RESEARCH CONFERENCE

2004

Supporting Student Wellbeing

What does the research tell us about the social and emotional development of young people?

Conference Proceedings

ACER

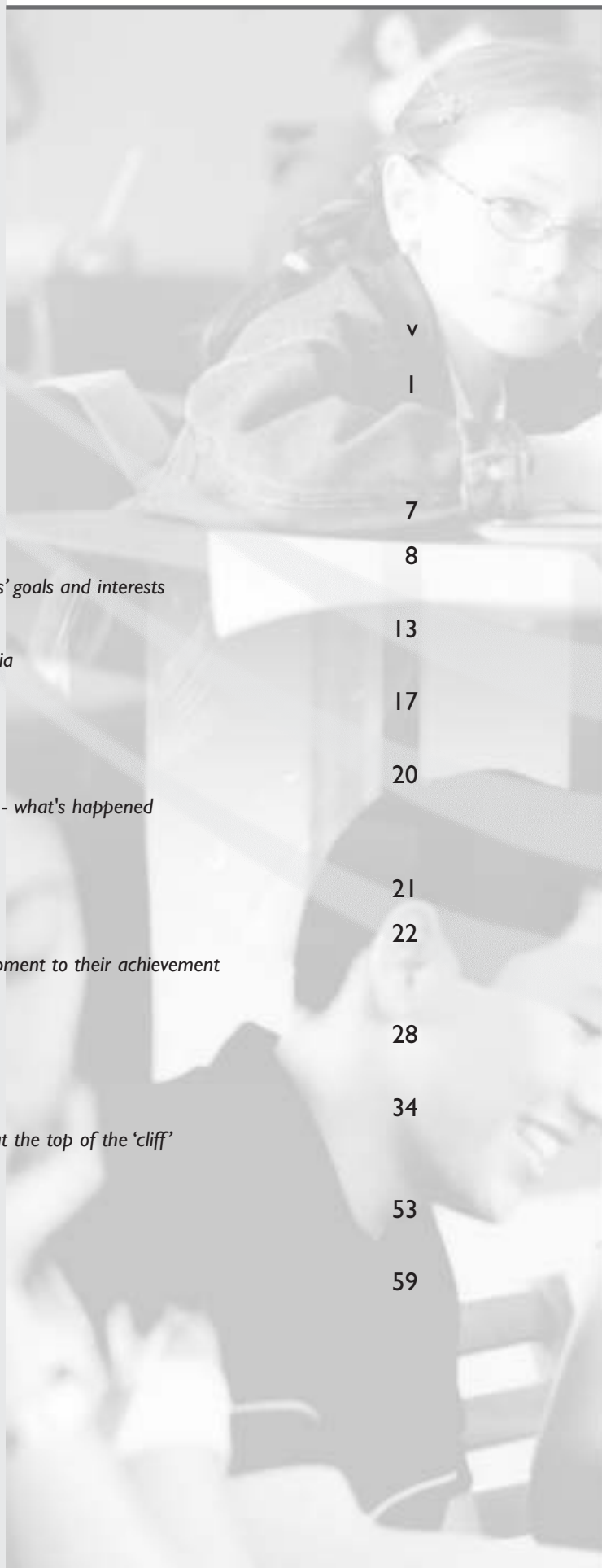Australian Council *for* Educational Research

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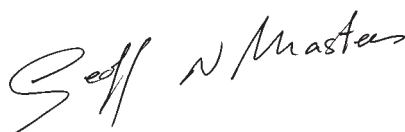
Foreword

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Research Conference 2004 is the ninth national Research Conference. Through our research conferences, ACER provides significant opportunities at the national level for reviewing current research-based knowledge in key areas of educational policy and practice. A primary goal of these conferences is to inform educational policy and practice.

Research Conference 2004 brings together key researchers, policy makers and teachers from a broad range of educational contexts from around Australia and overseas. The conference addresses the theme 'Supporting student wellbeing'.

We are sure that the papers and discussions from this research conference will make a major contribution to the national and international literature and debate on student wellbeing.

We welcome you to Research Conference 2004, and encourage you to engage in conversation with other participants, and to reflect on the research and its connections to policy and practice.

Professor Geoff N Masters
Chief Executive Officer, ACER

Opening address

Conceptualising and researching student wellbeing

Geoff Masters

Australian Council for Educational Research

Geoff Masters is Chief Executive Officer of the Australian Council for Educational Research (ACER). Professor Masters is an international authority in educational measurement and student assessment and has published extensively in these fields. Early in his career he developed the widely-used partial credit model for the statistical analysis of rating scales and professional judgements. Although much of his research has been focused on questions of validity and reliability in large-scale tests and surveys, Professor Masters has a special interest in using developments in modern measurement theory to construct improved tools for professional practitioners.

Schools have always seen it as part of their role to support and encourage children's all-round development, including their cognitive, interpersonal, social, aesthetic, physical, and moral/spiritual growth. Beyond the academic, schools have been committed to children's general 'wellbeing': in seeing children develop into well-rounded, healthy individuals who can take their place as informed, principled and engaged members of society. In fulfilling this role, schools have worked alongside and complemented families, churches and other institutions in the community.

In recent years Australian schools and education systems have made efforts to clarify the broad purposes of schooling and to introduce ways of better evaluating success in achieving those purposes. Statements of the intended outcomes of schooling invariably emphasise not only the development of knowledge, skills and understandings, but also children's social-emotional development and the development of attitudes (e.g. towards others and towards civic institutions) and values (such as tolerance, justice and fairness).

Various writers (e.g. Hettler, 1984) have identified aspects or 'dimensions' of general wellbeing. It is common in the literature to refer to 'health' and 'wellbeing'—usually distinguishing physical health from other aspects of students' wellbeing. For the purposes of this conference it is useful to identify five aspects of wellbeing.

Figure 1 is intended to communicate that:

- there are *multiple aspects* to general 'wellbeing';
- these aspects work together as part of a *balanced* whole; and
- a well-rounded individual will be *growing/developing* on all these fronts.

Although Figure 1 shows these five aspects as separate dimensions, they are in reality closely related. The development of student wellbeing depends on growth in all these areas, as well as on their increasing integration into a balanced whole:

Figure 1 Five aspects of wellbeing
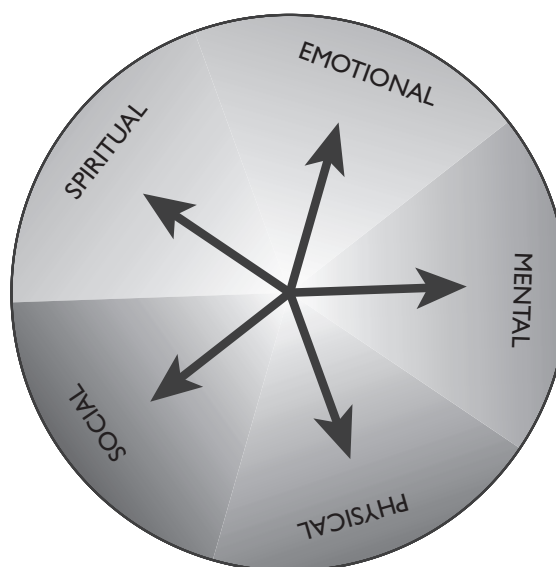
Wellness implies a lifestyle with a sense of balance. This sense of balance arises from a balance, or harmony, within each aspect or 'dimension' of life… Realistically, perfect harmony is almost impossible to achieve. However, the individual challenge is to seek this balance, calmly and constantly; it is the state which we continually move towards.

(Lowdon et al., 1995, 6)

In his paper for this conference, Brian Hill observes that the word 'wellbeing' connotes a *state* of wellness: that 'wellbeing' could be interpreted as the absence of illness. In contrast, Figure 1 uses arrows to suggest that ongoing growth and development are possible in all aspects of a student's wellbeing. This feature of Figure 1 is consistent with Ryan and Travis's (1988) notion of a *wellness continuum* developed to emphasise that 'being well' is more than 'not being sick'. This point is made in a number of papers at this conference and is a key observation underlying Margaret Forster's paper on the measurement of students' social development at school. On any continuum of wellbeing it is possible to identify a level below which a student might be considered 'sick/unwell', but where such a level should be set is always a matter of judgement and may change over time and with context. As educators, our main interest is in establishing what can be done to support each child's further growth and development in all areas of their wellbeing.

Figure 1 also provides a framework for locating the various papers presented at this conference. Papers have been selected to address all five aspects of wellbeing. But the conference program does not pretend to provide coverage of the five aspects. Each paper is more

appropriately seen as a sample of research and/or thinking in one or more of the five areas: a point of light in a constellation of ongoing research into all aspects of student wellbeing.

Mental wellbeing

Michael Sawyer reviews the results of a national survey conducted to identify and understand mental health problems among Australian children and adolescents, including Depressive Disorder, Conduct Disorder and Attention-Deficit/Hyperactivity Disorder. This survey follows recent evidence of a decline in the mental health of adolescents in Great Britain since the 1970s. Fourteen percent of Australian children and adolescents display some kind of mental health problem. In his paper, Sawyer emphasises the key role that school-based services play in providing help for children with mental health disorders, and the importance of close cooperation between staff in health and education services.

John Toumbourou, Elizabeth Douglas and Alison Shortt investigate the role of parent social networks within the high school environment in influencing student health and wellbeing. Their study follows earlier research showing that health and behaviour problems such as depression and substance abuse are influenced by individual-level risk factors (e.g. temperament) and social-environmental factors operating at the level of schools, families, communities and peer groups. The study reveals small but potentially beneficial associations between parent interactions and student reported social environmental protection factors.

Ann Sanson and Diana Smart review some of the findings from the

Australian Temperament Project (ATP), a longitudinal study involving a large cohort of children in Victoria since their infancy in 1983. In the study, the term resilience refers to good adjustment despite risk. They identified a group who had a high number of risk factors at 11-12 years but did not become antisocial, and compared them to a group at equal risk but who were persistently antisocial, as well as a low-risk comparison group. Family factors (e.g. greater parental monitoring and improving parent-adolescent relationships), school experiences (e.g. relationships with teachers and perceived relevance of school) and other aspects of their peer relationships (e.g. more involvement in structured activities) appeared to help protect the resilient group.

Emotional wellbeing

Michael Bernard reviews the results of a study that investigated the association between six social-emotional capabilities (work confidence, social confidence, persistence, organisation, getting along, emotional resilience) and the reading achievement and social-emotional wellbeing of five-year old children. His review concludes that kindergarten children who are 'at risk' of reading failure demonstrate delays not only in their academic skills, but also in their social-emotional development. There is a need for the development of sound pedagogies and curricula to assist early childhood educators in accelerating social-emotional capabilities, especially for 'at risk' children who enter pre-school one or more years delayed in development.

Judith Harackiewicz reports on an investigation of the importance of students' goals and interests in

motivating their involvement in education. Her study concludes that the development of student interest is critical to long-term success in any academic endeavour. Students who are motivated by an interest in mastering subject matter are more likely to develop a long-term interest in an area of study. Students whose primary motivation is to demonstrate competence relative to others are more likely to achieve high results. Only students who adopt both goals are likely to achieve both outcomes.

Michael Carr-Gregg examines the state of Australian parenting in 2004 and suggests that there is a growing crisis which is adversely impacting upon the normal psychological growth and development of young people. The paper suggests some of the reasons for this and suggests some solutions.

Julie McMillan and Kylie Hillman use data from the Longitudinal Surveys of Australian Youth to investigate the relationship between young people's post-school experiences (education, training, labour market) and their levels of emotional wellbeing. Their study identifies significantly lower levels of wellbeing among young people who are unemployed or not in the labour force.

Spiritual wellbeing

Brian Hill explores the role of values in wellbeing. If a person's framework of meaning disintegrates—in the face of neglect, abuse or despair—then self-harm can be a result. Because moral principles derive their justifications from larger frameworks of meaning, it is important to build into the school curriculum opportunities for students to encounter and examine such frameworks. Australian state schools have been encouraged to factor the

religious variable out of the curriculum, thereby leaving values education in free fall. If a balanced education is our goal, then this is counter-productive.

Physical wellbeing

Kathy Rowe, Ken Rowe and Jan Pollard observe that approximately nine per cent of school children have both literacy and externalizing behaviour problems. Many of these children are referred to paediatricians and psychologists. Some also are referred to audiologists in the belief that children's difficulties in listening and following instructions may be due to hearing problems. Although most of these children return normal audiograms, they continue to experience functional auditory processing (AP) difficulties in terms of reduced ability to hold, sequence and process accurately what is heard. This paper makes clear the importance of AP screening and teacher professional development in addressing auditory processing difficulties.

Social wellbeing

John Ainley explores the notion of interdependence and the role of individual and school influences in building healthy relationships with other individuals, groups and institutions. The development of appropriate ways of relating to others is a central feature of policy statements and school documents, and an important component of social wellbeing. Ainley reports the results of a national survey of Year 5 and Year 10 students that investigated three aspects of social wellbeing: relating to others; commitment to community wellbeing; and adherence to rules and conventions. The study reveals

substantial disengagement from social concerns by boys between Year 5 and Year 10. The paper considers how schools, through the kinds of climates they provide, can shape the social development of students.

Ramon Lewis explores levels of responsibility in students and the impact of different kinds of discipline styles in developing an increased sense of responsibility. The development of responsible behaviour in children is important in preparing students to become responsible citizens. Lewis's study concludes that more responsible classes are associated with teachers who are less abusive and punishment oriented and who are seen as more likely to discuss misbehaviour with their students, involve students in decision-making, hint when students misbehave and recognise appropriate student behaviour.

Margaret Forster outlines challenges in measuring and monitoring the social development of young people. Drawing on a range of ACER studies in recent years, she identifies three major challenges. These include the challenge of deciding what to measure: should social and emotional growth be conceptualised as increasing understanding of, and insight into, social issues, or should it be conceptualised as increasingly appropriate and acceptable social behaviours and responses? The paper reviews recent work to assess both understandings and behaviours and discusses the need for caution in drawing inferences about one from the other.

Summary

There are multiple aspects or dimensions to general wellbeing. For the purposes of this conference it is convenient to identify five areas of wellbeing: mental,

emotional, spiritual, physical, and social. These five areas are overlapping and inter-related, but together provide a useful framework for thinking about students' growth and development as healthy, well-rounded individuals. Although it is sometimes useful to identify a level below which students can be considered sick/unwell, the dimensions of wellbeing addressed at this conference are probably best thought of as continua along which ongoing growth and development are possible.

The papers presented at this year's Research Conference provide insight into what is being learnt from research about effective ways of supporting student wellbeing. The papers are drawn from a range of fields and use a variety of methodologies appropriate to the multi-faceted nature of general wellbeing. There are many lessons for schools in the research reported here, including suggestions that greater attention be given to:

- early screening and detection of problems;
- better professional training, especially for teachers in the early years of school;
- greater collaboration among agencies (across health and education);
- greater parental involvement and support;
- school curricula that address all areas of wellbeing; and
- classroom and school climates that are more supportive of social development;

Research evidence of the kind reported at this conference is capable of informing and enhancing efforts to raise levels of general wellbeing and learning in our schools.

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Keynote papers

Optimal motivation in education: the importance of students' goals and interests

Judith Harackiewicz

University of Wisconsin

Judith M. Harackiewicz is a Professor of Psychology at the University of Wisconsin. She received her PhD from Harvard University in 1980, and served on the faculty of Columbia University until 1989, when she joined the faculty at Wisconsin. She was also a visiting fellow at the Australian National University. Her research focuses on achievement goals, competition, interest, and intrinsic motivation. She conducts basic laboratory research and longitudinal studies in college courses to examine factors that promote optimal motivation in education. She was Associate Editor of the *Journal of Experimental Psychology*, has just been appointed Editor of *Personality and Social Psychology Bulletin*, serves on the Executive Committee of the Society for Personality and Social Psychology, and received a Spencer Fellowship from the National Academy of Education and the Chancellor's Award for Distinguished Teaching from the University of Wisconsin.

Why do some students become involved and interested in their studies and why do they continue in a particular academic discipline? Do these highly motivated students learn more and obtain higher grades in their courses? In recent years, my graduate students and I have studied the factors that influence optimal motivation in higher education, and we believe that students' goals and interests play a crucial role in academic success. Our competitive culture defines success in terms of how well students perform, and the most obvious indicator of success is grades, which are often based on relative comparisons and normative standards. However, another important indicator of success is whether individuals develop interest in their course material and continue to pursue further learning (Maehr, 1976; Nicholls, 1979). We believe that developing interest is critical to long-term success in any academic endeavour, and that it is important to consider both performance and interest in an analysis of optimal motivation in education.

In our first studies, we addressed the question of optimal motivation using an achievement goal approach. Goals are cognitive representations of what we hope to accomplish, and they give direction and energy to our behaviour. Achievement goals reflect the purpose of an individual's pursuits in a particular class (Ames, 1992; Dweck, 1986), and theorists have identified two general types of achievement goals: mastery and performance goals. When pursuing mastery goals, an individual's reason for engaging in an activity is to develop competence. In contrast, when pursuing performance goals, an individual's reason for engagement is to demonstrate competence relative to others. Dweck and Leggett (1988)

argued that mastery goals are more likely to foster an adaptive pattern of achievement and performance goals a maladaptive pattern. For example, early goals research suggested that when students pursued mastery goals they selected more challenging tasks, persisted in the face of difficulty, and held more positive attitudes toward learning. Conversely, students pursuing performance goals chose easier tasks, and withdrew effort when difficulty was encountered (Ames & Archer, 1988; Elliott & Dweck, 1988; Nolen, 1988). The hypothesis that mastery goals are adaptive and performance goals are maladaptive for learning will be referred to as the mastery goal perspective because it implies that only mastery goals can have positive consequences and that performance goals will only have deleterious consequences.

Although little debate exists about the positive effects of mastery goals, others disagree with the second component of the mastery goal perspective. More recent reviews of the achievement goal literature suggest that strong conclusions about the negative effects of performance goals may be premature (Harackiewicz, Barron & Elliot, 1998; Hidi & Harackiewicz, 2001). We advocate a multiple goal perspective in which mastery and performance goals are both considered adaptive (Barron & Harackiewicz, 2001; Harackiewicz, Barron, Pintrich, Elliot & Thrash, 2002). In particular, we argue that performance goals can have positive effects because they also orient individuals toward competence and can promote adaptive achievement behaviours in some situations.

We have conducted a series of survey studies in university classrooms to examine the joint effects of mastery and performance goals on optimal

motivation. The basic paradigm for each study involved measuring students' goals, interest, and performance in university classes at different points in a 15-week academic semester. First, we collected self-report measures of students' mastery and performance goals for the class at the outset of the semester (2–3 weeks into the term). We then collected self-report measures of students' interest in the course near the end of the term, and then obtained students' final course grades at the end of the term. We evaluated both the independent and interactive effects of mastery and performance goals on interest and performance, and found a simple pattern of main effects. Students who endorsed mastery goals at the beginning of the course were more likely to report interest in the course at the end of the semester, but performance goals were unrelated to interest. In contrast, students who endorsed performance goals at the beginning of the course were more likely to achieve higher grades in the course, but mastery goals were unrelated to students' final grades. Thus, mastery and performance goals each had independent, positive effects on interest and performance, respectively. Because mastery and performance goals were each linked to a different educational outcome, adopting both goals appears to be an optimal strategy. The student who adopts mastery goals is more likely to develop interest in the course and the student who adopts performance goals is more likely to obtain good grades, but only the student who adopts both goals is likely to achieve both outcomes (Harackiewicz et al., 1997).

Why do performance goals promote academic performance in university classes? We have argued that they

match well with the general context of education, where grades are assigned on normative curves, and excellence is defined in terms of performance relative to others (Harackiewicz et al., 2000). We recently tested this idea by studying the effects of goals in a different type of university classroom environment. Specifically, we surveyed psychology students taking advanced capstone courses in which the type of learning environment and assignments fostered mastery and deep level processing of the material (through essay exams, projects, papers, etc.). A measure of perceived classroom climate revealed that students did indeed perceive these advanced courses as more mastery-oriented than performance-oriented. However, we found the same pattern of multiple goal effects as we did in our earlier classroom goal studies. Mastery goals predicted students' end-of-semester interest, and performance goals predicted students' final grades in these courses. Although this finding does not support the matching hypothesis at the classroom level, it does support it at the more general level. In other words, we suspect that the general context of university courses is performance-oriented. Thus it may still be adaptive to pursue performance goals, regardless of specific classroom environments, because performance goals are well matched to the general university climate (Barron & Harackiewicz, 2004).

To determine whether the consequences of mastery and performance goals observed in the short-term (over the course of a semester) change over the longer term, we tracked course choices and academic performance for a group of first-year students who took introductory psychology in their first semester at

university. We measured their academic goals within a week of their arrival on campus, and then followed them through the semesters after they took introductory psychology, all the way through to their graduation or departure from the university. We computed two behavioural measures of continuing interest in psychology by counting the number of course credits taken in psychology over subsequent semesters, and recording whether students chose Psychology as their academic major (Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Harackiewicz, Barron, Tauer, & Elliot, 2002).

We found that the goals adopted in an introductory course continued to predict students' interest in psychology and academic performance, and that these effects were comparable to those observed in the short term. Specifically, mastery goals were positively related to continued interest in psychology and majoring in Psychology, and this effect was mediated through the interest that students developed during their introductory course. In other words, mastery goals and short-term interest were the only variables that predicted important long-term academic choices. Performance goals were positively related to subsequent grades in psychology courses (for those students who actually enrolled in additional psychology courses) and subsequent academic performance (for all students in our sample). Thus, the same pattern of goal effects obtained in the short term was also observed on behavioural measures of continued interest and performance collected over additional semesters. These results suggest that both mastery and performance goals continue to have positive consequences on different indicators of academic success, and that the goals adopted by

students in introductory classes may have far-ranging implications for their subsequent academic work.

In sum, when we examined the consequences of students' mastery and performance goals in college classes, we found that both types of achievement goals promote important educational outcomes. Across all of our classroom studies, students who adopted mastery goals reported more interest in the class. However, mastery goals had no effect on any measure of academic performance. Instead, we documented a clear advantage of performance goals on measures of academic performance. Success in college and university contexts depends on both performance and interest, and our results demonstrate the independent contributions of mastery and performance goals in promoting these two outcomes. Moreover, because neither type of goal promoted both outcomes, our results suggest that the optimal pattern of goal adoption would include both mastery and performance goals.

These classroom results offer strong support for the multiple goal perspective, and additional evidence is beginning to accumulate from other labs as well (Elliot & McGregor, 2001; Pintrich, 2000). Our results have proven to be controversial, and we have engaged in debates about the theoretical significance of positive performance goal effects (see Hidi & Harackiewicz, 2001; Midgley, Kaplan, & Middleton, 2001; Harackiewicz, Barron, Pintrich, et al., 2002; Kaplan & Middleton, 2002). We continue to examine the parameters of performance goal effects by extending our research to different educational settings (see Harackiewicz & Barron, 2003).

Somewhat ironically, however, it is the less controversial findings that have sparked our continued research attention. Although we were not surprised to learn that mastery goals predicted interest in the introductory college course and continued interest in the field, we wanted to explore this relationship in more depth. A more detailed analysis of interest requires that we identify the basic components of interest and define the types of interest discussed in the literature. Theorists have described interest as involving both a feeling component and a meaning component (Schiefele, 1991). The feeling component includes the positive affective experience that accompanies engagement and involvement in an activity. The meaning component connects the person to the topic at a deeper, more personal level (Renninger, 2000). In addition to the two components of interest, feeling and meaning, two types of interest are recognised in the literature, distinguished on the basis of their source. Interest that resides within the individual over time has been distinguished from interest that emerges in response to situational cues. The former, individual interest, has a dispositional quality, and is deep and enduring. Renninger (2000) argues that individual interest requires having substantial knowledge of a topic, and valuing that knowledge. In contrast, situational interest emerges spontaneously as a result of features of the environment (Hidi, 1990). There is not much that educators can do about individual interest, but they can have an enormous impact on the development of situational interest. After situational interest is aroused, it may or may not last. If situational interest endures, it can eventually become a deep, individual interest.

Individuals can enter classes with pre-existing individual interest in the topic or not, and this individual interest is likely to affect the goals individuals adopt. We explored the role of interest in goal adoption in two different ways in two studies. First, we tested whether the reasons students gave for enrolling in courses predicted the achievement goals they adopted (Harackiewicz & Durik, 2003). We asked introductory psychology students why they enrolled in the class. Coding the reasons yielded three distinct groups. One group cited interest as the sole reason they enrolled in the course (e.g., 'I've always been fascinated by how the mind works'). A second group reported enrolling in the course in order to satisfy a requirement (e.g., 'It's required for my business major'). Finally, a third group of students cited both interest and requirements as reasons for enrolment (e.g., 'This class is required for my major but I would have taken it anyway because I'm interested in why people do the things they do'). These classifications predicted the achievement goals students adopted at the beginning of the semester. Students who enrolled in the course because of pure interest adopted mastery goals but not performance goals. In contrast, students who enrolled in the course because it fulfilled a requirement endorsed performance goals but not mastery goals. Finally, students who enrolled in the course because it interested them and because it fulfilled a requirement were most likely to adopt both types of goals. Thus interest appears to predispose individuals to adopt mastery goals.

We next examined the causal direction of the observed relationship between mastery goals and interest. As reported earlier, mastery goals adopted at the

outset of a college course positively predicted interest at the end of the semester. However, the results just described suggest that the possibility that individual interest may account for the observed relationship between mastery goals and interest. To examine this, we measured individual interest in psychology during the first week of an introductory psychology course, and then measured self-set achievement goals approximately 2 weeks later into the semester (Harackiewicz, Durik & Barron, 2003). We tested both individual interest and mastery goals as predictors of interest at the end of the course (situational interest). Replicating prior work, we found that mastery goals predicted situational interest in the course, and we also found that individual interest had an independent, positive effect. Moreover, after controlling for individual interest in psychology, the relationship between mastery goals and situational interest remained. In other words, although individual interest strongly predicted mastery goal adoption, as well as situational interest, adopting mastery goals also predicted interest at the end of the semester. These data suggest that interest in introductory courses is multiply determined and facilitated by adopting mastery goals. Even if educators are unable to influence individual interest, they may be able to promote mastery goals in their classes, and our results offer some promise for the development of educational interventions. We are pursuing these issues in our most recent work, and beginning to explore the role of situational interest in promoting academic performance and long-term interest.

In conclusion, by considering students' goals and interests, we have a richer understanding of motivational dynamics as adolescents enter university, take courses and make academic choices. By extending our study of goals over time, and by expanding our consideration of interest to incorporate different types of interest, we have gained some insight into motivational processes that can promote academic success and lifelong learning.

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The mental health and wellbeing of young people in Australia

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Introduction

In Australia there are approximately 251,000 live births per year, including 11,500 children where at least one parent is indigenous. In addition, 17,000 migrants in the age range 0–14 years, including 3500 children classified as humanitarian or refugee children, arrive in Australia each year. This total of 268,000 children can be viewed as the rate of flow from the 'fountain of youth' from which flow the children who enter our community each year.

The flow from our 'fountain of youth' has two problems. First, the rate of flow is declining! In simple terms, if we are to maintain our population each Australian couple must produce 2.1 children during the reproductive phase of its life (the decimal point allows for child mortality). However, in the late 1970s couples in Australia ceased to achieve this rate of fertility. Currently the rate in Australia is 1.7 children per couple. If this continues, and there is no reason to believe it will change, by 2036 our population will begin to fall unless we increase migrant intake. Even before then however, the effects of this decline are being felt. For example, 100 years ago children aged 0–14 years represented 35% of the population and those over 65 years represented 4% of the population. Today, children aged 0–14 years represent only 20% of the population while those over 65 years represent 13% of the population, and this latter proportion is steadily increasing. There is a substantial risk that as they decline as a proportion of the total community population, the interests of children and adolescents may be overlooked in the competition for health and education resources.

Second, when children first flow from the 'fountain' they have freshness, vitality, and great potential for healthy growth. However, in a similar fashion to the quality of water in the Murray River as it flows through the river system, this potential will not be achieved unless all the necessary steps are taken to ensure the quality of children's living and educational environments. For children, this means that we must ensure that adequate physical, family and social supports are provided through the course of their development. Failure to do this with the Murray River has had terrible consequences for the water in the river and for all of us who depend on it. In an analogous fashion, failure to do this with children will lead to higher rates of mental and physical health problems, and a failure of our community to achieve its full potential. Of concern is recent evidence in a study conducted in Great Britain that suggests that there has been a significant deterioration in the mental health of adolescents since the 1970s.

Today we face the twin challenges of a declining flow from our 'fountain of youth' and evidence that as they move through the developmental phases of their life, successive cohorts of children are experiencing increasing rates of mental health problems. This presentation will initially review results from the child and adolescent component of the Australian National Survey of Mental Health and Well-being. This is the most recent national survey of the mental health of children and adolescents in Australia. It will then describe one approach that is being taken to bring together education and health services to reduce the mental health problems being experienced by young people and make it more likely that they will achieve educational and other life goals.

Child and adolescent mental health and wellbeing in Australia

The child and adolescent component of the National Survey of Mental Health and Well-Being was designed to identify:

1. the number of children in Australia with mental health problems;
2. the nature of these problems;
3. the degree of disability associated with mental health problems; and
4. the services being used by children with mental health problems.

The survey also examined the prevalence among adolescents of behaviours harmful to health and their association with mental health problems.

Survey methods

Mental health problems were identified by parents and adolescents using standard behaviour checklists. For the purpose of reporting results, children were considered to have a mental health problem if they scored above a recommended cut-off score on the checklist scale. The prevalence of three specific childhood mental disorders was also examined in the survey. Mental disorders are defined on the basis of agreed symptoms and can be identified using structured diagnostic interviews conducted with parents and/or children. To keep the size of the study to manageable proportions the interview was conducted only with parents in the Australian survey. The survey focused on three mental disorders, depressive disorder, conduct disorder and attention-deficit/hyperactivity disorder (ADHD), because they are known from previous studies to be prevalent in the community, they have great significance for child and adolescent health in

Australia, and they could be examined within the funding and time constraints of the survey.

The participants in the survey were 4509 children aged 4–17 years. The lower age limit for the survey was determined by the capacity of the survey instruments to provide valid and reliable ratings of the mental health problems of younger children. The upper age limit of 17 years was determined by the lower age limit of the national survey of adults.

Mental health problems were assessed by means of the Child Behavior Checklist (CBCL) completed by the children's primary caregivers (predominantly mothers). The CBCL assesses childhood emotional and behavioural problems in a range of areas, and ratings are summarised as scores on a Total Behaviour Problem Scale, an Externalising Scale, which rates antisocial or undercontrolled behaviour, and an Internalising Scale, which rates inhibited or overcontrolled behaviour. Scores on syndrome scales can be employed to assess more specific aspects of the children's emotional and behavioural problems. The parent version of the Diagnostic Interview Schedule for Children Version IV (DISC-IV) was employed to detect the three mental disorders examined in the survey among the 6–17-year-olds (the DISC-IV is designed to identify disorders in children older than 5 years). The DISC-IV is based on the Diagnostic and Statistical Manual of Mental Disorders – 4th Edition.

