

# **Helping Great Teachers Make Great Students**

**How Empowering Students with a Positive Mindset for Learning  
Improves their Reading Achievement.**

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Chinese Proverb: *“Teachers open the door but you must enter yourself”*

Comment by Teacher Trained in the AB4L Program: *“The focus in my class has moved away from behavioural issues to learning behaviours and the talk is positive, not negative. Students now take more responsibility for learning”*

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## EXECUTIVE SUMMARY

1. The *Melbourne Declaration on Educational Goals for Young Australians* (2008) endorsed by all state ministers of education indicates that the Australian educational system is not succeeding with students from lower socioeconomic backgrounds as these young people are under-represented among high achievers and overrepresented among low achievers. A commitment was expressed in the declaration that Australian governments would ensure that all Australian children become successful learners with particular reference to improving educational outcomes for economically disadvantaged young Australians.
2. The *Ministerial Council for Education, Early Childhood Development and Youth Affairs* (2008) has announced special funding for low socioeconomic status schools (“National Partnership Schools”) and support for schools with high representations of students who are not succeeding in literacy (and numeracy) (“Literacy and Numeracy National Partnerships”).
3. The present project focuses on how students go about their learning during literacy instruction. A large body of international research identifies an aspect of student development variously called “behaviours for learning,” “academic enablers” and “self-regulated learning” that competent learners possess and which low achievers do not. Research reveals that delays in the acquisition of behaviours for learning influence students’ readiness for learning, place students “at risk” for academic failure and is associated with under-achievement.
4. Research indicates that students from lower socio-economic backgrounds are rated lower by their teachers in attitudes and behaviours for learning than students from families with higher income levels.
5. Behaviours for learning are observable behaviour patterns that children display as they approach and undertake classroom learning tasks. Specific learning behaviors include goal setting, self-monitoring, time planning, social skills including seeking help when needed, engagement, confidence, persistence, flexible methods for learning as well as positive attitudes towards learning including high self-efficacy and interest in what they are learning.
6. The present project evaluates the impact of a new, innovative program, “Attitudes and Behaviours for Learning” (AB4L). AB4L is designed to improve student attitudes and behaviours for learning as well as their reading performance. Interest was in determining when introduced to students from lower socioeconomic backgrounds (a) whether the AB4L program would be effective in improving student behaviours for learning, (b) whether students who showed improvements in their behaviours for learning would show concomitant improvements in the reading performance and (c) the effect of the AB4L program on the reading performance of students in the lower 50% of their classes in reading achievement.
7. School principals of two National Partnership primary schools located in a rural community (Ballarat, Victoria) agreed to have the AB4L program implemented and evaluated in their schools. In School A, the students in two composite grade 3/4 classes were chosen to receive the program while in School B, the students in

two composite grade 5/6 classes received the program. For purposes of comparison, in School A, the students in two composite grade 5/6 classes did not receive the program while in School B, students in two composite grade 3/4 classes did not receive the program. The total number of students receiving the program was 96 while the total number of students not receiving the program was 86.

8. The AB4L program is designed to be integrated into literacy lessons. Teachers were trained over three half-day sessions to integrate the following five practices throughout the different components of a literacy lesson (before the lesson begins, during whole class, teacher-led instruction, during small group/dyadic/individual work, at end of literacy session –reflection on learning, assignment of literacy homework).
  - a. Share with students the goals of the literacy lesson, have them set goals, monitor progress and when necessary revise learning methods and behaviours.
  - b. Prepare students to begin literacy lesson with a positive mindset.
  - c. Identify and discuss behaviours for learning.
  - d. Discuss positive (and negative) self-talk for learning.
  - e. Communicate behaviour-specific feedback for learning.
9. The teachers from School A and B who taught the AB4L program to their students received three half-day training sessions over a three month period from an experienced primary teacher/literacy coordinator in how to implement the program during their standard literacy classes. After training commenced, the AB4L program trainer made classroom observations of each teacher employing the program while presenting a literacy lesson and, then, provided each teacher with written feedback that suggested ways in which the AB4L program practices could be implemented and to provide encouragement.
10. The impact of the AB4L program was evaluated over a three and a half month period. At the beginning and at the end of this period, all students completed a measure of reading comprehension performance, a survey of their perceptions of their own behaviours for learning and their teachers rated student learning behaviour using the Learning Behaviors Scale.
11. The following are the keys findings obtained in this project:
  - a. Students who received the AB4L program showed statistically significant increases in their behaviours for learning.
  - b. Students in the lower 50% of their class in reading achievement who received the AB4L program showed statistically significant improvements in their reading comprehension performance.
  - c. Those students who were received the AB4L program and who showed improvements in their behaviours for learning demonstrated statistically significant improvements in their reading comprehension performance.
  - d. The AB4L program was equally effective for boys and girls.

