for children, parental aspirations seem to have no influence on achievement, although children’s achievement may be influenced by parental expectations. At the same time, parents’ expectations for their children are often affected by how well children do at school. The research indicates some variance in parental expectations by ethnicity.

Family processes which encourage positive interactions with others, and also provide a range of quality experiences and activities within and beyond the home enhance children’s achievement. The influences of home processes are particularly evident in children’s achievement in mathematics and literacy. Children whose homes provide opportunities, support and encouragement for them to be involved in (largely informal) mathematical experiences of various kinds achieve more highly in mathematics than children who do not have such experiences, regardless of home economic circumstances. Similarly, children who

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have had a wide variety of language experiences, both oral and written, fare better as they begin to learn to read and write within school settings. Family practices of literacy have a major impact on children’s achievement at school, and these practices vary with ethnicity and SES. Home literacy practices which do not encourage meaning-making have a limiting effect in comparison with those which involve children in making sense of their social world and the texts they encounter.

The literacy achievement of children who live in communities with low employment, or homes with low income, or who have minority cultural and language status, may be underestimated by current conventional measures of literacy, especially at the beginning of schooling.
PART THREE:
FAMILIES AND PROGRAMMES
Chapter 7: Centre/School, Family and Community Partnerships

INTRODUCTION

A key message emerging from the New Zealand and international research is that effective centre/school-home partnerships can strengthen supports for children’s learning in both home and centre/school settings. What is remarkable about such partnerships is that when they work the magnitude of the positive impacts on children can be so substantial, compared to traditional institutionally-based educational interventions. The benefits can not only enhance the well-being, behaviour and achievement of children and young people but can also persist into adult life and civic participation. Some studies have also demonstrated considerable benefits for the parents and whanau involved in constructive partnerships.

Evidence of the Potential of Parental Involvement to Influence Children’s Achievement

The research findings on the potential of parental involvement to enhance achievement are so strong that Walberg (1999) identified parental involvement as the first generic teaching practice of note in the Handbook of Research on Improving Student Achievement:

'Dozens of studies in the U.S., Australia, Canada, England and elsewhere show that the home environment powerfully influences what children and youth learn within and outside school. This environment is considerably more powerful than the parents’ income and education in influencing what children learn in the first six years of life and during the 12 years of primary and secondary education…

Cooperative efforts by parents and educators to modify these alterable academic conditions on the home have strong, beneficial effects on learning. In 29 controlled studies, 91 percent of the comparisons favoured children in such programs [sic] over non-participant control groups.[11]

What Walberg’s (1999) summary also signals is that there is variability in the impacts of such programmes. The quality and nature of such programmes is critical, and poorly designed or inappropriate programmes that are not responsive to families can be ineffective or even counterproductive.

Evidence of Impact in the Early Years

Research is increasingly showing particular benefits for interventions and partnerships focused on the early years. Summarising research conducted on some targeted early intervention programmes, Karoly et al (1998) reported that these programmes have had substantial favorable effects on child health and development, educational achievement, and economic well-being. Some benefits could take a number of years to accrue, and some could also erode with the passage of time. Overall though, the benefits for programme participants relative to those in the control group, included:

a) Gains in emotional or cognitive development for the child, typically in the short run, or improved parent-child relationships.

b) Improvements in educational processes and outcomes for the child.

c) Increased economic self-sufficiency, initially for the parent and later for the child, through greater labor force participation, higher income and lower welfare usage.

d) Reduced levels of criminal activity.

e) Improvements in health-related indicators, such as child abuse, maternal reproductive health and maternal substance abuse.

Karoly et al (1998) acknowledged that, given the diverse range of programmes studied, and the limitations of many of the evaluations, it was impossible to draw overall generalizations about targeted early intervention, but concluded that

Nonetheless, our review supports the proposition that, in some situations, carefully targeted early childhood interventions can yield measurable benefits in the short run and that some of those benefits persist long after the program has ended. [xiii]

... some of these programs, if targeted to families who will benefit most, have generated savings to the government that exceed the costs of the programs. [xx]

Cochrane (2001) also reviewed evaluations of early childhood enrichment programmes and noted that these programmes, and most specifically Head Start, have received a lot of attention for their potential to benefit poor, often minority, urban preschool participants. He reported that, while earlier evaluations of Head Start suggested that IQ gains amounted to only a couple of points and lasted a fairly short period of time, later evaluations that included all Head Start programmes and that had concentrated on randomly assigned experimental (preschool) and control (no preschool) groups, found the IQ gains to be eight points for those attending Head Start compared with no gain for those who did not. The IQ gains lasted for two to three years, and mathematics scores remained improved through grade five. Cochrane (2001) also found that the value of Head Start programmes followed participants through high school (secondary school) and into the world of work. Even more importantly, there were long-term gains not identified in early studies. For example, a much smaller percentage of Head Start children were subsequently assigned to special education, they were less likely to drop out of school or experience other educational failures, and were more likely

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to graduate from high school and to be employed. They were also able to function better in ‘mainstream society’.

School-Home Partnerships

The Johns Hopkins University Center on School, Family and Community Partnerships has carried out an intensive research and development programme over the past two decades focussed on effective partnership approaches (Epstein, 2001). Epstein's (2001) overview of this research programme emphasises the potential of parental involvement to have positive or negative impacts and the agency of educators in the success of school-home partnerships. In a series of U.S studies Epstein found that teacher leadership played a major role in the extent to which parents became involved in their children’s in-school learning and sustained that involvement. Epstein found deficit assumptions about families, especially single-parent families, to be a barrier to effective partnerships and emphasised an alternative ‘strengths’ model which is similar to the empowerment model outlined in Chapter 1 of this synthesis. Epstein also found the effects of parental involvement on school achievement to be curriculum-specific with positive effects for reading rather than than for mathematics. In a longitudinal study of 293 third and fifth-grade children in Baltimore, Epstein found:

… teacher leadership in parental involvement in learning activities at home to positively and significantly influence changes in reading achievement, adding about 4 percent to the variance explained by the initial characteristics of students and teachers. [225]

In the light of much research showing that homework can be potentially negative unless carefully structured and managed by teachers, Epstein reported on the research-based development of the TIPS Teachers Involve Parents in Schoolwork process of interactive homework (Epstein, 2001). Such school-based initiatives are beyond the scope of this synthesis, but emphasise the increasing research evidence for the critical agency of schools and teachers in developing effective school-home partnerships.

A tool emerging from the Johns Hopkins University Center on School, Family and Community Partnerships programme is a typology of six major types of involvement as shown in Table 7.1 below derived from Epstein’s (2001) overview.

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Table 7.1: Epstein’s Framework of Six Types of Involvement for Comprehensive Programmes of Partnership

<table>
<thead>
<tr>
<th>Type 1 - Parenting</th>
<th>Type 2 - Communicating</th>
<th>Type 3 - Volunteering</th>
<th>Type 4 - Learning at Home</th>
<th>Type 5 - Decision Making</th>
<th>Type 6 - Collaborating with the Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help all families to establish home environment to support children as students.</td>
<td>Design effective forms of school-to-home and home-to-school communications about school programs [sic] and their children’s progress.</td>
<td>Recruit and organize parent help and support.</td>
<td>Provide information and ideas to families about how to help students with homework and other curriculum-related activities, decisions and planning.</td>
<td>Include parents in school decisions, developing parent leaders and representatives.</td>
<td>Identify and integrate resources and services from the community to strengthen school programs [sic] family practices, and student learning and development.</td>
</tr>
</tbody>
</table>


The New Zealand Context

Given the evidence (both within and beyond New Zealand) that parental connections with their children’s teachers can make a critically important difference to children’s achievement and well-being, Wylie (1999b) finding that there is a pattern of decreased parental involvement in NZ children’s primary education nationally over the past decade is of concern.

Wylie (1999) noted that parental contact with primary schools in New Zealand was high before the decentralisation initiated by the reforms of 1989. Despite the intention of the reforms to intensify parental involvement, Wylie's research demonstrated that parental contact had not increased since 1989. Rather the parental surveys showed marked decline in parental involvement in schooling between 1990 and 1999 that appears to pervade across the range of types of involvement identified by Epstein (2001). For example, parent help in classrooms had decreased from 21% down to 11%, and informal talk at functions or trips had decreased from 51% to 26%. Wylie (1999) pointed out that these trends may reflect the busier lives of parents and teachers, particularly if parents are engaged in paid employment.

Centre/School-Home Partnerships and the Achievement of Diverse Children

Throughout this synthesis and particularly in Chapter 2 the evidence has been strong that strong centre-home and school-home links are of particular importance for children whose social class culture, and/or ethnicity and cultural heritages are different from those apparent in the practices of the centre or school. However, the research identifies ethnic and socio-economic differences in parental involvement that show a pattern of the least involvement for the families of the children for whom it may be most important. Pakeha/European parents tended more than other ethnic groups to talk with the teacher about their child’s work, discuss the class programme, or help in the classroom. Unemployed parents or those receiving state benefits were most likely to have no contact at all with their child’s teacher (22%). Immigrant families are particularly affected by these difficulties not only because of the extent of language and cultural differences but also because of the recency of these children’s experiences of change, discontinuities and disruption, stress and, in some cases,

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trauma. Lack of parent school communication was identified by Humpage (1998)\textsuperscript{601} as the major obstacle to resolving a range of difficulties for Somali refugee adolescents in Christchurch schools, and a review of research on the experiences of Indo-Chinese refugees found poor communication and exchange of information between parents and schools contributed substantially to the children’s poor performance in school (Hamilton et al, 2000)\textsuperscript{602}. Hamilton et al’s review identified as critical:

a) the use of a mediator to work from the outset of the parent and child's involvement with the school
b) the quality of the induction process used when refugee children and their parents were welcomed into the school
c) multiple meetings with parents within the first two to three months of the child's entry to school to build an effective relationship and communication with parents.

An important area of home/school contact, that is, parental discussions of their child's reports, has been shown to vary according to the decile level of the school. These discussions provide opportunities for important information to be shared, including strategies which can help children’s learning in both home and school contexts. Wylie’s (1999b)\textsuperscript{603} data showed that, whereas 72% of decile 5-10 schools were likely to get three-quarters or more of their parents engaged in discussions of children’s reports with teachers, only 38% of decile 1-2 schools were likely to have this level of parental engagement in the reporting process.

Given the evidence suggesting that constructive interactions between parents and teachers enhance children’s achievement, the differences reported by Wylie (1999b) signal an area of particular concern in the New Zealand context and indicate that some children and parents are further disadvantaged by lower levels of contact. Teachers’ effectiveness is also limited by lower levels and quality of contact, particularly when they are working with children whose language and cultural backgrounds differ from their own, as is increasingly the case in New Zealand. See Chapter 6 for a discussion of these differences and the mismatches that can occur.

**Parental Involvement Developing Parental Networks and Parental Community Supports**

Wylie’s (1999b) findings raise issues about the prevalence and processes of parent contact at ECE and school levels. In a New Zealand study Lythe (1997)\textsuperscript{604} who surveyed 767 Wellington and Porirua families (whose children turned 5 in late 1993 - mid 1994) found parental views highlighted the importance of the support they also received from their child's early childhood participation. She found that, amongst the key influences in parents’ choice of the current (or last) Early Childhood Service that their child attended, were not only...
proximity to the child’s home and the reputation of the ECS, but also parent’s personal needs.