The health-related quality of life of children was assessed using the Child Health Questionnaire, which was completed by the primary caregiver of children aged 6–17 years. The 13–17-year-olds who participated in the study

also completed a version of this questionnaire designed for completion by adolescents. The questionnaire assesses the functioning of children in several domains and also rates the impact of children's problems on their parents and families. Information about health-risk behaviour (e.g., drug use and suicidal behaviour) was obtained from adolescents using relevant items from the Youth Risk Behaviour Questionnaire developed by the Centers for Disease Control and Prevention in the United States to identify health-risk behaviour in high school students.

The survey asked about a wide range of services used by children and adolescents during the previous 6 months. For the purpose of this presentation, the parent response to the question 'During the past 6 months, has (child) received any help for emotional or behavioural problems?' was used in the analysis of results.

Survey results

Fourteen percent of children and adolescents in the survey scored above the recommended cut-off on the Total Problems scale on the CBCL, while 13% scored above the cut-off on the Externalising and Internalising scales. The most common mental disorder identified using the DISC-IV interview was ADHD, which had a prevalence of 11%. The prevalence of depressive disorder and conduct disorder was 3.0%. Males had a higher prevalence of ADHD and conduct disorder than did females. Children living in low-income families with single or step-parents were more likely to have mental health problems and mental disorders.

The health-related quality of life of children with mental health problems was worse than that of other children in

a range of areas. Children's mental health problems were reported to have an adverse effect on family activities, peer and school activities, and on the personal wellbeing of parents. The results suggested that in a broad range of areas, parents of children with mental health problems perceived their children's problems to have a significant impact on children, parents and families. Adolescents with mental health problems more frequently reported health-risk behaviours including smoking cigarettes, using marijuana, and drinking alcohol.

Only one quarter to one third of those with mental health problems had attended a professional service during the 6 months prior to the survey to get help for emotional and behavioural problems. The services most frequently attended by children with mental health problems were family doctors, school counsellors and paediatricians. Mental health services were attended by approximately 5% of children with mental health problems. However, the vast majority of children who were attending mental health services had very severe problems.

The beyondblue schools research initiative

The findings from the Australian survey of child and adolescent mental health and comparable overseas studies show that mental health problems are common among children and adolescents, they cause substantial distress for children and families, and they impose a significant financial burden on families and the community. In general, three approaches can be used to reduce mental health problems. The first is a 'universal' approach in which a program is delivered to all children with the dual aims of reducing

the emergence of new disorders and helping those with existing problems. The advantages of universal programs are that they can involve large numbers of children and they avoid potential stigmatisation of children with existing disorders. However, many children receiving a universal program will not need it, the benefits can take a long time to emerge, and the value for individual children is relatively small.

The second type of approach is called 'selective' or 'indicated'. These programs focus on children at risk for developing mental disorders (e.g., children living in poverty or children with parents who have a mental disorder). The advantage of this type of program is that it focuses more specifically on children who are likely to benefit from the program. This has the potential to reduce program costs. However, identifying children who should be the recipients of these programs is difficult because many children at risk for problems never develop them and don't need help from the program. Furthermore, there is concern that this type of program can stigmatise children and disadvantage them in relationships with peers and others.

The final group of approaches that can be used to help children with mental disorders are treatment programs delivered in traditional clinical services. The advantage of this group of approaches is the good evidence of their effectiveness when they are correctly delivered. Disadvantages are the cost of program delivery, which severely limits the number of children who receive treatment; difficulty ensuring treatment is correctly delivered in routine clinical settings; and the large number of children and adolescents who do not complete treatment programs.

The beyondblue schools research initiative is funded by beyondblue, the National Depression Initiative in Australia. The project is employing a universal program designed to reduce depression among adolescents attending high school. It is being delivered through 25 high schools in the three education sectors in Queensland, South Australia and Victoria. It commenced in 2003 when it was delivered to children enrolled in Year 8 and will continue until December 2005. The initiative has four key features. First, it works across the traditional health and education interface. Staff employed on the project are drawn from both education and health services and considerable effort has been made to seek out the best elements from these two fields to address the problem of adolescent depression. This is important because of evidence that adolescents with mental disorders commonly have problems in other areas, such as learning at school, which would benefit from effective intervention.

Second, participating adolescents will receive the intervention over a 3-year period. This approach has been adopted because of the evidence that short-term programs (e.g., 10 weeks) do not achieve change that is sustained over the longer term. Third, the program is utilising elements drawn from a range of different theoretical perspectives that have been combined to create a single intervention package. These include:

1. a curriculum element;
2. an element that focuses on developing the capacity of individuals and school communities to create and apply effective education and health care pathways where students need additional or alternative services to those routinely provided ('pathways for care and education');

3. a school environment element which focuses on improving school-based relationships and student participation; and

4. a community forum element.

Finally, the program is being rigorously evaluated. Each year, levels of depression and rates of risk factors for depression amongst adolescents in the 25 participating schools are being compared to those experienced by adolescents in 25 matched comparison schools. Reducing rates of adolescent depression in the community is a difficult task and it is essential that we build iteratively on our knowledge of program effectiveness over the next decade.

Discussion

The rate of mental health problems identified amongst children in Australia is very similar to the median prevalence of 12% reported in a review of 49 international studies conducted between 1965 and 1993.

Child and adolescent mental health problems were not equally distributed among all demographic groups. Rather, there was a higher proportion of mental health problems among those living in step/blended or sole parent families, those living in lower income households, those living with parents who were not in paid employment, and those who had left school at an earlier age. The identification of high-risk groups is important because it makes it possible to ensure that treatment and preventative programs are accurately targeted and resources efficiently employed.

Only a minority of children and adolescents with mental health problems had received professional help. The high prevalence of problems and the limited number of trained clinicians available to provide help make it unlikely that specialised programs in secondary and tertiary treatment settings (e.g., child and adolescent mental health services or departments of psychiatry) will ever be able to provide face-to-face care for all those with problems. There is therefore a need to identify alternative approaches to reduce the prevalence of child and adolescent mental health problems. Parents identify counselling in schools as one of the services most frequently used by children with mental health problems. This finding is consistent with the results of other recent international surveys, and it emphasises the key role that school-based services play in providing help for children with mental health problems. In the Australian survey it is unclear which professional group was providing this counselling. If teachers are providing the counselling, it is important that this responsibility is consistent with their role and training, and does not take away from their role as educators. Alternatively, schools could be provided with additional funding to appoint specialist counsellors skilled in the identification and management of children with mental health problems. It is also important to ensure that those responsible for helping children with mental health problems in schools are closely linked to specialised mental health services to ensure the most effective services are available for students with mental health problems.

The school environment is an important part of the social life of young people and many mental health problems emerge for the first time during the years that young people attend school. Potential access to young people through schools offers an important opportunity to utilise universal, selective and indicated interventions to help large numbers of those with mental health problems and those who are at risk for developing problems in the future. However, such interventions will only be successful if close cooperation is achieved between staff working in health and education services.

Most children and adolescents attending mental health services have a very high level of problems. However only a small proportion of all children and adolescents with problems receive help from specialised mental health services. This finding poses a major challenge for scarce mental health services. Mental health services should be encouraged to experiment with alternative models of service delivery that combine direct care, consultation to primary health care or school-based services, and universal, selective or indicated interventions. There is a great need to identify the optimal mix of promotion, prevention, consultation and treatment interventions that can provide cost-effective help for young people and their families in Australia.

Traditionally, health services have tended to focus their attention on a particular problem. For example, psychiatric services focus on mental health, drug and alcohol services on drug and alcohol abuse, and paediatric services on physical health. However, this does not reflect the complexity of problems experienced by adolescents, as young people with a high level of problems in one area often experience difficulties in other areas of their lives. Individual professions and services must pay more attention to the high levels of co-morbid problems in young people, and they need to develop strong collaborative relationships with each other if they are to provide adolescents with effective help for their problems.

Core values in the balance

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The theme of this conference is 'supporting student wellbeing.' It implies a modest facilitating role for us professionals, nicely low-key. But such apparent modesty on the part of people involved in the human services is potentially deceptive. In all our disciplines, and between them, various research paradigms and models of intervention compete, not only in their preferred methodology and the empirical claims they make, but also in their normative assumptions about the constituents of health and humanness. But such assumptions are seldom owned up to in our research reports; or, if they are, they are treated as givens that have no need of validation.

It may be granted that the scientific quest for *biological* wellbeing has achieved a useful degree of objectivity in several areas through the use of such methods as double-blind experiments, but at the *psycho-somatic* interface questions of multi-causation crowd in and complicate our correlations. Further ambiguities arise in studies of *mental health*, where medical and psychological models frequently offer competing explanations of symptoms, as in the treatment of depression.

If we then turn to the fields of *social work* and *education*, the grey area between descriptive and normative enquiry widens still further. On what grounds do we dare to intervene in the life-streams of other human beings? To what extent should their consent or dissent be factored in to our consideration of means? What visions of viable community and human flourishing validate our interventions? What shall count as normal? What model of the person underlies our attempts to modify their behaviour and disposition? If individual and national interest conflict, on which side should *we* come down?

Increasingly, traditional values have been challenged and the available horizon of possibilities enlarged by ethnic diversification and novel technologies. We've even reached the point where one possible future is populated by designer humans. In the circumstances, it is fortunate that we have a form of political democracy that at present accommodates value negotiation. But democracy itself is a value. In today's world, those who cherish it are required to be eternally vigilant.

What constitutes 'wellbeing'?

In particular, we need to look more closely at the term 'wellbeing', use of which has become increasingly popular across disciplines. Its appeal derives from the connotation of a present state – a sustainable homeostasis – rather than any visionary future condition. We are not prescribing what this person should become; we are just seeking to ensure that as far as possible his or her choices are not disabled by physical, mental, or socio-economic deficits.

Understood in these terms, 'wellbeing' appears to avoid the trap of building in partisan value judgments; a hazard from which more teleological terms like 'development' cannot escape. Neutralist human scientists are joined at this point by some postmodernists who consider that in any case it is none of our business what values and views of the world our clients choose to live by. Our job is simply to maximise their life chances. The classical concept of 'the common good' is viewed with suspicion, as disguising attempts by self-interested élites to exercise hegemonic control over other people. It may be argued, however, that Western societies – and especially Australia – have already travelled a fair distance down the road of 'Doing your own thing', social disruption notwithstanding (Science Council, 2001).

Given the diversity of scientific paradigms abroad in the human sciences, there are many alternative views of what counts as effective functioning. But there's an even more fundamental issue to be resolved. I said earlier that the term 'wellbeing' seems to connote a desired present state – a sustainable homeostasis – rather than any visionary future condition. But this in itself is not just a definitional matter; it constitutes a value judgment.

Consider, on the one hand, economic rationalism's market-oriented goal of insatiable consumerism appealing to instant gratification. By contrast, many philosophers and researchers emphasise that human beings search for meaning and purpose beyond the mere satiation of immediate animal needs and wants. Which way shall we lean?

If we understand the term 'wellbeing' to include the datum that human beings are driven to construct some kind of framework of meaning, however provisional and patchy, which is each individuals' way of making sense of the social reality, then we must attend to the values and goals which literally give them reasons to go on living. If a person's framework disintegrates – in the face of neglect, abuse, or despair – then suicide can and manifestly often does occur, or self-harm through addiction – even in the midst of plenty.

Engaging in values discourse

The first step in coming clean about the unavoidability of value-loadings in our experiments and practices is to acknowledge that there is not just one kind of rationality – that associated with empirical theorising. Some recent philosophers have been prompted to revive the distinction drawn by Aristotle between value rationality, epistemic rationality, and technical rationality.

For example, a kind of tunnel vision often hinders social researchers and educators from talking about the values inherent in the concept of democracy. Yet the development of this particular political framework has arguably been massively beneficial to the wellbeing of the masses, whose servants we now deem ourselves to be. Alternatively the discourse sometimes gets round to rights talk and procedural values, but fails to balance these with talk of responsibility and shared substantive values.

On each of these counts, there is a need to identify areas of common agreement. First, the *procedures* appropriate to living in a democratic community need to be spelled out. Second, recognising that robust community life depends on the identification of more *substantive* visions of the common good, we need to become practised in negotiating values agreements at this level too, particularly in the provision of public sector services.

For most of the 20th century, getting values education on the agenda of both state and non-state schools was *passé*. The former tended to plead neutrality; the latter tended to treat their past traditions as sacrosanct. Then, in the last decade of the old century, the walls began to crack. Portents of things to come were documents generated by several state departments identifying values to be promoted in schools. The 1993 Wiltshire Report in Queensland went further, proposing a state charter of values and recommending that every school should also frame its own charter, consistent with it.

Negotiating core values

About the same time, in reaction to perceived shortcomings in the 'national curriculum' issued under the seal of John Dawkins in 1993, an independent

school consortium in Western Australia obtained funding to undertake a 'values review' of that curriculum. There was not much to review, and the project therefore moved on to seeing if a values framework could be negotiated locally. The resulting 'Agreed Minimum Values Framework' (1995) achieved a surprising amount of agreement between people with very disparate world-views. The effect spilled over into the state sector when a new cross-sectoral council developed, borrowed heavily from it in developing a values charter for its curriculum framework.

Currently, 'values education' has become a talking point in mainstream educational discourse, as the present conference demonstrates. Various state systems have fostered projects seeking to identify core values, and many individual schools have trialled various approaches to values education. In 1994, the Keating Government funded the Civics and Citizenship project. Three years later, the *Discovering Democracy* project built on this foundation and has been proceeding in all states.

More recently, the Commonwealth Government commissioned a values education study and funded action research grants in 69 schools around Australia, crossing state and sectoral boundaries. A national forum last April showcased the state of play in these schools after 2 years (2004). It revealed 2 further advances in our thinking. First, several trials involved a whole-school values review, including attention to issues of school administration and across-the-curriculum applications. Second, several schools extended their perception of values beyond civic perspectives to include personal development in its own right. The current Federal budget has now set aside substantial further funds for such developments.

Grounding core values

The now common practice of listing values is problematic. It may reasonably be asked: 'Where do they come from?' and 'How many more could or should be included?' The problem is compounded if we examine some of the values education packages that have in fact been adopted by schools. Busy teachers understandably welcome ready-made products, and many have been drawn to packages developed outside our school systems, and even outside Australia. But what makes values hang together are larger world-views. No package is neutral. Many people using such materials are unaware of their ideological origins.

It seems to be commonly believed that one can separate values as such from the wider world-views from which they derive. The result is that the values recommended for attention hang loose in normative space and discourage integrative teaching. Consider a school that devotes one fortnight to the virtue of 'honesty', then switches in the next fortnight to, say, 'flexibility.' Some cognitive gains may be detectable in later tests, but this begs the larger question of whether this is the way to promote personal commitment over the long haul.

Empirical studies from Hartshorne and May (1930) onwards have consistently revealed shortcomings in the 'bag of virtues' approach, while cognitive developmental studies since Piaget (1968) and Kohlberg (1966) have also struggled, albeit for different reasons, to transform knowledge into disposition. The submerged issue is the significance of underlying frameworks of meaning.

Resourcing the search for meaning

Moral principles derive their ultimate justifications from larger frameworks of meaning. And more! The incentive to live by them is also dependent on commitment to such frameworks. Hence it is also necessary to build into the school curriculum opportunities for students to encounter and examine frameworks. This implies that at some point they should study:

1. the logics and functions of pre-suppositional frameworks as such;

2. the assumption underlying the frameworks governing each of their school subjects, and the limits of their explanatory power; and

3. the religious (and 'anti-religious') frameworks that have been most influential in the social and intellectual construction of the cultural reality they presently inhabit.

The first condition calls for a specific focus on philosophical issues and competencies. In general, these have no natural home in what are currently designated 'Key Learning Areas.' In regard to the second, while much attention is given — and should be given — to concepts and competencies internal to each subject, it is relatively rare to find questions being raised in teaching them concerning their form of rationality and their relation to other activities and aspirations of the whole human person. In regard to the third condition, Australian state schools have been encouraged to factor the religious variable out of the curriculum, thereby leaving values education in freefall. If a balanced education is our goal, this is counterproductive.

Foregrounding values in the school

Though the philosophers I have quoted have tended in the main to be concerned with moral values, that is not the only domain in which we, as purpose-driven beings, prioritise possibilities of action. These include the cognitive-intellectual, technical-vocational, political, economic, socio-cultural, physical-recreational, aesthetic, interpersonal-relational and religious-spiritual domains as well. The school has a vested interest across the curriculum and within its administrative structures and procedures in them all.

Similarly, every teacher of a subject has a stake simultaneously in many more than one value domain whether in regard to the subject matter they teach, the methods they use to initiate children into that domain, or the kind of classroom climate they seek to maintain. So we must add to the range of domains *educational* values: those priorities that are at the core of the school's mission. One of the obligations of the school is to clarify what these are for the benefit of all stakeholders, including teachers, parents and students.

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Rotten kids or clueless adults - Australian parenting on trial – what's happened to a developmental perspective

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Michael Carr-Gregg is an adolescent psychologist specialising in the area of adolescent mental health, especially depression in adolescents. In 1985, Dr. Carr-Gregg founded the world's first national teenage cancer patients support group, CanTeen. Michael has worked in private practice as a family therapist, child psychologist and clinical psychologist, as an academic, researcher and he spent four years working as a political lobbyist.

Recently the head of one of Australia's most prestigious schools, Dr Timothy Hawkes accused parents of failing to adequately discipline their children because they are frightened they might lose them as friends. This paper examines the state of Australian parenting in 2004 and suggests that there is a growing crisis which is adversely impacting upon the normal psychological growth and development of young people. The paper suggests some of the reasons for this and suggests some solutions.

Concurrent papers

The relationship of young children's social-emotional development to their achievement and social-emotional wellbeing

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Michael E. Bernard is the Founder of You Can Do It! Education, a school-home-community capability-building framework and derivative programs for promoting student social-emotional wellbeing and achievement that are being used in over 6,000 schools in Australia, New Zealand and, increasingly, in England and North America. Professor Bernard is a psychologist in the Department of Educational Psychology, Administration and Counseling, College of Education, at California State University, Long Beach. After receiving his doctorate in educational psychology from the University of Wisconsin, Madison, he worked for 18 years in the College of Education, University of Melbourne, Australia. In 1983, he was appointed as Reader and Coordinator of the Master of Educational Psychology Program. During the late 1970s and 1980s, Prof. Bernard worked as a consultant school psychologist helping families and schools address the educational and mental health needs of school-age children. He has spent extensive time counseling children with emotional, behavioral or academic difficulties. Prof. Bernard was a co-founder of the Australian Institute for Rational Emotive Behavior Therapy and is the author of many books on REBT. For eight years, he was the editor-in-chief of the *Journal of Rational-Emotive and Cognitive-Behavior Therapy*. He is the author of over 40 books, 14 book chapters and 30 journal articles in the area of children's learning and social-emotional wellbeing as well as teacher professional development and parent education. He is an international consultant to educational authorities, organizations and government.

If we observe a group of students beginning a particular learning unit or task, we can note a great deal of variation in the affect with which they approach the task even before they receive any instruction on it. Some will approach it with evident interest and desire to learn the task… Others regard it as a duty or requirement… Finally others approach the task with evident discomfort. They have some fear or trepidation and expect only negative things to ensue from this task and the judgments they expect from teachers, parents and peers. (Bloom, 1976, p. 73)

In his seminal work, Human Characteristics and School Learning (1976) that was based on his review of research at the time, Bloom presented a model of school learning that identified three factors that determined the level and type of learning outcomes (achievement, rate of learning, affective). According to Bloom, the 'quality of instruction' of the teacher, student 'cognitive entry behaviours' (e.g., cognitive style, prerequisite academic knowledge and skills) and student 'affective entry characteristics' together determine student outcomes. Of particular interest to this paper is what Bloom refers to as the affective or motivational disposition or non-cognitive, non-academic characteristics of learners such as their academic self-concept as well as their attitudes towards particular subjects in school (e.g., reading, mathematics) and to school itself. Bloom indicated that affective-motivational characteristics accounted for 25 percent of the variance in achievement in the studies he reviewed.

A more recent extensive review of research also highlights the importance of non-academic, psychological factors that influence student learning. Using evidence accumulated from 61 research experts, 91 meta-analyses and 179 handbook chapters, Wang, Haertel and Walberg (1993) found that the affective-motivational attitudinal disposition of students was of greater importance as a factor influencing school learning than were the factors of peer group, school culture, quantity of instruction and classroom instruction (e.g., clear and organised direct instruction).

Early Childhood Development Research

Over the past decade, early childhood researchers have begun intensively studying the social-emotional development of young children with the passion of Piaget and his followers who studied young children's cognitive development for the better part of the twentieth century. It is clear from this recent research:

- social-emotional competence develops as children mature;

- social-emotional capabilities of young children are intimately related to their achievement and affective outcomes; and

- some children as young as 4 years of age show delays in their social-emotional development that has implications for their future academic success and adjustment in school.

For example, young children's 'emotional resilience' is being extensively examined and is becoming recognised as an extremely important predictor of subsequent adjustment and achievement (for example, Bernard 2004a). Saarni (1999) indicates that

emotional resilience refers to one's ability to manage the subjective experience of emotion, especially in terms of intensity and duration of the emotion, and how one manages the expression of emotions while communicating it to others.

Child developmental research has begun to focus on the extent to which children are able to moderate their emotions and behaviours when faced with stressful events. The construct has been found to contribute to children's ability to prevent stressful levels of negative emotions and maladaptive behaviour from occurring (e.g., Landy, 2002). It has been argued that failure to develop sufficient emotional resilience is largely responsible for the development of behaviour problems and can lead to a variety of serious psychopathologies.

A review of literature in the area of development of emotional regulation and coping conducted by Brenner and Salovey (1997) yielded 3 age-related, developmental trends. The first developmental trend revealed that children's use of internal or cognitive strategies (e.g., distraction) increases as they get older, while their use of behavioural strategies (e.g., finding something fun to do) remains relatively constant throughout development. This trend is illustrated in a study by Altshuler and Ruble (1989), in which 8- and 11-year-old children were more likely to identify cognitive strategies to cope with negative emotions than were 5-year-old children, while there were no significant age differences reported in respect to the usage of behavioural techniques.

The second trend is revealed in evidence that children's ability to cope using solitary strategies (e.g. coping without the assistance of another person) increases throughout

development. This trend is illustrated in a study by Kliewer (1991), who found that 7-year-old-children relied more on support from others than did the 10-year-old children (see also Garber, Braafladt &Zelman, 1991).

The third developmental trend is children's ability to distinguish between controllable and incontrollable stressful events and how the ability to match a coping strategy to the type of stressor increases over time. This trend is illustrated in a study by Bull and Drotar (1991) who found that 13- to 17-year-old children were more likely to use emotion management strategies to cope with uncontrollable medical stress than were 7- to 12-year-olds.

Another body of research dealing with the social-emotional development of young children that provides the foundation for the present study is represented by the Early Childhood Longitudinal Study commissioned by the United States Department of Education. The goal of this research is to identify factors that can be assessed at kindergarten that predict children's subsequent academic achievement at the end of various grades in school (Rock & Pollack, 2002). This study surveyed teachers and parents of 20,000 children drawn from a national sample of children representing the full range of cultural diversity and economic circumstances. While family income level, cultural background, hours spent per week by parents reading to their children and entering levels of early reading skill development and knowledge predicted reading levels at the end of kindergarten, findings also indicated that kindergarten children's entering levels of what the researchers called 'approach to learning' (e.g., persistence, organisation, eagerness to learn, attention) accounted for

significant variance in reading achievement measured at the end of their year in kindergarten. That is, young children who were delayed in the development of persistence, organisation, eagerness to learn and attention/frustration tolerance were also delayed in the development of early reading skills. Data indicated a very strong positive relationship between family socio-economic status and children's 'approach to learning'. As well, teachers rated kindergarten children from Hispanic, African American and Native American backgrounds less positively in their 'approach to learning' than children from Asian or Caucasian backgrounds.

You Can Do It! Education

You Can Do It! Education (YCDI) (e.g., Bernard, 1995, 2001, 2002, 2004b) derives from a range of cognitive-behavioural, social learning psychological and educational theory that identifies distinct social-emotional capabilities associated with students' social-emotional wellbeing, motivation, and achievement. According to Bernard (2001), explicit academic standards, a sound curriculum and instruction, special programs and services will not be maximally effective in helping all children achieve to the best of their ability and have positive social, emotional and behavioural wellbeing unless the following social-emotional capabilities called 'foundations' are explicitly taught: confidence (work, social), persistence, organisation, getting along, emotional resilience. This is especially the case for those children who have problems of adjustment (e.g., social, emotional, behavioural, underachievement) and disabilities (e.g., learning, reading, ADHD).

Bernard (2001) also identifies 12 positive 'habits of the mind' that are the cognitive-attitudinal elements of the 5 'foundations'. Bernard (2002) defines a 'habit of the mind' as an automatic tendency of a person to think in a certain way. By thinking in that way, people experience certain emotions and behaviours that will either lead to academic achievement and social-emotional-behavioural wellbeing when their 'habits of the mind' are positive or, to underachievement and poor psychological health when negative 'habits of the mind' exist. The positive 'habits of the mind' have been found to be the cognitive elements or components that nourish and support the 5 'foundations'. The present study extends the above theory and research subsumed under *You Can Do It! Education* to the domain of early childhood development.

The present study

This paper presents the results of a study that investigated the association between 6 social-emotional capabilities (work confidence, social confidence, persistence, organisation, getting along, emotional resilience) and both the reading achievement and social-emotional wellbeing of 158 5-year old children (80 males, 78 females; 66% Hispanic, 15% Anglo-American, 19% other) attending half- and full-day kindergarten (year before grade 1). Additional interest was in determining social-emotional factors associated with and that predicted those children (n = 49) who were referred by their teachers at the end of kindergarten for extra academic support during the summer in comparison with children (n = 88) not referred (21 children on a 'waiting list' not included in analyses).

The teachers of participating kindergarten children completed the Social-Emotional Well-Being Survey (Bernard, 2003) that asked them to rate children's overall social-emotional wellbeing using a 20-item Likert-type scale (e.g., 'generally happy and cheerful,' 'gets very angry,' 'feels safe and secure,' 'disrupts ongoing activities'). Additionally, teachers were asked to rate children's social-emotional competences across six social-emotional capabilities (work confidence, social confidence, persistence, organisation, getting along and emotional resilience) employing Likert-type scales. Additional data was obtained on children's reading level (running record – words correctly read aloud) obtained in February and June of their kindergarten year.

Results statistically significant correlations were obtained between each sub-scale of social-emotional competence and their reading achievement at the end of kindergarten (range 0.28–0.52). For the complete sample, regression analyses revealed that work confidence and organisation accounted for significant differences in their reading achievement. Additionally, the social-emotional capabilities called getting along and emotional resilience accounted for significant variation in social-emotional wellbeing. Kindergarten children's rate of progress in reading from March to June as measured by their oral fluency in reading correlated (0.39) with what Bernard (e.g., 2001) called a positive mindset for achievement (work confidence + persistence + organisation). The 49 kindergarten children referred for summer school for extra academic preparation before commencing grade 1 scored significantly lower in their reading achievement in comparison with the 88 children not referred.

Additionally, teachers rated these 'at risk' children significantly lower than non-referred children on all measures of social-emotional capabilities. Of interest was the finding that male kindergarten children were rated lower in all social-emotional capabilities that female kindergarten children. Overall, data from this study indicate that kindergarten children who are 'at risk' for reading failure demonstrate delays not only in academic skills but delays in their social-emotional development.

The results from this study support previous research concerning the relationship of children's non-cognitive, affective characteristics (e.g., Bloom, 1976) to their academic achievement and social-emotional wellbeing. The results specifically reinforce the important role that children's social-emotional development plays in their achievement (Rock & Pollack, 2002).

The implications of the above theory and research dealing with students' social-emotional-motivational competence are offered in the following suggestions (see Bernard, 2005, in press).

1. Educators, teachers and parents need to be very aware that the road to raising the achievement of all young people is paved not only with quality academic programs but also with quality social-emotional learning programs for students of all ages.

2. The development of academic as well as social-emotional competence needs to receive equal resourcing including equal professional development time for teachers.

3. Provide multiple opportunities for students with reading or learning disabilities and those who underachieve to learn positive 'habits of the mind' including: 'giving

effort', 'working tough', 'setting goals', 'planning my time', 'thinking first', 'playing by the rules' and 'accepting myself'.

4. Integrate within prevention and early childhood literacy and remediation programs direct instruction in social-emotional capabilities.

5. Make sure that the teaching of social-emotional-motivational capabilities are not just taught within a personal development class and curriculum but are reinforced throughout the school day.

As the role of young children's social-emotional development is recognised as a vital foundation for academic and affective learning, there is a great need for the development of sound pedagogies and curricula to assist early childhood educators in accelerating the development of these qualities especially for 'at risk' children who often enter pre-school one or more years delayed in development (e.g., The You Can Do It! Education Early Childhood Program: A social-emotional learning curriculum, ages 4–6, Bernard, 2004b, 2004c).