12. Transcribed oral comments by students who received AB4L program reveal that many believed they were more positive towards reading and were applying themselves with greater persistence and confidence during literacy instruction. Additionally, many expressed the view that other students were more settled and focused on learning rather than misbehaving.
13. Classroom observations of teachers revealed that all four participating teachers effectively applied the different AB4L program practices throughout their teaching of literacy. Written comments by all teachers trained in the AB4L program indicate they benefitted from teaching the program as did their students. Teacher comments refer to students taking ownership of their learning and being more positive, confident and persistent in their approach.
14. Comments from teachers also indicated a shift in focus of class concern from negative behaviour to advancing positive behaviour and an increase in whole-class student interest in wanting to be successful. It may be the case that this shift in classroom culture along with the explicit teaching of positive attitudes and behaviours for learning had the most impact on the disengaged, under-achieving students.
15. The finding of equal benefit of impact of AB4L on boys and girls is an important finding especially for the education of boys. It appears that the explicit teaching practices employed in AB4L where students are asked to practice ways of thinking and learning behaviours to be used during classroom instruction combined with behaviour-specific feedback from their teachers suits the learning styles of boys (and girls).
16. A novel aspect of AB4L is that it is not a stand-alone program where students are taught foundational positive attitudes and learning behaviours apart from academic instruction. Integrating the teaching of attitudes and behaviours for learning as a part of literacy instruction is likely to produce a much stronger effect than a program taught on its' own.
17. It would appear that the AB4L program is an excellent tool for training teachers. Moreover, the AB4L program appears to produce significant improvements in behaviours for learning in the relatively short period of three months.
18. Based on these findings and previous research, student characteristics and their role in academic development and achievement need to be in the center of the radar screen of education reform efforts to improve literacy achievement – especially in schools with students from low socioeconomic backgrounds. We need to make sure that at all levels of educational policy, school planning and decision-making as well as classroom practice, educators are well informed about the relationship of student characteristics to school learning.
19. Teacher preparation and professional development programs should incorporate positive attitudes and behaviours for learning as foundational competences that all teachers need to enhance in all students; especially, for students who are most likely to be at risk for educational failure as well as those who are under-achieving.

## CONTEXT

The *Melbourne Declaration on Educational Goals for Young Australians* (2008) endorsed by all state ministers of education indicates that the Australian educational system is not succeeding with students from lower socioeconomic backgrounds as these young people are under-represented among high achievers and overrepresented among low achievers. A commitment was expressed in the declaration that Australian governments would ensure that all children become successful learners with particular reference to improving educational outcomes for economically disadvantaged young Australians.

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The present project focuses on how students go about their learning with a particular focus on how student attitudes about learning and the learning behaviours they employ during classroom instruction influence their acquisition of academic skills and achievement. Student characteristics fundamental to learning have been termed *learning-to-learn skills* (Barnett et al., 1996), *keystone skills for classroom learning* (Stott, 1981), *academic self-regulation skills* (Zimmerman, 1989), *learning behaviours* (McDermott, 1999), *academic enablers* (DiPerna & Elliott, 1999) and *approaches to learning* (Rock & Pollack, 2002). These terms refer to distinct sets of attitudes and learning behaviours that indicate ways in which children become self-managing of and engaged in classroom learning activities. Specific learning behaviors include goal setting, self-monitoring, time planning,

social skills including seeking help when needed, engagement, confidence, persistence, flexible methods for learning as well as positive attitudes towards learning including high self-efficacy and intrinsic interest in learning. (McDermott, 1999). Research suggests that positive attitudes and learning behaviors such as contribute to school readiness and literacy and mathematics outcomes (e.g., DiPerna, Volpe & Elliott, 2002; Fantuzzo, Perry, & McDermott, 2004; Green & Francis, 1988; McDermott, 1984; McDermott, Leigh, & Perry, 2002; McWayne, Fantuzzo, & McDermott, 2004).

Many research scientists have identified a range of attitudes and behaviours for learning that students need to possess to be classified as competent learners and “achievers.” These same attitudes and skills when not possessed by students have been found to lead to under-achievement and students being deemed at risk for academic failure. That is to say, while good teachers and best teaching practices as well as environmental influences are known to positively influence student achievement, so, too, do students and student characteristics directly influence their learning and achievement. The good news is that attitudes and behaviours for learning are relatively teachable and their improvement tends to transfer to similar behaviors and to generalize to improvements in academic achievement (McDermott, Leigh, & Perry, 2002; McDermott, Mordell & Stoltzfus, 2001).

The importance of children’s general approach to learning and of preparing young children with the attitudes and behaviours they need to access formal learning has been increasingly recognised by educational policy makers. The Australian Commonwealth Government’s agenda for early childhood education mapped out in the “Early Years Learning Framework” (2009) includes as learning outcomes a variety of such dispositions (“enduring habits of mind and actions, and tendencies to

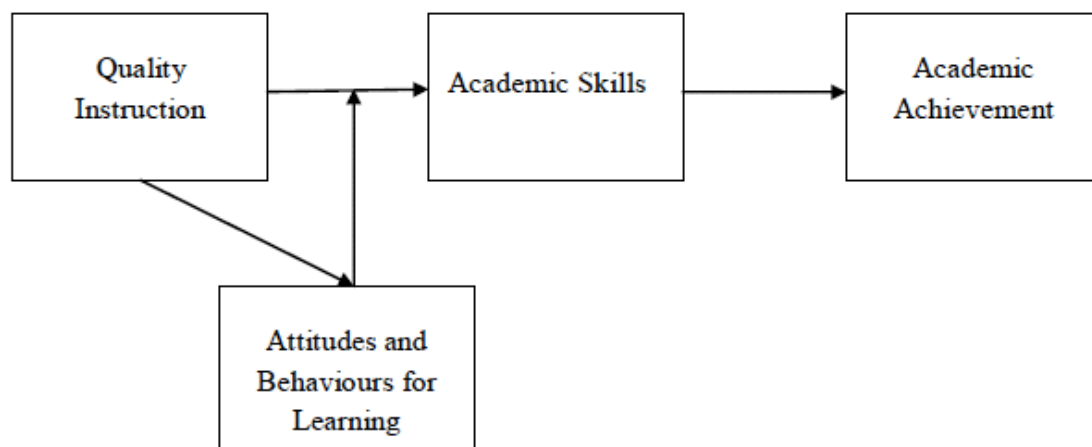
respond in characteristic ways to situations, for example, maintaining an optimistic outlook, being willing to persevere, approaching new experiences with confidence”) that should be encouraged in young children. Further, state departments of education have included in their curriculum frameworks for primary and secondary education, personal and interpersonal learning skills outcomes that address the need to integrate behaviours for learning and interpersonal adjustment across the curriculum (e.g., Victorian Essential Learning Standards, 2010).