ECSs are frequently valued by parents for social reasons, as they have formed friendships with the staff and other parents, and their children often had attend with neighbourhood children. ECSs in this context become an integral part of the fabric of family life, part of the overall network of community relationships. [64]

Lythe’s (1997) findings are consistent with the parental support benefits Rokx (1997) outlined associated with the intensive ‘pseudo-whanau’ support structure that grew up around a Te Arawa-based Kohanga Reo, discussed in depth in Chapter 2.

The findings of Wylie, Lythe, Humage and Hamilton outlined above should be considered alongside those outlined in Chapter 6 of this synthesis, especially those relating to parental aspirations, and those that demonstrate clearly that the majority of parents care about their children’s education and want to support them. Further evidence of parents’ concern about their children’s achievement was reported by Lythe (1997)605, who found that most parents in her study placed a high value on children’s learning, and that parents from the lowest income families, and those with the least education (and there was a considerable overlap of these 2 categories), were just as likely as others to desire their children to receive as much education as they wanted. They were also the group who were most likely to feel they had missed out on schooling themselves. (See also Mikaere and Loane in Chapter 6.)

Structure of this Chapter

In New Zealand, the US and other countries a range of researchers have investigated ways in which children’s development and learning can be enhanced by involving parents and communities in their education. In this chapter, home-school/early childhood centre collaborative efforts have been presented in four major categories to enable a systematic consideration of evidence relevant to the New Zealand context and international evidence of important links to children’s achievement or social outcomes. We have signalled the ways in which these categories fit with other frameworks such as Epstein, (2001). The first two categories are explained also in New Zealand framework offered by (Glynn et al, 2000)606. The four categories used to consider centre/school, family and community are outlined below.

1. Incorporating Family and Community Values, Structures and Personnel into School/ECE Activities

Some schools/ECE centres have sought to ensure a greater degree of continuity for children by incorporating into the school/ECE centre setting various community values, structures or people (usually parents, but other adult volunteers from the community may have also have been included). These include approaches that fit within Epstein’s Type 2 - Communicating, Type 3 - Volunteering, Type 5 - Decision Making and Type 6 - Collaborating with the Community categories.


2. Making links with, and incorporating, ECE and School Learning Practices in Family Activities

Researchers, teachers and parents have worked collaboratively to incorporate school-like activities into home activities, so that home and school/ECE centre are working in tandem to enhance children’s learning. These include approaches that fit within Epstein’s Type 1 - Parenting, Type 4 - Learning at Home and Type 6 - Collaborating with the Community categories. Such activities may be promoted and supported in a local school/ECE centre, or home, or both. Alternatively, they may occur in a separate community facility. Both forms are examined in this chapter.

3. Community-Initiated Links between Schools and Families

A third form is one where ‘outsiders’, through contract or other arrangements, endeavour to work with the school/ECE centre to forge links with families, and at the same time encourage families to collaborate with the school/ECE centre. These include approaches that fit within Epstein’s Type 6 - Collaborating with the Community category but are community-initiated rather than school or centre-initiated. The aim is to break through perceived barriers and promote, jointly, the development and learning of the children for whom both parents and teachers are jointly responsible.

4. Integrated Programmes

This chapter also includes an examination of comprehensive or integrated programmes that are designed to help parents address simultaneously a range of needs relating to their children and the well-being of their families in general. For example, a free local health facility may be incorporated into an early childhood centre for parents of young children, and at the same time parents may be offered, in their own homes, guidance about how they can help their children with their language development.

Evidence suggests that all four structural approaches tend to be less effective when undermined by deficit or stereotypical assumptions and most effective when operated from a partnership and empowering or strengthening approach that is responsive to the particular people and contexts involved (Epstein, 2001).

Drawing on the subsequent analysis of a range of studies, with particular attention to available New Zealand evidence, this chapter identifies and concludes with a set of principles that the evidence indicates underpins effective home-school/ECE centre collaboration linked to children’s achievement.
INCORPORATING FAMILY AND COMMUNITY VALUES, STRUCTURES
AND PERSONNEL INTO SCHOOL/ECE CENTRE ACTIVITIES

While there are cases where parents or adult volunteers from the community help out in various ways in ECE centres, primary and secondary schools, there is little New Zealand data linking their work with children’s achievement. An exception is the evidence provided in the longitudinal Competent Children Study (Wylie, Thompson and Lythe, 1999). For this Wellington sample of 523 children, the researchers found:

Children of parents who had no involvement in the child’s school scored less than others on Mathematics, most of the Literacy measures, Communication, Perseverance, and Fine Motor skills. [124]

Links with children’s achievement were identified over and above other key factors such as family income and mother's education. After taking family income into account there was still a positive link between parental involvement and children's reading achievement. After taking mother's qualifications into account there was still a positive association between parental involvement and the child's achievement in terms of perseverance, communication, mathematics and reading.

In this Wellington study, it appeared that sustained parental involvement in school focussed on learning activities was strongly related to achievement in contrast with other kinds of more fleeting or administrative involvement:

The particular kind of parental involvement which seemed to make a difference for children was voluntary work at or for the school, but not being a school trustee, or taking part in the Parent-Teacher Association… Children of parents who attended school meetings or functions were ahead on the PAT reading test by 7 percentage points, and on Fine Motor Skills by 4 percentage points. [125-126]

In the US, Sanders (2000) has identified a number of studies which show that various forms of community involvement can have positive effects on children’s attitudes, achievement, school attendance and career opportunities. Those school/community partnerships identified tend also to be focussed on the child's learning and included mentoring of children, subject-specific tutoring and support, assistance with children's trips, and the provision of resources and special incentives. However, there is growing recognition that the adults involved in these partnerships are able to enhance children’s academic and social development more effectively if they participate in adult education programmes designed to help them to work constructively with children. Some centres and schools provide parents with opportunities to experience alternative ways of interacting with children, as modelled by centre/school professional staff.

Some New Zealand studies have investigated parental involvement in ECE centres. Although the relationships between the parents’ involvement and their children’s development are unclear in these studies, the findings are nevertheless relevant to this


synthesis because they provide information about changing relationships and perceptions amongst those involved. For example, Shivnan (1999) explored the empowerment of Māori families within a mainstream ECE centre in the Waikato for her masters thesis research. She identified factors that contributed to the participating families’ sense of empowerment, including:

a) staff valuing the whanau concept,
b) a trusting relationship with staff,
c) a centre climate where the families’ children could feel good about who they were,
d) respectful and appropriate incorporation of te reo me ona tikanga in the programme,
e) the presence of Māori professionals on the centre staff, and
f) the involvement of Māori as influential decision-makers at all levels of the centre.

In Shivnan’s (1999) study, empowerment was associated with the legitimisation in the ECE centre of Māori knowledge, values and language in ways that were contributing positively to their children’s sense of identity. She argued that empowerment was therefore much more complex than simply enabling parents to have a ‘voice’. It involved an effective and sustaining partnership that was culturally and contextually specific.

As part of her doctoral investigation of Early Childhood Education in Dunedin, Farquhar (1993) explored parental attitudes and expectations and found that most parents were not in favour of centre staff visiting them in their homes, especially if they intended to provide information and education about child-rearing. She also found that many Kohanga Reo parents were clear that the centre programme should have minimal influence on the children’s cultural development, and that non-pakeha parents expected that they would be involved in centre decision-making and outings with their children.

Data relating to the empowerment of non-pakeha parents in an ECE setting were also reported in Coxon et al (2002). In 1995, Sauvao undertook an action-research project in a Samoan and a Tokelauan preschool to investigate how parents might be able to help their children in the centres. She found that initially the parents held back from participating. However, when they were shown specific strategies they could use (for example, in story telling, miming, choosing books) their participation increased. She concluded that encouragement to participate should enable parents to choose when and how to contribute, and also enable them develop at their own pace, in relation to their own interests and needs, as well of those of the preschool.

The research findings of Shivnan, Farquhar and Sauvao reflect the complexities involved in establishing and maintaining mutual understanding and collaboration between parents and teachers, and the need for a more extensive New Zealand research base to inform and enhance these partnerships.

At the primary school level, two relevant New Zealand studies were located for this synthesis, and both confirm the diversity in parents’ responses. The first study involved an innovative attempt by Meaney (2000)\(^{612}\) to involve the parents of children in a Kura Kaupapa Māori school in mathematics curriculum development. This doctoral study was based on the premise that the parents’ input could result in a more culturally appropriate curriculum which in turn would significantly increase the children’s mathematics achievement. Meaney recognized that the parents were likely to need help in understanding mathematics curriculum development prior to making a contribution, so she made a considerable effort to provide this\(^{613}\). However she found that the ‘Framework’ document she provided was not strong enough to challenge community members’ beliefs about mathematics education, the ‘Framework’ did not result in the children being taught differently, and the children’s achievement was not lifted to any significant extent. She concluded that, “Community-negotiated mathematics curriculum development is a very complex, and at times confusing, process” (Meaney, 2000:265)\(^{614}\).

The second New Zealand study, which was undertaken by Churchward (1991)\(^{615}\), suggested more positive outcomes. The researcher investigated the effects of the introduction of ‘family-grouping’ into the multi-ethnic Richmond Road School (Years 1-6) in Auckland. This included the right for parents to choose whether they wanted their children educated alongside siblings. Churchward found that Māori and Pasifika parents and children had immediate empathy with the ‘family-grouping’ notion as it recognized the family as a central social concept, and also that few parents chose to separate their children. Although there are no data about children’s achievement, the research showed that the strategy led to the establishment of strong community/parental commitment to the school and its educational aims. Māori and Pasifika communities and parents in particular felt that incorporating this cultural element into the school organisation made the school accessible to them.

Another means of involving parents in school programmes and children’s achievement takes the form of teacher-parent report evenings held in the school setting. This occurs at both primary and secondary levels in New Zealand. The value of such involvement was investigated by Walker (1998)\(^{616}\) in a study of four secondary schools in England. He found that:

a) the purpose of the meetings was unclear to the participants
b) the teachers and parents often had different views about the nature of assessment and consequently had mismatching expectations which led to mutual incomprehension
c) all parties felt defensive at times
d) the parents generally felt relatively powerless and impotent in the exchange so that the evening was a frustrating experience and, for many, deeply distressing.


\(^{613}\) For example, she produced for them a 35 page document titled, “Framework: A support document for curriculum development in mathematics”, and she held various meetings with the parents to consider this.


Walker (1998) concluded that such meetings fail as communication events and that they are occasions fraught with personal and institutional danger. Anecdotal evidence suggests that teacher-parent report meetings in New Zealand may result in similar problems for some of the teachers and parents involved, but no New Zealand evidence on this aspect was available for this synthesis. The negative experiences associated with such involvement for some parents and teachers probably make it more difficult for them to achieve genuine understanding and collaboration in support of children’s development and learning, and may add to the feelings of frustration and alienation experienced by some parents (especially Māori) reported elsewhere in this synthesis.