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Figure 1 Goals of You Can Do It! Education (Bernard, 2003a)
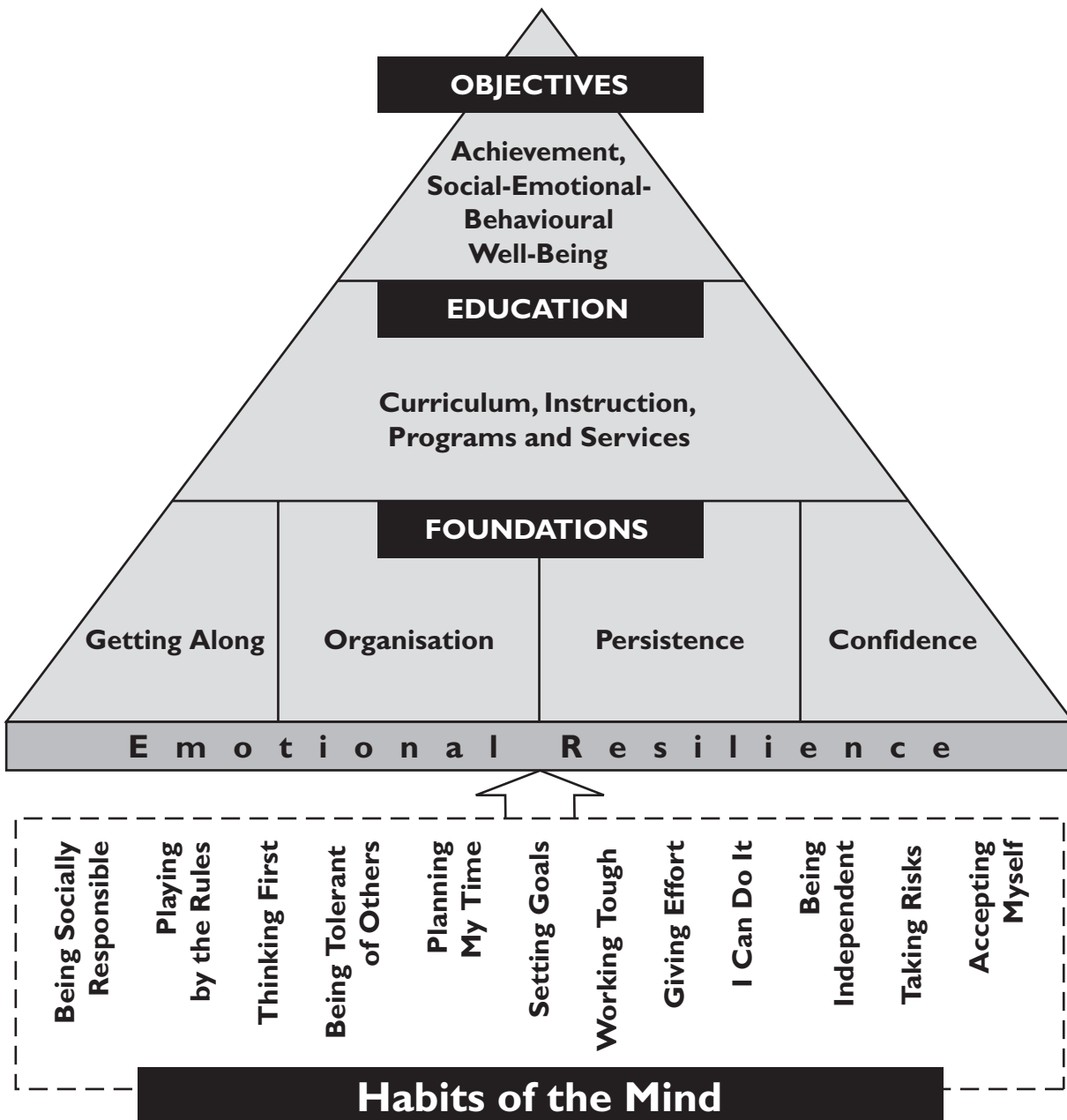
OBJECTIVES

Achievement,
Social-Emotional-
Behavioural
Well-Being

EDUCATION

Curriculum, Instruction,
Programs and Services

FOUNDATIONS

Getting Along   Organisation   Persistence   Confidence

E m o t i o n a l   R e s i l i e n c e

Being Socially Responsible

Playing by the Rules

Thinking First

Being Tolerant of Others

Planning My Time

Setting Goals

Working Tough

Giving Effort

I Can Do It

Being Independent

Taking Risks

Accepting Myself

Habits of the Mind

Confidence means knowing that I will likely be successful at many things. It means not being afraid to make mistakes or to try something new.

- **Accepting myself**: not thinking badly about myself when I make a mistake.
- **Taking risks**: thinking that it's good to try something new even though I might not be able to do it.
- **Being independent**: thinking that it's important to try new activities and to speak up even if classmates think I'm silly or stupid.

Persistence means trying hard and not giving up when schoolwork feels like it's too difficult or boring.

- **I can do it**: thinking that I am more likely to be successful than to fail.
- **Giving effort**: thinking that the harder I try, the more successful I will be
- **Working tough**: thinking that in order to be successful in the future, I sometimes have to do things that are not easy or fun in the present.

Organisation means setting a goal to do my best in my schoolwork, planning my time so that I am not rushed, having all my supplies ready, and keeping track of my assignments' due dates.

- **Setting goals**: thinking that setting a goal can help me be more successful at a task.
- **Planning my time**: thinking about how long it will take me to do my schoolwork and planning enough time to get it done.

Getting Along means working well with teachers and classmates, following the rules of the classroom, and solving problems without getting too angry, and.

- **Being tolerant of others**: not making overall judgments of people's character based on their differences or behaviour.
- **Thinking first**: thinking that when someone treats me badly, I need to think about different ways I can react and the impact of my actions on the other person's feelings.
- **Playing by the rules**: thinking that by following important school and home rules, I will live in a better world where everyone's rights are protected.
- **Social responsibility**: thinking that it is important to be caring, honest and respectful, a good citizen and to help build a world with fairness and justice for all

Emotional Resilience means knowing how to stop myself from getting extremely angry, down, or worried when something 'bad' happens. It means being able to calm down and control my behaviour.

- **Finding someone to talk to**
- **Finding something fun to do**
- **Relaxation**
- **Changing negative to positive 'habits of the mind'**

Helping teachers help students act responsibly

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Ramon Lewis is an Associate Professor in the La Trobe University School of Educational Studies, Bundoora. Dr. Lewis has specialised in the area of classroom management for over 20 years and has published three related books and many articles describing the outcomes of his studies. Dr. Lewis is currently coordinating a research project examining the relationship between classroom discipline and student responsibility in Australia, China and Israel. In addition to his academic position, Dr. Lewis teaches part time or consults with schools in a bid to explore the gap between theory and practice.

Introduction

There is great interest nationally and internationally in having schools facilitate the development of responsible behaviour in children (Ainley, Batten, Collins & Withers, 1998; Bennet, 1998 Houston, 1998; Kohn, 1998; Richardson & Fenstermacher, 2001; Ryan & Bohlin, 1999).

For some, the interest is stimulated by a concern over a perceived decline in student values (Lickona, 1996) and behaviour (Bennet, 1998; Houston, 1998). For others, the interest stems from a belief that 'preparing good citizens, not higher test scores, has historically been the most important purpose of our public education system' (Rothstein, 2000: 419). For example, in Australia, both the Prime Minister and the Federal Minister for Education have recently stressed the role that values education should play in schooling. In the US, the question of the relative importance of various goals of schooling was last put to the community in 2000, via the Phi Delta Kappa polls of the public's attitudes towards the public schools. The function of schooling selected as the most important in that survey was 'to prepare people to become responsible citizens' (Lowell & Gallup, 2000: 47)

This paper examines the relationship between Australian students' responsibility in classrooms and their teachers' discipline strategies.

In general, interest in student responsibility is expressed in two distinct but overlapping ways. The first emphasises students' character (Benninga & Wynne, 1998; Fenstermacher, 2001; Fisher, 1998; Glanzer, 1998; Hansen, 2001; Jones, & Stoodley, 1999; Narvaez, Bentley, Gleason & Samuels, 1998; Pring, 2001; Schaeffer, 1999; Siebold, 1998).

The second focus of those interested in the character of youth emphasises civics and citizenship education (Anderson, Avery, Pederson, Smith & Sullivan, 1997; Barber, 1998; Bennet, 1998; Bickmore, 1997; Cunat, 1996; Kennedy, 1996; McDonnell, 1998; Osborne, 1995; Osler & Starkey, 2001; Pearl & Knight, 1998; Schaeffer, 1999).

Within each camp there are also two divisions. One wants to develop new, appropriate curriculum, to be added to, and to augment the 'normal' curriculum. The others argue that the transmission of values is intrinsic to all aspects of the curriculum. For example, according to Pring (2001: 110)

> Picking out citizenship as a subject in its own right fails to see that all teaching, when conceived as a moral practice concerned with values and conceptions of what it is to be human, necessarily is a preparation for citizenship broadly concerned.

Responsibility and classroom discipline

Ensuring that students behave responsibly in classrooms is important for two independent reasons. First, it serves as a means of preparing students to take their place in society as responsible citizens, an aim of primary importance to schooling (Rothstein, 2000). This function of classroom discipline can be referred to as its educational function (Lewis, 1997a). Secondly, without satisfactory levels of student responsibility, the best planned, and potentially most engaging lessons may fail to have the desired impact. Often it may only require a small proportion of students to misbehave

and they become sufficiently distracting to students, and frustrating to teachers, that the most carefully planned lesson fails to promote effective learning among the students (Barton, Coley & Wenglinsky, 1998). This focus for classroom discipline is called a managerial function (Lewis, 1997a).

The association between the responsibility of students and classroom discipline is examined because, of all the school-related factors capable of influencing student responsibility, discipline is among the most potent (Ingersoll, 1996; Lewis, 1997b).

The study

In order to investigate what kinds of discipline styles are associated with greater levels of responsibility in students, an investigation was completed in 21 primary schools and 21 secondary schools from the North East region of Victoria. From these schools approximately 600 teachers and 4000 year 6, 7, 9 and 11 students reported on the sort of classroom discipline being offered to students, and students' level of responsibility and misbehaviour. Within each school type (primary and secondary), the findings were very similar.

Student responsibility was assessed by having students rate how often they engaged in a range of responsible and irresponsible classroom behaviours. The behaviours related to protecting or negating students' and teachers' rights associated with learning, emotional and physical safety, and property. The proportion of students misbehaving in the classes conducted by the teacher whose discipline they were describing was also noted.

To assess discipline techniques, students indicated the extent to which their

teachers used each of the following six discipline strategies:

- giving hints and non-directional descriptions of unacceptable behaviour (e.g., describing what students are doing wrong, and expecting them to stop);

- talking with students, and discussing the impact of their behaviour on others (e.g., getting students to change the way they behave by helping them understand how their behaviour affects others);

- involving students in classroom discipline decision-making (e.g., organising the class to work out the rules for good behaviour);

- recognising the appropriate behaviour of individual students or the class (e.g., rewarding individual students who behave properly);

- punishing students who misbehave and increasing the level of punishment if resistance is met (e.g., increasing the level of punishment if a misbehaving student stops when told, but then does it again);

- abusing students' rights (e.g., yelling angrily at students who misbehave).

Results

The most important findings of this study concern the relationship between student responsibility and discipline. As stated earlier, the results for this analysis are consistent for both levels of schooling. More responsible classes are associated with teachers who are less abusive and punishment oriented and who are seen as more likely to discuss misbehaviour with their students, involve students in decision-making, hint when students misbehave and recognise appropriate student behaviour.

Consequently it can be argued that the greater use of strategies such as discussion, recognition, hinting and involvement has resulted in less student misbehaviour and more responsibility. It may also be argued that teachers who use more punishment, more aggressive techniques such as yelling in anger and class detentions, and fewer inclusive techniques promote more misbehaviour and less responsibility in their students (Hyman & Snook, 2000; Lewis, 2004, in Press.

Alternatively, it may not be the teachers' behaviour that is influencing student responsibility but vice versa. This could occur in two distinct ways, depending on whether students behave respectfully or not. When students have more self-discipline, teachers may use more hinting, discussion and involvement to provide them a voice, since that voice can be trusted. Teachers may also be more likely to recognise their students' behaviour because more responsible students do more praiseworthy things. Further, there may be little recourse to aggression, as more responsible students do not confront teachers' authority. In such situations, teachers may consider themselves to be choosing discipline techniques suitable for their clientele.

When students have less self-discipline, a second rationale may explain how the level of responsibility displayed by their students influences teachers' disciplinary strategies. When students act less responsibly in class, teachers may become frustrated. They may feel confronted by their inability to ensure that all students are respectful of rights. Teachers may even become angry and hostile towards less responsible students. Angry or upset teachers may, as Glasser (1997) argued, not be interested in being reasonable towards

unreasonable and disrespectful students. They may find it unpalatable to recognise difficult students when they act appropriately. Rewarding 'Neanderthals' for being normal may not come naturally. Teachers may find it unpleasant and unproductive to spend time letting such students tell their side of events, in a bid to try and get them to acknowledge that their behaviour is unfair and needs to change.

Regardless of which of the explanations applies to these findings, the data show that in each setting teacher aggression and, to a lesser extent, punishment are ineffective in fostering student responsibility, whereas hinting, discussion, recognition, and involvement may be helpful in this regard. That being the case, it is problematic to note that teachers who are teaching less responsible students are less likely to be utilising productive techniques (such as hinting, discussing, recognising, and involving). It is equally problematic to see an increased use of aggression and punishment, given that they are, at best, of limited usefulness and, at worst, counterproductive.

There are other reasons to be concerned over teachers' relative unwillingness to use inclusive strategies such as discussion and involvement with more difficult students. First, a number of experienced educators recommend their use as the only effective way of producing responsible students (Metzger, 2002; Roeser, Eccles & Sameroff, 2000; Ryan & Patrick, 2001). As Pastor (2002) stated, when determining which discipline strategies are most desirable we need to note that

> [w]hen we separate our approach to discipline from our principles, we influence the ethical tone of

the school community. Valuing good character and seeking the development of personal responsibility determine the school's response to discipline problems. Discipline is not primarily a matter of keeping things under control by making choices for students… [I]t is a matter of helping students learn to make good choices and be responsible for those choices (p. 657).

Not only is the need to provide inclusive techniques recommended by experienced educators, so also is the need to avoid aggressive disciplinary techniques. For example, the two most important pieces of advice Margaret Metzger (2002) offers to teachers trying to ensure that students remain motivated to behave responsibly are, first, don't escalate, de-escalate; and second, let students save face. Clearly both of these strategies are incompatible with an aggressive teacher response to misbehaviour.

The second reason to ensure teachers increase their use of inclusive techniques and reduce their use of aggressive techniques when students are more difficult is the need to provide an appropriate model for children. For example, according to Fenstermacher (2001), the best way to create responsible or well-mannered students is to ensure that they are around responsible teachers.

> The manner of a teacher takes on particular importance, insofar as it serves as a model for the students…as something the student will see and believe proper, or imitate, or accept as a standard for how things will be (p. 644).

The final implication of this study relates

to an observation by Roeser et al. (2000), commenting on how to facilitate the likelihood of increasing teachers' use of inclusive discipline techniques while decreasing aggressive responses, even to the most difficult of students.

> Creating professional work environments where teachers feel supported by other professionals and school leaders in relation to their own needs for competence, autonomy, and quality relationships is essential to their decision to create these conditions for students (p. 466).

Teacher support

Facilitation of responsible classroom discipline practice by all teachers in a school may be achieved by way of a series of staff development activities.

First, staff need to examine the negative impact on students of aggressive discipline techniques such as sarcasm, group punishments, etc. Their negative impact on non-target children as well as misbehaving students should be noted.

After adequate discussion staff can be expected to provide support for a code of behaviour for teachers that specifies avoidance of such aggressive discipline strategies.

Such a code could also require teachers to allow students to have some input into rule definition in the area of behaviour management. In addition, it should make mandatory some systematic approach to providing recognition for students' responsible behaviour. Obviously the form these recognitions take depend to some extent on the age of the students. Ideally they may be negotiated with students but could be assumed to include descriptive praise or

encouragement, communication to parents or others, special activities or roles, control over time, and tangibles.

In addition to agreeing on the use of student involvement and recognitions, teachers should consider and agree on the need to discuss with misbehaving students the impact their behaviour has on the rights of others to feel safe and to have an opportunity to learn. Such a discussion would not take the form of a lecture by the teacher but would need to include statements about the 'problem', active listening, probably some confrontation of students' irrational ideas, negotiation of a plan for the future, and the setting of an evaluation and review period.

For a staff code of conduct to work effectively the culture of the school needs to become collegial to the extent that teachers manifesting unacceptable disciplinary strategies are seen as requiring support rather than condemnation. Recent research by Rogers (2002) indicates that within most schools there are teachers who want assistance and others who want to provide it. Unfortunately there is usually no way to minimise the perceived risk associated with the asking for, or the giving of, support.

Informing them that their colleagues are probably stressed by discipline can increase the likelihood of getting teachers to assist colleagues who are using aggressive techniques. Further, recent research (Lewis, 1999) indicates that such teachers are not likely to inform others of the stress they are experiencing as a result of the misbehaviour of students in their classes. Rather, such teachers are more likely to blame themselves, vary their eating or sleeping patterns, and get sick. Consequently, the identification of staff

utilising aggressive discipline techniques can be represented as a way of assisting stressed colleagues who, although requiring support, may not normally be expected to seek it voluntarily.

Some stressed staff avoid the possibility of becoming aggressive with students by refusing to confront them about their irresponsible behaviour. Consequently, it is helpful if the whole staff considers the range of expectations for student behaviour that should apply in the school and identify those expectations of highest priority. The staff then determine which, if any, expectations they should be obliged to pursue. The assumption is made that any teacher who fails to pursue these expectations is in need of support. Discussion then centres on the obligation of all staff to abide by a code of conduct that outlines not only which priority expectations for student behaviour have to be enforced by staff but also which discipline techniques need to be avoided.

To date, the author has facilitated at a number of schools the implementation of a program, whereby colleagues are offering support to staff who are known to be using aggressive discipline techniques such as repeatedly yelling in anger, sarcasm, sending students out of class without intermediate 'steps', labelling students and keeping classes in for detention, or who are failing to follow through on priority expectations for student behaviour. In these schools all staff have indicated how they would like to be notified if a problem were to arise with the way they were disciplining students. They have all nominated a 'buddy' who is expected to channel such communication. Schools maintain these programs because of the programs' perceived effectiveness. The first of these programs to be

implemented has been in place for 6 years.

In conclusion, encouraging teachers to build rather than destroy goodwill with students who are provocative is a challenging request. It will not be easy and can take many years of persistent effort accompanied by considerable support (Lewis, 2001). No matter how effective support is achieved, there is a need to support teachers, so that they can avoid becoming coercive in the face of increases in student misbehaviour and instead respond calmly and assertively while rewarding good behaviour, discussing with students the impact their misbehaviour has on others and involving them in some of the decision-making about rules and consequences. If teachers do not do this, it may mean less student time on task, less schoolwork learnt and, possibly more significantly, less responsible students.

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Literacy, behaviour and auditory processing: Building 'fences' at the top of the 'cliff' in preference to 'ambulance services' at the bottom[1]

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Abstract: Children who are inattentive or disruptive are at high risk of poor achievement progress, especially in literacy. Approximately 9% of school children have both literacy and externalizing behaviour problems, and the long-term consequences of these are costly emotionally, socially, educationally and economically. Many of these children are referred to paediatricians and psychologists to assess whether learning difficulties or attention deficits are contributing factors to their behaviour problems at school. Similarly, many are referred to audiologists to test 'hearing' in the event that their observed difficulties in listening and following instructions may be due to hearing impairment. However, following audiological screening, most of these children return normal audiograms, but continue to experience functional *auditory processing* (AP) difficulties in terms of reduced *ability to hold, sequence and process accurately what is heard*. In the context of evidence-based research findings, this paper provides: (a) the normative data for more than 10,000 primary school children (5-12 year-olds) in terms of two measured indicators of AP competence, namely, **digit span** and **sentence length**; and (b) key features of practical teaching strategies that have strong positive effects on both boys' and girls' literacy progress, their attentive behaviours in the classroom and general wellbeing. The findings from this research indicate that with common health and educational concerns, growing demands for the provision of 'ambulance services' at the bottom of the 'cliff' become increasingly difficult to justify when 'fences' could and should have first been built at the top.

1.0 Background and Context

Effects of the overlap between students' disruptive behaviour problems at school (particularly *inattentiveness*) and their poor achievement progress in literacy, are highly prevalent and resistant to intervention (Cantwell & Baker, 1991; Hinshaw, 1992; Rowe, 1991, 1997; Purdie, *et al.*, 2002; Rowe & Rowe, 1992a,b, 1997a, 1999, 2002; Sanson *et al.*, 1996). Approximately 9% of children and adolescents have both literacy and behaviour problems and the long-term consequences of these are costly emotionally, socially, educationally and economically (Barkley, 1995, 1996; Hinshaw, 1994; Rowe & Rowe, 2000; Rutter, 1974, 1985). Moreover, this overlap is problematic to the extent that what are essentially 'education' issues have become major 'health' and 'wellbeing' issues. Increasing numbers of parents and teachers are seeking help from health professionals for their distressed children whose behaviour problems are related to learning difficulties and especially failure to acquire initial and subsequent literacy skills.

The majority of children referred to Melbourne's Royal Children's Hospital (RCH) for assessment of behaviour problems and under-achievement in literacy have also been noted to have **functional** difficulties with processing auditory information. Although most of these children who are formally assessed by the Audiology Department at RCH return 'normal' audiograms, many continue to experience functional *auditory processing* difficulties. That is, when such children can hear well in terms of *auditory acuity*, it is recognised that they have a *functional* difficulty in processing what they hear.[2] Thus, *auditory processing* (AP) is defined as the ability to hold, *sequence and process accurately what is heard.* This ability to process auditory information is typically indicated by the number of pieces of information that are recalled accurately (*digit span*) and the length and complexity of a sentence (*sentence length*).

Digit span is used as a surrogate measure of a child's ability to process unrelated verbal information; i.e., the ability to recall accurately digits that are spoken one second apart without variation in voice intonation or 'chunking'. *Sentence length* is used as a surrogate measure for the **amount** of information a child can recall accurately. In contrast to *digit span* that is less dependent on familiarity with language, *sentence length* is not only dependent on familiarity with language, but also developmental age, the ability to listen, concentrate, intelligence, normal variation independent of intelligence, and the ability to process verbal information in the brain (*central auditory processing*; see: Byrnes, 2003; Chermak, 2001; Keith, 2000). However, it is important to note that the two measures of *digit span* and *sentence length* are **functional** indicators of a child's ability to process auditory information, rather than a **diagnosis**.

Despite the lack of reliable normative data on sufficiently large samples for these two indicators of AP, psychologists and speech pathologists commonly use indicators of *digit span* and *sentence length* as part of their assessments for *auditory memory* and for speech and language difficulties. Audiologists also use these indicators for children who demonstrate normal hearing, but who have been referred for assessment when teachers or parents have been concerned about apparent problems with 'listening'. Moreover, paediatricians have noted that many children referred with attentional difficulties for consideration of diagnoses for Attention Deficit Disorder (ADD) and/or Attention-Deficit/Hyperactivity Disorder (AD/HD) commonly have a poor ability to recall a sequence of digits. These professionals frequently observe that children with AP difficulties are disadvantaged in acquiring basic literacy skills, following and complying with verbal instructions, and are 'at risk' of dysfunctional externalizing behaviours (Rowe, Pollard & Rowe, 2003; Rowe, Rowe & Pollard, 2001).

The finding that many children (especially boys) have such difficulties has important practical implications for teaching and learning in the classroom (see Rowe, 2004a). In this context, evidence of a delay in AP development is indicated when a child does not appear 'to listen', and has difficulties in following verbal instructions or

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[2]Whereas the majority of children with AP problems do not have other learning difficulties, children with conditions such as Attention Deficit Disorder (ADD) and/or Attention-Deficit/Hyperactivity Disorder (AD/HD), specific learning difficulties, central language disorders or intellectual disability, often have difficulty with processing verbal information. Likewise, children for whom English is a second language may have a functional difficulty in processing verbal information, but this usually improves with familiarity with spoken English.

directions. In such circumstances, crucial teaching and learning 'milestones' are missed, especially if there is no adjustment to the length of instructions given. Moreover, children with such problems have difficulty acquiring letter-sound links (phonemic awareness) and basic phonological knowledge (Bradley & Bryant, 1983; Dodd *et al.*, 1995; Munro, 1997, 1998, 1999, 2000). Nonetheless, awareness by the parent and teacher of AP difficulties, and taking such difficulties into account when communicating with the child, results in marked improvement in the growth of literacy skills (Rowe, 2004a,b; Rowe, Pollard & Rowe, 2003).[3] Unfortunately, because assistance for many children with AP difficulties is frequently not sought until the later years of primary schooling, these children are distressed, and inevitably exhibit dysfunctional literacy and behaviour problems. Recent increases in referrals of children (mostly boys) with concerns related to poor achievement progress in literacy and inattentive behaviours during the early years of schooling, has highlighted the prevalence of AP difficulties at this earlier stage.

These findings have important implications for pedagogical practice, not merely for the education of boys, but for the experiences and outcomes of schooling by all students, including their psychosocial wellbeing (Rowe, 2003, 2004a; Rowe & Rowe, 2002). In addition to the effects of good 'first wave' teaching strategies for literacy acquisition, with support from an initial intervention program such as *Reading Recovery* (Clay, 1993a; Rowe, 1997), it is important to identify individual children who may require management strategies that can be implemented easily in the classroom. Since children with AP problems have minimal learning difficulties if material is presented in appropriate ways, a means of recognising these children early and preventing on-going difficulties seemed appropriate – albeit somewhat belated.

To this end, beginning in 1999, longitudinal, cross-validation and cross-sectional studies have been undertaken to: (1) assess the utility of a screening tool for administration by teachers to identify those children at school entry who may have AP difficulties; (2) provide normative data for two measured indicators of AP competence, namely, *digit span* and *sentence length*; and (3) assess the impact of teacher professional development on children's literacy achievement and attentive behaviours when appropriate classroom management strategies for AP difficulties are used. Since key findings from the initial longitudinal study have been reported in more detail elsewhere, they are not repeated here (see: Rowe, Pollard & Rowe, 2003; Rowe, Rowe & Pollard, 2001). Nevertheless, a brief outline of the sampling, design and methodological features relevant to the longitudinal, cross-validation and cross-sectional studies is warranted here.

2.0 Key features of the initial trial, longitudinal, cross-validation and cross-sectional studies

2.1 Initial trial study

As part of a trial of school entry screening procedures in Victorian government primary schools during 1999, a standardised screening protocol using a taped voice to measure *digit span* and recall of sentences of varying length (*sentence length*: 3-12 words; later extended to 25 words) were developed in collaboration with speech pathologists. These protocols were administered to 889 children who were in their first year of formal schooling (mean age 5.7 years). This initial 'trial' sample was drawn from 60 classes in 34 schools via a stratified, two-stage cluster-design, with 'probability proportional to size' (PPS).[4] Repeated measures of literacy development (*Concepts About Print*; Clay, 1993b) and behaviour (*Attentiveness*; Rowe & Rowe, 1997b, 1999) were also obtained from this 'trial' sample during November/December 1999, as well as from a matched 'reference' sample ('control') of 705 children drawn from 47 classes in 23 schools. Thus, two waves of literacy and behavioural data (May; Nov-Dec) were obtained for a total of 1604 children (5-6 year-olds). For more specific details of this initial study, including its major findings, see Rowe, Pollard and Rowe (2003).

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[3]In this context, the work of educational psychologist John Edwards highlights the negative effects of *ineffective* teaching and learning practices in a typical 'teacher-talk-dominated' classroom that he refers to as 'the sea of blah'. Edwards (2000) claims that there are 'thousands' of students throughout heir primary and secondary schooling who are "bobbing up and down like corks in a sea of classroom and teacher-generated blah" (pp. 4-5).

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[4]It should be noted that at the first stage of sampling, government Primary and P-12 schools were selected randomly, but proportional to their enrolment size (PPS) and their representation across all eight Victorian Education Regions. At the second stage of sampling, all School Entry children in at least one class in these selected schools were chosen for participation. The reason for such a sampling design was to ensure that all School Entry children in Victorian government schools during 1999 had an equal probability of selection, and that achieved sample estimates for key marker variables (e.g., *Gender* and *Language Background*) were within 95% confidence intervals for the target population. In contrast, the use of simple random sample of schools would have (by default) yielded a disproportionate number of small schools (see Ross, 1988).

2.2 Sample characteristics of the longitudinal, cross-validation and cross-sectional studies

During the years following the initial trial study (2000-2004), repeated measures, additional cross-validation and cross-sectional AP data have been obtained from a total 10,126 primary school-age children (age 4.7-12 years) for: *digit span, sentence length, behaviour* and *literacy achievement* (see below). Table 2.21 provides the sample characteristics by Year level, child *gender* and *Language Background* from the longitudinal and cross-validation data obtained for 7107 children's AP abilities in 40 schools. Table 2.22 provides similar information for the cross-sectional data obtained for a further 3019 children in the same 40 schools, during the fifth, sixth and seventh years of schooling.[5]

Table 2.21 Sample Characteristics of Longitudinal and Cross-validation Data Obtained for Children's Auditory Processing Abilities in 40 Schools, by Gender and Language Background

Year Level and Mean age	Language Background	Main Sample		Cross-validation sample		Total
		Males	Females	Males	Females	
1st Year (Entry) (Mean age = 5.7 years	ESB*	468	507	423	416	1814
	ESL#	70	73	63	56	262
	Totals	538	580	486	472	2076
2nd Year (Grade 1) (Mean age = 6.5 years	ESB*	568	620			1188
	ESL#	88	106			194
	Totals	656	726			1382
3rd Year (Grade 2) (Mean age = 7.6 years)	ESB*	566	618	295	279	1758
	ESL#	88	109	51	42	290
	Totals	654	727	346	321	2048
4th Year (Grade 3) (Mean age = 8.5 years)	ESB*	358	350	360	358	1426
	ESL#	45	56	45	29	175
	Totals	403	406	405	387	1601
Totals		2251	2439	1237	1180	7107

* ESB: English-speaking background   # ESL: English as a second language

Table 2.22 Sample Characteristics of Cross-sectional Data Obtained for Children's Auditory Processing Abilities in 40 Schools, by Gender and Language Background

Year Level and Mean age	Language Background	Males	Females	Total
5th Year (Grade 4) (Mean age = 9.5 years	ESB*	478	495	973
	ESL#	27	36	63
	Totals	505	531	1036
6th Year (Grade 5) (Mean age = 10.5 years)	ESB*	483	449	932
	ESL#	32	29	61
	Totals	515	478	993
7th Year (Grade 6) (Mean age = 11.5 years)	ESB*	472	465	937
	ESL#	25	28	53
	Totals	497	493	990
Totals		1517	1502	3019

* ESB: English-speaking background   # ESL: English as a second language

[5]Further cross-sectional AP data are currently being collected from students in their eighth to tenth years of schooling. To date, data are available for 1240 secondary school students (Grade 7: n = 420; Grade 8: n = 421; Grade 9: n = 399). Since the data from these collections are not complete at this stage, the relevant findings have yet to be reported.

2.3 Methods

As indicated earlier in section 1.0, a key objective of the studies described here was to assess the impact of teacher professional development (PD) on children's literacy achievements and their attentive behaviours when appropriate classroom management strategies for children with AP difficulties are used. Hence, a brief outline of the PD program, the measures used are helpful.

Teacher professional development. Concurrent with the first data-collection phase of the initial study in the 34 'trial' schools, teachers were provided with a one-hour PD program presented by an experienced professional from the Audiology Department of Melbourne's RCH. This program was designed to: (1) raise teachers' awareness of the normative development of children's auditory capacities to process oral/verbal information, (2) provide training in the standardized administration of the two audiological screening protocols, and (3) provide instruction on practical management and intervention strategies for use by teachers in the classroom. For 'control' purposes, teachers in the 23 'reference' schools were not provided with these three 'intervention' elements.

Salient elements of the PD program used in the study with teachers in the 'trial' schools included consciousness raising and training in the following classroom-based strategies:

- Attract the child's attention;
- Use short sentences ('chunked'), maintain eye contact, use visual cues and wait for compliance;

- PAUSE between sentences. If repeats are required, restate simply and provide regular encouragement;
- Monitor the child; e.g., if 'blank look' response, stop and begin instruction again;
- Establish hearing, listening and compliance routines.

2.4 Measured variables

Throughout all phases of the longitudinal, cross-validation and cross-sectional studies, two indicators of children's auditory processing capacities have been obtained by teachers trained in the screening protocols (~ 7 minutes. per child), and teacher-rated measures of their Attentive behaviours in the classroom:

DSPAN *Digit Span*: Score on a standardized, audiological screening device used to test auditory memory; categorized into four groups: ≤ 2 digits, 3 digits, 4, digits, ≥ 5 digits (r_{t-rt} = 0.95).[6]

SENTL *Sentence Length*: Score on a standardized, orally-administered protocol, indicating the number of words correctly recalled from a presented sentence. Scores on this continuous variable typically range from 2-12 at School Entry level (r_{t-rt} = 0.96) – see footnote 6.