Overseas, Head Start is the USA’s nation's largest federally sponsored early childhood program developed to serve at-risk, vulnerable, young children by promoting school readiness (Zigler, Finn-Stevenson, & Hall, 2002). Guided by an overarching, developmental model, Head Start identifies eight key areas of development to promote readiness; these include language development, literacy, mathematics, science, creative arts, physical health, approaches to learning, and social and emotional development (U.S. Department of Health and Human Services [USDHHS], 2003). The National Educational Goals Panel (1997) have underscored the particular significance of learning behaviors; they are included as essential components of children's school readiness and have been identified as the least understood and the least researched school readiness competency (Fantuzzo, et al., 2007).

Since John Carroll (1963) published his model of school learning, there has been a general consensus that three factors are most important in influencing student learning: characteristics of the learner (e.g., prior achievement, motivation, social, affective), the learning environment (classroom climate, home environment, peer group) and the quality of instruction the learner receives (quantity, quality) (DiPerna, Volpe & Elliott, 2001). An often cited, comprehensive review of research regarding the correlates

of academic achievement indicated that characteristics of the learner have the most direct influence on achievement; more than the learning environment and the quality of instruction the learner receives (Wang, Haertel & Walberg, 1993).

As displayed in Figure 1 below, cumulative research reveals that the quality of classroom instruction directly influences the development of students' academic skills and achievement. The model presented shows that the impact of instruction is enhanced (or inhibited) by students' attitudes, and behaviors for learning. In addition, the quality of instruction influences students' development and use of attitudes and behaviours for learning in the classroom.



**Figure 1. Relationship among classroom instruction, attitudes and behaviours for learning and academic skill development and achievement**

This paper will now present brief summaries of three of the most recognised frameworks that describe foundational attitudes and behaviours for learning.

### **Behaviours for Learning**

*'Behaviours for learning' refer to a range of skills that students use during instruction that help them to maintain focus and to be engaged in the learning activities set out for them by their teachers. Behaviours for learning are observable behaviour patterns that children display as they approach and*

*undertake classroom learning tasks. Specific learning behaviors include initiative, cooperativeness, engagement, confidence and persistence (McDermott, 1999).*

McDermott identified four distinct learning behaviours based on extensive statistical analyses of The Learning Behaviors Scale (LBS) which teachers complete as a means for describing their students' characteristics (McDermott, Green, Francis, & Stott, 1999). Items that appear in the scale were developed from existing theories and research into social, cognitive and emotional factors that influence learner behaviour. The four dimensions of learning behaviours identified by McDermott and his colleagues are: Competence Motivation, Attitude Towards Learning, Attention/Persistence and Strategy/Flexibility can be summarized as follows:

Competence Motivation refers to a child's curiosity about learning activities, as well as his/her motivation to understand and succeed in those activities. A child's ability to attend to relevant stimuli and persevere with difficult tasks describes the Attention/Persistence dimension. Strategy/Flexibility refers to the way in which a child approaches tasks and problem solves. A child's general demeanor during learning activities, and the way he/she interacts with peers and adults in those learning activities reflects the Attitude Toward Learning dimension (Fantuzzo, Perry & McDermott, 2004).

Table 1 lists specific learning behaviours that make up each dimension.

**Table 1. Dimensions and Component Behaviors from the Learning Behaviors Scale (Schaeffer & McDermott, 1999)**

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**Competence Motivation**

- Eager to tackle new tasks
- Rarely says tasks too hard, makes no attempt
- Offer answers freely
- Does not delay answers, waits for hints
- Does not easily give up on tasks

Is not resistant to or fearful about new tasks  
Maintains concentration  
Does not take refuge in dullness or incompetence

**Attention/Persistence**

Is not easily distracted or seeks distraction  
Does not fidget, squirms, leaves seat  
Sticks to tasks  
Cooperative in class activities  
Tries, concentration does not fade  
Responses show attention  
Caring attitude to success or failure

**Strategy/Flexibility**

Does not perform tasks by own, not accepted, way  
Does not invent silly ways to do tasks  
Works well when in bad moods  
Does not become aggressive or hostile when frustrated  
Does not fidget, squirms, leaves seat  
Does not follow peculiar or inflexible procedures

**Attitude Toward Learning**

Shows desire to please teacher  
Interest shown towards learning activities  
Caring attitude to success or failure  
Shows energy for interest or effort  
Does not take refuge in dullness or incompetence  
Cooperative in class activities  
Willing to be helped in difficulty  
Willing to accept needed help  
Does not easily gives up on tasks

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Schaeffer and McDermott (1999) provided clear evidence that learning behaviours contribute to the level of achievement attained by students. They conducted an analysis comparing the relationship among general intelligence, learning behaviours and student performance on a standardised academic achievement test as well as teacher-assigned grades. The results indicated that learning behaviours were more correlated with teacher-assigned grades while general cognitive ability correlated more with achievement test scores. Additionally, “positive attitudes to learning” measured by the LBS contributed to standardised reading achievement. This

study provides clear evidence of the positive influence of learning behaviour on classroom learning and academic achievement.