A range of initiatives in New Zealand have been designed to involve community members in efforts to improve children’s achievement, but they vary in scope and many lack a research base, so it is not possible to summarise their influences within this synthesis. However, examples reported recently in the media include ‘The Mates’ scheme, begun in Auckland through a partnership of the Pacific Foundation and the University of Auckland (and modelled on the lines of an Israeli system) whereby university students spend four hours a week acting as mentors for children in several secondary schools (De Boni, 2002617), and the ‘Cool Schools Parents Programme’ reported to be operating in more than half of the country’s primary schools (Challinor, 2002618). Details on the success of these two programmes, if they are available, have not been identified to date.

Although many attempts by educators to incorporate community practices, values and linkages into schooling are successful in assisting children’s achievement, others may have been less successful or even counterproductive. The following examples illustrate the need for evidence-based approaches and attention to complexity in the translation of cultural values into educational practice.

For example, many New Zealand studies have documented lower rates of interactions between Pakeha teachers and Māori children, than other children (e.g. Clay, 1985619, Benton, 1986620, Cazden, 1990621). One explanation offered by mainstream New Zealand teachers is that they are reluctant to ask questions of Māori children in class because Māori children can be whakama (shy, ashamed, humiliated by public focus). Alton-Lee, Diggins, Klenner, Vine and Dalton (2001)622 through collaboration with a Māori teacher provided a case study of a range of pedagogical strategies that supported the public contribution of a Māori child, which in turn was linked to an enriched learning environment and specific learning outcomes. They suggested that the culturally appropriate response is not to exclude Māori children from public discourses, but to ensure that a child’s contribution is scaffolded within a safe pedagogical environment and appropriately valued so that learning is supported.

Hohepa, McNaughton and Jenkins, (1996) also called for more complexity in the translation of community values into educational practice. They challenged the stereotypical view that Māori children always learn best in group or co-operative contexts because of their Māori heritage of a collectivist culture. These researchers exemplified a range of individual and group contexts that supported Māori children's learning and provided important links between whanau and Kohanga Reo.

The children in this particular study were being exposed to distinct socializing experiences that are valued, and have been actively sought out, by their caregivers and families. It could be assumed that these socialisation practices will be reflected to some degree in their homes … Kohanga reo function in a network of cultural processes. One of the most significant of these is the role of whanau. Previous research has shown how pedagogies and ideas shared between family and kohanga reo create a wide significance for children’s language activities originating in kohanga reo. This contributes to the effectiveness of both settings as settings for language socialization. [39]

INCORPORATING SCHOOL-LIKE ACTIVITIES INTO FAMILY ACTIVITIES

The research literature shows that most attempts to incorporate school-like activities into family events focus on reading/literacy. There are limited references to science and mathematics, but data on children’s achievement is restricted in these studies.

Wylie, Thompson and Lythe (1999) in investigating parental help with homework, found for their Wellington sample, that:

*Children whose parents helped them had lower scores for Literacy, Mathematics, Communication, Logical Problem Solving, Perseverance, and Fine Motor skills. Those whose parents helped them with mathematics scored 5 percentage points less on our mathematics measure than did others.* [126]

These findings are consistent with U.S research by Epstein (2001). Wylie, Thompson and Lythe (1999) found that level of parental help was not differentiated by maternal education and that parents from low income families helped the most. The researchers concluded from this evidence that those who needed help were getting it from their parents. However, the findings could also signal a negative effect for some kinds of homework and parental help combinations when parents inadvertently worsened their children's achievement through pressure or helping practices that did not assist the child's achievement. Wylie, Thompson and Lythe (1999) found that what appeared to be most strongly related to achievement and most helpful were parental practices of providing resources to their children, supervising homework and helping with projects or research. See also Chapters 5 and 6.

In a recent review, the New Zealand Education Review Office (Sewell, 2002) reported that few schools attempted to involve parents in science, partly because parents seem to show little interest in this subject. Parents’ reported lack of interest is understandable, given the

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negative experiences that many may have had in science education in their own former schooling.626

One of the earliest New Zealand studies to focus on incorporating school-like activities into home practices was centred on reading literacy. This was the Mangere Home and School Project (McNaughton, Glynn and Robinson, 1981)627 in which the researchers trained parents of older low-progress readers to tutor their children at home. The training was given to parents in their individual homes. The project was particularly significant because it had a substantial research base, and the researchers demonstrated that, overall, parents successfully implemented the programme procedures and that the children made more rapid progress in reading than they would have otherwise.

The Mangere Project provided a useful basis for a low cost workshop programme developed in Christchurch (Biddulph, 1983628, 1993629; Biddulph & Tuck, 1983630). Biddulph developed a group programme for parents of a sample of 48 nine and ten-year-old children who were low-progress readers. They were drawn from seven Christchurch primary schools located in a range of SES areas. The programme, (which was conducted at the local schools), consisted of a series of four 75-minute workshops631 (spread over seven weeks) that explored with parents:

a) basic understandings of the reading process, and how children learn to read,
b) appropriate strategies to support their children’s reading at home,
c) demonstrations of how to provide constructive support,
d) guidance and support in accessing suitable reading material from their neighbourhood library, and
e) opportunities to talk about their experiences.

Biddulph (1983)632 found that parents were very keen to help their children with their reading (even when their own understanding and reading of English were limited). Compared with a control group, most children made highly significant gains in their reading (sustained over more than 12 months633), grew in self-esteem and confidence, and developed positive attitudes towards both reading and being helped with reading at home. Prior to the project, none of the children in the study was reading beyond a level of 8.5 years on the study measures, and many were reading well below this level. At the second follow-up testing (16 months after the programme), 76% of the tutored children had a reading age greater than 9.5

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626 This comment is based on the experiences of the first author and colleagues working in science education with preservice teachers; most of the preservice teachers reported very negative feelings about the subject, especially as a result of their secondary schooling.
631 These were also attended by a number of teachers from the schools who were interested in becoming programme facilitators so that they could conduct the programme with other parents.
years, whereas only 10% of the non-tutored children had reached this level. In addition, many parents reported that they had developed more supportive and positive relationships with their child(ren), and that they were using the programme strategies to help siblings of the original group of children (and in some cases were also showing other parents/friends how to help their children). The underlying processes of the programme were of critical importance. These were designed to create both a genuine, collaborative and non-threatening partnership between the parents, their children, and the programme tutor, and also a sense of community among the parents and teachers present at the workshops. The programme has since been implemented in other parts of New Zealand, apparently with similar results. For example, an Invercargill teacher is reported to have found that a group of children from her school, on testing, showed 2 years progress after 8 weeks involvement in the programme (Lancaster, 1985). The programme has been successfully extended to other schools, including Kura Kaupapa Māori, and also to secondary level, where parents and adult volunteers have helped low progress readers make better sense of the text materials they encounter.

Other studies have also demonstrated the effectiveness of such initiatives across socioeconomic and cultural groups within New Zealand and elsewhere. For example, in a 1986 New Zealand study, Glynn and Glynn (Glynn et al, 2000) assisted Cambodian Khmer-speaking mothers to help their 6 to 7-year-old migrant children learn to read. Although the mothers had little education and relatively few words of English, the researchers found that they were able to improve their children’s rate of reading and progress at school over and above that of the children’s participation in the school programme alone. The study also showed that the mothers had made clear gains in their own English reading skills. A significant finding was that the parents were motivated to help their children learn and demonstrated profound resourcefulness, in the face of considerable odds, to do so.

The need to be aware of perceptions about reading that parents might bring to the task of assisting their children was evident in a study of Samoan family reading activities by Tagoilelagi (1995). In the course of masters thesis research, Tagoilelagi investigated storybook and Bible reading activities in Samoan families in Western Samoa (10 families) and New Zealand (8 families). The 18 children involved were aged 3 and 4 years at the time of the study. Tagoilelagi found that all families used a ‘performance routine’, that is, the child was expected to repeat what the adult read from the text. Some questioning of children also occurred but overall the results suggested that the parents/adults held a view of the reading process different from that currently held by most New Zealand teachers. However, Tagoilelagi pointed out that the parent’s views were consistent with Samoan cultural values. See Chapter 6 for a discussion of differing literacy practices across cultures.

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635 For example, it built on the parents’ strengths (such as their desire to help their children), it collaborated in meeting their transport and childcare needs, it sought their views, it used humour, it used personal contact, it reassured parents who were anxious about their own literacy levels, and it addressed their concerns.


Glynn et al. (2000) reported a similar study by Wolfgramm, McNaughton and Afeaki in 1997, but in this research the focus was on the way that Tongan families read with their 3 and 4-year-old children. Again the families used church material (Bible and Sunday School stories) and secular storybooks. The study also introduced alternative ways of reading storybooks that support the development of narrative skills, book language and comprehension strategies. The researchers carefully built on the mothers’ knowledge and aspects of their current reading practices, avoiding undermining culturally-based patterns or implying that these were deficient in some way. The relationship between the alternative parental reading practice and children’s developing understanding of reading/language were not reported in the study.

The studies cited above reflect an empowerment perspective on the part of the researchers involved (rather than a deficit view) and the evidence suggests that programmes are much more likely to be effective for those involved when notions of empowerment consistently inform the content and processes and are guiding practices throughout the programme.

Discussing the powerful effects of simple interventions from an international standpoint, Cummins (2001) pointed out that ‘dramatic’ changes in children’s academic progress can be realised when educators take the initiative to change an ‘exclusionary pattern to one of collaboration’. As an example of such an initiative, he cited the work of Tizard, Schofield, & Hewison who reported on their Haringey project in Britain in 1982. These researchers sought to assess the effects of parental involvement in the teaching of reading by establishing a project in which in which all children in two primary-level experimental classes in two different schools read to their parents at home on a regular basis.

The reading progress of these children was compared with that of children in two classes in two different schools who were given extra reading instruction in small groups by an experienced and qualified teacher who worked four half-days at each school every week for the two years of the intervention. Both groups were also compared with a control group that received no treatment. All the schools were in multi-ethnic areas, and there were many parents who did not read English or use it at home. It was found, nevertheless, to be both feasible and practicable to involve nearly all the parents in educational activities such as listening to their children read, even when the parents were non-literate and largely non-English-speaking. It was also found that, almost without exception, parents welcomed the project, agreed to hear their children read, and completed a record card showing what had been read (Cummins, 2001).

The Haringey project researchers reported that parental involvement had a pronounced effect on the children’s success in school. Children who read to their parents, made significantly greater progress in reading than those who did not engage in this type of literacy sharing. Small-group instruction in reading, given by a highly competent specialist, did not produce improvements comparable to those obtained from the collaboration with parents. In contrast to the home collaboration program, the benefits of extra reading instruction were

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least apparent for initially low-achieving children. In addition, the collaboration between teachers and parents was effective for children of all initial levels of performance, including those who, at the beginning of the study, were failing in learning to read. Teachers reported that the children showed an increased interest in school learning and were better behaved. Those teachers involved in the home collaboration found the work with parents worthwhile, and they continued to involve parent with subsequent classes after the experiment was concluded. It is interesting to note that teachers of the control classes also adopted the home collaboration program after the two-year experimental period (Cummins, 2001).