ATTENT Score on the *Inattentive-Attentive* scale of the *RBRI 12-Item Teacher Form* (Rowe & Rowe, 1997b, 1999). Continuous scores on this scale range from 1 (min.) to

5 (max), after fitting a one-factor congeneric measurement model to the 4 item-response indicators to compute proportionally weighted factor score regression coefficients for the constituent items; Reliability: r_c = 0.96; α = 0.93 (for relevant methodological details, see: Rowe, 2002; Rowe & Rowe 1999).

Prior to administration of the auditory screening protocols, each child in their first year of schooling (in both 'trial' and 'reference' schools) was screened for hearing difficulties. If a child's hearing was not adequate, the auditory screening did not proceed and a recommendation was made that the child be referred for formal audiological assessment. In addition to *Language Background* (i.e., ESB–English-speaking background; ESL–English as a second language) and *Gender*, data already available at the schools on the following literacy measures were obtained on two occasions (May and Nov-Dec) for children in both the 'reference' and 'trial' schools:

CAP *Concepts About Print* (Clay, 1993b): Score on a standardized literacy screening protocol for early school entry. The observed score is a continuous variable with a typical score range 0-24 at this level of schooling (5-6 year-olds); reliability: α = 0.92. This measure was also used for children in the early and later stages of their second year of schooling.

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[6] The assessment protocols for *Digit Span* and *Sentence Length* are provided in Appendix A (p. 20) and Appendix B (p. 21) of the full paper, available in PDF format from ACER's web site at: http://www.acer.edu.au/research/programs/learningprocess/html.

For children in their subsequent years of primary schooling (as participants in the longitudinal, cross-validation and cross-sectional studies), the following literacy measures (already available at the participating schools) have been used:

TEXTL   *Text Level*: Score on the level of graded reading texts capable of being read by a child (Clay, 1993b). This measure was used towards the end of the first year of schooling, and again during the second and third years of schooling.

BURT   *Burt Word Reading Test* (Gilmore *et al.*, 1981): A continuous score (range: 0-110) providing a measure of reading ability in terms of 'word recognition'; reliability: $\alpha = 0.97$. This measure was used for children in their second to fourth years of schooling.

SA Sp   *South Australian Spelling Test* (Fryar, 1997): A continuous score (range: 0-70) for the number of words of increasing difficulty presented orally in sentences that are spelt correctly. This measure was used in the third to the seventh year of schooling.

DART   The reading assessment forms from *DART English* (Bodey *et al.*, 1997; Forster *et al.* 1994): A continuous score on Rash-calibrated assessment scales for middle and upper primary school children, as well as for early to middle secondary students. These measures are designed to provide developmental and diagnostic information about children's developing achievement progress in reading competence. DART reading measures have been used for children from their fourth to tenth year of schooling.

It should be noted that in instances where two or more literacy measures were used to assess children in any one year of schooling, weighted composite scores for *Literacy* achievement were computed and subsequently normalized as Normal Equivalent Deviates (NEDs) under the Normal distribution. This was done to ensure that the composite scores were scaled on a common metric. For relevant methodological approaches to the computation of such composite variables, see Rowe (2002).

3.0 Summary of major findings

3.1 Age-based norms for *Digit Span* and *Sentence Length*

Given that there is often wide variation in child age at any given Year level of schooling, the following norms for *digit span* and *sentence length* are **age-based**. Moreover, for simplicity and to assist interpretation, the normative data are presented graphically. More detailed tabular versions of these data are given in Appendix C (pp. 22-23) of the full paper.

Figure 3.11 presents the results of fitting a multiple analysis of variance (MANOVA) model to the data on *digit span* and *sentence length* for 9028 children from English-speaking backgrounds (ESB), by gender (4471 males; 4557 females) and eight age groups. [Note that the plots consist of mean-point estimates at each age group, bounded by 95% confidence intervals]. As expected, the MANOVA results for ESB children yielded significant main effects for the 8 levels of **age** [in favour of older children: Wilks lambda (λ) = 0.582; F(14, 16292) = 362.11; $p < 0.000001$] and for the two levels of **gender** [in favour of females: Wilks λ = 0.996; F(2, 9011) = 16.24; $p < 0.00001$]. However, the **age × gender** interaction effect was not significant at the 0.05 α level [Wilks λ = 0.997; F(14, 16292) = 1.581; $p = 0.076$].

Figure 3.12 presents the corresponding MANOVA results for 1098 children (534 males; 564 females) for whom English is a second language (ESL). The analysis yielded a significant main effect for the 8 levels of **age** [Wilks λ = 0.568; F(14, 2683) = 42.06; $p < 0.00001$: again in favour of older children], but the **gender** effect was not significant [Wilks λ = 0.999; F(2, 1081) = 0.279; $p = 0.756$]. Similarly, the **age × gender** interaction effect was not significant [Wilks λ = 0.991; F(14, 2683) = 0.595; $p = 0.871$].
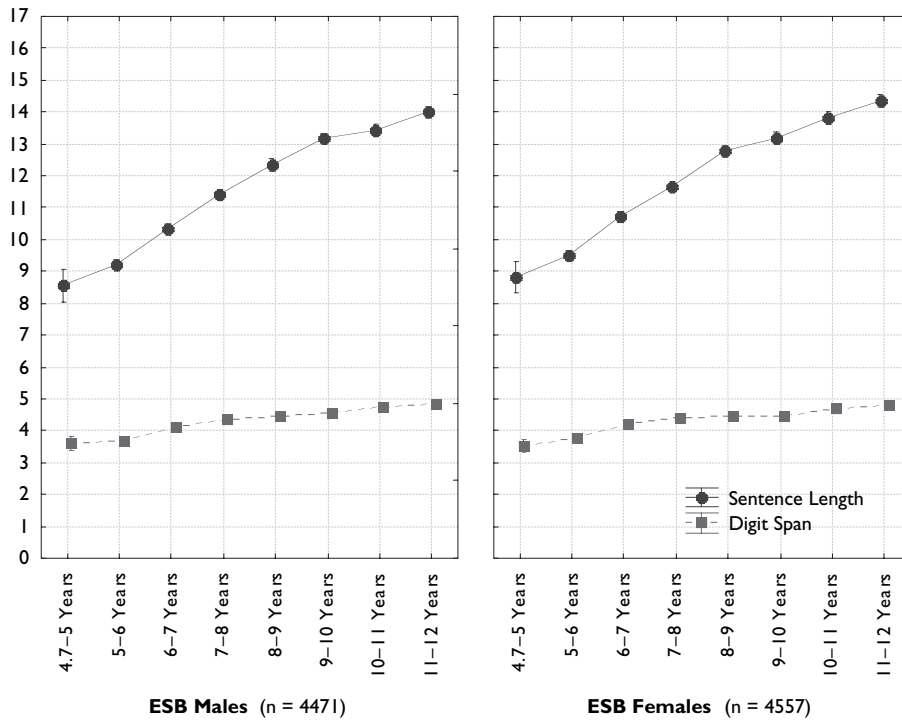
Figure 3.11 Plot of mean-point estimates bounded by 95% confidence intervals for *Digit Span* and *Sentence Length*, by 8 age groups: ESB males and females
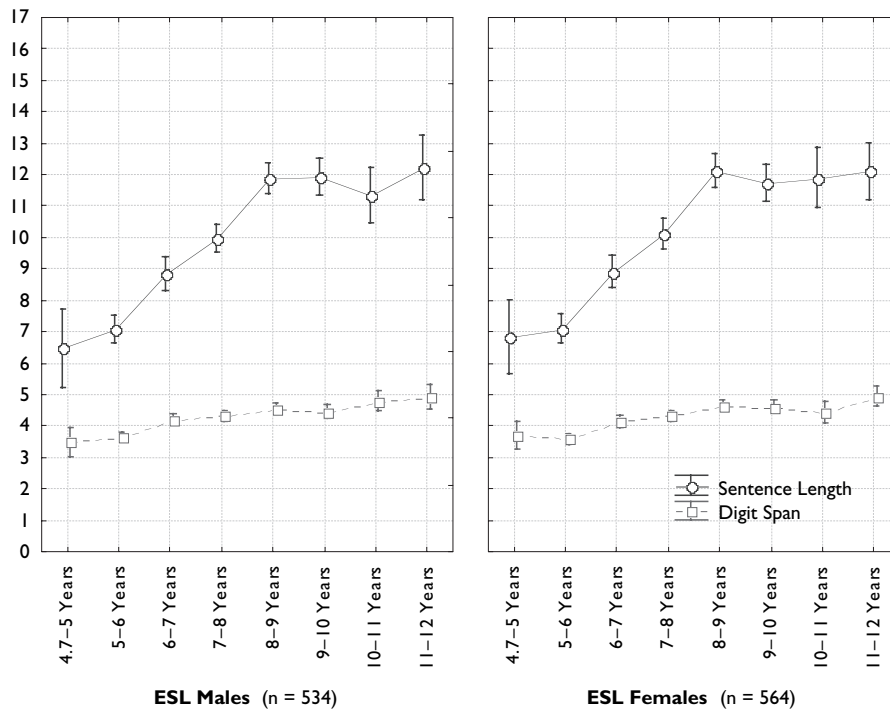
Figure 3.12 Plot of ' estimates bounded by 95% confidence intervals for *Digit Span* and *Sentence Length*, by 8 age groups: ESL males and females

An interesting feature of the findings presented in Figures 3.11 and 3.12 is that compared with *sentence length*, the data for *digit span* indicates an almost identical mean pattern of variation across the age groups for both ESB and ESL children. This result underscores the utility of *digit span* for the assessment of *auditory memory* and as an indicator of *auditory processing* (AP) ability that is less dependent on familiarity with spoken English.

As an indication of the relationship between *digit span* and *sentence length*, Figure 3.13 provides a scatter plot of the obtained raw scores for *digit span* and *sentence length* from 10,126 primary school-aged children (age range: 4.7-12 years), together with the regression 'line of bet fit' – bounded by 95% confidence interval bands. Note that the correlation between *digit span* and *sentence length* ($r = 0.573$; $r^2 = 0.328$) is significant, accounting for 32.8 % of their mutual variance.

Digit Span : Sentence Length : $r = 0.573$, $p < 0.00001$; $r^2 = 0.328$; $y = 2.1268 + 0.1896*x$

Sentence Length (No. of words)
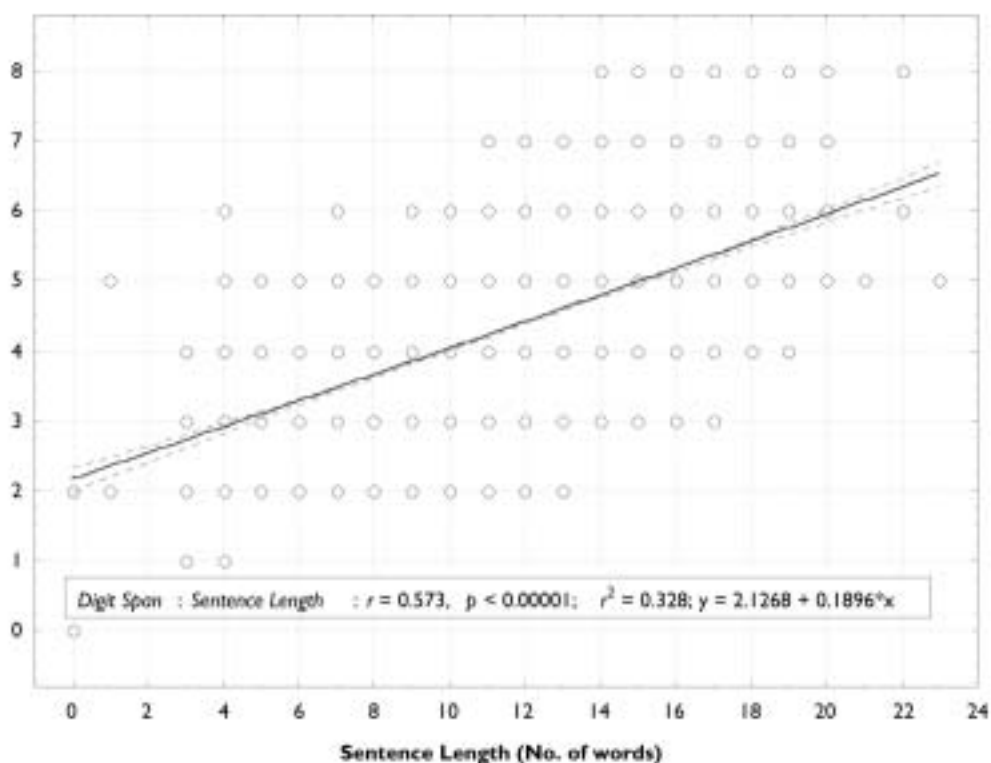
Figure 3.13 Scatter plot of *Digit Span* and *Sentence Length* for 10,126 children age 4.7-12 years, showing the regression 'line of best fit', bounded by 95% confidence interval bands (dotted lines)

To assist educational and health professionals with a straightforward reference to the available normative data for the two AP indicators provided here, Figure 3.14 provides a summary of the percentage cumulative frequencies, by seven age groups, for children from whom complete data for *sentence length* has been obtained.[7] More detailed normative information is presented in Appendix C (pp. 22-23) of the full paper, available from ACER's web site at:
http://www.acer.edu.au/research/programs/learningprocess/html.

Table 3.11 provides a summary of the median values (i.e. 50th percentile values) for both *digit span* and *sentence length* across each of the eight age groups.[8]

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[7]For simplicity, the data from the 4.7-5 years age group (n = 147) was combined with those from the 5-6 year age group (n = 1929) to create a 4.7-6 years age group (n = 2076), as given in Figure 3.14.

[8]Note that the results of data analyses presented in Section 3, including the graphical representations, were obtained from using *STATISTICA* (2003).
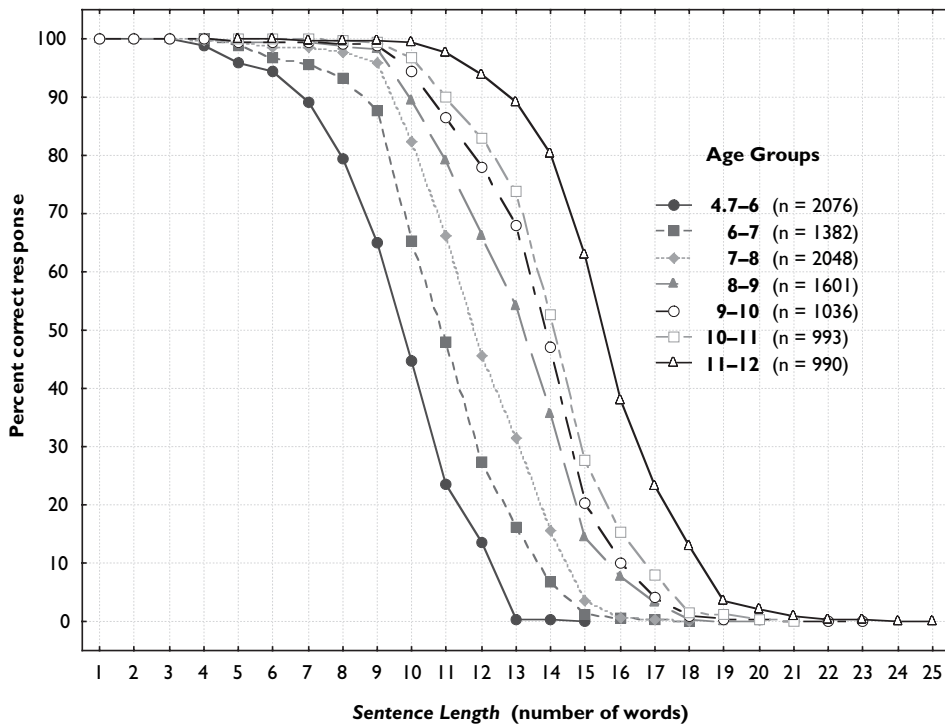
Figure 3.14 Percentage cumulative frequency plots of correct responses for each *Sentence Length*, by seven age groups

An interesting feature of the normative data summarized in Figure 3.14 is that 30% of children in the age groups 4.7-6, 6-7, 7-8, 8-9 and 9-10 years, were unable to accurately process sentence lengths of 9, 10, 11, 12 and 13 words, respectively. Together with the data presented in Table 3.11, these finding have important practical implications for pedagogical practice in the classroom, particularly in respect of the length of sentences that teachers use for communicating verbal instructions and presenting teaching material.

Table 3.11 Median values for *Digit Span* and *Sentence Length* by Eight Age Groups

Age Group	N	Digit Span (Median value)	Sentence Length (Median value)
4.7-5 Years	147	4 digits	8 words
5-6 Years	1929	4 digits	9 words
6-7 Years	1382	4 digits	10 words
7-8 Years	2048	4 digits	11 words
8-9 Years	1601	4 digits	13 words
9-10 Years	1036	4 digits	13 words
10-11 Years	993	5 digits	14 words
11-12 Years	990	5 digits	14 words
Total	**10126**		

3.2 The predictive validity of the AP screening protocols of *digit span* and *sentence length*

The evidence for the predictive effects of the AP screening protocols using *digit span* and *sentence length* for children at School Entry are strong – for both their literacy achievement progress and *Attentive* behaviours during the subsequent years of schooling. To illustrate the predictive validity and utility of AP screening at School Entry, two examples suffice here.

First, Figure 3.21 summarizes the results of fitting a MANOVA model to the repeated measures of *sentence length*, by four categories of *digit span* at School Entry. These data were obtained from a follow-up of 681 children with complete data in the 'trial' schools, from their first to fourth years of schooling. In brief, the results indicated that the effect of *digit span* measured at School Entry was strong predictor of children's ability to process verbal information as measured by *sentence length* during their subsequent three years of schooling [*Digit Span* effect: Wilks lambda (λ)= 0.670, $F(12, 1416) = 19.25$, $p < 0.0001$].
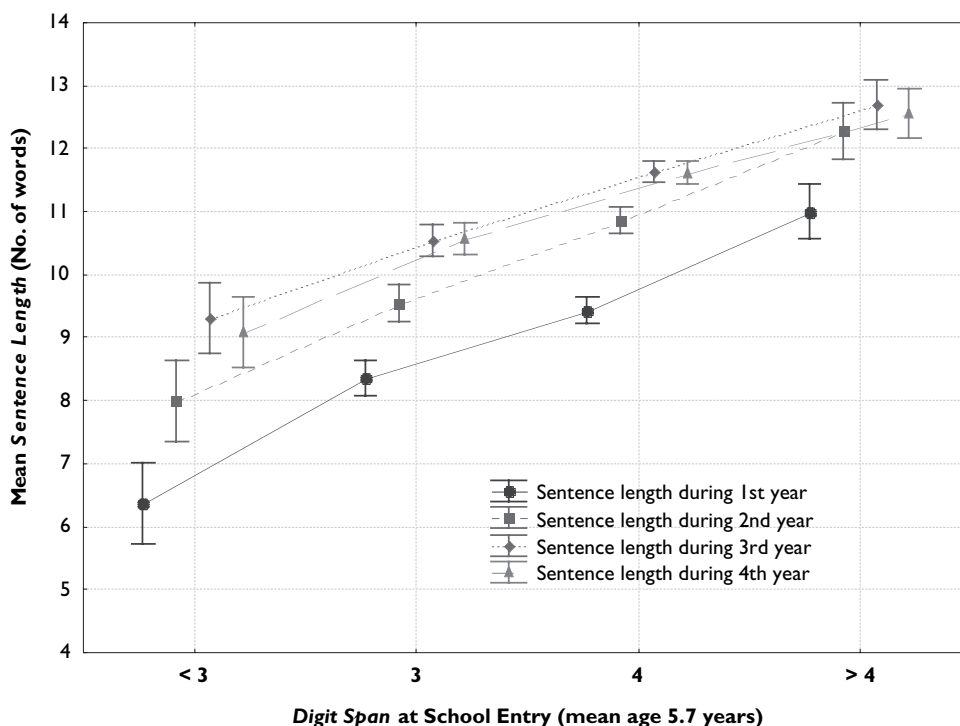
Figure 3.21 Plot of mean-point estimates of sentence length bounded by 95% confidence intervals at the fourth year of schooling, by four levels of digit span at School Entry

Second, the results summarized in Figure 3.22 derive from a multiple analysis of covariance (MANCOVA) model fitted to two literacy achievement measures and *Attentiveness* – obtained from 880 children in the 'trial' schools with complete data during their first four years of schooling, by four categories of *digit span* at School Entry and two categories of Gender. The results (adjusted for age as a covariate) yielded significant main effects on the standardized literacy achievement and *Attentiveness* measures for: **Digit Span** at School Entry [in favour of those children with greater AP capacity at School Entry: Wilks $\lambda = 0.845$; $F(9, 1611) = 12.82$; $p < 0.00001$], and for **gender** [in favour of females: Wilks $\lambda = 0.972$; $F(3, 662) = 6.41$; $p < 0.001$]. However, the **Digit Span** × **gender** interaction effect was not significant at the 0.05 α level [Wilks $\lambda = 0.992$; $F(9, 1611) = 0.564$; $p = 0.828$].
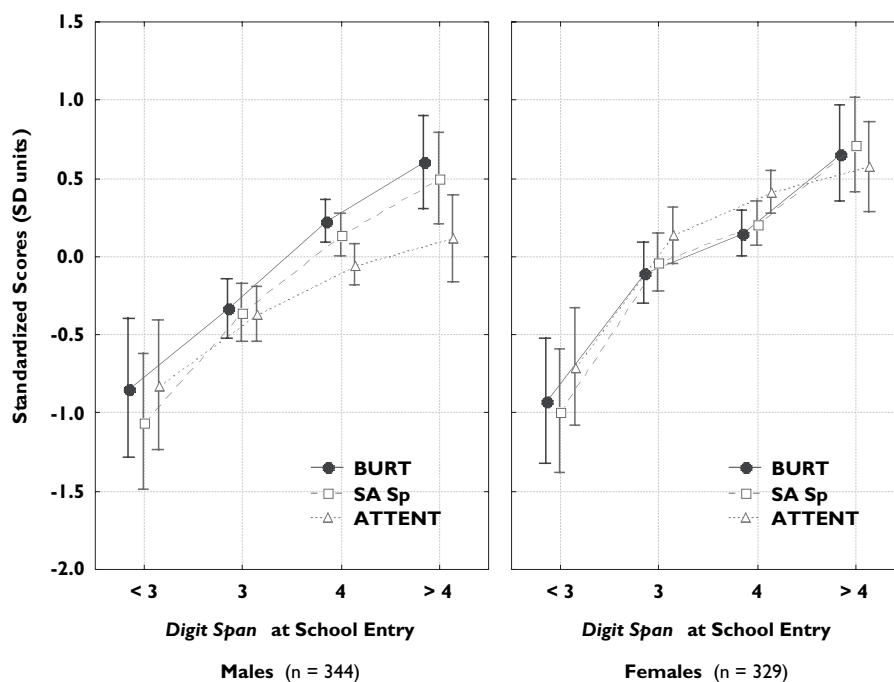
Figure 3.22 Plot of mean-point estimates for *literacy* (BURT, SA Sp) and behaviour (ATTENT) *measures* bounded by 95% confidence intervals at the fourth year of schooling, by four levels of *digit span* at School Entry

In summary, further findings related to the predictive utility of auditory processing (AP) screening at School Entry indicate that:

- At School Entry, 7% of children had a *digit span* of ≤ 2 digits and a *sentence length* of less than 8 words. An additional 15% were 'at risk' of literacy under-achievement during their three subsequent years of schooling since they either had a *digit span* of 3 digits or *sentence length* of ≤ 8 words. Approximately 50% of children with poor literacy outcomes (TEXTL ≤ 3 and/or CAP scores ≤ 12) at the end of their first year of schooling were identified by the AP screening.

- Sixty one percent (61%) of children at School Entry with poor AP scores (i.e., ≤ 3 *digit span* and/or a *sentence length* of < 8 words) had poor literacy achievement and *Attentiveness* scores in their second, third and fourth years of schooling.

- Of those children from ESL backgrounds with poor literacy outcomes at the end of their first year of school, 90% were identified by the AP screening at School Entry. Moreover, 66% of those with poor literacy and *Attentiveness* outcomes in their fourth year of schooling were identified by AP screening at School Entry.

- Children identified with poor AP abilities during their first and second years of school had three times the 'risk'[9] of poor literacy achievement and attentive behaviour outcomes in their two subsequent years (and beyond).

3.3 The impact of teacher professional development

As already noted in sections 1.0 and 2.3, a major objective of the studies described here was to assess the impact of teacher professional development (PD) on children's literacy achievements and their attentive behaviours when appropriate classroom management strategies for children with AP difficulties are used, namely, those outlined in section 2.3 above. Illustrations of the magnitudes of this impact for children's literacy achievements and attentive behaviours are provided in Figures 3.31 to 3.33.

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[9] The index of **Relative Risk (RR)** used here is commonly used by epidemiologists. In the present context, the index is calculated as the **ratio** of the prevalence of poor literacy and behaviour outcomes in children with AP difficulties, to the prevalence of poor outcomes in children who do not have AP difficulties. For specific computational details and applications, see: Kleinbaum *et al.* (1982).

Figure 3.31 Plot of mean-point estimates for 4 repeated measures of CAP for males and females, bounded by 95% confidence intervals, from children in 'reference' and 'trial' schools

The findings summarized Figure 3.31 were obtained from a multiple analysis of variance (MANOVA) model fitted to the 4 repeated measures of *Concepts About Print* (CAP) – obtained from 885 children in the 'trial' and 'reference' schools with complete data during their first three years of schooling. The results (adjusted for age as a covariate) yielded significant main effects on the CAP literacy achievements for: **Trial/Ref** groups [in favour of those children in the 'trial' schools whose teachers had received AP professional development: Wilks λ = 0.936; $F(4, 878)$ = 15.11; $p < 0.00001$] and for **gender** [in favour of females: Wilks λ = 0.983; $F(4, 878)$ = 3.81; $p < 0.01$]. Furthermore, the **Trial/Ref × gender** interaction effect was also significant at the 0.05 α level [Wilks λ = 0.989; $F(4, 878)$ = 2.40; $p < 0.05$].

Despite the 'flattening out' of the CAP scores by children in their third year of school (CAP4) due to an expected 'ceiling effect' of CAP for children at this stage of schooling, the results clearly indicate the positive effects of teacher PD related to children's AP processing capacities during the first three years of schooling – particularly for boys.

Similar analyses of the data obtained from repeated administrations of the *Burt Word Reading Test* (BURT) to 1386 children in the 'trial' and 'reference' schools during their third and fourth years of schooling. The results of fitting a MANCOVA model to the obtained data are summarized in Figure 3.32.
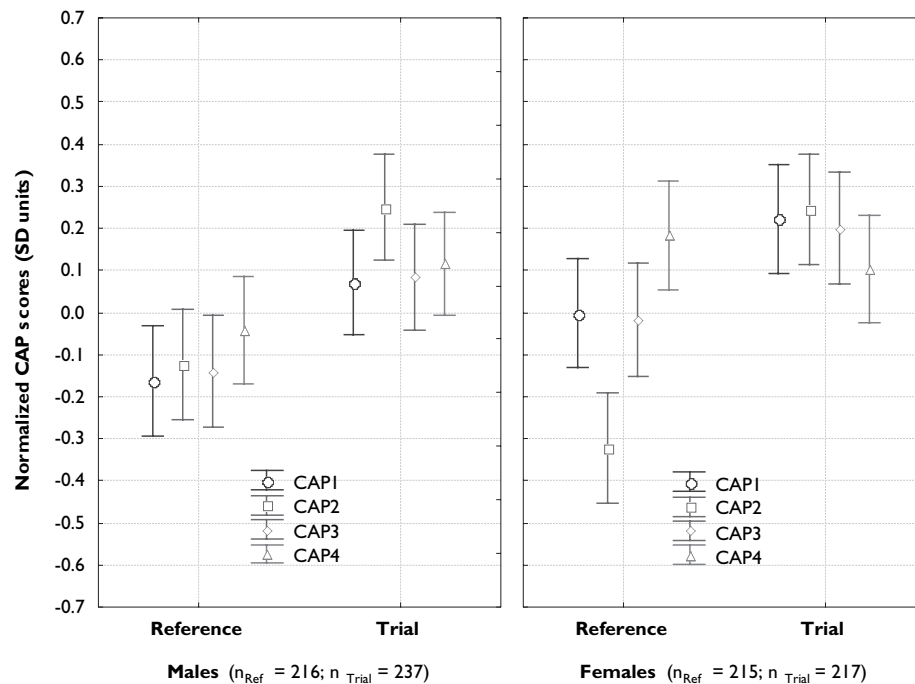
Figure 3.32 Plot of mean-point estimates for 2 repeated measures of BURT for males and females, bounded by 95% confidence intervals, from children in 'reference' and 'trial' schools

The results (adjusted for age as a covariate) yielded significant main effects on the BURT scores for **Trial/Ref** groups [in favour of those children in the 'trial' schools whose teachers had received AP professional development: Wilks λ = 0.975; $F(2, 1381)$ = 17.45; p < 0.00001] and for **gender** [in favour of girls: Wilks λ = 0.995; $F(2, 1380)$ = 3.19; $p < 0.05$]. However, the **Trial/Ref × gender** interaction effect was not significant.

A further MANCOVA model was fitted to the four repeated measures for *Attentiveness* – the results of which are presented in Figure 3.33. The results (adjusted for age as a covariate) yielded significant main effects on the ATTENT scores for **Trial/Ref** groups [in favour of those children in the 'trial' schools whose teachers had received AP professional development: Wilks λ = 0.990; $F(4, 1681)$ = 3.92; $p < 0.05$] and for **gender** [in favour of girls: Wilks λ = 0.925; $F(4, 1681)$ = 34.03; $p < 0.00001$]. The **Trial/Ref × gender** interaction effect was not significant.

Three further results are of interest. First, there were significant differences in the improvements in literacy progress and attentive behaviours for both ESL and ESB children in the 'trial' schools compared with their counterparts in the 'reference' schools. Second, variation the literacy achievements for children in the 'trial' schools decreased over time compared with those of children in the 'reference' schools.