### **Academic Self-Regulation**

*Self-regulated functioning involves self-generated thoughts, feelings, and behaviors that are planned and cyclically adapted based on performance feedback in order to attain self-set goals (Zimmerman, 1999). It is a cyclical process whereby students use externally provided or self-generated feedback, such as receiving a test grade from a teacher or developing self-quizzes to monitor learning during studying and to evaluate and adjust their methods of learning (Cleary, Platten & Nelson, 2008).*

Over the past several decades, researchers have investigated differences in the way successful students go about their learning in comparison with the way less successful students of similar intellectual ability go about their learning.

It has been discovered that a major cause of academic under-achievement is the inability of students to control their own learning behaviour. Zimmerman and his colleagues (Cleary & Zimmerman, 2004; Zimmerman, 1989, 1994, 1995; Zimmerman & Martinez-Pons, 1988) have been interested in knowing how students become willing and able to assume responsibility for their academic achievement. As a matter of concern is the finding that approximately two-thirds of young people in Australian schools report they could be doing better in their schoolwork (Bernard, 2008).

One of the major differences between successful and less successful individuals in any field is that successful individuals know how to motivate themselves even when they do not feel like performing a task, whereas less successful individuals have difficulty controlling their motivation. As a result, less successful individuals are less likely to complete a task and more likely to quit or to complete a task less proficiently.

Although successful learners may not feel like completing required tasks, they learn how to motivate themselves to completion in order to maintain progress toward achieving their goals (Dembo & Eaton, 2000). The ability of students to self-regulate and take responsibility for their learning including work they do not feel like doing (e.g., Zimmerman, 1994) has been associated with higher levels of student self-efficacy and higher levels of academic achievement (e.g., Dembo & Eaton, 2000; Yowell & Smilie, 1999).

The following are six dimensions of academic self-regulation identified by Zimmerman and his colleagues that have been found to contribute to academic success and have been discussed in detail by Dembo and Eaton (2000).

**1. Motivation.** Students use a number of important self-regulatory strategies to develop and maintain important motivational beliefs and behaviors. The first is *goal setting*. When individuals establish and attempt to attain personal goals, they are more attentive to instruction, expend greater effort, and increase their confidence when they see themselves making progress. It is difficult to be motivated to achieve without having specific goals. A second self-regulatory strategy for motivation is *self-verbalization or self-talk*. Some of their own speech motivates people to try new tasks and to persist in difficult situations; other self-talk is unproductive and inhibits our motivation to succeed. Another motivational self-regulatory strategy is *arranging or imagining rewards or punishments for success or failure* at an academic task. Students who control their motivation by giving themselves rewards and punishments outperform students who do not use this control technique (Zimmerman & Martinez-Pons, 1988).

**2. Methods of Learning.** Research indicates that higher-achieving students use more learning strategies than do lower-achieving students (Zimmerman & Martinez-Pons, 1988). Examples of these learning skills include knowing how to use maps or representations to organize information and being able to generate and answer questions from notes and textbooks are important learning tools.

**3. Use of Time.** Time management and procrastination are among the major problems students, parents, and teachers identify which interfere with academic success. As students get older, time management is increasingly correlated with academic achievement (e.g., Fulgini & Stevenson, 1995). Time management and dealing with procrastination are critical self-regulatory skills that have important implications for determining both academic and nonacademic outcomes.

**4. Control of the Social Environment.** Self-regulatory learners often realize when they have difficulty learning or achieving their goals. When these conditions occur, they take charge of their learning by seeking assistance from others to remedy the situation.

**5. Control of the Physical Environment.** Another important aspect of self-regulation is the ability of learners to restructure their physical environments to meet their needs. Zimmerman and Martinez- Pons (1988) found that high achievers reported greater use of environmental re-structuring than did low-achieving students. For the most part, environmental restructuring refers to locating places to study that are quiet or not distracting. Although this task may not appear difficult to accomplish, it poses many problems for students who either initially select inappropriate environments or cannot control the distractions once they occur.

**6. Performance.** Competent learners monitor and evaluate their progress towards achieving goals set and making the necessary changes to learning approach attain these goals. One important function of a goal is to provide an opportunity for students to detect a discrepancy between it and their present performance (Zimmerman, 1994). When students learn to monitor their work under different learning conditions (e.g., test taking and studying), they are able to determine what changes are needed in their learning and studying behavior.