Cummins (2001) argued that:

The essential point, however, is that the teacher’s role in such relations can be characterized along a collaborative-exclusionary dimension. Teachers operating at the collaborative end of the continuum actively encourage minority parents to participate in promoting their children’s academic progress both in the home and through involvement in classroom activities. A collaborative orientation may require a willingness on the part of the teacher to work closely with mother-tongue teachers or aides in order to communicate effectively: in a noncondescending way, with minority parents. Teachers with an exclusionary orientation, on the other hand, tend to regard teaching as their job and are likely to view collaboration with minority parents as either irrelevant or detrimental to children’s progress.

A number of overseas studies have also looked at efforts to incorporate effective reading practices into family activities, for example, Snow et al (1998), Neuman et al (1998) and Hendrix (1999) in the USA, and Brooks (1998) and Senechal et al (1998) in England. Important points to emerge from these studies are:

- In the USA, family literacy education is often conceived and implemented as a compensatory model; a model which contains deficit assumptions, and has the effect of silencing, then erasing, valid alternative literacy practices used by different groups in different contexts. See Chapters 2 and 6 for discussion of these issues.
- Socially responsible and family-responsive literacy programs should be learner-centred, not learner-centred, and at the same time respond to the ever-present and ever-shifting richness, complexity and diversity in people’s lives. They must reflect the contextual factors and social conditions that shape family life; they must be tailored to the specific needs of the families they are intended to serve.
- The real strength of family literacy programmes is their ability to foster autonomy and self-reliance within families, schools and communities; that is, their focus on empowerment of all those involved.
- Literacy learning is a social practice to be enjoyed and shared with family and friends.

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• Programmes can build on the strong aspirations and motivation that most parents have for their children’s literacy development, as discussed in Chapter 5.
• Successful programmes have purposes jointly constructed by parents and facilitators, and promote group cohesion among parents.

In the area of mathematics, steps have been taken in England, the USA, and to some extent New Zealand to provide parents with guidance to enable them to work with their children in mathematics. For instance, Griffin and Coles (1992) ran two workshop sessions for parents of kindergarten children which aimed to help the parents understand the importance of mathematics, and how they could use the mathematics of the home and local community with their children to build a worthwhile foundation of mathematical experiences. While their study did not yield data on children’s achievement, their results showed that the parents’ participation with their children in things mathematical greatly increased. More recently, the Ministry of Education initiated a campaign called ‘Feed the Mind’ which encouraged parents to participate more with their children in mathematics (and literacy) activities. The Project took the form of a media campaign and distribution of pamphlets and swatches (in English, Māori and a number of Pacific languages) and aimed to heighten awareness and provide information about useful strategies to support children’s learning. The evaluation of this programme (Research Solutions, 1999) focused particularly on the literacy rather than the numeracy component, but a more recent report (Ministry of Education, 2001) indicated that in the first 12 months of the campaign the confidence level of Māori and Pasifika parents rose from 55% to 70%, and that more parents reported they were reading to and playing counting games with their children at home.

Family Math (Stenmark et al, 1986) began in California and is a programme of mathematics activities that parents and children can work at together. It also operates out of Auckland in New Zealand but whether it raises the achievement of children who participate is unknown. Although Merttens (1999) in the UK emphasised that involving the family in their child’s mathematics learning was an essential part of raising achievement, she presented no data in her article in support of her contention. She made the observation, however, that it is important for parents to feel that they are an integral part of the schooling process and that their collaboration is both sought and welcomed. Like Griffin and Cole (1992) and Wylie et al (2001) (discussed in Chapters 5 and 6), Merttens’ work suggested that the most useful thing parents can do is share mathematical activities in the home – both formal and informal (for example, helping with homework, talking about the children’s number work, playing card and other games). Merttens concluded that the overwhelming majority of parents want their child to succeed at school and will do what they can to help bring this about. With clear guidance about what to do, and how, most parents are keen to help. Corbin and Holt

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also found that mathematics homework was most effective when parents were actively involved. Further, they reported that one means of involving parents in a positive way was to invite them along to school to join their children in a 'maths club'. The club mathematics activities appeared to be similar to those used in the Family Math programme. Again, Corbin and Holt (2002) provided no data linking parental involvement to children’s achievement in mathematics. They reported though that as the children got older and the mathematics more challenging, parents felt less and less confident about being able to support their children – to the extent that some considered their children should be ‘weaned’ away from their support as they grew older.

A New Zealand programme which adopted a more general approach was ‘Parents as First Teachers’. While it may have had positive outcomes, a review of the evaluations of the programme (Livingstone, 1998) led to the overwhelming conclusions that the measured effects of the programme over three years, in the four areas of New Zealand where it was trialled, were quite minimal - despite widespread satisfaction with it, and that the programme needed to broaden out from a focus on the child to consider family functioning (for example, as determined by parental competence and confidence, parental stress, parental-child relationships).

PROMOTING SCHOOL/ECE CENTRE AND HOME COLLABORATION

As outlined at the outset of this chapter, one of the most concerted efforts to construct a collaborative relationship between school and home has occurred in the USA. Extensive research over a period of approximately 20 years into promoting school, family and community partnerships to enhance children’s learning has been carried out by Epstein and her colleagues at John Hopkins University in the USA (Epstein, 2001; Epstein et al, 2002). She has developed an integrated theory of family-school relations based on the view that family and school have overlapping spheres of influence on children’s development and learning, and on her finding that virtually all parents want their children to succeed educationally. Her research has demonstrated that it is possible for schools to take the initiative in establishing partnership relations with families and their communities, to the academic and social benefit of the children in their joint care. She found, however, than an action team comprising 3 teachers and 3 parents (and an administrator), representing children across the age range, is necessary to sustain such a partnership programme over time. A key purpose of such partnerships is to develop family-like school and community settings, and school-like home settings. Based on her ongoing research, Epstein (2001:35) concluded that, “Students’ test scores suggest that schools are more effective when families and schools work

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658 Epstein (2001:22) points out that this theory contrasts with
  - a separate responsibilities theory in which schools and families operate independently
  - a shared responsibilities theory which emphasises the complementary roles played by schools and families
  - a sequential responsibilities theory which emphasises the critical stages of parents’ and teachers’ contributions to children’s development.
together with the student on basic skills”, although this was more true of reading than mathematics. The evidence suggested that increased achievement is possible even in families with little formal education. What is clear though, is that many parents require guidance on how to help their children at home. Replicating inappropriate teaching approaches which they experienced as youngsters (which are often all they know) can be unhelpful or worse.

Epstein (2001) stressed that children must be located at the centre of school/home partnership thinking because, ultimately, it is the children who are the key actors in their education and development and who produce their own successes. It is therefore assumed that, “… if children feel cared for and encouraged to work hard in the role of student, they are more likely to do their best to learn to read, write, calculate, and learn other skills and talents and to remain in school” (Epstein, 2001:404). To facilitate this, Epstein and her colleagues have found that programmes and services provided by school and community need to be family-friendly, that is, they should take into account the needs and realities of family life, be feasible to conduct, and equitable toward all families (Epstein, 2001). Epstein lists a range of ways in which schools and families may be involved in partnerships (e.g. providing parents with ideas about how they can help their children at home) but stresses that partnership programmes take time to develop since “The development of a partnership is a process, not a single event” (Epstein, 2001:420). At the heart of such partnerships is a feeling of caring which involves both trusting and respecting.

Within New Zealand a range of programmes have sought to promote collaboration between home and school by building on the strengths of both. Significant among these are:

- The Strengthening Education in Mangere and Otara project (Timperley et al, 1999) which included an Early Childhood Primary Link Study, and a Māori Education Study. This project, initiated by the New Zealand Ministry of Education and involving a three-way partnership between Ministry, schools and communities, aimed to strengthen the capacity of the schools and communities in the above two South Auckland areas to offer high quality learning environments for children. Timperley et al’s (1999) main conclusion was that ‘honest acknowledgement’ of the work to be done was likely to promote an educative partnership, and that relationships between schools and families that continued to cover up difficulties did not serve children’s needs. They pointed out that if the SEMO initiative was to succeed where others had failed before it, it would have to encourage dialogue about the difficult as well as the more comfortable issues, so that solutions were built with the knowledge of all relevant issues. The researchers acknowledged that

  This is an enormous challenge in an area which has become cynical and frustrated by previous centrally-led interventions, where there are unproductive competitive relations between some schools, and where professionals and families often live in worlds apart. [vii]

- The Wellington Project (McKinley, 2000) which sought to identify the aspirations and concerns of Māori parents/whanau from 12 schools regarding their children’s
education (at both primary and secondary levels), identify issues of Māori parents/whanau participation (or otherwise) in their children’s education, and develop strategies to address the issues and concerns. Two of the 12 schools involved were kura kaupapa Māori, both with wharekura (secondary level) classes. The two kura kaupapa Māori involved parents and children more in the assessment processes, and teachers at both kura reported more examination successes, and more confidence in their children. The study showed that Kura kaupapa Māori parents were generally more positive about their children's progress, and had more informal contact with their child’s teacher and the kura. McKinley noted that informal contact was identified by teachers and principals in all 3 kinds of school as a key to making educators more approachable for Māori parents, and encouraging them to discuss their child’s progress, academic as well as social.

- The Rotorua Home and School Literacy Project (Glynn et al, 2000)\textsuperscript{662}, which sought to boost the literacy development of low-achieving 7 to 8-year-old Māori children through collaborative home and school strategies. The parents learnt and implemented a range of reading and writing strategies and the results showed that children within each of the three sets of low decile (1-3) schools who participated in the project made substantial and positive reading and writing gains which were greater than those of children who received literacy teaching only at school.

- The Whaia Te Iti Kahurangi (Strive for the Ultimate) – Strengthening Education (Ministry of Education, 2001)\textsuperscript{663}, a partnership between the New Zealand Ministry of Education and Iwi on the East Coast of the North Island. This partnership gradually raised educational expectations and enthusiasm among both parents and teachers and has led to significant improvement in school performance in the area. A 2001 Ministry of Education report acknowledged that Whaia Te Iti Kahurangi had faced many challenges, including the time taken to effect change, the reservations of education professionals, the hesitation of communities to take charge, and the limited number of people available to take on leadership roles. However, success indicators by the end of 2000 included increased expectations of education delivery, the re-emergence of a principals’ association locally, a strong base of relatively new and enthusiastic principals and increased participation in professional development. Perhaps most importantly, the 2001 report also recorded the fact that ERO reports had indicated that approximately 80 percent of children were attending performing and improving schools compared with less than 50 percent in 1997 (Ministry of Education, 2001:28-29)\textsuperscript{664}.

- The Hei Awhina Matua project (Glynn, 1997)\textsuperscript{665} in Tauranga which was designed to address the behavioural and learning difficulties of Māori children through promoting co-operation and collaboration between the children, their whanau and teachers. Twelve target children in the programme showed considerable gains in on-task behaviour, reading and writing by the end of the six-month intervention.