Third, after adjusting for children's intake factors (i.e., age, gender, Language Intake and initial achievement), the effect on children's literacy achievement progress of being in a 'trial' school (compared with being in a 'reference' school) was a significant + **0.31** standard deviations (SDs). These results were obtained from fitting an explanatory two-level model [i.e., children (level-1) within schools (level-2)] to the weighted composite literacy achievement data for children in their fourth year of school, adjusted for their initial achievement on *Concepts About Print* (CAP1) and intake factors, followed by a multilevel analysis of school-level residuals. For outlines of such procedures, see Goldstein (2003) and Rowe (2004c). A graphical presentation of these results is given in Figure 3.34, using *MLwiN* (Rasbash *et al.*, 2003).
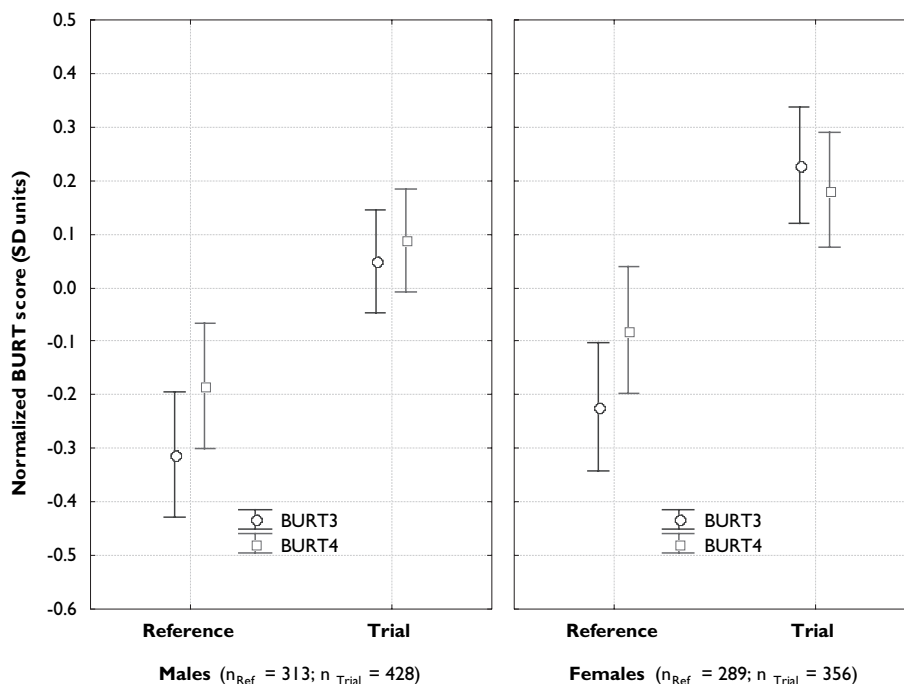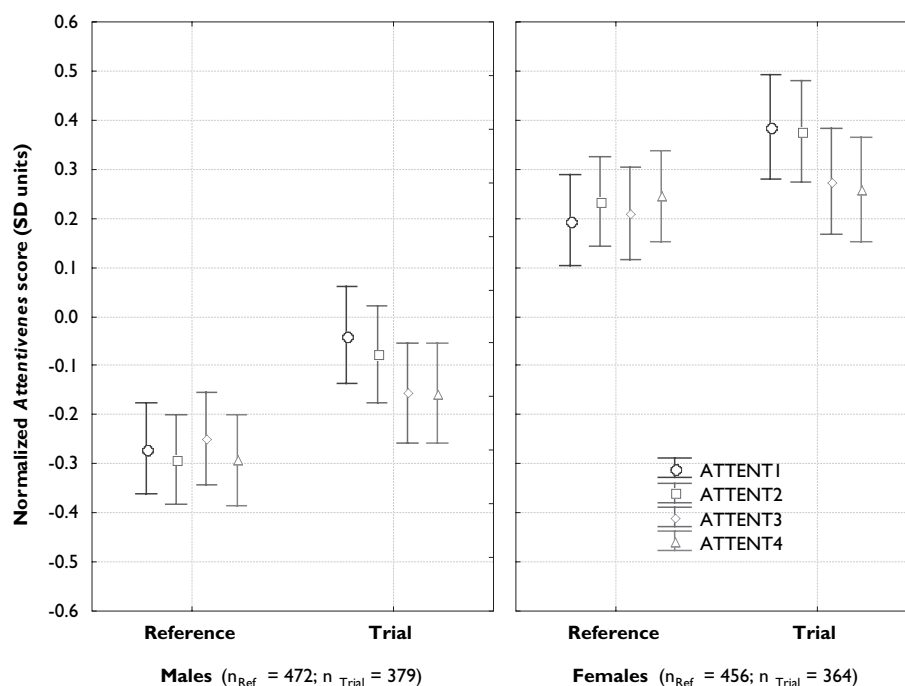
Figure 3.33 Plot of mean-point estimates for 4 repeated measures of Attentiveness (ATTENT) for males and females, bounded by 95% confidence intervals, from children in 'reference' and 'trial' schools
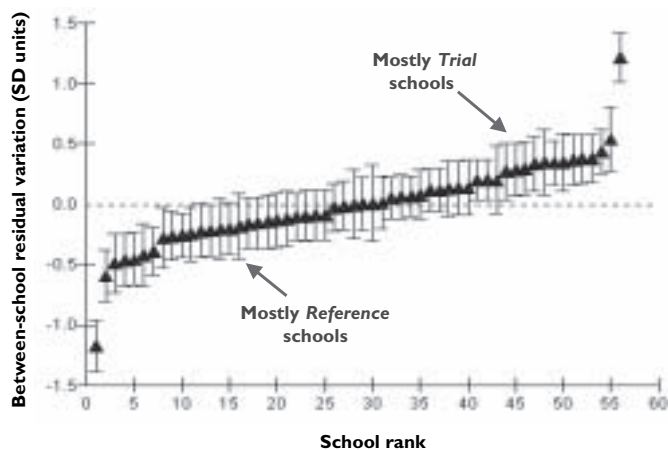
Figure 3.34 Plot of adjusted mean-point school-level residuals for literacy achievement, bounded by 95% confidence intervals

These results indicate that the auditory processing PD and AP screening procedures undertaken by teachers in the 'trial' schools had significant **value-added** effects on children's literacy achievement progress. Interestingly, teachers in the 'trial' schools who received the PD were generally unaware of this aspect of child development and that it has such a strong, positive impact on children's literacy achievement progress, as well as their attentive behaviours in the classroom. Indeed, teachers found it particularly enlightening to observe the responses of children exposed to the AP screening procedures, and were challenged to consider the implications for presentation of verbal instructions and teaching materials in the classroom.

4.0 Summary of key findings

- **Auditory processing is important for literacy and behaviour.** Children's auditory processing capacities are strongly linked to their initial and subsequent literacy progress, as well as to their attentive behaviours in the classroom.

- **Auditory processing screening and related teacher PD works!** Data obtained from administration of the AP screening protocols have strong predictive validity and utility. The evidence indicating significant improvements in children's literacy progress between 'trial' and 'reference' schools – for both ESL and ESB children – emphasises the importance of building pedagogical capacity in teachers as an integral part of their initial education and training, as well as via on-going strategic professional development. Compared with children in the 'reference' schools, variations in literacy achievement progress for children in the 'trial' schools decreased significantly over a 6-month period, and beyond. In the absence of such screening and PD (in the 'reference' schools), the attentive behaviours of under-achieving boys deteriorated.

Follow-up of 'at-risk' children is crucial.

- **Auditory processing screening by teachers was well accepted and recommended for inclusion in School Entry Assessment procedures.** Teachers strongly endorsed the value of the AP professional development, since many claimed to be unaware of typical variations in children's auditory processing abilities and the implications for classroom practice. The screening for auditory processing at school entry was well accepted by the teachers and the information gained in association with the professional development had a marked effect on literacy outcomes for the whole class. Furthermore, auditory processing ability at School entry was a strong predictor for both literacy achievement and behaviour, and the general effect of the PD intervention was particularly marked for ESL children and for boys' attentive behaviours in the classroom.[10]

5.0 Concluding comments

The findings arising from this study have important implications for initial teacher education and training, as well as for teacher in-service professional development. Likewise, the findings should have important influences on shaping educational policy and practice for the early and middle years of schooling. In this regard, an important outcome of the study to date has been an *Auditory Processing Assessment Kit* produced jointly by the Department of Education and Training and the Royal Children's Hospital, Melbourne (Victoria, 2001). The initial version of this was distributed to Victorian government primary schools in the first week of February 2001. The kit contains audio and video materials designed to support early years teachers to administer the *Auditory Processing Assessment Procedure* as part of 'Prep-Entry Assessment' protocols. In particular, the materials consist of a step-wise procedure for assessing children's auditory processing capacities, a teacher professional development component with background information, and practical classroom management strategies (as summarized above).

An up-dated version of this kit is currently being developed jointly by researchers at the Royal Children's Hospital (Melbourne) and the Australian Council for Educational Research. This version (expected to be completed by early December 2004) extends the AP screening protocols for use by teachers of students from the first to the tenth years of schooling (i.e., 5-15 year-olds).

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[10]It is interesting to note that **Recommendation 5** from the report of the parliamentary *Enquiry Into the Education of Boys* (Commonwealth of Australia, 2002, pp 107) reads:

The Committee recommends that:

(a) all State and Territory health authorities ensure that kindergarten children are fully tested for hearing and sight problems; and

(b) the Commonwealth and State and Territory governments jointly fund the implementation of the strategies used in the Victorian study on auditory processing in primary schools throughout Australia. Implementation should include:
- professional development for all primary school teachers to raise awareness about the normal development of auditory processing in children;
- the provision of the relevant auditory screening tests and training to equip teachers to administer preliminary tests with referral to specialised support where needed; and
- professional development for teachers in practical classroom management and teaching strategies to address the needs of children with auditory processing difficulties.

The research work of neurophysiologists at the Australian National Acoustic Laboratories is worth noting here. In particular, the findings of LePage and Murray related to **auditory capacity** derive from **otoacoustic emission tests** on 3000 clinic referred persons aged 2-80 years (see: LePage, 2002; LePage & Murray, 1998, 2002, 2004; Murray & LePage, 1993). [Note that an *otoacoustic emission test* measures the reaction time of an ear; i.e., how quickly the ear responds to streams of sounds such as speech]. Analyses of the available data indicate that although there is a notable decline in auditory processing ability with age for both males and females, after the age of four years males have significantly less ability than females to process auditory 'streams' of sound such as speech. LePage (2002) notes:

> The overwhelming fact … is that from about the first decade of life the ears of boys are effectively older than the ears of girls. They process sounds more slowly and provide less information to the brain to be analysed. … We are saying that, given our findings, it is not reasonable to expect that boys, on average, will absorb class teaching material as readily as girls (cited in Commonwealth of Australia, 2002, pp. 104-105).

Whereas this evidence has yet to be confirmed with children and adolescents from the 'normal' population, it raises several issues requiring further investigation.

Finally, in the context of common health, wellbeing and educational concerns with children, growing demands for the provision of 'ambulance services' at the bottom of the 'cliff' become increasingly difficult to justify when 'fences' could and should have first been built at the top. Clearly, such 'fences' **can best** be achieved by **building teachers' pedagogical skills** and **capacities** that meet the developmental and learning needs of their students. But these capacities and skills will not be realized until teachers are at least in receipt of quality initial education and training, as well as strategic professional development support that are commensurate with the invaluable contributions they are able make to the enrichment of students' wellbeing and 'life chances' (see: Ingvarson, 1998, 2003; Rowe, 2003, 2004a,b). In the interests of children's educational progress, emotional and social wellbeing, as well as cost effectiveness, it is vital that education and health policies/practices be based on the evidence reported here.

Acknowledgements

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Individual and school influences on interdependence

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Over a period of more than 20 years Dr. Ainley has provided a number of policy-oriented reports on primary, secondary and higher education to State and Commonwealth education authorities. He has expertise in the investigation of school influences on a range of student outcomes including participation in senior secondary and higher education. His reports have been widely used by education authorities in the review and development of Australian educational policy and practice.

Dr. Ainley is the principal author of a report (Schools and the Social Development of Young Australians) that provides a national picture of student responses to issues in, and the ways in which schools provide for, the affective development of young people. This work is a development from a previous program of research on affective aspects of schools. Over a number of years he has maintained a continuing involvement in research on factors that influence the quality of school life for students in primary (Primary Schooling in Victoria) and secondary schools (School Organisation and the Quality of Schooling). He has been involved in the Longitudinal Surveys of Australian Youth that provide information to governments and education authorities about changing patterns of participation in higher education in Australia.

One of the major developmental purposes of schooling is that of independence which is seen as an outcome of competence and confidence. The capacities for independent thought, independent judgment and independent action are highly valued. However, a concern with developing independence needs to be balanced by a concern with interdependence. Schools, and families, have long recognised that they have a role in the development of interdependence. A sense of interdependence is at the heart of the social outcomes of schooling because it concerns relations with other individuals, groups and institutions. This paper examines individual and school influences on interdependence.

Conceptual framework

In the present paper social outcomes of schooling are conceptualised as involving relations with others progressively more distant from the individual, with individuals or groups progressively less likely to be personally known to the individual, and with aspects of life that are more diffuse. This is similar to the concept of *circles of care* presented by Noddings (1992) which envisages the purposes of education around caring for self, caring for the inner circle, and caring for strangers and distant others.

- Relating to others refers to a sense of concern for individuals in one's immediate range of contact, and reflects a sense of personal empathy (Zahn-Waxler et al., 1992). This goal finds expression in many policy statements by education systems and in the purposes of school programs such as personal development, peer support, peer mediation, and conflict resolution (Olweus, 1993). The development of appropriate ways of relating to others is a central feature of policy statements and school documents.

- Commitment to community well being focuses on relations with a wider community of others in society reflecting a sense of altruism and covers such issues as ensuring caring for children, racial equality and reducing poverty: 'caring for strangers and distant others'. The *Review of the Queensland School Curriculum* proposed a draft charter of values including 'a belief that we all share a responsibility to contribute to the welfare of our society' (Wiltshire, McMeniman & Tolhurst, 1994: 17) and the ongoing program of research on schools as 'caring communities' (Battistich et al., 1997) focuses on the enhancement of students' social and ethical development.

- Conformity to rules and conventions refers to a sense of seeing laws and rules as important to an individual's life. Many see this as a threat to pluralism because it implies acquiescence to a dominant culture. However, in a range of different ways, schools are concerned with enabling students to learn to live within their communities. Communities construct rules and develop conventions that govern the interactions between people.

Among the purposes of schools is the development of an understanding of how social rules and conventions are constructed, when and how those rules and conventions can be negotiated and changed, and how individual rights and obligations are embedded within them.

Some years ago Rutter et al. (1980) argued that schools differed in the behaviours and attitudes of their students. Moreover, they suggested that these differences could be related to the school climate: how teachers and pupils interacted with each other. More recently, Mooij (1999a, 1999b) argues that prosocial pupil behaviour can be seen as arising from influences at three levels: the social-pedagogical climate of the school, social climate and didactic aspects of the classroom and characteristics of the classroom. Research on schools as 'caring communities' (Battistich et al., 1997) has indicated that a sense of school community can be enhanced through identifiable classroom practices and is associated with a range of positive outcomes including concern for others, acceptance of out-groups, social skills, conflict resolution skills and empathy.

Data

The data on which this paper is based are drawn from a national sample survey (Ainley et al., 1998) of schools and students in Year 5 and Year 10. The final sample consisted of 8144 students from 337 schools (3776 Year 5 students from 156 schools, and 4368 Year 10 students from 181 schools). The survey was conducted in the middle of the 1997 school year.

Data concerned with the 3 social outcomes are derived from student responses to questionnaires. On the final form of the questionnaire students responded to a number of statements by indicating, 'how important each of these statements is to you'. Three scales are used in this paper:

- relating to others (12 items);
- commitment to community wellbeing (7 items); and
- adherence to rules and conventions (6 items).

In addition, students responded to a set of items about the environment of their school. On the basis of these responses it was possible to construct a measure of the extent to which they saw their school environment as stimulating, enjoyable and challenging. In this study an overall measure of the school environment was developed and scores from individuals in each school were averaged.

A sample of teachers in the same schools completed a teacher questionnaire through which they rated the emphasis that was placed by their school on student skills, knowledge and attitudes related to social development. Responses were obtained from an average of 7.5 teachers per school (up to 10 were invited in each school) separately for 'your own teaching' and 'your school'. In this analysis responses referring to the school on the scale concerned with orientation to the wider community were used.

Other information obtained about the students included gender, plans for completing school, socioeconomic background and whether or not they were of English-speaking background. School characteristics included the school sector (government, Catholic, independent), school location (city, town or rural), school size (number of students enrolled) and state.

Analysis and results

Comparisons of means

Table 1 contains the mean scale scores for a number of different categories. It can be seen that the most pervasive influences on these outcomes were year level, gender and school plans (intention to complete secondary school). On all of the scales, students in Year 10 scored lower than did students in Year 5. In all cases the differences between year levels are statistically significant. Based on the conventional definition of effect size differences between Year 5 and Year 10 the difference is large (0.7) for rules and conventions, moderate (0.5) for community wellbeing and small (0.2) for relating to others.

Boys and girls differ in their response to several of these measures of social development. The differences between girls and boys in terms of relating to others and commitment to community wellbeing are of moderate strength (ES = 0.5) and for adherence to rules and conventions the difference is of small to medium strength (ES = 0.4). For each of these dimensions the gaps between boys and girls are greater in Year 10 than in Year 5. Overall boys are less concerned with community wellbeing, relating to others and social rules than are girls and the gap widens between the late primary and middle secondary years.

Students who plan to complete secondary school have higher scores on many social development scales than those who planned to leave before Year 12. In terms of relating to others, community wellbeing, rules and conventions the differences between intending school completers and early school leavers are of small to medium

strength. No influence of ethnicity is evident overall although Year 10 students of non-English speaking background had a slightly stronger commitment to community wellbeing than other students. Socioeconomic status is not associated with these social outcomes.

Multilevel analysis

A set of analyses was conducted using *Hierarchical Linear Modelling* (Bryk & Raudenbush, 1992). A principal purpose of these analyses was to examine whether the school environment was related to student scores on the social development scales. Results from three models are reported. In the first a range of variables at both the individual and the aggregated levels are included. In the second a school environment measure is included in addition to these variables. In the third a measure of school emphasis based on teacher views is included.

Model 1

In model 1 the dependent variables were the three social development scales: relating to others, commitment to community wellbeing and adherence to rules and conventions. The independent variables were considered at two levels, student and school. The student level variables are: gender (1 for males, 2 for females), educational aspirations (1 for intending to complete Year 12 and 0 for not), and non-English speaking background (1 for a parent born in a non-English speaking country and 0 for neither). The aggregate level variables are year level (1 for Year 5 and 2 for Year 10) and sector (a set of two dummy variables (Catholic and Independent) with Government as the reference category). Results of the analysis are recorded in Table 2.

The results indicate a moderate effect of gender on three outcome variables:

- relating to others;
- community wellbeing; and
- rules and conventions.

All effects are in the direction of girls scoring more highly. There are small to moderate associations between educational plans for school completion and the social outcome measures. For each of the outcomes there is a negative effect associated with year level. There is a small influence of attendance at a Catholic or Independent school (compared to a government school) on relating to others.

A number of interaction effects involving gender and year level are evident. For relating to others, community wellbeing as well as rules and conventions, the interaction indicates that the gap between girls and boys is wider at Year 10 than at Year 5. There is also a significant interaction of non-English speaking background and year level on community wellbeing.

Model 2

In model 2 an additional variable was added at level 2: the school environment. Results are recorded in Table 3. Those results indicate that the school environment measure is associated with all three measures of social outcomes but the effect is small. Comparing the results in Table 3 with those in Table 2 indicate that inclusion of the school environment measure increased the percentage of variance explained by level 2 factors for all outcomes. Inclusion of the school environment measure also affected the influence of school sector. The negative coefficients associated with Catholic and Independent schools are a

consequence of the more favourable views of the school environment expressed by students in those schools compared to students in government schools. Overall it can be concluded that the school environments are associated with the social outcomes measured in this paper. Although the effect is small it is significant and consistent across a range of outcomes.

Model 3

In model 3 indicators of the school emphasis on social development with respect to the orientation of teaching to others in the wider community were investigated. This teacher-based measure was included in the place of the measure of student perceptions of the school environment. Results are recorded in Table 4. This teacher emphasis scale was significantly related to two of the social outcomes measures: relating to others and commitment to community wellbeing. It was not significantly related to adherence to rules and conventions. Although the effects are not large, it is of interest that teachers' perceptions of the school emphases on this aspect of social development are related to the importance that students place on relating to immediate others and to others in the wider community.

Discussion

Gender and year level (singly or through the interactions between them) have major influences on the social development of young people. There is evidence of substantial disengagement from social concerns by boys between Year 5 and Year 10, which extends the information on gender differences previously reported (Jacobs et al., 2002). It may be that this has always been part of the development

process or it may be something that is being exacerbated by changes in the social environment in which young people grow to maturity. It is also evident that disengagement from social concerns is associated with disengagement from schooling. Those who plan to remain at school appear to have stronger connections to the wider community than those who plan to leave school before the end of the secondary stage.

A crucial question is whether schools can be expected to shape the social development of students. In this respect the results presented in this paper are consistent with other research findings (Rutter et al., 1980; Battistich et al., 1997; Mooij, 1999a, 1999b; Roeser, Eccles & Sameroff, 2000; Morais & Rocha, 2000). An engaging school climate, regardless of whether that is identified by students or teachers, is related to students regarding social outcomes connected to interdependence as being important to them in their lives. Schools vary in the extent to which students perceive the environment as interesting, challenging and supportive, as well as in student responses to the importance of social relationships for their lives. This result is consistent with a body of research on connectedness (Lee & Robbins, 1995). School environments that are supportive, challenging and stimulating exist where students feel that they belong and where there are multiple points of engagement. It is plausible that developing a sense of connectedness to other members of a school is part of the process of developing a sense of interdependence with others in a broader social community. It has been argued that disengagement from school is a precursor to leaving school (Finn, 1989). From the findings of this study it can be suggested that it may also be a precursor to disengaging from wider social interaction.

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Table 1 Social development scale scores by various characteristics

Characteristic	Value	% Sample	Scale		
			Relating to others	Community wellbeing	Rules & conventions
Year level	Year 5	46%	**50.8**	**52.4**	**53.7**
	Year 10	54%	**48.9**	**47.8**	**46.7**
Gender	Male	47%	**46.8**	**47.4**	**48.2**
	Female	53%	**52.5**	**52.3**	**51.6**
School plans[a]	Pre-Year 12	32%	**48.2**	**48.8**	**48.9**
	Year 12	68%	**50.6**	**50.6**	**50.5**
NESB[b]	ESB	73%	49.7	49.6	49.8
	NESB	27%	50.4	51.1	50.4
SES[c]	Low	46%	48.6	47.7	47.2
	High	54%	49.3	48.0	46.9

Note: Figures are shown in bold where differences are statistically significant at the .001 level after allowance for clustering in the sample.

Table 2 Results of multilevel analyses of influences on social outcomes excluding school environment measure

Independent variables	Dependent variables					
	Relating to others		Community wellbeing		Rules & conventions	
	Coefft	Std error	Coefft	Std error	Coefft	Std error
Student level						
Gender	**5.61**	0.26	**4.96**	0.26	**3.37**	0.25
Year 12 intended	**1.96**	0.26	**1.95**	0.26	**2.50**	0.24
NESB	-0.08	0.28	0.45	0.28	0.16	0.28
Aggregate level						
Year Level	**-3.16**	0.36	**-5.16**	0.34	**-7.67**	0.32
School type Catholic	**1.49**	0.40	0.63	0.36	0.02	0.37
Independent	**1.38**	0.41	0.10	0.42	0.12	0.41
Interactions						
Gender by level	**3.31**	0.51	**2.92**	0.51	**1.02**	0.48
NESB by level	1.01	0.57	**1.65**	0.55	0.25	0.54
% Variance level 1 factors	11.3		9.9		7.0	
% Variance level 2 factors	4.9		8.3		13.9	

Figures are shown in bold where the coefficient is significant at the 0.05 level.

Table 3 Results of multilevel analysis of influences on social outcomes including school environment measure

Independent variables	Dependent variables					
	Relating to others		Community wellbeing		Rules & conventions	
	Coefft	Std error	Coefft	Std error	Coefft	Std error
Student level						
Gender	**5.52**	0.26	**4.86**	0.26	**3.25**	0.24
Year 12 intended	**1.90**	0.25	**1.87**	0.25	**2.37**	0.24
NESB	-0.11	0.28	0.44	0.27	0.10	0.27
Aggregate level						
Year Level	**-3.16**	0.32	**-5.15**	0.30	**-7.70**	0.27
School environment	**0.14**	0.02	**0.15**	0.01	**0.17**	0.01
School type Catholic	0.67	0.38	-0.29	0.37	**-1.01**	0.32
Independent	0.59	0.36	-0.77	0.37	**-0.86**	0.35
Interactions						
Gender by level	**3.17**	0.51	**2.83**	0.51	0.85	0.47
NESB by level	0.97	0.56	**1.55**	0.54	0.13	0.52
% Variance level 1 factors	11.8		9.8		6.7	
% Variance level 2 factors	7.2		10.7		16.8	

Figures are shown in bold where the coefficient is significant at the 0.05 level.

Table 4 Results of multilevel analysis of influences on social outcomes including teacher-based index of school emphasis on social orientation

Independent variables	Dependent variables					
	Relating to others		Community wellbeing		Rules & conventions	
	Coefft	Std error	Coefft	Std error	Coefft	Std error
Student level						
Gender	5.64	0.26	4.95	0.25	3.36	0.25
Year 12 intended	2.01	0.26	1.97	0.25	2.52	0.24
NESB	-0.10	0.28	0.40	0.27	0.08	0.27
Aggregate level						
Year Level	-2.93	0.36	-4.87	0.35	-7.44	0.33
Emphasis on social	0.26	0.10	0.30	0.10	0.18	0.10
School type Catholic	1.06	0.40	0.15	0.36	-0.32	0.39
Independent	1.07	0.41	-0.25	0.41	-0.13	0.41
Interactions						
Gender by level	3.31	0.51	2.96	0.50	1.06	0.48
NESB by level	0.91	0.56	1.51	0.54	0.28	0.53
% Variance level 1 factors	11.8		9.8		7.0	
% Variance level 2 factors	5.0		8.4		14.2	

Figures are shown in bold where the coefficient is significant at the 0.05 level.

The heart and soul of learning

Chris Presland

Airds High School, Campbelltown, NSW

Chris Presland is the Principal of Airds High School, located at Campbelltown in the South Western suburbs of Sydney. He has a strong history of developing a shared understanding of learning across subject areas, leading to improved teaching and learning, and greater levels of professional dialogue between teachers.

He has presented keynote speeches and workshops relating to successful organisational change and the foundations for effective leadership, for audiences in the USA, from New Zealand, South Australia, Western Australia, the Australian Capital Territory and in many locations across NSW. Whether in writing or as a lively facilitator, his areas of expertise focus upon the processes rather than just the theory of how to get 'stuck' organisations moving.

As a presenter Chris brings with him many years of educational leadership and derives his credibility not only from his knowledge of 'process' but also from the fact that he is a school-based practitioner, with years of experience in some of the most challenging educational and socioeconomically disadvantaged environments.

We seem to be forever in an era of pressure to meet changes in expectations of what schools and school leaders can endlessly accomplish. Community concerns, political agendas, societal changes and even the 'latest research' all seem to create a sense that schools should be doing something different from that which they are already doing. Is it any wonder that school leaders can be tempted by the latest 'silver bullet' of pedagogical or leadership products and processes? In the midst of these pressures it is timely to reconnect with the importance of a clearly focused, more coherent school organisation. Like much of the debate around curriculum reform, maybe less is really more.

Airds High School, located in the Campbelltown District in South Western Sydney, exists in one of the state's most socioeconomically disadvantaged communities. It has an enrolment of approximately 620 students at any one time and includes a support unit for mild intellectual disability (IM) and moderate intellectual disability (IO) students, which is generally kept at maximum enrolment of 72 students. There is also a significant number of students in mainstream classes who qualify for placement in the Support Unit but either do not have parental support for placement, or for whom there are no vacancies. The student population is culturally diverse with a total of 56 different cultural groups represented and includes 12% Aboriginal students and 15% Pacific Islander students. Almost the entire school population is drawn from the Airds Public Housing estate. The school population is often transient and the school has a mobility rate in recent years, which is consistently around 30% per annum. Historically, the school also

has a very high rate of staff and executive turnover.

In the midst of such a challenging environment exists one of the most dedicated and focused staff teams imaginable. The school has developed a schoolwide management planning process, and schoolwide faculty programming process, which constantly seek to align daily practice with a clearly articulated values platform and learning platform.

The underlying assumption is that the explicit articulation of the school's beliefs about values and learning, strongly aligned with plans, resources and work teams, will lead to a development of teacher capacity and consequently an improvement in student learning outcomes. This will occur as a result of the provision of a more coherent, consistently delivered and resourced, whole school curriculum.

Learning does not occur in a vacuum. Any form of capacity building, whether in terms of teaching capability or leadership density, requires sustained dialogue focusing upon common understandings within a context.

The values platform

This is a series of five statements that define the core of what the school believes. It strongly reflects a more comprehensive strategic plan that is based on what the school believes students should know, be like and be able to do when they leave the school. There is nothing particularly unique about the statements, other than that they are the result of extensive dialogue amongst staff, students and parents, and most importantly that they are directly linked to the school's management plan. Each statement forms one 'chapter' of

the management plan and clearly shows how the school will 'breathe life' into the statement. During the planning process the school identifies activities that are either congruent or incongruent with each value. Those items that are congruent are the subject of discussion around how best to reinforce and promote them. Those items that are incongruent are the subject of discussion about how to rectify them. The resulting management plan, with its central focus upon the values platform, then forms the basis of the school's financial resourcing and work team structures. In essence, if an activity cannot be directly related to the values platform then it does not appear on the management plan and receives no school funding.

The learning platform

This is a series of seven statements, which define the school's most sacred beliefs about quality learning. Again there is nothing particularly special about the statements themselves, but they are the product of extensive dialoguing between teaching staff, ancillary staff, parents and students. Each of the learning platform statements has been cross referenced against each faculty's teaching programs with a concerted effort being made to identify exactly how the program fosters the development of that particular belief. In a similar fashion to the whole school management planning process, the aim is to identify aspects of the faculty program that either reinforce or contradict the learning platform. Those that reinforce are strengthened; those that contradict are amended.

At the faculty level much professional development, at both the team and individual level, then concentrates upon

how each teacher, in his or her classroom or unit delivery, will 'evidence' the reinforcement of the beliefs articulated in the learning platform.

Classroom focused professional dialogue

There is a huge emphasis at the school upon the provision of quality Training and Development (T&D) aimed at improving classroom-teaching skills. There has been extensive training in the system as a means of creating consistency across the school in terms of the way in which teaching and learning activities are programmed and structured. There is a commitment to a constructivist approach to learning, and a lot of time spent on maintaining currency in relation to brain research. High on the school's agenda is a belief that one of the most fundamental responsibilities of a teacher is to be able to understand the science of 'how' learning occurs, as distinct from merely being able to identify the conditions for effective learning. Some of the most significant results of this have been a reduction in the 'kaleidoscope' effect of what students are exposed to from classroom to classroom, a steady increase in cross-faculty dialogue and increasing discussion of student learning instead of simply student behaviour.

It's more about 'how' than 'what'

Another positive outcome of what the school has done is that members of the senior executive staff are frequently requested to speak at conferences all over Australia in order to share the processes the school has developed. In most cases other members of the school's teaching staff have the

opportunity to accompany the presenters as an additional T&D activity. Many school leaders have the theoretical understanding about how quality organisations should be structured, but many feel they lack the actual processes to lead staff through such actions. In developing these workshops the Airds staff has created not only an opportunity to share the 'how', but also to engage with an ever-increasing professional network of educators around the country.