With regards to self-regulation interventions and their impact, there are many empirically supported techniques that teachers can readily infuse into the daily routine of a school day, such as requiring all students to set performance goals, engage in progress monitoring, and utilize self-reflective processes (Cleary, Platten & Nelsen, 2008; Morisano et al., 2010). Much of the self-regulation intervention literature examines the impact of brief training in one or two self-regulation processes (e.g., goal-setting, self-monitoring) on discrete academic skills, such as the number of math problems solved correctly or writing grammatically correct sentences (Schunk & Swartz, 1993; Zimmerman & Kitsantas, 2002). Research with older primary and secondary students is showing the positive effects on literacy competences of teaching students such self-regulation skills (e.g., Graham & Harris, 2005; Schmitz & Wiese, 2006) as well as math competence (Butler, Beckingham, & Lauscher, 2005; Montague, 2007; Perels, Dignath, & Schmitz, 2009)

### **Academic Enablers**

*Academic enablers are attitudes and behaviours that allow a student to participate in, and ultimately benefit from academic instruction in the classroom (DiPerna & Elliott, 1999, 2002).*

Four academic enablers have been found to contribute to academic skills development and achievement:

**1. Motivation (intrinsic, self-efficacy).** This enabler reflects the extent to which the learner is intrinsically interested in and motivated to do classwork (e.g., Pintrich & Schunk, 2002), sets learning goals (performance; mastery) (e.g., Ames, 1992) and possesses high self-efficacy (beliefs concerning ones capabilities to organise and execute courses of action to attain specific educational outcomes and performances (e.g., Bandura, 1997; Multon, Brown & Lent, 1991; Pajares, 1996). Students will be more likely to work on tasks if they believe they have what it takes to be successful. Beliefs of internally motivated learners who set goals for themselves and have high self-efficacy include: “The harder I try, the better my success.” “The harder I try, the smarter I get.” “I can influence through my own actions, the degree of my success.” “I have the ability to be successful on this task.” (Bernard, 1997). Students who are intrinsically motivated to read, read with a purpose in mind (set goals) and are self-efficacious about their reading are more engaged in reading than students who are lower in these motivational characteristics (see Guthrie, Wigfield & Vonsecker, 2000; Wigfield & Tonks, 2004). Schunk and Rice (1993), who studied children’s self-efficacy for reading, found that children who received training to enhance their reading self-efficacy became higher achievers in reading.

**2. Social Skills.** Social skills can be described as learned behaviours that enable individuals to relate to one another and include: include sharing, helping, initiating communications, requesting help from another person, and giving compliments (Malecki & Elliott, 2002). Extensive research shows that

students who possess social skills achieve better results than students who show delays and that it is through different social relationships (student-student; teacher-student) that students become aware of and are motivated to internalise positive learning attitudes and behaviours (Martin & Dawson, 2009).

**3. Engagement.** Engagement reflects students' active participation in classroom instruction and includes such behaviors as writing, task participation, reading aloud, asking questions, and providing answers to others' questions (Greenwood, Horton, & Utley, 2002). A number of different practices have been identified to enhance student engagement (see Gut, et. al., 2004, "The School Engagement Project: Academic Engagement Enhancement").

**4. Study Skills.** Study skills include a variety of cognitive skills and processes that help students acquire new information efficiently and effectively (Devine, 1987). In their review of different study strategies used by competent learners, Pressley and Afflerbach (1997) distilled the following: previewing before reading, making connections between key concepts, activating prior knowledge, monitoring understanding, and changing strategies when understanding is lacking. Examples of specific study skills include:

- The student takes complete, organised class notes in legible form and maintains them in one accessible note book.
- The student reviews class notes frequently (e.g., after each class) to ensure understanding.
- When reviewing notes, the student uses highlighters, margin notes, or other strategies to note questions or areas of confusion for later review

with teacher or tutor.

- The student allocates enough time to study for tests and quizzes.
- The student is willing to seek help from the teacher to answer questions or clear up areas of confusion.

Research continues to demonstrate that study skills contribute to academic achievement (e.g., Gleeson, Archer & Colvin, 2002; Ning & Downing, 2010).

There is an expanding evidence base that suggests that these enablers may exert a causal influence in promoting higher levels of academic achievement (DiPerna, 2006). According to DiPerna (2006), “motivation” is the most influential of the four enablers. For younger students, “engagement” is the next most influential while for older students, “study skills” appears to assume a greater role (DiPerna, 2006). There is some disagreement in the literature as to the extent to which “social skills” have an indirect contribution to academic outcomes primarily (DiPerna, Volpe & Elliott, 2002) or a direct influence (Martin & Dawson, 2009).

In summary, a review of the three major frameworks that describe foundational attitudes and behaviours for learning have illuminated various characteristics of competent, achieving young people (see Table 2).

*Competent learners possess a wide range of motivational beliefs about learning including high levels of self-efficacy (“I have the skills to be successful”) and intrinsic motivational beliefs and behaviours for classes they find interesting (“I want to learn more”) and external motivational beliefs for behaviours for doing schoolwork that is not (“In order to be successful, I sometime have to do work that is not fun or interesting”). They set academic goals for what they want to learn and accomplish and based on the feedback they receive from monitoring their progress in achieving their*

*goals make adjustment to their learning methods and study skills. They possess a wide range of learning methods and study skills including the management of time, managing procrastination and locating non-distracting study areas. During classroom instruction and homework, they display a variety of engagement behaviours including paying attention and persistence. They emotionally manage the frustrations and challenges of learning tasks employing positive rather than negative self-talk. Competent learners also demonstrate many social skills they employ to build and maintain social*