Other relevant studies which are reported in the New Zealand literature but do not have clearly identified achievement outcomes are:

- The nation-wide Pacific Islands School-Parent-Community Liaison Project (Coxon et al, 2002) which encompassed a variety of activities, such as publishing a guide for parents, running a mentoring programme, and setting up homework centres.
- The Pacific Island School Community Liaison Project in the Wellington area (Coxon et al, 2002). This project, like the one above, was cluster-based and used a multi-level approach. A key feature of both programmes was the use of liaison officers of Pacific background.
- The AIMHI Project (Coxon et al, 2002) which developed information booklets (written in the main Pacific languages) for parents about school procedures and processes, made use of Pacific radio stations to provide information to parents, established focus groups of parents and community members, and facilitated meetings of parents in their cultural groups (for example, Samoan, Tongan, Cook Islands) rather than as a whole Pasifika group.
- An HIV/AIDS-sexuality secondary teacher professional development project (McDonald and Tasker, 1995) which involved parents, who then moved the project out into the wider community.

A number of findings which are relevant to this synthesis have emerged from the projects outlined above. These are that:

- Most parents want their children to succeed educationally and are prepared to help in any way they can. Many want their children to have a better chance than they themselves had. Limited facility in English is not an insurmountable obstacle.
- When their children reach secondary school level, many parents need additional guidance on how best to help their child at home, and how to access information or services to support them in that task.
- The traditional view held by many Pasifika parents (particularly migrant Pasifika parents), that the teacher is the ‘expert’ seems to be changing. There is growing recognition that both school and family have joint responsibility for children’s education.
- In school-family-community collaboration the use of liaison officers of the same ethnicity as parent participants seems especially important as it allows the partnerships to be built on shared cultural understandings. The liaison officers need to be high caliber, highly committed and respected by the community.
- The process of partnership building should add to family practices, not undermine them.
- Connections and partnership building can be initiated by teachers ‘reaching out’ to parents. It can result in teachers learning as much from families as families from teachers, and teachers gaining deeper awareness of children’s experiences and competencies.
- Establishing self-sustaining parent support groups is a challenging process.

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• The school is part of the community, so school-community relationships are important and can be beneficial for all those involved if constructive partnerships are established.
• As expectations of parental involvement are raised, the flow of communication between school and home increases, and so does the sense of two-way support, and actual parental involvement.
• Opportunities for informal contacts are a key to making teachers more approachable for Māori parents and encouraging them to discuss their child’s progress, both academic and social. Māori parents and their children are particularly sensitive to the relationship they have with their teachers. This relationship seems to be pivotal to children engaging in school activities and thus to their success.
• The holistic perspective in Māoridom does not treat home and school as separate. Māori parents understand that they must continue their children’s learning at home.
• Many children need scaffolding from others in their homework to help them understand what is required. Once they understand, the work becomes achievable.
• Parents want teachers and principals to treat them and their children with respect. They prefer friendly teachers who show real interest in their children, both academically and personally.
• Parents and whanau across ethnic groups are often able to help their children make significant achievement gains despite experiencing very adverse economic conditions themselves, and despite having minimal power to effect improvements in their own circumstances.
• Honest acknowledgment of the work to be done is likely to promote an educative partnership, whereas relationships between schools and families that continue to cover up difficulties do not serve children’s needs.
• There are no ‘instant recipes’ for establishing and maintaining positive home-school relationships.

COMMUNITY-INITIATED LINKS BETWEEN SCHOOLS AND FAMILIES

Also in New Zealand, the Tu Tangata programme (which was initially established around a centre where ‘naughty’ children were sent), developed into a programme in which initially the Te Atiawa iwi and eventually a range of communities initiated roles in owning and managing the Tu Tangata teams. The team worked beside children in the classroom, monitored their progress, supervised the Tu Tangata Centre, encouraged parent participation and worked with community organizations (Moewaka Barnes, 2001).669

Moewaka Barnes & Barrett-Ohia (2001)670 emphasised the importance of community participation and ownership to the success of interventions for Māori, and observed that many of the Tu Tangata programmes were able to utilise networks and involve adults from the local communities. In the researchers’ view, this was likely to have reinforced participants’ sense of control and children’s acceptance of Tu Tangata as part of their community. Tu

Tangata was perceived as belonging to communities and as having particular relevance to Māori. The programme was therefore more likely to have been accepted and well received than one that was seen as operating from a non-Māori and non-community owned framework.

Limited evaluations have been carried out on Tu Tangata (Moewaka Barnes, 2001), and the inconsistency and short-term nature of the majority of the programmes have presented major difficulties both in implementation and in evaluation (Moewaka Barnes & Barrett-Ohio, 2001). However, in 1996-97, an evaluation of the Alcohol and Drug Component of the Tu Tangata Initiative at Parkway College described the programme as having “evolved from a personal health alcohol and drug service to a multi-faceted school-based intersectoral public health programme for young people” (Moewaka Barnes, 2001:28), and pointed out that the programme had broadened from a focus on ‘at risk’ or Māori children to all children. The evaluation recorded a number of claims of positive changes at Parkway thought to be attributable, at least in part, to Tu Tangata. These changes included improved attendance, greater academic achievement, fewer suspensions, fewer sexual harassment complaints against boys and less drug use. Moewaka Barnes (2001)\(^{671}\) reported that:

Parkway College in 1997 stated that before the programme, 30% of students attending the College had 10% or more absences (meaning absent at least 10% of the time), but that since Tu Tangata support had been in place, the number of students with 10% or more absences has stayed below 10%. However a Northland study based on seventh form retention rates in 1997 and 1998 found that there appeared to be no difference in the retention rates between schools that had a Tu Tangata programme and those that did not.\[^{31}\]

The immediate impacts of the Tu Tangata programme were dramatic addressing entrenched problems of truancy and participation. However, evaluators have argued that the education system itself was often seen as a barrier to change, particularly for those who do not belong to the dominant culture (Moewaka Barnes, 2001). However, Moewaka Barnes pointed out that schools were often also struggling with a myriad of difficulties and were also presented with a myriad of potential responses by many agencies from within the education system and from those outside. In the case of Tu Tangata, it seems that the community and school principals’ contribution to the initiatives were very strong, but there was no structured system response to providing professional development to the teachers to develop the partnership further. International research (Darling-Hammond, 1997)\(^{672}\) indicates that long-term evaluations of the impacts of untrained staff in schools is that they can be neutral or even negative, unless there is very careful integration of the work of the adults and the teacher's pedagogical work to ensure optimal learning conditions.

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INTEGRATED PROGRAMMES

The discussion in this chapter so far has largely considered ways in which elements of family and community can be incorporated into school activities, how school-type activities can be built into family activities, and how schools and families can collaborate to enhance children’s development and learning. The data indicate that even families experiencing adversity can do much to assist their children. However, given the concerns about the well-being and achievement of New Zealand children in families in these adverse circumstances (documented throughout this report) there is clearly a need to examine whether parents in these circumstances can be given greater all-round support to enable them to be even more effective in helping their children — especially if the major goal is the overall social and intellectual development of children, not just academic achievement. The evidence cited at the beginning of this chapter suggests that this is possible. However, for this to happen, it may be necessary, as Boyd et al (1997:3) suggested, for public education to “move beyond the legendary ‘four walls’ of the school building in order to create some of the social capital that is requisite to their own success.” Mikaere and Loane’s (2001) findings support this view. They concluded that serious efforts to help underachieving Tuwharetoa Māori children required the “… involvement of community organizations and local government, with policy and support initiatives from appropriate government agencies” (Mikaere and Loane, 2001:2).

An extensive overseas initiative which offers a multifunctional service for children and families is the Penn Green Centre in England (Whalley, 2001). It was set up, with a research base, 17 years ago and is jointly managed by Education, Social Service and the local health authority, with a high level of parental input and decision-making. The Centre could be described as a ‘one-stop shop’ for families with young children in the local (impoverished) community and currently caters for over 500 families. Essentially, it is a centre where parents are engaged in an equal, active and responsible partnership, a place where they feel able to share their concerns about their children’s development. The Centre services include early years education, care for children in need, extended hours provision to support families, adult community education, voluntary work, and community regeneration. Its work is based on principles of community education, namely:

- A concern with the capacity of individuals to be self-directing
- Helping individuals to gain more control of their lives
- Raising self-esteem and a sense of self-fulfilment
- Promoting learning as a lifelong experience
- Providing equal opportunities
- Pushing boundaries
- Fostering constructive discontent, that is, helping individuals recognize that they do not have to put up with things the way they are, and encouraging them to feel they

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676 In its 17-year existence the Centre has provided services for more than 6000 local parents.
have the power to change things, and are able to start creating the world they would like to be part of.

The Centre recognizes that parents (including fathers) have a deep commitment to supporting their children’s emotional and cognitive development, have great untapped energy and ability to do so, but that they need to become involved in Centre support activities in their own time and in their own ways. From experience, the Centre knows that it takes time to establish equal, active and responsible partnerships in which parents decide how they wish to participate. That is, the Centre staff avoid making judgements about parents; they find they learn a great deal from listening to them.

Over the years the Centre has researched the benefits of the family partnerships with the Centre. The benefits include:

a) the parents’ increasing knowledge and understanding of their children,
b) Centre staff understanding the learning opportunities in the home, and
c) the children gaining a sense of continuity and being cared for by the significant adults in their lives in a trusting and secure environment.

This is a very different situation from the dysfunctional family life experienced by some New Zealand children, described in Chapters 5 and 6.

The nearest equivalent to the Penn Green Centre in New Zealand identified for this synthesis is Whanau Toko I Te Ora (Livingstone, 2002)\(^{677}\), a national parenting programme for Māori whanau provided by the Māori Women’s Welfare League in nine geographical areas. It focuses on Māori preschool children’s development through home visiting, provision of a whanau learning programme\(^{678}\), and group support aimed at (a) developing positive parenting skills, (b) developing confident family functioning, relationships and mental outlook, and (c) promoting development and learning opportunities for children.

Like the Penn Green Centre, Whanau Toko I Te Ora offers wide-ranging, individualized support\(^{679}\), involving other community services. Importantly, the programme, “...recognizes that continual incremental change is often the most effective, and that the mana of the parents to decide what is best for their children needs to be upheld.” (Livingstone, 2002)\(^{680}\).

A key component of the programme is the intensive input of kaiawhina who not only act as support people but also as counsellors and positive role models.

Sixteen case studies formed the major part of Livingstone’s (2002)\(^{681}\) evaluation. Two of them were double case studies, in which a grandmother was the primary caregiver of her mokopuna, but in which a natural parent was also being worked with by the kaiawhina, as a

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\(^{678}\) This programme includes sessions on literacy, financial management, hygiene, Māori values and concepts in child development, among others.

\(^{679}\) For example, role modelling positive parenting skills, networking with and linking whanau to appropriate health and social services, and supporting whanau in achieving their goals.


separate case. The case studies were compiled from information drawn from a national database, set up in 1999 and modified in mid-2001, combined with information from in-depth interviews conducted in late November/early December, 2001.