In a nutshell

Since these processes began, some extraordinary data has emerged. The student attendance rate has improved by approximately 5% and is now better than the district average in both Years 7–10 and Years 11–12. In the case of the latter it is also 1% better than state average. The retention rate from Years 10–12 has improved by approximately 9% and is now comparable with district average. Value-added data at both School Certificate level and Higher School Certificate level show a marked improvement across almost all areas, with the most significant being a 5% improvement in literacy value added at the School Certificate. There have only been 5 staff transfers in 2 years, and there has been no change at executive level. Given the context of the school outlined earlier in this article, a context that has not changed in terms of the community, such data become even more significant.

In a challenging environment, which is often run at a frenetic pace, and in a system constantly facing more demands and expectations, Airds High School has created a structure that constantly seeks to align beliefs with practice. The processes associated with both the

values platform and learning platform mirror each other (see diagram) and in so doing again serve to reduce the potential fragmentation of school life. Above all else, the 2 platforms create the parameters of the school's operation, helping teachers to make sense of the day-to-day pressures that confront them, and provide a clear benchmark for determining the school's progress. Put simply, rather than constantly seek to take on more and more demands, and meet more and more expectations, we really need to focus more clearly upon what we, the professional educators, believe is important for our students.
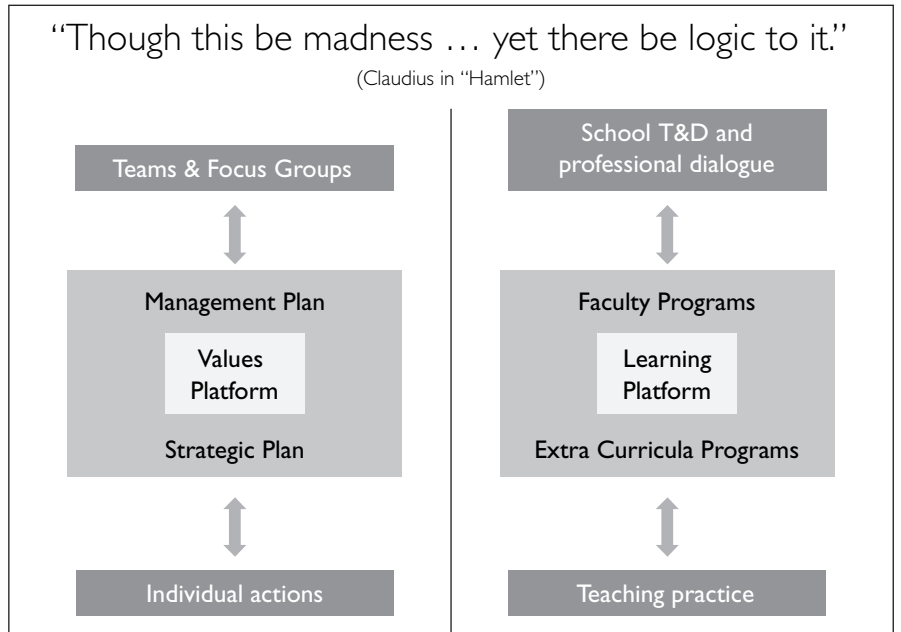

Figure 1 Schematic representation of the mirroring of the values platform and learning platform

Family and school influences on healthy youth development: an examination of social interaction between parents within the early high school context

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Introduction

Prospective and intervention research demonstrate that adolescent health and behaviour problems (such as substance abuse, school behaviour problems, depression) are influenced by both individual-level risk factors (e.g., temperament, behaviour problems) and by social-environmental factors operating at the level of the school, family, community and peer group. The observation that social relationships are influential holds implications in settings such as schools where a range of interaction occurs between peers, family members, other adults and the developing adolescent.

An important jumping off point for the present study arose from previous research conducted in 1998 involving the evaluation of parent education and support groups targeted to parents with children in early high school. In this previous study we noted that providing parent education to parents in the first year of high school held benefits in reducing parent–adolescent conflict and reducing youth health compromising behaviour. These benefits extended beyond the minority of parents who attended the parent education groups.

One informal dissemination mechanism was believed to arise through the explicit instruction in the parent education groups encouraging parents to support other parents – creating a 'parenting community'. A reduction in conflict was observed for a group of parents who did not directly participate in parent education groups but reported that they were in contact with a parent who had (Toumbourou and Gregg, 2002).

The present study sought to further investigate the proposition raised in the 1998 study that parent social networks within the high school may be influential for student health and wellbeing. The aim of the present study was to observe more closely interaction about parenting issues within early high school parent social networks. The study also sought to explore whether such parental interaction was associated with children's reports of protective factors within their family, school and community social environments.

Method

A small group of Victorian metropolitan high schools expressing an interest in participating in a research project undertaken by the Centre for Adolescent Health were selected as a convenience sample for participation in this project. Two of the schools were assigned to receive parent interventions, but this component of the study was not examined in the present report.

Measures

The parent survey was based on an instrument that had been used previously in the 1998 evaluation. The student survey was based on the Communities That Care Youth Survey, adapted for use in Australia as the Health and Wellbeing Survey. In addition to measuring a range of indicators of adolescent mental health and health compromising behaviour the instrument also measures student perceptions of a range of protective factors that are known to influence the development of youth health and social problems. The scales from this instrument examined in the present study measured youth perceptions of the following protective factors:

- school commitment (I enjoy being in school);

- school opportunities for prosocial behaviour (In my school, students have lots of chances to help decide things like class activities and rules);

- school rewards for prosocial behaviour (My teachers notice when I am doing something well and let me know);

- family attachment (I feel close to my parents);

- family opportunities for prosocial behaviour (My parents give me lots of chances to do fun things with them);

- family rewards for prosocial behaviour (My parents notice when I am doing a good job and let me know about it);

- community attachment (I like my neighbourhood);

- community opportunities for prosocial behaviour (Which of the following activities are available in your neighborhood? Sports teams); and

- community rewards for prosocial behaviour (There are people in my neighborhood who encourage me to do my best).

Social networks

The parent surveys were supplemented through the addition of questions related to school social network involvement. Parents were asked 'How many parents in your son/daughter's year level have you talked with about a parenting issue over the last 6 months?'

Procedure

Following school approval all students and their parents from the first two years of high school (Years 7 & 8 in Victoria) were approached to participate in a research program conducted by the Centre for Adolescent Health, and approved by the University of Melbourne ethics committee. Parents were approached for written informed consent to participate in a parent survey and for their child's participation in a student survey. Parent surveys were returned by mail while consenting students were surveyed in school classrooms. Student surveys were initiated in Term 4, 2000 (wave 1) and repeated in Term 2, 2001 (wave 2, 6 months later) and again in Term 3, 2001 (wave 3, 9 months later). Parent and student social network data was collected at waves 1 and 3 of the study. The present study is confined to data from wave 1.

Subjects

Data presented in this paper relates to students from four high schools comprising two government and two independent private schools. In these schools there were 1217 students enrolled in Year 7 and Year 8 and of these students 634 or 52% participated in the student survey at wave 1 and, through further recruiting, this was increased to 715 or 59% at wave 2. Response rates to the first survey were similar across the four schools at wave 1 but showed significant variation at wave 2 ranging from 52% to 65%. Response rates at wave 1 were also similar for Year 7 versus Year 8 students, but analysis

showed that by wave 2 the improved response rates were largely explained by a higher recruitment of Year 7 students in some schools. The analyses that follow were restricted to cases where students and parents provided complete social network data at wave 1 and hence were little affected by variation in school response rates.

Examination of the characteristics of parents responding to the wave 1 survey in Table 1 suggested that compared to Victorian state Census data for family-age populations those surveyed may have had a lower percentage divorced or separated, and higher levels of education.

Table 1 Characteristics of the parents responding to the social network survey

Parent characteristics	N = 642
Mother respondent	82%
Non-Australian birth	25%
Aged under 40	15%
Marital status	
Married	81%
De facto	4%
Divorced/separated	13%
Single	1%
Widowed	1%
Highest level of education	
Below Year 12 high school	25%
Year 12 high school	17%
Tertiary diploma or degree	36%
Postgraduate	22%
Receiving a pension or welfare benefit	13%

Analyses

Analyses presented in this paper detail parent social network involvement and then examine correlates of this involvement related to parent characteristics and student reports of protective factors in their social environment. All analyses are cross sectional and restricted to wave 1. Analyses were run to explore whether effects varied by school, student year level and student gender.

Of the Year 7 parents almost 2 in 5 (38.7%) reported they had not talked with another parent in their child's school year level about a parenting issue over the previous six months. The proportion who had not talked to another parent was higher amongst parents of Year 8 students (49.7%). Further analysis revealed a significant variation across schools in the proportion of parents reporting talking to other parents. Variation ranged from one school where only 36% of parents with a Year 8 child talked to at least one other parent to another school where 61% interacted with others in this way ($X^2_{(3)} = 11.7$, p = 0.008). The trend for parents to be less likely to talk to one another in Year 8 compared to Year 7 was found to be fairly consistent across each of the schools.

Further analyses were conducted to explore whether there were family characteristics that differentiated parents who talked to at least one other parent. To control for the school variation described above these analyses were repeated separately for each school and any common trends were identified. To control for the significant effect of student year level reported in Table 2 analyses also controlled for the effect of student year level. There was no consistent trend for

parent responses to show variation based on their students' gender, the parent's education level, marital status or pension or welfare support. However, there was a consistent trend evident across the schools for parents born outside Australia to be less likely to talk to other parents. For example amongst the Year 8 parents born in Australia 55% reported talking to other parents. In contrast, of those not born in Australia only 37% talked to other parents ($X^2_{(1)} = 7.2$, p = 0.007).

average score of 2.87 for students' whose parents talked to no other parent. Inspection of the 95% confidence intervals showed a small overlap. However, statistical testing using the t-test revealed the mean difference of +0.14 was significant with a probability of 0.02. Dividing the mean difference over the combined standard deviation reveals the effect size was small (ES = 0.25 = 0.14/ 0.55). Where parents reported interacting with other parents Year 7 student reports were

Table 2 Parent responses to parent social network question

Response	'How many parents in your son/daughter's year level have you talked with about a parenting issue over the last 6 months?'	
	Year 7 (n = 344) %	**Year 8 (n = 304)** %
0	38.7	49.7*
1	14.5	14.5
2	15.4	14.1
3	13.7	9.5
4+	17.6	12.1

*Significant difference in the proportion of Year 7 versus Year 8 parents who talked with other parents (p = 0.45)

Associations with student reported protective factors

Table 3 presents the associations between student reports of social environmental protective factors and parent reported social interaction with other parents. For the Year 7 students the average response on items relating to school commitment was 3.01 (on a scale ranging from 1 to 4) for students' whose parents talked to at least one other parent. The evaluations of school commitment tended to be higher for these students compared to the

higher on the protective factors of family opportunities and rewards and for community attachment. In general parent interaction appeared to show fewer associations with Year 8 students reports of protective factors. The exception to this trend was that Year 8 students evaluated community attachment to be higher where their parents reported interacting with others (ES = 0.33).

Discussion

This study presents estimates of the extent of parental social interaction with other parents in early high school.

Findings suggest that mid-way through the school year around two out of five parents' with a student in Year 7 had not talked to another parent about a parenting issue and that there was a tendency for this to increase to almost half of all parents by Year 8. The present study was biased toward educated parents willing to complete a research study and hence should be considered an overestimate of the real level of interaction between parents. Our examination revealed small but potentially beneficial associations between parent interaction and student-reported social environmental protective factors. Future research should establish any causal direction for these effects and their potential to add to other positive strategies parents' of adolescents commonly adopt.

Further reading

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Table 3 Mean student (Year 7 & 8) protective factors associated with parent reports of talking to at least one other parent

Protective Factors	Parent talked to at least one other	Parent talked to no other parent	
	Mean (95% CI)	**Mean (95% CI)**	**Mean Diff (SD) p***
Year 7 students			
School			
Commitment	3.01 (2.92, 3.09)	2.87 (2.77, 2.98)	+0.14 (0.55) 0.02
Opportunities	2.95 (2.86, 3.03)	2.98 (2.89, 3.08)	- 0.03 (0.52) 0.31
Rewards	2.99 (2.89, 3.08)	2.92 (2.81, 3.03)	+0.06 (0.57) 0.19
Family			
Attachment	3.33 (3.24, 3.42)	3.28 (3.16, 3.40)	+0.05 (0.58) 0.26
Opportunities	3.26 (3.17, 3.34)	3.11 (2.98, 3.23)	+0.15 (0.59) 0.02
Rewards	3.43 (3.35, 3.52)	3.27 (3.16, 3.38)	+0.17 (0.54) 0.008
Community			
Attachment	3.40 (3.30, 3.50)	3.25 (3.14, 3.37)	+0.15 (0.61) 0.03
Opportunities	3.50 (3.37, 3.63)	3.59 (3.43, 3.74)	- 0.08 (0.75) 0.21
Rewards	2.82 (2.70, 2.94)	2.75 (2.59, 2.91)	+0.07 (0.79) 0.24
Year 8 students			
School			
Commitment	2.78 (2.66, 2.89)	2.77 (2.66, 2.88)	+0.01 (0.60) 0.46
Opportunities	2.70 (2.59, 2.80)	2.79 (2.69, 2.90)	- 0.10 (0.56) 0.09
Rewards	2.67 (2.54, 2.80)	2.68 (2.56, 2.80)	+0.01 (0.66) 0.46
Family			
Attachment	3.02 (2.90, 3.13)	3.08 (2.95, 3.20)	- 0.06 (0.66) 0.24
Opportunities	2.96 (2.82, 3.09)	2.91 (2.79, 3.04)	+0.04 (0.71) 0.32
Rewards	3.17 (3.06, 3.28)	3.10 (2.98, 3.22)	+0.07 (0.62) 0.21
Community			
Attachment	3.26 (3.14, 3.38)	3.04 (2.92, 3.16)	+0.22 (0.66) 0.006
Opportunities	3.39 (3.21, 3.56)	3.36 (3.19, 3.52)	+0.03 (0.83) 0.40
Rewards	2.59 (2.44, 2.74)	2.50 (2.36, 2.64)	+0.09 (0.78) 0.18

*Mean refers to average item mean for protective factors. Each item contributing to the protective factor scales was based on four response options scored from 1 to 4 (No!, no, yes, Yes!).

(95% CI) 95% confidence intervals for the mean response.

Mean Diff was calculated by subtracting the mean for students' whose parents' reported they talked to at least one other parent from the mean for students' whose parents' reported they talked to no other parents.

(SD) Combined standard deviation

p = the probability of a difference between means based on the t-test.

Strengthening learning through a focus on wellbeing

Steven Marshall

*Department of Education
and Children's Services, SA*

Steven Marshall was appointed as the Chief Executive of the Department of Education and Children's Services (DECS) in South Australia in late 2002. He has had a distinguished career in education reform and administration, particularly in managing complex organisational change and in developing leadership in education.

Mr Marshall has been instrumental in the alignment of DECS State Office services and functions which best meet the needs of sites across South Australia. His aims have been for DECS to build capabilities to enable it to be highly responsive, adaptive and connected to those that it serves.

As a result, DECS's three main offices became operational in January 2003. These offices are:

* Office of Business Improvement and Strategic Financial Management
* Office of Learning and Service Delivery
* Office of People and Culture

A number of strategies have also been put in place to better define local management and district functions and services. This has included a new district office structure which became fully operational in January 2004.

Mr Marshall has extensive knowledge of the South Australian education system, having worked as a teacher, curriculum writer, policy developer, principal and district superintendent in the State between 1975-1994.

From 1994-2002 he was a senior executive in the Department of Education and Training in Victoria, where he was at the forefront of developing and implementing educational reform, in areas such as improving staffing operations for 35,000 teachers, establishing frameworks to turn around low school performance and implementing government reforms to strengthen student retention.

At the national level he is currently a member of the Curriculum Corporation, the ACER boards and the Australian Education Systems Officials Committee.

His educational credentials include qualifications in professional development, a Master of Educational Administration and a Master of Business Administration and he is currently completing a PhD on School Renewal.

I expect to pass through this life but once. If therefore, there be any kindness I can show, or any good thing I can do to any fellow being, let me do it now, and not defer or neglect it, as I shall not pass this way again. (William Penn, 1644–1718)

Background

The South Australian Department of Education and Children's Services (DECS) provides education and care services for children from birth through to 18 years plus. Its services include childcare, preschool and school. It is therefore well placed to focus on the development of learning throughout the formative years.

The importance of student engagement and wellbeing are core elements for DECS' planning and policy. The draft departmental Statement of Directions for 2005–06 states

> …we are committed to the value and importance placed on the physical and emotional needs and development of all children and students… Our aim is to ensure children and students are safe, fit, healthy, at school and engaged in learning. (DECS, 2004: 4)

A range of initiatives exist that specifically support the wellbeing and achievement of learners across the state. These include child protection strategies, interagency service support to assist with health planning for children and students and a range of in-school and preschool programs (for example, the Drug Strategy and the Eat Well programs). In addition, there are strategies in place to improve student retention and attendance rates, with an emphasis on those learners traditionally most at risk of not completing their schooling.

It is the goal of the Department to continue to develop leading edge approaches to increasing the engagement, school achievement and wellbeing of learners. In this paper, some of the ways forward will be outlined and explored.

In search of the elusive: defining wellbeing

While wellbeing is not a new concept, it is difficult to define precisely and is still evolving in terms of the understanding and responsibilities educators have about it. In South Australia, one early definition emerged from the 'Focus on Wellbeing in Schools' project (1997: 16), in which students at Ross Smith Secondary School saw wellbeing as 'feeling happy and safe, being yourself and being able to take part in decision making'. As the Department undertakes the process of establishing a shared understanding of wellbeing, ascertaining its dimensions and exploring the implications it has for the work of educators, this definition highlights the importance of emotional and social development as the core elements of what is clearly a very complex construct.

Other attempts at defining wellbeing help to shed further light on the topic. Frankish et al. (1996) talk of 'the capacity to adapt to, respond to or control life's challenges and changes', while Keating and Hertzmann (1999) argue that developmental health and wellbeing lies in 'the developing (person's) response to experiences and environmental circumstances around them'. Pollard and Davidson (2001: 8) adopted this more closely attributional definition:

> Wellbeing is a state of successful performance throughout the life course integrating physical, cognitive and social-emotional function that results in productive activities

deemed significant by one's cultural community, fulfilling social relationships, and the ability to transcend moderate psychosocial and environmental problems.

This is very close to definitions of human and social capital.

A group of school and preschool leaders from the Salisbury District in South Australia earlier this year described wellbeing as 'feeling comfortable and confident about yourself as a person on many different levels, including spiritual, physical, emotional, intellectual and social ways of being'.

It is clear from these definitions that wellbeing has some key elements including the ability to show resilience in a range of situations, to function successfully with others, to engage in culturally productive activities and to feel comfortable with oneself. The dynamic interplay between social and emotional development and other factors is what many theorists consider to be at the core of a person's wellbeing (Zins et al., 2004; Affolter 2003; Weare & Gray, 2003; Ragozzino et al., 2003).

Why the focus on wellbeing?

In South Australia, it is recognised that high quality care and education are key factors not only in the economic, social and cultural wellbeing of the state, but in building the confidence, resilience and general wellbeing of learners as current and future citizens and leaders. The election platform of the current state Government stated,

> Education and training are the cornerstones of a healthy society, and the wider involvement of people in relevant and engaging learning fosters economic

prosperity and cultural understanding within our society and prepares the capacity of individuals to meet the social, economic and technological challenges of the 21st century. *(Education and Training: A path to opportunity)*

The rationale behind this statement is supported by the work of Affolter (2003), who argues that in order for economic productivity to be sustained, there needs to be an expanded view of human capital development that promotes – across communities and nations – the development of a caring, non-violent, optimally functioning citizenry. This is one of the reasons why OECD, UNESCO and The World Bank have all been inclined to focus on the term 'wellbeing' during recent years: it is the dynamic of human capital.

The development of the intellectual competence, health and wellbeing of an individual is not just a result of genetic inheritance and socio-environmental influences. The ability of children and young people to develop the skills, understandings and dispositions to enable them to exercise the responsibilities of active citizenship and leadership in later life is heavily reliant on the foundation learning achieved in childcare, preschools and schools.

Further, the field of cognitive science, and in particular the neurosciences, is contributing to an understanding within the care and education fields of how brain function affects learning. The work of Mustard and Barr (2004), for example, is illustrative of the impact that childcare, preschools, schools and other social experiences have on the developing brain and mind. Mustard and Barr explain that in the early years of life, the brain develops quickly as it perceives, processes and utilises

information from the immediate environment. Apart from the level of nourishment a young person receives, the single most important factor in brain development is the quality of stimulation that occurs from the late in-utero period onwards. This stimulation literally gets under the skin and reaches the brain through key body systems.

Being fully engaged in learning – moving from the stage where support is needed to operating without assistance and then to transferring what is known into unique situations – requires that learners exercise personal power (manifested by concentration and focus, persistence, curiosity, confidence, openness to ideas and, in many cases, lateral thinking) and the ability to learn with and through others in order to test the veracity of their thinking (Stoll, Fink & Earl, 2003). The emotional function of the brain can either support or antagonise this engagement. Where the level of challenge is appropriate and the cost of risk-taking is low, learners may experience a state of 'flow' (Csikszentmihalyi, 1990) – the feeling of enjoyment, reward and satisfaction that comes from involvement and completion in, and contribution to the learning process. On the other hand, where the likelihood and cost of failure is high, the brain can be 'hijacked' (Goleman, 1996) towards feelings of helplessness and concern about survival. As Gipps et al. (1994) argue, 'emotional safety is necessary for intellectual risk-taking'.

Wellbeing, then, has at its core the biological operation of the brain and nervous system, as well as the various body systems that support our emotional functioning. It is deeply cognitive, emotional and thus psycho-dynamic.

Of course, learning invariably occurs in social settings – the home, the community, within groups gathered for a common purpose and in education institutions. Indeed, among the factors that are known to strengthen young people as they grow and develop, and which schools, preschools and childcare have within their control, are relationships, high expectations and opportunities for participation and contribution (Benard, 1991). Social competence – high levels of self-awareness and social awareness, the ability to self-manage, skill in forming and maintaining relationships, and responsible decision-making (Raggozino et al., 2003) – is critical because students who benefit from positive relationships and interactions tend to achieve above the average academically (Osterman, 2000).

The role of schools, preschools and childcare in supporting a learner's emotional and social development and competence appears to be at least as important as their role in supporting academic development and competence.

Marris (1991: 88) suggests that attachment (between child and caregiver) is at the centre of social development because it is the primary relationship through which personality develops and the relationship through which we create our sense of order. Perry (2004) takes this further, suggesting that attachment is the core strength that leads to the healthy development of a child's emotions and effectively vaccinates the child against anti-social behaviour including violence towards others. The key question here is to what extent can schools, preschools and childcare be expected to nurture the development of a child's sense of attachment?

It is clear that schools, preschools and childcare play a significant role in building relationships, encouraging connectedness and providing opportunities for meaningful participation, which are essential aspects of the social development of learners. Perry (2004: 1–2) argues that

> Attachment is the capacity to form and maintain healthy relationships. An attachment bond has unique properties. The capacity to create these special relationships begins in early childhood… As children become older, they spend less time with parents and more time with peers and other adults. This time with peers and other adults provides many opportunities for continued emotional growth. In early childhood, the relationships with peers start as acquaintanships. With more time together, however, young people create friendships and the opportunity for strong emotional bonds can develop. In a similar fashion, a young child can form a strong connection with an attentive and nurturing teacher. The acquaintance, the friend and the teacher all provide different and complementing social and emotional opportunities that help a child's attachment capabilities mature.

Providing opportunities for children and students to develop the 6 core strengths of socio-emotional development (Perry, 2004) – attachment, self-regulation, affiliation, awareness, tolerance and respect – is a responsibility for schools, preschools and childcare across the world.

There are, of course, other elements of learner wellbeing that are important considerations for the work of schools, preschools and childcare. Three of these elements are outlined below.

Physical stamina

Having the energy and feeling of being 'well' that is required for learning and operating in a social environment is obviously of great importance. We know from neuroscience, for example, that the brain typically requires up to 25% of the body's total energy requirements and that it uses up to 35 litres of blood each hour to meet its need for nutrients and oxygen. Appropriate diet and movement are key factors in healthy brain function, and therefore in learning. Similarly, we know that recovery is an essential element of any endeavour that requires energy output. On top of all of this, sleep has been shown to be an integral part of memory formation. The role of the schools, preschools and childcare in promoting understanding of the physical requirements of learning, in working with parents and caregivers to provide optimum conditions for learners and in controlling those factors within its influence to control (for example, the kind of food eaten by learners during the day, the timing of recovery breaks and the provision of opportunities for regular movement by learners) cannot be understated.

Spiritual direction

Having a sense of spiritual direction is a key to a person's identity and is a source of meaning and purpose (Covey, 1998: 175). Linking with culture, engaging in the arts, reading great literature, watching and listening to nature, learning about and practising integrity and exploring and identifying personal values are just a few of the many ways that students and young children can be guided in developing a spiritual direction.

Intellectual disposition

Strong et al. (1995) identified four human needs that engaged learners look to satisfy in their endeavours in schools and preschools:

- success – the need for mastery
- curiosity – the need for understanding
- originality – the need for self-expression
- relationships – the need for involvement with others

A key question here relates to how schools, preschools and childcare become engaging places for learners by involving them as major participants in the learning process. This is not such a difficult question for those who have embraced a constructivist learning theory and taken the opportunity to explore the implications for educational practice of some of the key findings from recent cognitive science. What engagement looks like in terms of cutting edge practice is, however, a field of ongoing discovery.

While wellbeing is an important contributing factor to learner engagement, it alone does not guarantee that a student or child will engage with learning. It is certainly possible for young people to feel well within themselves, but still be disengaged by a learning process that does not involve their active participation or by a learning environment where relationships are not respectful, trustful and supportive. Similarly, many young people with low levels of health and wellbeing overcome enormous obstacles to engage in, and experience success from their education. Nonetheless, the evidence suggests that social, emotional and physical variables are integral rather than incidental to learning (Wang et al., 1997).

Conclusion

The presentation, 'Strengthening learning through a focus on wellbeing', will build substantially on the points put forward in this paper. In particular, some key questions will be explored in depth, including:

- What should we look for when assessing our current practices in regards the wellbeing of learners?
- What would a whole school, preschool or childcare approach to wellbeing look like?
- In what ways can/do schools, preschools and childcare support the emotional development and balance of children and students? What would educators be doing in classrooms and centres to enhance this development?
- How can schools, preschools and childcare contribute to the social competence of learners?
- What can be done to support the improvement of physical health factors in learner wellbeing?

In contributing to the current thinking regarding learner engagement and wellbeing in education, this paper is presented as a work in progress with the ideas presented contributing to substantial dialogue and innovation in DECS sites over the next few years. Our commitment to our young people is probably best summed up by the following quotation.

> Life nowadays is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves. We must believe that we are gifted for something, and that this thing, at whatever cost, must be attained. (Marie Curie, 1867–1934)

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Using evidence to drive system change to improve student wellbeing

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Peter Hamilton is a senior executive of the Western Australian Department of Education and Training. Mr Hamilton has initiated major system reform initiatives in local school management, school restructuring, school planning and accountability, behaviour management and pastoral care. He has a background in mathematics teaching and school psychology and has worked as a consultant to education authorities in the UK and the US. His most recent appointment is Director, Student Behaviour and Wellbeing.

All school systems around the country will have rhetoric about their commitment to promoting the wellbeing of students. This will find expression in strategic plans, in curriculum statements and system-sponsored projects related to pastoral care, values, social-emotional development and mental health promotion.

One would be hard pressed to find a school system that was not also stating publicly its commitment to evidence based action to improve its performance.

While there is much activity in schools directed at enhancing student wellbeing, how much of this activity is informed by evidence is a moot point.

The paper to be presented in this session will describe the strategies being applied in the Western Australian Department of Education and Training to bring evidence to bear on the drive to improve student wellbeing.

Pathways to social and emotional wellbeing: lessons from a 20-year longitudinal study

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Ann Sanson is an Associate Professor in Psychology at the University of Melbourne. Dr. Sanson's research focuses on the social and emotional development of children and adolescents in their family and community contexts. This includes the Australian Temperament Project, a 20-year study following a large sample of children from infancy to adulthood. She is the Project Director for "Growing Up in Australia", a new landmark study of the development of 10,000 Australian children.

From 2000 to mid-2004 she was seconded from the University to the Australian Institute of Family Studies where she held several positions including Deputy Director (Research) and Acting Director. Ann has over 120 publications, including books, book chapters, journal articles and commissioned reports. She holds a BA from the University of WA and a PhD from La Trobe University. She is a Fellow of the Australian Psychological Society.

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This paper draws on data from the Australian Temperament Project (ATP), a longitudinal study that has followed a large Victorian cohort of children since their infancy in 1983, and is still in progress. Extensive data on characteristics of the children and their families has been collected over 13 waves of data collection (see Prior et al., 2000, for an overview). In this paper, we briefly summarise evidence of pathways to both good and poor adjustment that can provide some guidance on how best to support young people's wellbeing.[1]

The study began with a representative sample of 2443 4–8 month old children and their families from urban and rural areas of Victoria. After 21 years, about two-thirds are still participating. Data include temperamental characteristics, age-appropriate developmental outcomes, and family, school and broader environmental measures. Data has been collected through annual or biennial mail surveys. Informants include parents, nurses, teachers, and from 11 years onwards, the young people themselves (see www.aifs.gov.au/atp).

In this paper we start by presenting some summary statistics on the ATP sample at 19–20 years of age, and then briefly discuss four aspects of development: civic mindedness; anxiety and depression; antisocial behaviour; and resilience.

The ATP sample at 19–20 years

Table 1 reveals something of how the sample was faring at 19–20 years of age. It presents a mixed picture: the first part gives the impression of a group of successful, industrious young people who are juggling work and study, and hold traditional aspirations for family life; the second part emphasises that a substantial number have mental health problems and are engaging in risky behaviour. Eckersley (2004) has also recently drawn attention to this two-sided picture of Australian adolescents. In the ATP we have tried to acknowledge both sides of the coin.

Civic mindedness

The emergence of a sense of citizenship and social responsibility is a key developmental task of adolescence (Erikson, 1965). The ATP adolescents (when aged 15–16 years, mostly in Year 10) answered questions concerning various aspects of civic mindedness, tapping their awareness of politics and involvement in political activity; their involvement in voluntary community activities; and beliefs about where responsibility lies for addressing social issues, and the efficacy of individual action.

Over a quarter of adolescents worried 'very often' about what the world will be like in the future, and over half worried 'sometimes'. The great majority believed that every individual has responsibility to address social problems, and that such action is efficacious (Sanson, Johnson & Letcher, 1999). Two-thirds followed international news and half followed Australian political news, but levels of active involvement in political affairs (such as attending meetings or writing letters) were low: 14% 'sometimes', 3% 'often/very often'. More were involved with more local

issues, e.g., over 50% were involved with school organisations, and about 20% were active in a group working for social change.