<b>Theoretical Framework</b>	<b>Domain</b>	<b>Examples of Specific Attitudes and Behaviours for Learning</b>
Behaviours For Learning (e.g., McDermott, 1999)	Competence Motivation Attention/Persistence Strategy/Flexibility	<ul style="list-style-type: none"> <li>•eager to tackle new tasks, offer answers to questions in class freely, “I can do it”</li> <li>•pays attention, sticks to tasks, “I want to do my best”</li> <li>•solve problems using efficient and proven methods, works well when in a bad mood or frustrated, stays in seat and does not fidget</li> </ul>
	Attitude Toward Learning	<ul style="list-style-type: none"> <li>•wants to please teacher, interested in learning activities, energetic, helps others, does not give up easily, cooperate with others</li> </ul>
Academic Self-Regulation (e.g., Zimmerman, 1989)	Motivation	<ul style="list-style-type: none"> <li>•sets goals for what he/she wants to learn/achieve, use positive and avoids negative self-talk, self-rewards/penalises</li> </ul>
	Methods for Learning	<ul style="list-style-type: none"> <li>•organises information, uses maps/ways to represent material being learned, generates and answers questions from text</li> </ul>
	Use of Time	<ul style="list-style-type: none"> <li>•sets priorities, schedules time, manages procrastination</li> </ul>
	Controls Social Environment Controls Physical Environ. Performance	<ul style="list-style-type: none"> <li>•when needed, seeks assistance from teacher and peers</li> <li>•locates quiet, non-distracting places to study</li> <li>•monitors learning relative to goals, makes adjustments to learning and study behaviour</li> </ul>
Academic Enablers (e.g., DiPerna & Elliott, 1999)	Motivation (intrinsic; self-efficacy)	<ul style="list-style-type: none"> <li>• “The harder I try, the more I will learn and the smarter I will be.”</li> </ul>
	Social Skills	<ul style="list-style-type: none"> <li>•listening to others, offering help, requesting help, sharing</li> </ul>
	Engagement Study Skills	<ul style="list-style-type: none"> <li>•task participating, reading aloud, asking questions, providing answers to questions</li> <li>•making connections between key concepts, monitoring understanding, organising and reviewing class notes, allocation of time, making notes/questions for later review with teacher</li> </ul>

**Table 2. Domains and Examples of Different Theoretical Frameworks of Attitudes and Behaviours for Learning**

*relationships and work collaboratively including helping and seeking help from others when needed.*

## **Socio-Economic Disadvantage and Gender Differences in Behaviours for Learning**

Some general principles emerge concerning groups of children who are most likely to be delayed in the acquisition of positive attitudes and behaviours for learning:

1. Children who grow up in economically and socially disadvantaged homes are much more likely to show developmental delays.
2. Girls display more strongly developed foundational competences towards learning than boys.

A few studies will be cited to justify these generalizations.

In a study commissioned by the United States Department of Education, teachers and parents of 20,000+ four- and five-year-old children were surveyed to explore factors that contribute to children's academic achievement (reading, maths) (Rock & Pollack, 2002). Findings indicate that the amount of time parents spend reading to their children, as well as young children's pre-reading skills (e.g., letter recognition), predict their subsequent achievement. Findings also indicated that young children's approaches to learning (e.g., persistence, organisation, eagerness to learn, attention) accounted for significant variance in later achievement. Children from families with greater level socio-economic disadvantage (lowest 20%) were found to demonstrate extreme developmental delays in their behaviours for learning placing them at risk for academic failure. While not as extreme, girls demonstrated more positive attitudes and behaviours for learning than boys.

A nationally representative survey of students' learning behaviors observed by classroom teachers of 1,500 school-aged American youth has been conducted (Schaefer, 2004). Children whose parents had not completed high school (an indicator of lower socioeconomic status) were much more likely than those with parents with at least a high school degree to easily give up on learning tasks, to demonstrate significant hesitance to answer questions, and to display a lack of energy, effort, and care toward their work. Diminished attention, interest, and concentration were also evident among these youth. Females were more likely than males to engage in adaptive learning behaviors in the classroom. Males were twice as likely to be rated as displaying a "don't care" attitude, showing little desire to please the teacher, inventing silly ways to complete tasks, and being easily distractible and fidgety. To a lesser degree, males demonstrated disinterest in the classroom, lack of initiative and follow through on learning tasks, and a tendency to reject help and respond to correction with hostility. No gender differences were found for displaying fearfulness, reluctance in attempting new tasks, or crying, among other items.

In investigating the social and emotional competencies and well-being of over 10,000 primary and secondary Australian students, Bernard, Stephanou and Urbach (2007) identified a wide range of attitudes and behaviours for learning as less well developed in students who attended schools with the lowest 25 percent socially and economically disadvantaged ranking in comparison with students attending schools with the highest 10 percent socioeconomic index (see Table 3).

**Table 3. Attitudes and Behaviours for Learning more Highly Developed in Students from Schools with High Socio-economic Index in Comparison with Students Attending Schools with Low Socio-economic Index**

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Raises his/her hand to answer a difficult question even when unsure if the question is correct.