The results from the case studies were drawn together and synthesised, leading to the following general findings:

a) The health environment of whanau on entry to the programme in general was poor. Asthma was prevalent in many homes; most parents were smokers, and many were on drugs. Some improvement, particularly in child health, occurred over the period of the evaluation, through the efforts of the kaiawhina putting whanau in touch with appropriate Māori health services. However, half the adults still had health concerns at the time of the interview.

b) Two-thirds of the whanau had improved their housing and transport circumstances over the period, either by reducing overcrowding in their existing homes or by moving to another home with better facilities and services.

c) Virtually all the caregivers in the study were on a benefit. A few managed to earn a little extra income from part-time work. Finance was one of the major concerns of all whanau, and a distinctive feature of the Whanau Toko I Te Ora programme was its introduction of sound budgeting practices. Almost all whanau recorded measurable improvements in financial management over the period surveyed.

d) Nearly all those in the study had left school by the end of the fifth form, without formal qualifications. Most had attempted some form of training since leaving school. Further education in Te Reo Māori was a high priority for many. The main form of education for these caregivers was through attendance at sessions of the Whanau Learning Programme, which taught such things as parenting and home management skills. This was an area of consistent improvement for virtually everyone on the programme. Parental and sibling interactions became generally more positive during the time of the evaluation, with a reduction in “emotional stress, whanau discord, yelling and other inappropriate methods of behaviour control and discipline.” (Livingstone, 2002:i)

e) The whanau in the study encompassed a wide range of ages, but half had at least one child of preschool age, in most cases attending a kohanga reo. Parental and sibling interactions became generally more positive during the time of the evaluation, with a reduction in emotional stress, whanau discord, yelling and other inappropriate methods of behaviour control and discipline. Marked increases were recorded in parenting skills and confidence, which was one of the major thrusts of the programme.

f) Every home had a TV, and in almost every case, caregivers said they monitored their children's viewing. Children’s cartoon programmes were the most popular. The kaiawhina recorded improvements in child development in all areas over the period of the evaluation cognitive, emotional and social.

g) Very few of the caregivers were fluent in Te Reo Māori, but during the programme most whanau began to identify more strongly with their Māori heritage, learning the language, and using it more often and naturally in conversation.

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Livingstone (2002) identified five specific features of the support being provided by the Whanau Toko I Te Ora programme which seemed to have a major effect on its success. These were:

a) it is broadly-based, established on goals negotiated with each individual whanau by the kaiawhina working with them;

b) it is incremental, given over a period of time, opening the way for gradual, self-motivated change on the part of the whanau;

c) it is targeted, directed to those in major need, and thus having the potential for efficient delivery;

d) it is flexible, allowing the timing of visits to be varied, and resources to be moved back and forth according to specific needs;

e) it reflects commitment on the part of the kaiawhina, who were regularly regarded not only as support people, but as counsellors and admired role models.

Livingstone’s (2002) study was an outcome evaluation, but by virtue of its design, it was unable to demonstrate that it was the programme that was solely responsible for causing the positive changes observed. Livingstone acknowledged the problems in the evaluation, but suggested that these were unlikely seriously to invalidate the conclusions reached. His view was that:

… with such an injection of resources into a high-needs group it is unlikely that significant change would have occurred without the intensive input of the kaiawhina, who are undoubtedly its key component.[Executive Summary]

Another integrated programme undertaken in New Zealand is the Strengthening Families Project, which is a government strategy for improving the delivery of health, education, welfare, and related services to families with children most at risk of poor outcomes (Visser, 2000). The Project website outlines the purpose of the Project thus:

Strengthening Families (SF) is a process set up to promote interagency collaboration in the provision of social services within a community. The objective of the interagency collaborative model (IACM) of working with at-risk families is to get all agencies involved with individual families working together in a more cohesive, co-operative and co-ordinated manner with the goal of improved family outcomes.

Visser (2000) reported on a survey of health, education and welfare sector employees who had received some Strengthening Families training. A response rate of 73% was achieved for the survey, and Visser (2000) acknowledged that, given the limitations of the survey, caution was needed in interpreting the results. However, she pointed out that, although close to half of the respondents did not give an opinion on outcomes for families, almost all of the remaining respondents agreed that the Strengthening Families case management process was an effective one, and that, from their experience, better outcomes for families were achieved as a result of this process.


684 http://www.strengtheningfamilies.govt.nz/publications.htm
A further New Zealand initiative that is comprehensive in nature is the Community Intervention Project (CIP) which was developed in Dunedin in 1997. Although operating through a stand-alone Otago Youth Wellness Trust, the project was supported by schools, Police/Youth Aid, Children, Young Persons and their Families Service, community agencies (such as Family Planning, sexual health clinics, academic tutors, medical services), and families. It was designed to provide positive support for at-risk truanting youth through constructing individual intervention programmes for each person and assigning each a field worker and mentor. The young people themselves had important input in setting the goals in their individual programmes. In 1997, Chalmers (2001)\textsuperscript{685} evaluated the effectiveness of the programme for 66 young people aged 11 to 16 years. He found that:

- The programmes successfully lowered the rate of truancy. The number of persistent truants reduced from 82% to 37%, only one of the 66 was truanting more regularly post-intervention, and 11 were still attending high school past the legal requirement age.
- There were statistically significant improvements among the 31 females in the study for (a) depression, (b) aggression, and (c) delinquency.
- The male scores (for the 35 males in the study) approached, but did not reach significant improvement, on the same measures.
- The results from a Family Environment Scale showed that the 66 participants reported less family conflict, but no changes in family cohesiveness and expressiveness.

Chalmers (2001:\textsuperscript{ii}\textsuperscript{686} was unable to report on long-term maintenance of the improvements that occurred but concluded,

> It appears that the CIP was able to favourably influence problematic behaviours and associated risks. Given the complex, multi-factorial nature of truanting behaviour it appears prudent to adopt a multidisciplinary model for intervention that focuses on both individual and community (including schools) level factors.

**KEY PRINCIPLES UNDERPINNING SUCCESSFUL PARTNERSHIPS**

Kellaghan, Sloane, Alvarez and Bloom (1993)\textsuperscript{687} have identified emerging principles relating to the provision of parent education to support children’s development and achievement. Although these were constructed from experience in the US, they are evident in many of the New Zealand studies cited in this chapter.


A set of principles that form the basis of successful partnerships of the kind described in this report has been synthesized from the research studies reviewed. These principles include:

- Being genuinely non-judgemental about families and their circumstances, and recognizing that families are important human resources in the educational process (and avoiding viewing parents as ‘clients’ and children and families as ‘having deficits’). It is essential that parents and children are shown respect as fellow human beings and that interactions with them reflect this respect. Viewing teachers as professionals and parents as non-professionals is unhelpful. It does not credit parents with the unique and specialist knowledge and understandings they have of their own children (Lindle & Boyd, 1991).

- Working with parents and their children in a climate of equality to identify, understand and build on their experiences and strengths. In some cases, this requires a change of mindset on the part of the facilitators involved so that they perceive parents and their children as ‘people with promise’ rather than ‘families at risk’. It is important to help parents and children to move from where they are at the moment, to where they want to be, usually by taking small steps at first.

- Providing ongoing opportunities for informal, non-threatening contacts between parents and teachers, and parents and other facilitators.

- Providing support, while also recognizing parents’ competencies, values, beliefs, expectations about learning/teaching/education and their home circumstances. The support should enhance these, not undermine them.

- Realising that parents’ initial responses are likely to be determined by their own schooling experiences and cultural backgrounds, and that these will affect their perceptions of what teaching is and subjects are. Such perceptions may be deeply entrenched, and some may serve valid cultural purposes. Programmes should enable them to add alternative ideas and practices to their repertoire.

- Supporting parents to make changes or develop alternative strategies over time. Considerable commitment is often required on the part of those providing support.

- Encouraging parent-to-parent communication within communities, so that awareness, interest and confidence grow in multiple ways, and sharing of human and material resources is facilitated.

- Implementing new initiatives to support parents and their children on a small-scale initially. Such initiatives need to be informed by ongoing research – as exemplified in the Penn Green Centre programme. A research model which may be useful is one suggested by Kamil in 1989 (cited in Benjamin, 1993:2). In this model all parties engage in,

> a cycle of research that begins with an ethnographic examination of the context as a whole, is followed by case studies to focus carefully on a few individuals, continues with experimental research of new approaches, and ends with another ethnographic examination to see how the new procedures work in an entire context.

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SUMMARY

The research evidence suggests that effective centre/school-home partnerships can enhance children’s learning in both home and centre/school settings. The positive impacts of such partnerships (especially those focused on early years) on children’s achievement can be substantial, compared to institutionally-based educational interventions alone. The benefits for children and young people can include better health and well-being, greater educational achievement, and increased economic well-being. These benefits can persist into adult life. Considerable benefits for the parents and whanau involved have also been demonstrated, and there is evidence that some programmes, targeted at families identified as likely to benefit most, have generated savings in the long term that exceed the costs of the programmes.

Strong centre-home and school-home links are particularly important for children whose social class culture, and/or ethnicity and cultural heritages are different from those predominant in the practices of the centre or school. The evidence indicates that the parents/caregivers currently least involved in such links (low-SES, and minority group parents) are those for whom it may be most important. There is also a pattern of decreased parental involvement overall in NZ children’s primary education nationally over the past decade.

The research indicates that the majority of parents care about their children’s education, want to support them, and are prepared to work in partnerships with others to do so. This includes parents from the lowest income families, and those with the least education. The evidence suggests that increased achievement is possible even in families with little formal education and/or limited facility in English. Parents (and whanau) across ethnic groups are often able to help their children make significant achievement gains despite experiencing very adverse economic conditions themselves, and despite having minimal power to effect improvements in their own circumstances. However, parents in low SES circumstances are likely to benefit from a more integrated approach in which the basic needs of their families are addressed at the same time as efforts are made to build up their children’s social capital.

There are various forms of partnership, but not all are effective. Those which are poorly designed, based on deficit views, and not responsive to the needs of families can be ineffective, and even counterproductive. Programmes which are effective respect parents and children, are socially responsible, and are responsive to families and the social conditions that shape their lives. Constructive partnerships empower those involved by (a) fostering autonomy and self-reliance within families, schools and communities, (b) building on the strong aspirations and motivation that most parents have for their children’s development, and (c) adding to (rather than undermining) the values, experiences and competencies of parents and children. The evidence is that teachers can do much to initiate such constructive partnerships.
PART FOUR: CONCLUSIONS
Chapter 8: Conclusions

INTRODUCTION

This final chapter draws together the data and suggests conclusions relating to three important areas of best evidence, namely (i) evidence relating to children in early childhood, (ii) evidence relating to children at primary and secondary school levels, and (iii) areas which currently lack sufficient evidence and therefore require further research. The chapter concludes by outlining several implications.

The major conclusions are summarized in Table 8.1. An indication of the degree of impact on children’s educational and social achievement is provided in the table. The factors have been listed in the order in which they appear in the chapters in the synthesis. No attempt has been made to rank them within each category, partly because, in most cases, there is an interactive effect with other factors which is difficult, or even impossible, to disentangle. For example, hearing loss may seem to be a straightforward factor – and for an individual child’s learning this is true – but it is also inextricably bound up with other health and family issues, such as environmental smoke and poverty, which need to be taken into account in terms of longer term alleviation of hearing loss.

In most cases, as the example of hearing loss illustrates, the ways in which the influences impact upon children and their achievement are complex and subtle. Given that the influences operate within living social systems in which children respond in unique and indeed idiosyncratic ways, these complexities are to be expected.