Both concurrent and earlier factors predicted civic mindedness. About 50% of participants reported that they would be more involved if more opportunities were available. Those who most preferred to work in a cooperative (versus competitive) environment showed higher levels of civic mindedness. Peer-related factors were very important predictors of civic mindedness: peer attachment, peer encouragement and participation in similar activities, and good quality friendships (Da Silva et al., 2004). School attachment, and families' encouragement, participation in such activities and belief in their importance were also predictive, as was higher family SES. Looking at measures collected at earlier time points, civic mindedness was predicted by empathy, social confidence, more involvement in organised peer group activities, intellectual curiosity, commitment to school, and being less shy (Smart et al., 2000).

In summary, pathways to civic mindedness appear to involve intrinsic characteristics as well as peer, school, family and contextual factors. The importance of "doing things together" with their peers emerges strongly from the data, reminiscent of Mackay's (2003) assertion that young people today are the most 'tribal' generation yet. These multiple influences need to be taken into account in efforts to foster civic mindedness.

Anxiety and depression

Table 1 shows that anxiety and depression were quite common among ATP adolescents. These problems often co-occur, and carry a high burden for individuals, families and society (Cicchetti & Toth, 1998).

Analysing ATP data on anxiety, fear and depressive symptoms from 3 to 15 years, we identified several trajectories for both boys and girls. Boys' trajectories were most often flat or decreasing (reflecting relatively stable levels of moderate to low levels of symptoms, or a decrease over time). Only 3% of boys, in comparison to 16% of girls, were on an increasing trajectory. These trajectories predicted depressive symptoms at 17–18 years of age, along with intrinsic factors such as low task persistence, high activity levels, and low emotional control, and (for girls) low family and peer attachment (Toumbourou et al., 2004).

These analyses illustrate the diversity of pathways that young people follow, characterised by both continuities and discontinuities.

Antisocial behaviour

Antisocial behaviour peaks in adolescence. In a series of studies with Crime Prevention Victoria, we have investigated pathways and precursors to antisocial behaviour (see Vassallo et al., 2002; Smart et al., 2003, 2004). We assessed behaviours that define conduct disorder (e.g., physical fights, stealing, carrying a weapon, shoplifting) at 13, 15 and 18 years, and identified individuals as being 'antisocial' if they exhibited three or more of the behaviours during the previous 12 months. We identified 3 groups – those who never showed much antisocial behaviour (no/low), those who showed antisocial behaviour at 13 and 15 but not 18 years (labelled experimental), and those who were persistently antisocial across adolescence (persistent). (Discussion of other groups, such as a late onset antisocial group, is beyond the scope of this paper.)

To identify the age at which risk factors for antisocial behaviour first emerged, we compared the three groups on all the potential risk factors we had assessed since infancy. Figure 1 reveals that risk factors first emerged at 5–6 years, when the persistent group started to show differences from the no/low group, and this escalated sharply so by 11–12 years the groups differed on 55% of the risk factors assessed. The experimental group appeared to have an untroubled childhood, but by early adolescence (12–13 years) had higher rates of risk factors. These data suggest that entry into primary school might be a critical time-point for intervention, while entry into secondary school also appeared important.

While Figure 1 shows the *proportion* of factors on which the groups differed, Table 2 summarises the *nature* of those differences, comparing the persistent and no/low antisocial groups. This reveals that 'risk' comprises a number of individual, peer, school and family factors. No one risk factor had a dominant influence, but rather an accumulation of risks from the various domains was involved. This has implications for the focus and locus of interventions.

Resilience against antisocial behaviour

Resilience refers to good adjustment despite risk. We identified a group who had a high number of risk factors at 11–12 years but did not become antisocial, and compared them to a group at equal risk but who were persistently antisocial, as well as a low-risk comparison group. The questions we addressed were:

1. How did the developmental pathways of the two high-risk groups change over their lifespan?; and

2. What protective factors could be identified to explain the changes in the resilient group? (Smart et al., 2003).

In brief answer to the first question, over multiple measures in childhood the resilient group closely resembled the antisocial group, and both had many more problems than the comparison group. But from early adolescence onwards, the resilient group improved on virtually all indicators, so that by 18 years, it was indistinguishable from the comparison group. An example of these changes is shown in Figure 2; other variables following similar trajectories included hyperactivity, depression, reactivity, cooperation and self-control.

Secondly, a number of factors appeared to play a protective role for the resilient group, helping them to overcome their risk status. One marked difference was in levels of interaction with peers who were themselves engaging in antisocial behaviour, as shown in Figure 3. Family factors (e.g., greater parental monitoring and improving parent–adolescent relationships), school experiences (e.g., relationships with teachers and perceived relevance of school) and other aspects of their peer relationships (e.g., more involvement in structured activities) also appeared to help protect the resilient group.

We have also examined the question of whether some children are more affected by particular parenting styles (Letcher et al., 2004). This addresses the question of 'goodness of fit'. We have found a number of interactive effects, one of which is shown in Figure 4. It suggests that low levels of parental monitoring are particularly detrimental for adolescents who are high in reactivity, in terms of the emergence of conduct disorder. Several other interactions were found, and suggest that parenting style is more critical for some young people than others.

Conclusions and implications

In drawing lessons from these findings, it is important to remember that this sample was born in the 1980s and is now moving into adulthood. The applicability of findings to children starting on life today is not certain – hence the need for new studies such as *Growing Up in Australia (the Longitudinal Study of Australian Children)* (see Sanson et al., 2002). Further, although the sample has been remarkably loyal, those with difficulties are probably over-represented among those dropping out of the study.

Given these caveats, some of the clear implications include the following.

*   *Most do well:* Most young people navigate the developmental process from infancy to young adulthood without persistent difficulties.

*   *Individual differences matter:* Individual differences in temperament and other attributes are shown to matter in all our analyses, highlighting the need for parents and teachers to take into account such individuality.

*   *Pathways start early but remain open to change:* In many cases, risk factors can be identified early in life, suggesting an important role for early intervention. However, children cannot be 'inoculated' against later risks, and important influences on pathways and transition points later in life indicate the need for ongoing support.

*   *Many problems co-occur:* Although not a focus of this paper, ATP data indicate significant co-morbidities, for example of conduct disorder with substance abuse and risky driving, and of anxiety with depression. This suggests that narrowly focused interventions targeting just one problem domain are unlikely to be very efficacious.

*   *Multiplicity of influences:* No single risk factor accounts for poor outcomes, but rather a complex set of interacting individual, family, peer and school influences is involved. Risks are probabilistic, multiple and interacting, and supports and interventions likewise need to take account of the multiple contexts of a young person's life (see Stanley et al., 2002).

*   *Resilience:* Many young people overcome initial risk or disadvantage to maintain or regain healthy developmental outcomes. The protective factors that account for this resilience include family, school and peer factors. The phenomenon of resilience reinforces the dangers of typecasting young people early in life, and provides pointers for ways in which parents and schools can support vulnerable children.

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Table 1 The ATP sample at 19–20 years: selected measures

Completion of Year 12	87% (6% Year 11, 6% Year 10)
Work and study	32% working only 31% studying only 33% working and studying 5% neither
Unemployment	20% had period of unemployment since leaving school
Financial strain	28%
Living with parents	72%
Expectations about relationships and family (at 17–18 yrs)	81% hope for relationship within 5 yrs 55% hope to marry in 6–10 yrs, 11% in 6–11 yrs 66% hope to be parent at 25–29 yrs, 20% at 30–35 yrs
In stable romantic relationship	42%
Experienced family disruption	22%
Depression	19% moderate/severe
Anxiety	19% moderate/severe
Antisocial behaviour	10% 3+ acts in last 12 months
Adjustment problems	28% one problem (depression, anxiety or antisocial) 15% 2–3 problems
Marijuana use	6% harmful use (used on 5+ days in last month, some harms)
Alcohol use	26% harmful use (used on 10+ days in last month, harms)
Caught for speeding	31%
In car crash	42%

Table 2 Summary of risk factors differentiating persistent antisocial group from no/low antisocial group

Individual factors	from early childhood	more 'difficult' temperament
		externalising behaviour problems
	from late childhood	poorer social skills
	in adolescence	substance use
		risk taking
		less adaptive coping styles
		lower civic mindedness
		less optimism about the future
		less identity clarity
Family factors	Functioning	poorer quality parent–child relationship
		poorer relationship with parent, less attached to parents
		less warmth, communication and more alienation from parents
		less parental monitoring, more harsh discipline
		parental substance use
	Structure and background	more frequent experience of a family disruption
Peer and school factors		association with antisocial peers
		less participation in organised peer group activities
		academic difficulties, negative attitude towards school
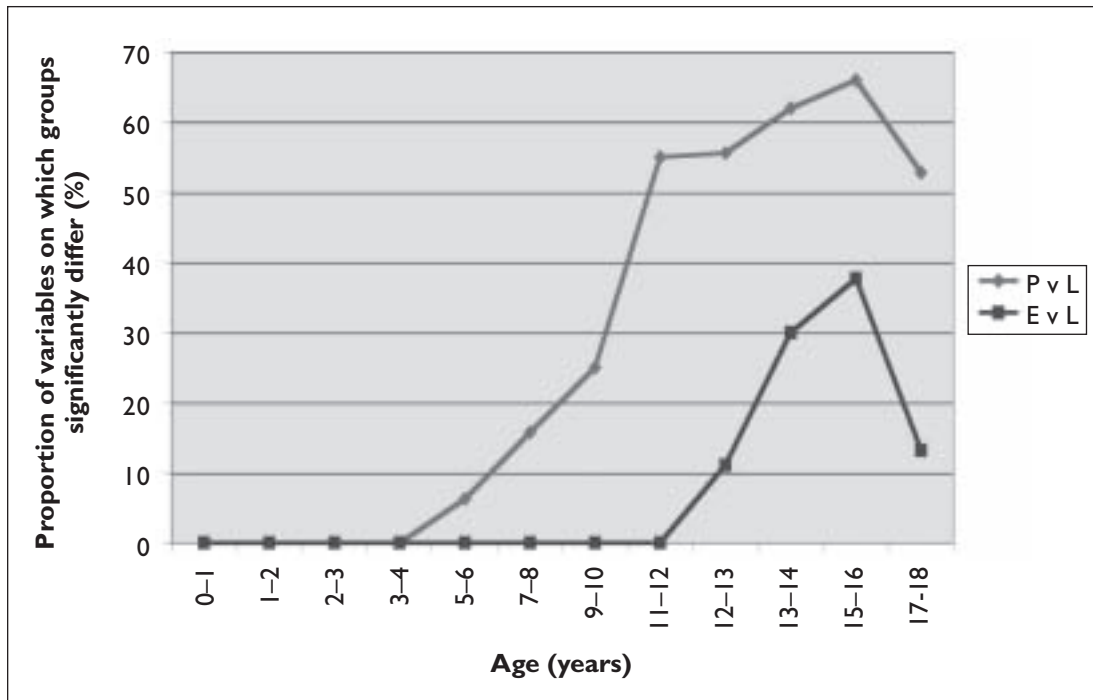
Figure 1 Proportion of risks factors on which no/low antisocial group differed from persistent antisocial (P v L) and experimental antisocial (E v L) groups, from infancy to 18 years
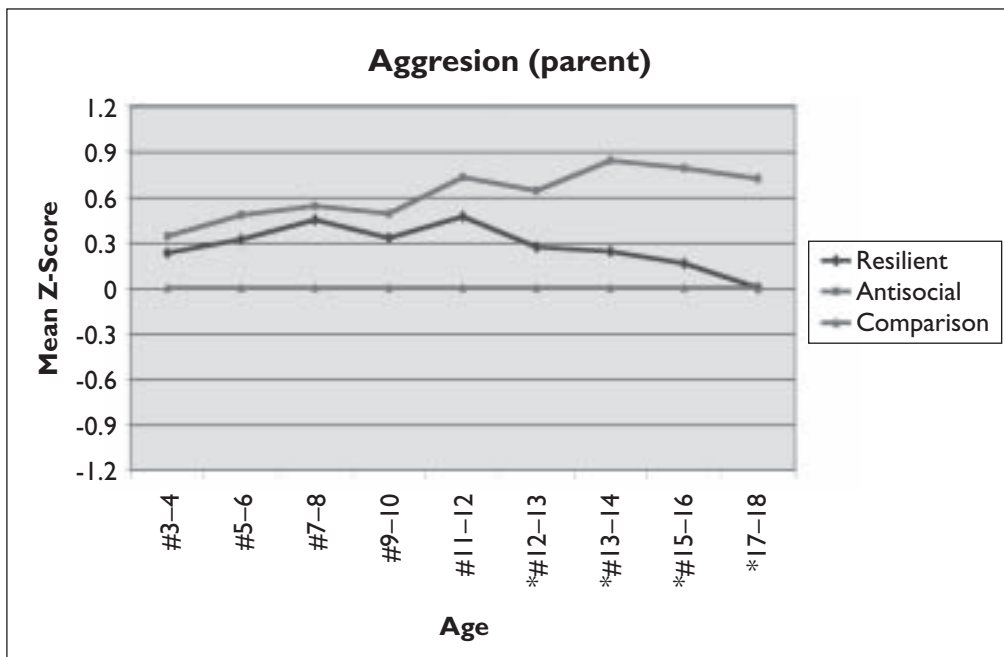
Figure 2 Levels of aggressive behaviour as reported by parents for high-risk resilient, high-risk antisocial and comparison groups from 3 to 18 years
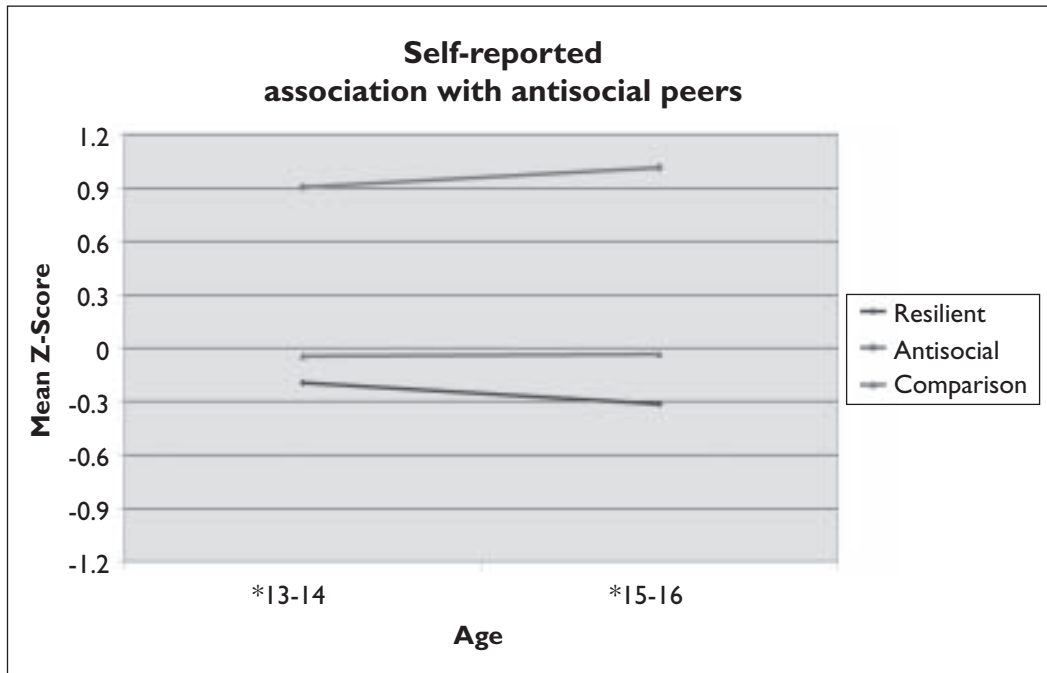
Figure 3 Differences between resilient, antisocial and comparison groups on self-reported association with antisocial peers at 13–14 and 15–16 years
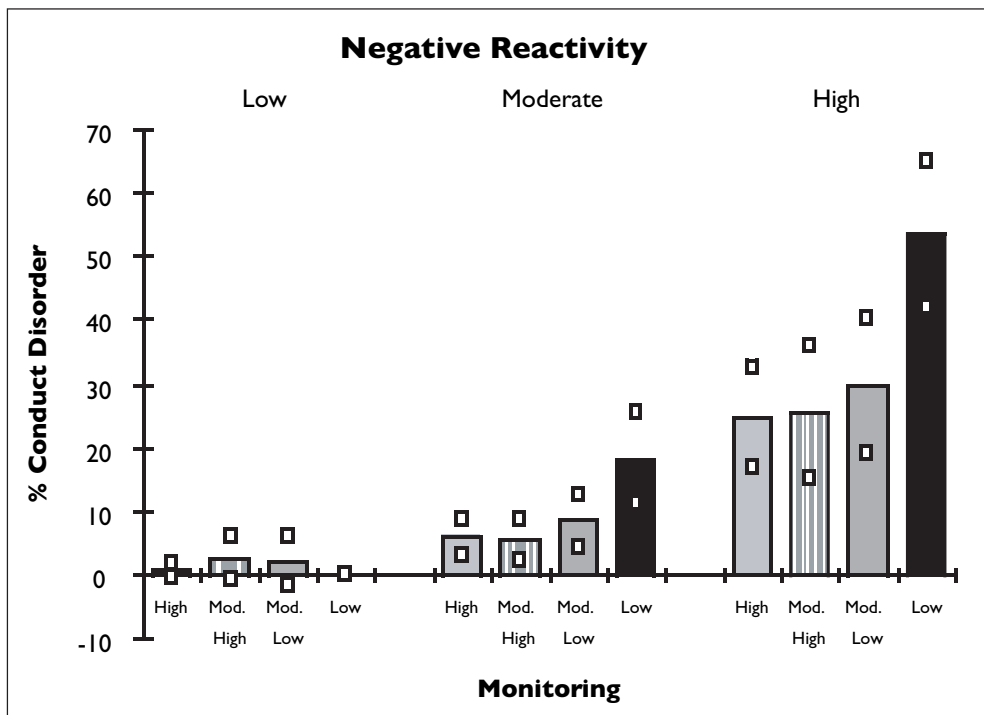
Figure 4 The moderating role of parental monitoring on the association between negative reactivity and conduct disorder among 13–14-year-olds

Measuring the social outcomes of schooling: What does ACER's research tell us?

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Margaret Forster is Research Director of the Assessment and Reporting Research Division at ACER. Ms Forster has extensive experience in the area of assessment and reporting and works as a consultant nationally and internationally. She has direct experience in the development of assessment materials for a number assessment programs including the New South Wales Basic Skills Test, the Queensland Core Skills Testing Program and the Western Australian Monitoring Standards in Education Program. She conceptualised and co-authored the first Developmental Assessment Resource for Teachers (DART English Upper Primary) and is co-author of the ACER Assessment and Values Questionnaire, and the widely acclaimed Assessment Resource Kit (ARK) materials.

Recent national consultancies on the revision and implementation of assessment and reporting frameworks include work with the Western Australian Curriculum Council and Education Queensland. Recent international consultancies include work for the World Bank Institute, the Peruvian Ministry of Education, AusAID in Papua New Guinea, UNICEF, the Chilean Ministry of Education, the Hong Kong Curriculum Development Institute and the Hong Kong Institute for Education.

For the past eight years the Australian Council for Educational Research (ACER) has been at the forefront of work in Australia to refine conceptualisations of the social outcomes of schooling, and to explore ways to measure the social and emotional development of young people.

Contexts for ACER's work in this area include: consultancies for individual schools; the development of questionnaire instruments as part of fee for services provisions for schools; assistance for state ministries of education; and development work for a variety of tertiary assessments. For example, in 1998, ACER worked with one school to formally assess and monitor the moral, ethical, social and emotional development of its students through secondary school (Forster & Masters, 2002). In 2001 ACER began work with the Education Department of Western Australia (EDWA) to develop instruments to address the social outcomes of schooling within EDWA's system-wide monitoring program that collects evidence of student achievement at Years 3, 7 and 10. These instruments measure interpersonal skills (collaboration, conflict resolution, and communication skills); intrapersonal skills (feelings in relation to self and self-management skills); and social, moral and ethical development, with the intention of reporting the achievements of students from Year 3 to Year 10 on a single scale. And ACER is currently working with the South Australian Education Department to define 'student wellbeing' across the compulsory years of schooling.

This paper reflects on ACER's research into the conceptual and practical challenges of refining definitions of social and emotional growth in a way that allows the definitions to be operationalised as valid, reliable and useful measurement instruments.[1]

The development process

In exploring ways to measure growth in the social outcomes of schooling in general, and social and emotional development in particular, ACER's approach is consistent with the approach taken in literacy, numeracy and subject areas of the curriculum. We begin by mapping the intended variable or underlying dimension we wish to measure. That is, we begin by articulating what it means to get better, improve or grow in that area of learning. What would a low level of achievement along the variable look like? How would we recognise high-level achievement?

Once we are clear about the intended variable, we select the most appropriate assessment method for collecting evidence of student achievement along that variable. Should we collect evidence through a written test (e.g., multiple-choice or extended response)? Would a performance assessment be more appropriate (e.g., a spoken response or a dance sequence)? That is, we decide which assessment method will provide us with the best evidence of the learning outcomes of interest.

Next we develop assessment tasks that address the variable. In this way, we give our initial conceptualisation explicit meaning (or definition). Each task we develop is easier or harder or of the same level of difficulty as the other

tasks we are developing along the single underlying variable. Thus the tasks we develop represent our expected ordered definition of the intended variable. They are an operationalisation of the intended variable.

In some areas of learning, the conceptualisation and operationalisation of the variable of interest are relatively straightforward. In the case of the two variables 'social' and 'emotional' growth the task is extremely challenging.

Challenge 1: conceptualisation – understandings or behaviour?

In conceptualising both social and emotional growth ACER's approach has been first to draw on the relevant literature (e.g., Helmke, 1994; Harter, 1990; Marsh, 1989; Goleman, 1995; Kuhl & Kraska, 1994; Mayer & Salovey, 1993; Cacioppo & Gardner, 1999; Eisenberg, 2000; Zahn-Waxler et al., 1992). Next, depending on the context for the work, researchers examine the evidence about what schools can reasonably have influence over (e.g., Lee & Robbins, 1995; Rutter et al., 1980; Mooij, 1999; Battistich et al., 1997; Helmke, 1994; Ainley et al., 1998) and the social outcomes embedded in state and territory key learning area documents (Curriculum Council, 1998; Curriculum Corporation, 2000). Our research suggests that while there is reasonable consensus in the literature and in state and territory documents about what the 'social outcomes' of schooling are not (e.g., not diagnostic assessments of psychiatric illness), there is no clear single definition of what they are, except as broad clusters: emotional (intrapersonal), social (interpersonal),

and physical/behavioural.

A fundamental challenge for test developers is the relationship between understanding and behaviour. Do we conceptualise social and emotional growth as increasing sophistication of social and emotional understandings or insight (that may or may not be acted out in increasingly appropriate social behaviour and emotional response)? Or do we conceptualise social and emotional growth as increasingly appropriate, acceptable or valued social behaviour and emotional response (regardless of whether the behaviour or response is driven by mimicry, genuine insight, particular values, or personality)? Is it possible to behave in an appropriate way and not have sophisticated understandings or insight? Is it possible to have sophisticated insight and behave or respond inappropriately? In conceptualising *growth*, do we focus on behaviour or the understanding? Which instruments will provide us with a more valid measure of social and emotional growth: those that address behaviour or those that address understanding?

In undertaking research into the development of valid and reliable measurement instruments that can be used over time to monitor growth, ACER has addressed both conceptualisations. Both approaches have their strengths and weaknesses.

Challenge 2: operationalising 'understanding'

A conceptualisation based on understanding describes variables of increasing sophistication of reasoning about and insight into social or emotional interactions. The lower end

of these variables is illustrated by students' understanding of the surface motivations driving and impacting on people's behaviour, the higher, by their understanding of the varied and sometimes contradictory emotions and motivations that drive and affect people in complex social and emotional situations.

Two kinds of paper and pen assessments have been developed to gather evidence of achievement along these social and emotional variables: scenarios with multiple-choice questions, and scenarios with short open-ended questions. Scenarios include video extracts, written dialogues, and extracts from novels. The scenarios present small vignettes that highlight issues, problems, or social and moral dilemmas that require differing levels of complexity of social reasoning to interpret and possibly resolve.

The continuing refinement of this approach addresses a single underlying issue: What is it that is being valued in students' responses? We know that behaviour is more or less appropriate given a cultural context. We know also that a range of behaviours (acquiescent through to challenging) can be appropriate, depending on circumstance. We also know that in the context of a paper and pen test, it can be difficult to provide sufficient context for a single defensible response, unless formulaic scenarios are presented that require formulaic, knowledge-based responses.

To address this issue, wherever possible, longer extracts (a paragraph) are used rather than brief ones (one or two sentences). Longer extracts provide sufficient context to reduce the number of plausible interpretations of a situation. Depending on the focus of

the question, we also sometimes use open-ended responses rather than multiple-choice, and scoring guides allow for alternative 'right' answers based on plausible reasoning, as well as for partial credit scoring of the quality of answers. For example, partial credit scoring sometimes gives additional credit to responses that appreciate the values that underpin people's varying perspectives on the situation, rather than responses that appreciate a single perspective only.

Challenge 3: operationalising 'behaviour'

A conceptualisation based on *behaviour* describes variables of increasingly appropriate social or emotional responses and interactions. The lower end of these variables is illustrated by students' limited repertoire of behaviours, or inappropriate behaviours and reactions; the higher by a sophisticated repertoire of behaviours and reactions that can be observed in complex social and emotional situations.

Two kinds of paper and pen assessment and one performance assessment have been developed to gather evidence of achievement along these social and emotional variables: Student and teacher questionnaires (e.g., Masters & Forster, 2000) provide evidence of students' attitudes and values as generalised expressions of their likely behaviours; small group discussions provide direct evidence of how students behave in constrained contexts; and constrained teacher judgments provide evidence of students' behaviour.

A common challenge to the questionnaire assessment of values is

that respondents may provide what they know is the 'best' answer regardless of what they really think. In ACER studies, where data are reported at the group or subgroup rather than individual level, questionnaires for students are completed anonymously and in some studies every 10th or 11th questionnaire statement is worded negatively to identify students who are simply 'agreeing' or 'disagreeing' with every statement, regardless of its content. A computer check highlights these students and their data are discarded. (Responses to the negatively worded items are not included in the analyses.)

A particular challenge to questionnaire assessment in some ACER work has been the intention to report student achievement from Year 3 to Year 10 on each variable on a single scale. Our data suggest that Year 3 students, on average, have higher levels of optimism, self-confidence and self-efficacy, than students in Year 7, and students in Year 7, on average, have higher levels than students in Year 10. This finding does not mean that the measures are invalid. It may be true that, given their relatively limited real life experience, the relatively sheltered contexts in which they relate to others, and their relatively limited cognitive development, Year 3 students are more optimistic and self-confident and have stronger self-efficacy than Year 7 and 10 students. It is also possible that this steady decline between Year 3 and 10 in optimism, self-confidence and self-efficacy is how students grow in the long run towards a stronger view of self as they experience and reflect on a greater range of social and emotional interactions.

An advantage of teacher reflections on student behaviours is that teachers have less reason to provide the 'best answer'.

On the other hand, they may lack the opportunity to observe student behaviour in a broad range of contexts. ACER data using teacher reflections suggest that the pattern observed for students' self-evaluations of optimism, self-confidence and self-efficacy is mirrored by teachers' evaluations of students' ability to empathise with others and to behave in a cooperative way.

Observing students in the context of small group discussion is an attractive approach because it provides direct evidence of their interactive skills and understandings; yet it brings its own challenges. In most test development contexts, researchers are careful to select material that is not confronting or emotionally challenging for students, so that students will be able to demonstrate the best of what they know and understand without distraction or distress. For example, stimulus passages to which students might have a strong emotional reaction are not included in reading tests.

ACER research suggests that measures of social and emotional interaction in the context of small group discussion distinguish between the behaviours of Year 3 and Year 7 students but are less successful at distinguishing between the behaviours of Year 7 and Year 10 students. A possible explanation for this finding is that students with more sophisticated negotiation and mediation skills are unable to demonstrate them given that sufficiently challenging and complex stimulus are excluded from a study for fear that they might be too emotionally charged and disruptive.

ACER is now trial testing a new instrument, based on teacher judgments, for collecting evidence of student's feelings about self, and of self-

management behaviours. The initial conceptualisation of the variable and the development of the instrument are built on feedback from teachers who were asked to describe observable behaviours that they judged to represent high, medium and low levels of positive feelings about self and self-management skills. The descriptions that teachers provided have been used as the basis for a set of items that operationalise the intended variable.

The items are grouped under the aspects of 'autonomy', 'enterprise' and 'self-awareness' and have been written with either a predominantly primary school context or a predominately high school context. Some are unique to a single year level and other items are being administered to two or more year levels. Items consist of a context and a set of item specific, described response categories. For example, three response categories for the context 'accesses own materials' read: 1. 'The student consistently locates personal and school related items efficiently as they are needed (such as jumpers and jackets, lunch boxes, stationery and books)'. 2. 'The student locates personal and school related items such as jumpers and jackets, lunch boxes, stationery and books with some effort or inefficiency.' 3. 'The student frequently is unable to locate their personal and school related items and usually spends time and effort searching for them.'

Researchers intend that this instrument will provide teachers with sufficient context for them to make reliable judgements of students' behaviours, and that the mix of year-level specific items and items that are administered across year levels will provide a solid foundation for a single reporting scale across the years of schooling.

Conclusion

What does ACER's research into the measurement of the social outcomes of schooling in general, and the measurement of social and emotional growth in particular, tell us? It tells us that, in principle, we can approach the measurement of these dimensions in the same way as we approach the measurement of any other underlying variable, although the work in this area is particularly challenging and we need to remain vigilant in reflecting on what we are valuing in students' responses.

ACER research also tells us that we need to be cautious about the inferences we draw from these measures. In particular, we need to be cautious about the kinds of understandings we infer that students have, and the relationship between those understandings and behaviour. Understanding social interactions, and the capacity to articulate these interactions, is not necessarily an indication of likely behaviours. Nor is it necessarily an indication of self-insight.

Finally, we need to be cautious about generalising from the sub-domains of social and emotional growth that have been addressed to a larger domain of student wellbeing which may be defined in different ways.

The presentation accompanying this paper is structured around examples of tasks designed to collect evidence of students' social and emotional growth. Discussion will focus on the way in which the tasks assist us to define the underlying variables (that is their conceptual strengths and weaknesses), and their usefulness for providing schools and systems with information that will assist in the support of students' development.

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The emotional wellbeing of young people: school, further study, work and beyond[1]

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Kylie Hillman is a Research Fellow at the Australian Council for Educational Research. Ms Hillman holds a Masters in Educational Psychology from the University of Melbourne and until recently divided her time between a multi-disciplinary clinic for people with Fragile X Syndrome and ACER. Ms Hillman has worked on the LSAY program since 2001, contributing to three major reports: examining rates of leaving home, relationships and home ownership: the dynamics of the youth labour market: and, the emotional wellbeing of young people. She is presently working on reports on the first year experiences of tertiary students and young people not in the labour force or education.