Talks loudly enough so that everyone can hear him/her.  
Enjoys participating in new activities.  
Does not have a slower rate of learning new concepts and skills than expected from judgment of his/her capabilities.  
Does not under-achieve in much of his/her schoolwork.  
When learning something new or difficult, shows independence by not immediately asking for teacher help.  
Checks work when completed to make sure it's correct.  
Does not get easily overwhelmed by frustration when he/she does not understand something.  
Puts in lots of effort when something is hard to do until it is completed.  
Puts in extra effort in subjects he/she finds difficult.  
Is aware of time (e.g., is not late in putting things away, being ready to start a new activity).  
Makes sure he/she understands the teacher's instructions and records what he/she has to do before beginning an assignment.  
Shows real confidence about doing difficult schoolwork, including answering difficult questions in class.  
Understands that mistakes are a natural part of learning and is not afraid to make mistakes.  
Is good at working cooperatively with others.

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The Bernard et al. 2007 data also reveals that teachers perceive gender differences in favour of girls in different aspects of attitudes and social-emotional behaviours related to learning and achievement (see Table 4).

**Table 4. Gender Differences in Favour of Girls in Different Attitudes and Behaviours for Learning**

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Does not have a hard time settling down after participating in an exciting or physical activity  
Checks work when completed to make sure it's correct.  
Does not lose concentration when faced with demanding learning tasks.  
Puts in extra effort in subjects/classes he/she finds difficult.  
Makes sure he/she understands the teacher's instructions and records what he/she has to do before beginning an assignment.  
Plans his/her time so that he/she gets all his/her work done on time when due.  
Wants to do his/her very best in his/her schoolwork.  
Does not disrupt class lessons.  
Is achieving in school as well as he/she can.

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Explanations abound in the literature for why children from disadvantaged backgrounds show delays in foundational attitudes and behaviours for learning. Many

view as central the limited access young children from disadvantaged backgrounds have to high quality early care and education (e.g. Fantuzzo, et al., 2007) as well as limited expectations for and modeling of these competencies by parents (e.g., Christenson, Rounds & Gorney, 1992). And gender differences in foundational attitudes and behaviours for learning have frequently been attributed to differential sex-role socialisation processes with teacher (and parent) attitudes, expectations and their interactions with young people displaying different patterns towards boys and girls (e.g., Stromquist, 2007).

Of particular relevance to the present program is a study completed by Bernard (2004) that was conducted in two primary schools in an economically disadvantaged community. In this study, teachers of 150 five-year-old children completed the ACER Survey of Young Children's Social-Emotional Well-Being (Bernard, 2009) that, in part, provides information on young children's attitudes and behaviours for learning. At the end of the school year preceding children's enrolment in formal education (grade/year 1), teachers' ratings of 49 "at risk" children identified as needing additional support in reading/language/maths were compared with their ratings of 100 children not requiring additional instructional support. Significant findings were as follows. Academically "at risk" children were rated by their teachers lower in academic confidence, persistence, organisation and social confidence. Statistically significant gender differences in the following attitudes and behaviours for learning were obtained in favour of girls: academic confidence, persistence, organisation, getting along, and emotional resilience.

On the basis of this data, it is clear that schools that have high percentages of students from economically and socially disadvantaged backgrounds need not only to have teachers who are highly effective in presenting the academic curriculum, but

also have teachers equally skilled in enhancing students' attitudes and behaviours for learning. It is also clear that to improve the achievement outcomes for boys, these same attitudes and behaviours for learning need to be factored into systematic, school-wide planning.

### **The Attitudes and Behaviours for Learning Program**

This project sought to evaluate the impact of a new program, The Attitudes and Behaviours for Learning Program (AB4L). Specific interest was in determining whether teachers in two primary schools designated by a low socio-economic index and identified as National Partnership schools could be trained in the use AB4L and what the impact of AB4L would be on students' attitudes and behaviours for learning as well as their reading achievement.

AB4L can be considered a cognitive-behavioural learning program. Its' aim is to develop in students a range of attitudes and behaviours for learning that the research reviewed in the previous section indicates are foundational to literacy and numeracy development and general academic achievement. As described in Table 5, teachers were trained to integrate different teaching practices in five components that commonly characterise a literacy lesson: (a) before the literacy lesson begins, (b) whole-class, teacher-led literacy instruction, (c) small class, paired and individual literacy work, (d) whole class, individual student reflection on what was learned during the literacy lesson including the extent of goal attainment, and (e) assignment of literacy homework.

Table 5 also describes five core teaching practices contained in AB4L that incorporate different attitudes and behaviours for learning that are largely based on the You Can Do It! Education theoretical framework (Bernard, 2006a, 2006b, Bernard, 2008; Vernon & Bernard, 2006). These include: (a) sharing with students the goals of a literacy

lesson, having students set goals for what they want to learn/achieve, having students monitor their progress towards achieving their goals during the lesson, evaluating their success in achieving the goals they set at the end of the lesson and reflecting on any improvements or changes they may need to make to their learning methods and behaviours they use during a lesson, (b) discussing with students positive attitudes (self-efficacy, internal motivation), (c) presenting and reviewing with students concrete behaviours for learning they should apply during whole-class, small group, paired and individual work that can help them to stay engaged, focused and successful (listening, staying in seat, staying calm when you do not understand what to do, asking someone for help), (d) discussing with students the difference between positive and negative self-talk and helping students become aware of de-motivating, negative self-talk and positive self-talk that helps them to be confident, persistent, organised, to work together and to be emotionally calm and resilient. For specific examples of the ways in which these practices are to be implemented during literacy instruction, please contact Professor Michael Barnard.