Table 8.1 clearly indicates that there are numerous factors which can influence children’s achievement in positive ways, there are also many which can have negative effects (although some of these can be alleviated), and there are some which can have positive or negative impacts. In the next two sections of this chapter (the early years, and the primary/secondary years) further summary comment is provided on these various factors.
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<tr>
<td><strong>Early Childhood</strong>&lt;br&gt;(0 - 4 yrs)</td>
<td>• Early childhood education&lt;br&gt;• Range of family resources&lt;br&gt;• Active parental support for children&lt;br&gt;• Stable and caring home life&lt;br&gt;• Range of quality experiences, activities and interactions at home and beyond (including language/literacy and mathematics)&lt;br&gt;• Genuine and constructive home-ECE centre partnerships&lt;br&gt;• Early treatment for hearing loss&lt;br&gt;• Integrated programmes that empower parents to deal with health, resource and educational issues – programmes that respect the dignity and cultural values of parents</td>
<td>• Higher levels of parental education&lt;br&gt;• Community support networks for parents/caregivers</td>
<td>• Neighbourhood deprivation (although New Zealand data is inconclusive)&lt;br&gt;• Low level of parental education, but parental education can be enhanced&lt;br&gt;• Poverty/Low SES&lt;br&gt;• Single parent family, but this relates to low income&lt;br&gt;• Meagre family resources, but these can be supplemented&lt;br&gt;• Hearing loss&lt;br&gt;• Unstable home environment&lt;br&gt;• Child abuse – particularly prevalent among Māori and low SES&lt;br&gt;• Restricted range of quality experiences, activities and interactions at home and beyond</td>
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<td><strong>Primary and Secondary School</strong></td>
<td>• Active parental support for children’s educational development&lt;br&gt;• Stable and caring home life&lt;br&gt;• Range of quality experiences, activities and interactions at home and beyond (including language/literacy and mathematics)&lt;br&gt;• Genuine and constructive home-school partnerships/collaboration&lt;br&gt;• Early treatment for hearing loss&lt;br&gt;• Programmes that enhance parental understandings of how to support their children educationally – programmes that empower parents, and respect their dignity and cultural values</td>
<td>• Use of community resources, contexts and experiences&lt;br&gt;• Community (especially cultural community) support and social capital&lt;br&gt;• Popular culture&lt;br&gt;• TV viewing&lt;br&gt;• Computer use&lt;br&gt;• Higher levels of parental education&lt;br&gt;• Parental expectations</td>
<td>• Excessive TV viewing (4 hours or more per day)&lt;br&gt;• Culture and ethnicity, for Māori and Pasifika children – especially when assessment processes do not reflect Māori/ Pasifika contexts for learning. This is confounded by low SES and health problems.&lt;br&gt;• Deficit assumptions – especially underlying programmes for parents&lt;br&gt;• Poverty/Low SES.&lt;br&gt;• Low level of parental education, but parental education can be enhanced&lt;br&gt;• Single parent family, but this relates to low income&lt;br&gt;• Meagre family resources, but these can be supplemented&lt;br&gt;• High mobility, but this is usually associated with other adverse factors&lt;br&gt;• Hearing loss&lt;br&gt;• Unstable home environment&lt;br&gt;• Child abuse – particularly prevalent among Māori and low SES&lt;br&gt;• Truancy and absenteeism&lt;br&gt;• Restricted range of quality experiences, activities and interactions at home and beyond&lt;br&gt;• Lack of links between home and school</td>
</tr>
</tbody>
</table>
COMMENT ON EARLY CHILDHOOD YEARS

A substantial body of evidence indicates that children’s early years (i.e. 0 - 5 years) are critical to their development and achievement. What happens to young children has lasting effects – positive and negative.

Major positive impacts

From a community point of view, participation in formal early childhood education has been shown to have a significant and long-lasting impact (for at least another 5 years) on children’s achievement. The opportunities that ECE provides for positive interactions with children and adults outside the immediate family appear to be one of the factors contributing to this positive effect.

In terms of family attributes, homes that have available a range of education-related and other resources (e.g. books, television, parental time) have a major influence on young children’s achievement. This is usually associated with higher SES.

Home processes in the form of a stable and caring home environment, provision of a range of quality experiences, activities and interactions, and active parental support for children and their learning have a major impact on young children’s educational and social attainment. Young children usually who are healthy, feel safe, and are encouraged and supported, are more able to make sense of their immediate social and physical worlds.

With respect to parent-ECE centre partnerships, there is evidence that integrated programmes which simultaneously address a range of issues (e.g. poverty, health problems, lack of resources, limited repertoire of strategies for helping children) faced by some parents and their children, can have a major influence in children’s achievement, if the partnerships operate in collaborative ways that respect the integrity of families as thinking, feeling human beings. Such programmes achieve this by helping parents access various entitlements, health services, and community resources, and by enabling them to add to their range of strategies for interacting with and encouraging their children. Although relatively expensive, the long-term benefits for families and society of such programmes appear to be highly significant. They can help modify home processes which are having negative impacts on children and families.

Smaller or potentially positive impacts

Two factors have been shown to make a smaller but positive difference for children. Firstly, a higher level of parental education can improve children’s achievement as it can enable parents to provide more constructive support and experiences for their children. Parents with higher levels of education have a greater level of social capital to perform this role than parents with a low level of education. Secondly, parents are in a better position to provide relevant support for their children, and thus influence their achievement in a positive direction, when they themselves can access support through social networks. This is especially the case with Māori parents who can draw upon their whanau for support and encouragement.
Negative impacts

Several factors can impact negatively on the achievement of young children. Overseas, neighbourhood deprivation has been found to have a small adverse impact, but the New Zealand data is inconclusive about this factor.

With respect to family attributes, poverty, a low level of parental education and meagre family resources can have a negative effect. The evidence shows that young children who come from very low income families are particularly at risk, in several respects. They face greater health risks and greater intellectual/emotional development risks than children from higher income homes. Very low income homes are more likely to have inadequate material and psychological resources with which to support their children’s development; the result is a less stimulating environment and one in which children’s well-being may be put in jeopardy. However, some children from low socio-economic homes achieve well because there are compensating factors, such as support from extended family/whanau, or because the mother has an adequate level of education.

As indicated in the section above on major positive impacts, there are means available by which parental education can be enhanced and meagre resources supplemented in those families where children are disadvantaged. In general, children in single-parent families do not achieve highly, but this seems to be influenced more by very low income (and consequently limited resources) than family structure. Parents in some single-parent families have considerable social capital that compensates to an extent for low income. Another factor often associated with low SES is hearing loss which, if not treated early, can have a powerful negative influence on children’s language development and achievement.

Home processes such as family instability, child abuse, lack of or inconsistent discipline, and a restricted range of quality experiences, play a major part in inhibiting children’s achievement. The first three of these factors can have serious adverse effects on children’s well-being, including the development of hyperactivity, which is linked to poor language and cognitive development, which have been shown to be detrimental to children’s long-term achievement and mental health. Negative home processes can take considerable time and sustained effort to change.

Potentially positive or negative impacts

Some influences can potentially have positive or negative impacts, depending on the ways in which they are played out. These include community messages about gender, and peer influences. Affirmative messages can be positive for children’s achievement, whereas deprecating messages can have the opposite effect.
COMMENT ON PRIMARY AND SECONDARY SCHOOL YEARS

More data were located for children at these levels, with the result that a number of influences additional to those summarized above for young children were identified. The factors relevant to young children were also relevant to this age group, but only the additional factors will be considered in this section.

Major positive impacts

One factor which can have a significant positive impact on the achievement of children is parental involvement in programmes that enhance their understandings of how to help their children educationally. Effective programmes are those that empower the parents by adding to their repertoire of strategies (rather than undermining them). The processes of these programmes respect the dignity and cultural values of the parents.

Smaller or potentially positive impacts

As noted above, the higher levels of parental education and community support can enhance children’s achievement. The best evidence at school levels also indicates that parental expectations can have a positive influence on children’s achievement (although these expectations can in turn be shaped by children’s school performance). Popular culture, low to moderate television viewing, and having a computer in the home can also contribute to school achievement. Rapid changes in media technology have provided children with unprecedented access to global information and a range of vicarious experiences, which in turn generate common ‘scripts’ which can support children’s learning. Nevertheless, the full potential of television and computer programmes to enhance children’s educational development remains to be realised.

Within communities there is a wealth of meaningful contexts, resources and experiences, but the potential of these influences to support New Zealand children’s achievement remains to be investigated fully. Overseas research shows that children can achieve quite highly in various ways through involvement in their community, although this is not necessarily recognized by the children’s schools. This would appear to be an important area, particularly for Māori and Pasifika families.

Negative impacts

Negative impacts additional to those mentioned for young children include excessive television viewing (i.e. 4 or more hours daily), which limits time available for children to engage in more constructive activities (such as reading) that are likely to enhance their achievement.

Family structure factors that are associated with negative impacts on children’s achievement are ethnicity and poverty/low SES. The achievement of Māori and Pasifika children is significantly below that of other children in New Zealand, but this may be partly accounted for by assessment procedures that tend not to reflect Māori/Pasifika contexts for learning, and partly accounted for by the fact that most of these children live in low SES families, with associated issues of family stress, health problems and lack of resources.
Family process factors that constitute a barrier to children’s achievement include high mobility or frequent changes of household for children (although this is usually intertwined with other factors such as parental instability, child abuse or job loss), and a restricted range of quality experiences, activities and interactions in the home. The last are usually linked to such factors as parental educational levels and low SES. Truancy and frequent absences from school, for whatever reasons, also have a negative impact on children’s achievement.

In terms of partnership, a lack of constructive links between home and school has been found to adversely affect children’s achievement. Partnerships initiated by the school on the basis of deficit assumptions (for example, developing a programme for parents), tend to be counterproductive for those involved. The research indicates that partnerships between school and home need to be built on a genuinely collaborative basis if children’s achievement is to be enhanced.

**Potentially positive or negative impacts**

In the evidence considered, parental separation is the only factor which may have positive or negative impacts. Separation of parents can benefit children if home stress levels are reduced significantly and abuse ceases as a result, but can adversely impact on children if severe loss of a parent is felt.

**OTHER CONSIDERATIONS**

The evidence reported in this synthesis indicates that many of the explanations commonly advanced regarding significant community and family factors that influence children’s social, emotional and intellectual achievement are too simplistic to be useful, and need to be expanded to indicate the often complex circumstances under which they hold. Understandings about such influences are more likely to be gained from theories that are informed by elements of complexity theory (Davis et al, 2000) and post-structuralism (Lye, 1997), as outlined in Chapter 1. For example, it is clear that many and varied experiences are involved in child development outcomes, as Esler (2001:34) recognized.

> Whether or not a child becomes a good reader, a good citizen, or a juvenile delinquent will be determined in part by his family background, nonParental care experiences, school experiences, biological characteristics, and the interactions between and among all of them.

These influences are very complex, inter-related and unpredictable. For individual children, the actual outcome is likely to be idiosyncratic (Silva & Stanton, 1996; White, 1997). This is consistent with complexity theory. A second example is the reciprocal nature of the learning involved in both the programmes designed to enable parents to incorporate school-like tasks into family activities, and the more integrated, collaborative programmes described...