Introduction

Educational and labour market pathways in the early post-school years are becoming increasingly diverse. A pertinent issue for those working with young people is how young people now navigate the transition from secondary school into post-school education, training and employment, and the impact of the different paths followed on their emotional wellbeing.

This paper has two aims:

1. To describe the cross-sectional relationship between emotional wellbeing and participation in a range of post-school education, training and labour market activities.

2. To assess whether movement between activities in the early post-school years is associated with changes in emotional wellbeing.

Previous research

A number of Australian studies have documented a significant relationship between education and labour market activities and the emotional wellbeing of young people. In general, persons in fulltime employment experience higher levels of wellbeing, persons who are unemployed or outside the labour force have lower levels of wellbeing, and students and part-time workers fall between these two extremes (e.g. AIHW, 2003; Mathers, 1996). In addition to these cross-sectional findings, longitudinal research has indicated that young people's movement between activities in the post-school years is associated with changes in their wellbeing (e.g. Feather & O'Brien, 1986;

Graetz, 1993; Winefield, Winefield, Tiggemann & Goldney, 1991). These studies have not, however, examined in detail how young people combine educational and labour market activities at the same point in time nor over a period of years. For example, does combining fulltime study with long hours of paid work have a negative impact on the wellbeing of young people?

Furthermore, the nature of the transition from school to work in Australia has undergone numerous changes since the collection of the data used in many of these studies. Young people's participation in Year 12 and post-secondary education and training activities has increased since the early 1980s. At the same time, the fulltime labour market participation rates of young people have fallen and their part-time participation rates have increased dramatically. Today, many young people move in and out of a range of activities in the early post-school years, including education, employment, underemployment and unemployment, and other activities outside the labour market. The net result is that the transition from school to fulltime work has become both longer and less clearly defined for many young people, and this may have implications for their wellbeing.

Data for this study: the Longitudinal Surveys of Australian Youth

The Longitudinal Surveys of Australian Youth (LSAY) project, which is jointly managed by the Australian Council for Educational Research and the Australian

Government Department of Education, Science and Training, examines the experiences of young people as they move from school into post-secondary education, training and work. A number of cohorts of young people have been surveyed as part of the LSAY program. In order to examine wellbeing in the early post-school years, this paper focuses on a sample of young people who were in Year 9 in 1995. The initial sample included 13,613 students from approximately 300 government, Catholic and independent schools across Australia. The students were first surveyed in their school in 1995; since that time, data on educational, training and labour market activities have been collected annually, while data on emotional wellbeing have been collected in most years. The analyses in this paper are based upon the 6095 young people who remained in the active sample in 2002. All analyses have been weighted to correct for the original sample design and attrition over subsequent years (Marks & Long, 2000)

Measures

Measures of emotional wellbeing were generated from respondents' assessments of how satisfied they were with various aspects of their lives in 1999 and 2002. Two aspects of wellbeing or satisfaction were analysed: *general satisfaction* (an index generated from eight items relating to your life at home, your social life, your life as a whole, what you do in your spare time, your standard of living, where you live, how you get along with people in general, and your independence – being able to do what you want); and *career satisfaction* (an index generated from four items relating to your career prospects, your future, the work you do

– at school, at home or in a job, and the money you get each week). Most sample members reported high levels of both general and career satisfaction at each of the time points examined. Due to the highly skewed nature of these variables, they were transformed to approximate a normal distribution for analytical purposes.

Separate activity measures were constructed for each year from 1999 to 2002. These measures distinguish between young people with very large time commitments in education, training and employment activities *(dual role)*; those whose total time spent in one or a combination of education, training and employment activities was fulltime *(fully allocated)*; those whose total time spent in one or a combination of education, training and employment activities was less than fulltime *(partially allocated)*; and those who were not in education, training or employment *(unallocated)*. The operational definition of the four groupings is provided below.

Dual role   fulltime students who were employed for 20 or more hours per week

Fully allocated   fulltime students who were employed for 0–20 hours per week; apprentices and trainees; fulltime workers; and part-time students who were employed for 20 or more hours per week

Partially allocated   part-time students who were employed for 0–20 hours per week; and part-time workers who were not enrolled in education or training

Unallocated   young people who were not in education, training or paid employment

In each of the early post-school years, over 70% of young people were engaged in fully allocated activities. Between 7 and 10% of young people, however, were combining fulltime study with long hours of paid employment in any given year (the dual role group). A further 14–21% were not engaged in education, training or employment on a fulltime basis (the partially allocated and unallocated groups).

The early post-school years

To examine the cross-sectional relationship between activities and wellbeing in the early post-school years, the experiences of the 1995 Year 9 cohort were examined in 1999 and again in 2002. For the majority of the cohort, 1999 was the first year after completing Year 12 and the modal age at the time of data collection was 18. By 2002, cohort members were further along the transition process and their modal age was 21. At both of these time points there was a small but significant association between satisfaction levels and post-school activities. In general, at both points in the transition process:

- those young people whose time was spent in dual or fully allocated activities reported higher levels of satisfaction than those who were partially allocated, who in turn were more satisfied than those who were unallocated; and

- the satisfaction levels of young people in dual activities and those in fully allocated activities, however, did not differ significantly (with the exception of career satisfaction in 1999, where those in dual activities reported *higher* levels of satisfaction than those in fully allocated activities).

The longitudinal nature of the LSAY data also permits an examination of whether young people who move between activities experience changes in their wellbeing. There were a large number of different pathways or sequences of activities followed by sample members across each of the years between 1999 and 2002. Of particular interest, was whether young people whose post-school pathways were typified by 'positive' activity changes experienced increased levels of wellbeing and conversely, whether those whose post-school pathways were typified by 'negative' activity changes experienced decreased levels of wellbeing. Hierarchical multiple regression analyses were conducted to assess whether a range of activity pathways influence general and career satisfaction at age 21 (in 2002). These analyses controlled for the effects of background characteristics (gender, language background and Year 12 completion) and prior satisfaction (at age 18, in 1999).

Preliminary analyses indicated that, in general, young people who remained in the same types of activities in each of the years from 1999 to 2002 displayed relatively stable levels of wellbeing throughout the period.

In contrast, the results of the regression analyses suggested that pathways typified by 'negative' activity changes were associated with decreases in wellbeing. In particular:

- persons who moved from dual or fully allocated activities into partially allocated or unallocated activities reported decreased general and career satisfaction compared to those who remained in dual/fully allocated activities; and

- persons who moved from partially allocated activities into unallocated activities reported decreased levels of career satisfaction compared to those who remained in partially allocated activities.

Evidence in support of an association between 'positive' activity changes and increased satisfaction was weaker.

- Large 'positive' changes in activities – moving from unallocated activities into dual or fully allocated activities – were associated with increased career satisfaction, but did not impact upon general satisfaction.

- Smaller 'positive' changes in activities – moving from unallocated into partially allocated activities, or moving from partially allocated into fully allocated activities – were not associated with satisfaction levels.

Beyond the early post-school years

Until now we have concentrated on a period early in the transition process, between the ages of 18 and 21. For many young people today, the transition process is not completed within this period. In order to examine the relationship between activities and wellbeing beyond the early post-school years, it is necessary to turn to the experiences of earlier cohorts of young people. The Youth in Transition (YIT) study, a precursor to the LSAY program, is a study of young people born in 1961, 1965, 1970 and 1975. The same measures of wellbeing that were collected from the LSAY 1995 Year 9 cohort were also collected from the YIT participants. Marks and Fleming (1999) analysed data on the oldest cohort up to age 33 (in 1994), on the second cohort up to age 30 (in 1995),

on the third cohort up to age 24 (in 1994), and on the fourth cohort up to age 20 (in 1995). Consistent with our analyses of the early post-school years, Marks and Fleming (1999) reported that:

- persons who were unemployed or not in the labour force had significantly lower levels of wellbeing than other young people; and

- the detrimental effect of unemployment on wellbeing did not differ according to age, at least among the age groups analysed.

Discussion

This research has highlighted the association between young people's post-school activities and pathways and their emotional wellbeing. Young people who are occupied fulltime in education, training, employment or a combination of these activities report higher levels of satisfaction, in areas related to their careers and their lives in general, than young people who are occupied in these activities only part-time. Those who are occupied part-time are in turn more satisfied than those who are not in education, training or employment. Moving between activities also impacts upon satisfaction levels. Although these relationships are relatively weak, they remain evident throughout the transition process, from the late teenage years through to when young people are in their early thirties.

Of interest was the lack of difference in satisfaction levels between the dual role and fully allocated groups. The dual role group consisted of those young people who were combining fulltime study or training with twenty or more hours of paid work per week. Other research has shown this group to be at greater risk of dropping out of higher

education. However, the different time commitments of the dual and fully allocated groups do not appear to be influencing their satisfaction with their career prospects, their social lives, their spare time or their lives in general.

Participation in education and labour market activities is related more strongly to career satisfaction than to general satisfaction. The relationship between general satisfaction and post-school pathways is important though, and warrants attention, as it indicates that involvement in part-time work not coupled with fulltime study, being unemployed and withdrawal from the labour force can have a negative effect on young people's levels of satisfaction with broader, more social aspects of their lives. Conversely, engagement in some form of purposeful educational or labour market activity does have benefits for the healthy functioning of young people that go beyond having sufficient income or a future career to affect how they see their lives more generally.

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Poster presentations

1 Alison Anlezark

National Centre for Vocational Education Research (NCVER)

Does participation in school VET programs result in successful outcomes for students in the short term?

The objective of this project is to assess whether participation in school VET programs results in successful outcomes for students in the short term.

The impact of school VET programs will be measured by comparing successful student outcomes from those that have, and have not, participated in school VET programs, as well as those with differing exposure to VET both within and outside the school curriculum. These outcomes will be measured in terms of school retention rates, post school improved engagement with learning and improved employment outcomes, post school unemployment relative to youth unemployment rates and post school self esteem.

The scope will be young people who were, in year 9 in 1998, surveyed for the Longitudinal Survey of Australian Youth (LSAY) (Y98 cohort) supplemented by students covered by the NCVER data collections to add depth to the analysis of VET activity. Where relevant, comparisons will be made to the reported activity of the LSAY Y95 cohort.

2 Kaye Barnett

Windsor Gardens Vocational College

Improving effectiveness of the college core group program in supporting the development of student resilience"

3 Helen Boon

James Cook University

Relations of students' perceptions of family and school contexts with academic achievement: A bioecological perspective

This mixed methods project utilizes Bronfenbrenner's bioecological perspective with regard to school achievement. A survey instrument is used to explore student perceptions of two of their microsystem contexts, their school life and their home life (parenting). Student motivational goals , coping strategies and their life orientation (optimism/pessimism) are also surveyed. The sample comprises 1,500, year 8 to Year 10 students derived from three North Queensland state schools.

Based on SES, mobility, family structure, achievement levels in English and Maths and parental education, four categories of students are compared and contrasted: typically at risk students, typically not at risk students, atypically at risk students and resilient students. The qualitative phase of the research involves interviewing twelve Year 10 students, three from each group, to triangulate the results of the survey and explore Bronfenbrenner's bioecological model with regard to the proximal processes that occur between the microsystem contexts, the mesosystem. Exosystem influences upon student's perceptions will also be sought.

4 Garry Costello

Mt Gambier High School

Students' representations of school values

This poster presentation is designed by students of MT Gambier High School to feature the aspirations and values of the school community which are considered to be evident in every classroom.

5 Jennifer Forrest

Adelaide High School

Action research project at Adelaide High School in raising emotional literacy and self esteem

Our posters, displayed around the school, depict Adelaide High students involved in a range of activities offered during the year. We choose photographs that are visually positive and match them to quotes (from students or other 'greats') to provide positive and inspirational messages. This is part of a range of strategies we have in place to enhance resilience, raise self esteem and emotional literacy. It is an example of one aspect of our on-going research into monitoring student wellbeing.

6 **Deborah Hartman and Victoria Clay**

Boys in Schools Program
Family Action Centre
University of Newcastle

Boys: – their literacy strengths, their family and other resilience factors that schools could more effectively use.

The Boys and Literacy project looked at changing definitions of literacy and the specific purposes and contexts in which literacy is used today. This project recognized that boys use a range of non-traditional literacy practices in their lives outside school and their literacy practices reflect the use of literacy in their homes and local communities. The project investigated how home literacy practices and individual boys' interests could be utilized to promote greater engagement and motivation in literacy activities at school.

The *Boys and Families: Literacy Strengths Resources* were developed as a result of the project. The Resources aim to assist teachers in utilizing information about the interests of boys and their families, and their uses of literacy in the home in classroom literacy programs.

This poster presentation will display the Boys', Mothers' and Dads' Literacy Strengths Surveys, pertinent findings from the research report and methods of incorporating boys' and families' literacy interests in the classroom.

7 **Ian Hutchinson**

Charles Sturt University

Attitudes of adolescents towards mental illness

This poster presents a research summary of four hypotheses:

Part 1

The perception of behaviour as indicative of mental illness is correlated with:

1. the belief that mental illness has a physical cause
2. the belief that mental illness has a psychological cause
3. social acceptance

Part 2

1. girls show a greater acceptance of people with mental illness than boys do.

Research was conducted with high school students in country New South Wales

8 **Rupert MacGregor**

Australian Council of State School Organisations Inc (ACSSO)

Parent-school partnerships to support student resilience and wellbeing

ACSSO in conjunction with the Australian Parents Council is developing and managing a number of projects with a focus on supporting student wellbeing.

A major focus in this area is the **Families Matter** initiative, which is a complementary element of the MindMatters suite of programs, funded by the Dept of Health and Aging. This program seeks to engage parents, carers and families to work in partnership with schools and communities to support the resilience and wellbeing of their young people. This poster presentation describes the **Families Matter** project which, in an action research format, has piloted the learning materials and processes in early 2004 and is currently "rolling out" the program to be trialled in interested secondary schools, supported by a process of on going quality assurance feedback and review.

9 Elizabeth Roberts

Department of Education and Training W.A

Pathways to Social and Emotional Development

The Pathways to Social and Emotional Development (P2SED) resource was developed by the Western Australian Department of Education and Training.

Schools are using it as an evidence base to supplement their identification of school community needs when planning interventions or programs

Four key themes that underpin social and emotional development across all phases of childhood from conception to young adulthood are described within P2SED

- Attachment and connectedness
- Emotional regulation
- Autonomy and independence
- Values and attitudes or moral development

It presents significant relevant research information that validates and informs teacher observation of developmental characteristics. This is the major strength of the P2SED and lies at the heart of its growing use in schools.

By providing a practical framework for teachers to explore each theme, this information can be integrated into school and class planning. Schools are adopting the Health Promoting Schools Framework as they respond to local needs. Application models reflect both the diversity of the school communities and the breadth of the social and emotional developmental needs that are being managed.

The poster represents the key themes, developmental progress and implementation projects.

10 Elizabeth Roberts

Department of Education and Training W.A

Building Inclusive Classrooms: Have we asked them?

A Western Australian project funded by the Australian Government Quality Teacher Program investigated the characteristics of quality inclusive learning environments.

Exemplary practitioners engaged in action learning projects. They articulated quality inclusive educational practices and the benefits for students and teachers.

The reviewed Educational Services for Students with Disabilities in Government Schools conducted in WA between 2001 and 2003 provided the foundation for this project. Identifying what constitutes genuinely inclusive environments and how to develop a common language were major foci of the project.

There was a number of personal action learning themes in this project. One addressed the ways in which the voices of primary school students could be heard and considered by teachers. Teachers adopted a variety of strategies to engage students in gathering information, analysis and follow up classroom action.

All participants considered their findings and reflections as they described common features of inclusive learning environments in inclusive school settings across WA. Individual teacher reflections, the processes used to guide and observations ware presented along with the products developed – Building Inclusive Classrooms: a guide for reflective classroom practice and a rubric to assist personal reflection.

11 Desma Strong

University of Melbourne

Translating caring into action

The research "Translating Caring into Action" is a longitudinal evaluation of a professional development strategy of the Catholic Education Commission of Victoria aimed at assisting teachers to develop the knowledge and skills needed to support the social and emotional wellbeing of students.

This poster will highlight the key elements of an evidence based professional development strategy that a three year research study has shown to be successful in enhancing teacher confidence and skills in modeling and promoting social and emotional wellbeing amongst students

Contents of the poster will include:

- a description of the professional development strategy
- participants' perspectives on the immediate and longer term impact of this professional development initiative on their pastoral and interpersonal skills., leadership skills and their capacity to contribute to creating a school culture and organisation that fosters the development of student wellbeing,
- school principals' perspectives on the value to the school of having staff participate in this strategy and its contribution to supporting student wellbeing
- subsequent developments within the Catholic School system.

12 **Helen van Vliet, Katherine Hoekman and G. Andrews**

Clinical Research Unit for Anxiety and Depression (CRUfAD), St Vincents Hospital, Darlinghurst, NSW

School of Education, University of New South Wales,

Development of a school-based universal computer program to teach adolescents cognitive and behavioural skills to promote wellbeing and decrease anxiety and depression.

The World Health Organisation (WHO) asserts that mental health is about mental wellbeing. This view deviates from traditional Western views that define health in terms of the absence of illness. Schools aim to promote mental wellbeing since it is associated with enhanced learning. Teaching active coping skills (derived from cognitive behavioural therapy) has been shown to prevent anxiety and depression. Computers in schools present a viable means for universal delivery of such a teaching program. This poster presents the initial development of a school-based universal program to teach adolescents cognitive and behavioural skills to promote wellbeing and decrease anxiety and depression. An outline of the content is presented, along with examples of the interactive cartoon narrative, preliminary data from feasibility testing and the proposed methodology for evaluation. This project benefits from a cross-disciplinary co-operation between researchers and practitioners from education and psychiatry.

13 **Sue Wilson**

La Trobe University

What can be said about the disease of mental health as it relates to education?

There is a great deal of controversy and confusion in education about the place of mental health. Perhaps no great surprise when one considers the apparent lack of common interdisciplinary language for mental health in general. Paulo Freire suggests that language structures how we think about it. This poster will critically consider the relationship between our words, meanings and actions gain some insight into mental wellbeing and its place in education.

Conference program

Sunday October 24

6.00 – 7.30 **Welcome reception** Radisson Playford Hotel

Monday October 25

9.00 **Conference spening** Hyatt Regency Hotel

Welcome The Hon Dr. Jane Lomax-Smith, Minister for Education and Children's Services, South Australia

Opening address Geoff Masters, Chief Executive Officer, ACER

9.30 **Keynote address** *'Optimal motivation in education: the importance of students' goals and interests'*
Professor Judy Harackiewicz, Professor of Psychology, University of Wisconsin
Chair Geoff Masters, ACER

11.00 **Morning tea**

11.30 **Concurrent sessions 1**

Session A: Hyatt Ballroom 1	Session B: Radisson Ballroom	Session C: Hyatt Ballroom 2
'The relationship of young children's social-emotional development to their achievement and social-emotional-wellbeing'	*'Helping teachers help students act responsibly'*	*'Literacy, behavior and auditory processing: Building 'fences' at the top of the 'cliff' in preference to 'ambulance services' at the bottom'*
Michael Bernard, College of Education, California State University	Ramon Lewis, Associate Professor, Institute for Education, La Trobe University	Kathy Rowe, Senior Consultant Paediatrician, Royal Children's Hospital, Melbourne and
Chair Kerry-Anne Hoad, ACER	*Chair* Marion Meiers, ACER	Ken Rowe, Research Director, Learning Processes and Contexts, ACER
		Chair Deirdre Morris, ACER

12.30 **Lunch and poster displays**

1.30 **Keynote address** Hyatt Regency Hotel
'The mental health and wellbeing of young people in Australia'
Michael Sawyer, Professor of Child and Adolescent Psychiatry, Department of Paediatrics Adelaide University; Head, Research and Evaluation Unit, Women's and Children's Hospital, South Australia.
Chair John Ainley, ACER

3.00 **Afternoon tea**

3.30 **Concurrent sessions 2**

Session D: Hyatt Ballroom 1	Session E: Radisson Ballroom	Session F: Hyatt Ballroom 2
'Developing interdependence: An analysis of individual and school influences on a social outcome of schooling'	*'Family and school influences on healthy youth development: An examination of social interaction between parents and the early high school context'*	*'Strengthening learning through a focus on wellbeing'*
John Ainley, Deputy CEO and Research Director National and International Surveys, ACER	John Toumbourou, Associate Professor, Research Unit, Centre for Adolescent Health, Parkville	Steve Marshall, Chief Executive, Department of Education and Children's Services, South Australia
'The heart and soul of learning'	*Chair* Deirdre Morris, ACER	*'Using evidence to drive system change to improve student wellbeing'*
Chris Presland, Principal, Airds High School Campbelltown, NSW		Peter Hamilton, Director, School and System Performance, Department of Education and Training, WA
Chair Kerry-Anne Hoad, ACER		*Chair* Marion Meiers, ACER

5.00 **Close of discussion**

7.00 **Conference dinner** Radisson Playford Hotel
Speaker Dr Darryl Cross, Psychologist, Director Crossways Consulting

Tuesday October 26

9.00   **Keynote address**   Hyatt Regency Hotel
'Core values in the balance'
Professor Brian Hill Emeritus Professor, School of Education, Murdoch University
Chair   John Ainley, ACER

10.30   **Morning tea**

11.00   **Concurrent sessions 3**

Session G: Hyatt Ballroom 1
'Pathways to social and emotional wellbeing: Lessons from a 20 year longitudinal study'
Ann Sanson, Associate Professor, University of Melbourne, Acting Director Australian Institute of Family Studies
Chair Kerry-Anne Hoad, ACER

Session H: Radisson Ballroom
'Assessing the social outcomes of schooling: What does the ACER research tell us?'
Margaret Forster, Research Director, Assessment and Reporting, ACER
Chair Deirdre Morris, ACER

Session I: Hyatt Ballroom 2
'The emotional wellbeing of young people: school, further study, work and beyond'
Julie McMillan, Research Fellow, ACER and Kylie Hillman, Research Fellow, ACER
Chair Marion Meiers, ACER

12.30   **Lunch and poster display**

1.30   **Keynote address**   Hyatt Regency Hotel
'Rotten kids or clueless adults - Australian parenting on trial - what's happened to a developmental perspective?'
Michael Carr-Gregg, Adolescent Psychologist, Albert Road Centre for Health, South Melbourne
Chair   Geoff Masters

2.30   **Closing address**   *'Using research to advance professional practice'*
Geoff Masters, ACER

3.30   **Close of conference**

Conference delegates

Dinner Table No.	Delegate Name	Delegate Organisation
	Ms Lisa Acutt	Woodridge State School, Qld.
	Mrs Natalie Adamson	Merici College, ACT
2	Rev. John Adotey	West African Exam Council, Ghana
2	Dr John Ainley	ACER
6	Mrs Michelle Airth	Santa Sabina College, NSW
	Ms Lynne Aldridge	Dunedin College of Education, NZ
	Ms Vanessa Almond	Christ Catholic College, NSW
	Ms Sarah Anderson	AGCA, SA
2	Ms Alison Anlezark	NCVER, SA
8	Mr Chris Appel	Scotch College, Vic.
2	Dr Jennifer Archer	University of Newcastle
	Mrs Mary Asikas	Seaford 6-12 School, SA
5	Dr Mark Askew	Catholic Schools Office, NSW
	Ms Olga Atsalas	St John's Grammar School, SA
8	Ms Lisa Austin	Christchurch College, NZ
	Mrs Simone Babic	St John Bosco College, NSW
22	Mr Robert Baker	St Philip's Christian College, NSW
9	Mr Alan Ball	Canberra Grammar School, ACT
	Ms Robin Ballantyne	AEU - ACT Branch
	Mr Andrew Barnett	Ruyton Girls' School, Vic.
	Ms Kaye Barnett	Windsor Gardens Voc. College, SA
	Ms Margie Barylak	DECS - Drug Strategy SA
	Mr Anthony Bataille	St Augustine's - Sydney
9	Mrs Barbara Batchelor	Christchurch College of Education, NZ
20	Mrs Beverley Begg	Catholic Education Office, Vic.
	Mrs Karen Belbin	Brisbane Girls Grammar School
	Ms Cassie Belcher	Salisbury North R-7 School, SA
	Ms Lyn Bennett	Education Servic.es & Programs, SA
	Mr David Bentley	Direk Schools, SA
	Professor Michael Bernard	California State University
	Ms Yvonne Berrett	Western Heights College
	Mr Ian Berry	DECS, SA
	Mrs Helen Biggins	Brisbane Grammar School, Qld.
	Mr Andrew Bills	Mount Barker High School, SA
	Ms Helen Boon	James Cook University, Qld.
	Ms Michelle Booth	Glenelg School, SA
	Mr David Boots	Dept. of Educ. & Children's Servic.es, SA
16	Mrs Christina Bounds	All Saints Catholic Senior College, NSW
	Mr Craig Bowering	Hallett Cove School, SA
19	Ms Cheryl Bradford	Trinity Lutheran College, Qld.
	Ms Joan Bradley	Merici College, ACT

	Mr Michael Bradley	Erindale College, ACT
15	Ms Deborah Brassington	Wynn Vale Primary School, SA
	Ms Gaye Brimacombe	DECS, SA
9	Mr Peter Britton	Brisbane Boys' College, Qld.
17	Ms Claire Brown	St Joseph's College, Vic.
	Miss Karen Brown	Immanuel Primary School, SA
	Ms Karen Brown	Immanuel College, SA
4	Mr Mark Brown	Curriculum Council of WA
	Mr Peter Brown	Reynella South Primary School, SA
6	Mr Chris Browne	St Andrew's College, NSW
	Mrs Helen Bruce	Windsor Gardens Voc. College, SA
7	Mr Darryl Buchanan	Assoc. of Independent Schools, NSW
20	Br Kevin Buckley	Catholic Education Office, Vic.
	Ms Christine Budd	Dept. of Educ. & Children's Servic.es, SA
19	Ms Tracey Burchall	Chisholm Institute, Vic.
	Mrs Jan Burgess	DECS - Drug Strategy SA
10	Mrs Julie Burgess	Loreto College, Qld.
	Miss Shannon Burgess	WA Students Aboriginal Corporation
	Mr Michael Burvill-Holmes	Trinity College South, SA
	Ms Kathy Buttery	Annesley College, SA
	Ms Chris Buttigieg	CHILD Association, Qld.
	Mrs Deana Byrne	Cardijn College, SA
	Mr Steve Byrne	Sacred Heart College Middle School, SA
	Mr Paul Cahill	International Grammar School, NSW
	Ms Tania Cairns	Catholic Education Office, NSW
	Ms Jan Calder	Senior Secondary Assessment Board, SA
	Mr Michael Campbell	St Mary Magdalene's School, SA
18	Rev Christopher Cardlane	Ivanhoe Grammar School, Vic.
	Mrs Ruth Cargill	Felix Donnelly College, NZ
	Ms Mary Carmody	Catholic Education SA
	Mr Bruce Carothers	Vic.toria Point State School, Qld.
	Mrs Margaret Carpenter	Vic.toria Point State School, Qld.
	Dr Michael Carr-Gregg	Albert Road Centre for Health, Vic.
10	Ms Helen Carty	Loreto College, Qld.
9	Mrs Deirdre Casey	Presbyterian Ladies' College, Vic.
7	Ms Sharlene Chadwick	Peer Support Foundation, NSW
	Mr Peter Champion	DECS, SA
	Mr Keith Christie	DECS, SA
13	Ms Mary Chrysostomou	Salisbury High School, SA
	Mrs Karen Church	Open Access College, SA
	Mr Rafael Church	Le Fevre Peninsula Primary, SA
22	Mrs Deborah Clancy	St Catherine's School, NSW
	Miss Jeanette Clark	Burton Primary School, SA

	Mrs Julie Clark	Highgate Junior Primary School, SA
	Ms Kylie Clarke	Copperfield College, Vic.
	R. Clarke	Walford College, SA
	Ms Victoria Clay	University of Newcastle
	Mr Peter Clemson	DEST, Vic.
	Mrs Helen Clifton	St Peter's Catholic College, NSW
	Mr Graham Coates	Salisbury High School, SA
	Mr Michael Colahan	Holy Spirit School, Qld.
12	Mrs Jenny Collins	MLC, Vic.
15	Mr Mark Compton	St Patrick's Strathfield, NSW
	Ms Jenni Cook	Mount Barker High School, SA
	Dr Dean Cooley	University of Tasmania
	Ms Kate Cooper	Senior Secondary Assessment Board, SA
6	Mrs Sue Cooper	St Andrew's College, NSW
12	Mr Garry Costello	Mt Gambier High School, SA
	Ms Mary Creenaune	Good Shepherd Primary School, NSW
4	Mrs Susan Crowe	DEET, NT
21	Mrs Jenny Cugley	Wanneroo Senior High School, WA
9	Mr Bill Cunnington	A.B. Paterson College, Qld.
7	Ms Barbara Curzon-Siggers	Dept. Education & Training, Vic.
22	Ms Jennifer Czernezkyj	University of Adelaide
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	Mrs Joanne Ellings	All Saints Anglican School, Qld.
	Ms Kathy Ellis	Unley High School, SA
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	Mrs Kerrilyn Elmer	Gladstone High School, SA
	Mrs Jennifer Emery	DECS (SA)
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	Mrs Nicole Fammartino	DEET - NT
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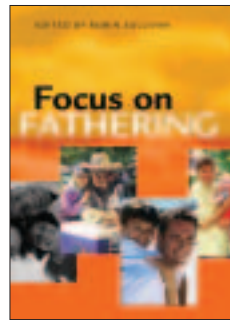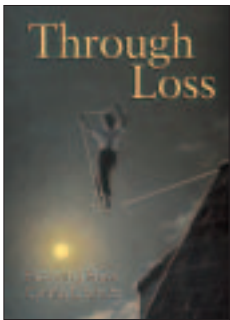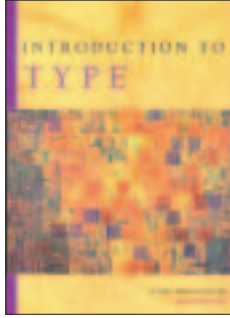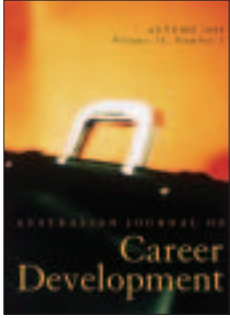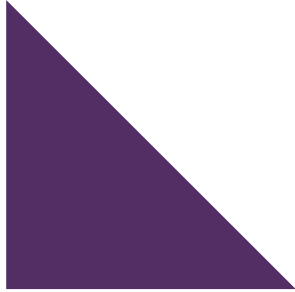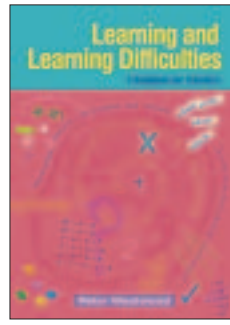
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