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in this report. From a broad perspective, these programmes are consistent with the empowerment or enhancement theories mentioned in Chapter 1 (but not deficit or difference theories). Just as importantly, from a learning perspective, they seem to be informed by enactivism (Sumara & Davis, 1997), a relatively recent learning theory that emphasizes the complexity of learning and highlights its evolving, co-emergent nature.

PARENTAL AND COMMUNITY FACTORS REQUIRING FURTHER INVESTIGATION

This synthesis has revealed a number of seemingly important factors for which evidence is very limited or lacking altogether, and which could profit from further research. These are outlined below.

Community Factors

Community factors which need to be investigated further include:

- Social networks - Research which identified both factors within social networks that have a significant influence on children’s achievement, and the mechanisms through which the influences are transmitted, would be helpful.
- Peer culture - Research is also needed into ways that peer culture can be utilised to promote children’s achievement.
- Influence of media and information technology - Further research is required into the effects of various media on children’s achievement. In particular, research that identifies ways in which the advantages of television can be harnessed to benefit children would be valuable; so too would research which indicates how negative influences (including excessive time spent watching television) can be countered. Such research would be strengthened by an exploration of the ways in which parents shape children’s television viewing. Finally, the effect of home computer use on children’s achievement also needs to be investigated further.

Family Factors

There are two family factors that need to be investigated:

- Levels of income - The impact on children’s achievement of varying levels of income at different ages in the children’s lives needs further investigation.
- Mobility - Research is needed in New Zealand on the effects of mobility on children’s achievement. This would include identifying the factors involved in mobility in this country.

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Home Process Factors

Home process factors which require further research in New Zealand include:

- *Extended whanau* - The effects on children’s achievement (particularly that of Māori and Pasifika children) of support from extended family need to be investigated. This would include the support given by older siblings and cousins as well as adult family members.

- *Academic guidance and support* – The effects of using non-fiction material (in addition to fiction) at home to help children learn to read could be investigated. Better understandings about the ways in which children’s learning in other curriculum areas, particularly mathematics and science, could be supported in home contexts would also be helpful.

Partnership Factors

The dimensions of home/community/ECE centre/school partnerships and their impact on children’s achievement that require further research include:

- *Establishing partnerships* - The evidence indicates that research should be an integral component of all efforts to establish collaborative partnerships designed ultimately to benefit children’s social and academic development.

- *Parent-teacher report meetings* - One form of ‘partnership’ that is problematic is the parent-teacher interview/meeting. The effects of these encounters (both positive and negative) need to be investigated in New Zealand settings. It is possible that time spent in alternative forms of interaction would be more productive.

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696 This recommendation stems from a finding by Flockton and Crooks (2001:69) that in schools where Pasifika children comprise at least 15% of the enrolments, the Year 4 Pasifika children, on average, scored significantly higher than Year 4 Māori children in the same school on Reading Record Non-Fiction. While there are a number of possible explanations for these findings, the potential of non-fiction for developing reading competencies may be worth investigation in New Zealand settings. See Flockton, L. & Crooks, T. (2001). *Reading and Speaking Assessment Results 2000: National Education Monitoring Report (19)*. Dunedin: Educational Assessment Research Unit; and Wellington: Ministry of Education.
SOME IMPLICATIONS

On the basis of the best evidence identified in this synthesis, some implications are as follows:

- The implications for additional cross-Ministry collaboration at national, regional and local levels for building on current initiatives need to be explored, particularly in relation to establishing further comprehensive and integrated programmes for those children and families most in need of support.

- The possibility could be examined of using the facilities of local schools (out of school hours) as community centres for comprehensive programmes to support families (based on the Penn Green Centre in England, but carefully adapted to New Zealand contexts).

- The implications of the findings of this synthesis for teacher education (initial and inservice) need to be explored, particularly the findings relating to initiatives that school staff can take to forge constructive partnerships with homes and communities.

- Consideration could be given to gradually extending the successful programmes already established in New Zealand.

- More widespread implementation of low-cost group programmes (of the type described in this synthesis) which enhance parents’ abilities to help their children in key curriculum areas should be considered.

- Consideration should be given to exploring ways of increasing the availability of resources to children whose parents have limited income.
REFERENCES


Crooks, T. (13 February 2002). *Submission to Education and Science Committee, Parliament: Enquiry into Decile Funding in New Zealand Schools.*


Fancourt, R. (11 Oct 2002). Damage to young brains can last a lifetime, Waikato Times.


Hill, M. (2 May 2002). *Voices of Chidren*. (MSD Seminar - OHTs)


Appendix A

Table A.1: TIMSS mean scores by ethnic group

<table>
<thead>
<tr>
<th></th>
<th>Pakeha/European</th>
<th>Māori</th>
<th>Pacific</th>
<th>Asian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maths</td>
<td>Year 5</td>
<td>1994</td>
<td>493</td>
<td>427</td>
<td>412</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>502</td>
<td>445</td>
<td>416</td>
<td>516</td>
</tr>
<tr>
<td></td>
<td>Yr 8/9</td>
<td>1994</td>
<td>517</td>
<td>463</td>
<td>430</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>508</td>
<td>454</td>
<td>429</td>
<td>534</td>
</tr>
<tr>
<td></td>
<td>Yr 12/13</td>
<td>1995</td>
<td>532</td>
<td>496</td>
<td>430</td>
</tr>
<tr>
<td>Science</td>
<td>Year 5</td>
<td>1994</td>
<td>534</td>
<td>457</td>
<td>441</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>541</td>
<td>478</td>
<td>436</td>
<td>517</td>
</tr>
<tr>
<td></td>
<td>Yr 8/9</td>
<td>1994</td>
<td>533</td>
<td>472</td>
<td>430</td>
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<tr>
<td></td>
<td>1998</td>
<td>534</td>
<td>472</td>
<td>430</td>
<td>515</td>
</tr>
<tr>
<td></td>
<td>Yr 12/13</td>
<td>1995</td>
<td>541</td>
<td>509</td>
<td>439</td>
</tr>
</tbody>
</table>


There is a consistent pattern to these achievement scores. Disregarding ‘others’ (who form a tiny minority of the school population), the scores of Pakeha/European and Asian children are similar, but significantly higher than those of Māori/Pasifika children. In two instances (1998 Year 5 Mathematics, and 1998 Year 8/9 Science) Māori children’s achievement is significantly higher than that of Pasifika children.

Table A.2: PISA 2000 results: New Zealand 15-year-olds mean scale scores by ethnic group

<table>
<thead>
<tr>
<th></th>
<th>Pakeha</th>
<th>Māori</th>
<th>Pasifika</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>554</td>
<td>482</td>
<td>462</td>
<td>513</td>
</tr>
<tr>
<td>Mathematics</td>
<td>557</td>
<td>498</td>
<td>471</td>
<td>547</td>
</tr>
<tr>
<td>Science</td>
<td>553</td>
<td>483</td>
<td>463</td>
<td>517</td>
</tr>
</tbody>
</table>

Note: Data from Sturrock & May (2002)⁷⁰⁰

### Table A.3: NEMP results: comparison of Non-Māori/Māori/Pacific

- % tasks with significantly higher scores

<table>
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<td>Maths</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Year 4</td>
<td>Non-Māori: 80%</td>
<td></td>
<td></td>
<td></td>
<td>Non-Māori: 75%</td>
<td></td>
<td>Non-Māori: 45% Māori/Pacific: Similar</td>
</tr>
<tr>
<td>Year 8</td>
<td>Non-Māori: 77%</td>
<td></td>
<td></td>
<td></td>
<td>Non-Māori: 66%</td>
<td></td>
<td>Non-Māori: 27% Māori/Pacific: Similar</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
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<tr>
<td>Year 4</td>
<td>Non-Māori: 12%</td>
<td></td>
<td></td>
<td></td>
<td>Non-Māori: Slightly better Māori/Pacific: Similar</td>
<td></td>
<td></td>
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<tr>
<td>Year 8</td>
<td>Non-Māori: 44% Māori: 2%</td>
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<tr>
<td>Technology</td>
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<td></td>
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<tr>
<td>Year 4</td>
<td>Non-Māori: 65%*</td>
<td></td>
<td></td>
<td></td>
<td>Oral: Non-Māori: Signif. better Māori/Pacific: Similar &amp; almost as well as Non-Māori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 8</td>
<td>Non-Māori: 53% Māori: 76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading/Speaking</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4</td>
<td>Non-Māori: 79% Māori: 4%</td>
<td></td>
<td></td>
<td></td>
<td>Reading: Pacific/Māori: Similar &amp; almost as well as Non-Māori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 8</td>
<td>Non-Māori: 46% Māori: 8%**</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
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<td></td>
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</tr>
<tr>
<td>Year 4</td>
<td>Non-Māori: 46%</td>
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<tr>
<td>Year 8</td>
<td>Non-Māori: 39%</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

* Year 8 Māori children in immersion classes performed better than Māori children in mainstream classes on 12% of tasks; as well on 53% of tasks; less well on 25% of tasks.

** Year 8 Māori children in immersion classes performed as well as Māori children in mainstream classes on 75% of tasks, and less well on 25%.

These data indicate clearly that in mathematics, science, technology, reading/speaking and writing, Non-Māori Year 4 and Year 8 children did significantly better than Māori on a substantial majority of assessment tasks. Māori children scored significantly better on a small number of tasks in the area of reading which required reading in Māori. In those schools which contained more than 15% of Pasifika children, Māori children and Pasifika children largely achieved at a similar level but on the whole this did not match the achievement of Non-Māori/ Pasifika children in the school. The NEMP 2000 data do not indicate that Year 8 Māori children in immersion classes have a learning advantage over Māori children in

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\(^{701}\) 75% of Pacific children attend schools in which they constitute more than 15% of the school roll.
mainstream classes in the areas of technology and reading/speaking. The finding that they did less well on 25% of the tasks may be cause for concern.

Table A.4: 5-year-old children’s achievement on SEA

<table>
<thead>
<tr>
<th></th>
<th>Pakeha/European</th>
<th>Māori</th>
<th>Pacific</th>
<th>Asian</th>
<th>Other NE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checkout/Rapua</td>
<td>19.4</td>
<td>14.4</td>
<td>12.4</td>
<td>18.8</td>
<td>18.0</td>
</tr>
<tr>
<td>Tell Me/Ki Mai</td>
<td>12.1</td>
<td>10.0</td>
<td>7.9</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>CAP*</td>
<td>10.7</td>
<td>7.6</td>
<td>6.6</td>
<td>9.6</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Note: Data from Gilmore (1998) * Concepts about print

These results from more than 6000 new entrant children on one number and two language assessments indicate that (i) Pakeha/European/Asian/Other Non-European children scored significantly higher than Māori children, and (ii) Māori children in turn scored significantly higher than Pasifika children.

Somewhat dated (1989) IEA data is available on New Zealand children’s reading achievement at Year 5 and Year 10 (Wagemaker, 1993). These data show that at both year levels Pakeha children’s reading achievement is significantly higher than that of Māori/Pasifika children in terms of document, narrative and expository reading. At Year 5 there is no significant difference between these groups with respect to word recognition, and there is no significant difference between Māori and Pasifika children on narrative and expository reading. However, there is a significant difference, in favour of Māori children over Pasifika children, at both Year 5 and Year 10 in terms of document reading, and at Year 10 in terms of narrative and expository reading.

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