AB4L does not prioritise and elaborate extensively upon learning methods and study skills that research indicates as being academic enablers. Behaviours for managing the social environment including seeking help when needed are discussed as well as a range of study skills for managing the physical environment at home when doing homework. However, the emphasis of AB4L is less on meta-cognitive learning, problem-solving methods and study skills (asking question, concept mapping) and more on the self-management skills and attitudes needed to be engaged in individual and cooperative learning during classroom instruction.

**Table 5. Teaching Practices for Integrating Attitudes and Behaviours for Learning into Different Components of Literacy Instruction**

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**Core ‘Attitudes and Behaviours for Learning’ Teaching Practices**

1. **Share with Students the Goals of the Literacy Lesson, Have Them Set Goals, Monitor Progress and Revise Learning Methods and Behaviour.** Regularly, ask students to set goals (what they want to learn; mark they will receive). Spell out the different concepts and skills/strategies that will be taught in the literacy lesson. At the end of the class, have students reflect on goal attainment. Based on this feedback, encourage students to modify their approach to learning.
2. **Prepare Students to Begin Literacy Lesson with a Positive Mindset.** At the beginning of a literacy lessons, help students maintain a positive focus by reviewing different positive attitudes.
3. **Identify and Discuss Behaviours for Learning.** Discuss different behaviours that students should practice/use that can help them to be self-managing and engaged during a literacy activity.
4. **Discuss Positive (and Negative) Self-Talk for Learning.** Describe and model positive and negative self-talk that that students can use to remain calm when feeling frustrated or overwhelmed by a learning activity.
5. **Communicate Behaviour-Specific Feedback for Learning.** Acknowledge individual and groups of students who display different ‘behaviour for learning’ by providing feedback that names/describes the behaviour and attitude they have demonstrated in a literacy activity.

**The 5 Components of the Literacy Block**

1. **Beginning of Literacy Lesson: Share Literacy Goals of Lesson and Develop Positive Mindset of Students.** Share the goals that you want students to achieve by the end of the lesson spelling out: (a) what literacy knowledge and skills (e.g., word attack skills, comprehension strategies, concepts of print) you are planning to teach and (b) establish a positive mindset in students before the lesson begins by reviewing different positive attitudes.
  2. **Whole Class Teacher Led Literacy Activity.** At the beginning of the activity, describe to students the ‘behaviours for learning’ and ‘positive self-talk’ they need to practice and negative self-talk to avoid in the activity to help them manage their learning.
  3. **Small Group, Paired and Individual Literacy Activities.** Describe to students the ‘behaviours for learning’ and ‘positive self-talk’ they need to practice and negative self-talk to avoid in the small group activities to help them manage their learning and to be successful. Be sure to discuss how each small group’s activity connects with the goals of the literacy lesson.
  4. **Whole Class Student Reflection: What We’ve Learned from Today’s Literacy Activities.** Ask for students to volunteer what they have learned in the lesson in two general areas. First, have volunteers discuss the extent to which they achieved the literacy goals set out in the beginning of the lesson. Second, have volunteers discuss their use of ‘behaviours for learning’ and ‘positive self-talk’ throughout the different activities in the lesson. Reinforce the beneficial effects of their use.
  5. **Assignment of Literacy Homework Activities.** Discuss with students the different literacy activities they should do each night that help them to reinforce what they learned in the literacy lesson and/or which strengthen their reading. Indicate the ‘behaviours for learning’ and ‘positive self-talk’ that can help them to be successful.
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## RESEARCH QUESTIONS

The present project posed the following research questions.

1. Are students' behaviours for learning associated with their reading performance?
2. Are there gender differences in behaviours for learning?
3. Will the AB4L program have a positive effect on students' behaviours for learning?
4. Will the AB4L program have a positive impact on students' reading performance?
5. Will students in the bottom 50 percent of their class in reading performance who receive the AB4L program show greater improvement in their reading than students in the bottom 50 percent of their class in reading performance who do not receive the program?
6. Will the AB4L program have a different impact on the behaviours for learning and reading performance of boys versus girls?
7. Do students who show improvements in their behaviours for learning show concomitant changes in their reading performance?

## METHOD

### Participants

School principals of two National Partnership primary schools located in a rural community (Ballarat, Victoria) agreed to have the program implemented and evaluated in their schools. In School A, the students in two composite grade 3/4 classes were chosen to receive the program while in School B, the students in two composite grade 5/6 classes received the program. For purposes of comparison, in School A, the students in two composite grade 5/6 classes did not receive the program while in School B, students in two composite grade 3/4 classes did not receive the program. The total number of students receiving the program was 96 while the total number of students not receiving the program was 86. Table 6 shows descriptive information on each class.

**Table 6. Sample Size and Summary Information for each Class**

Class	School	n	Grade	Condition
A1	A	24	3/4	Experimental
A2	A	21	3/4	Experimental
A3	A	21	5/6	Control
A4	A	20	5/6	Control
B1	B	26	5/6	Experimental
B2	B	25	5/6	Experimental
B3	B	23	3/4	Control
B4	B	24	3/4	Control

Small amounts of missing data were present for particular students at particular time points. Analyses were performed using all available data. Thus, sample sizes varied slightly across analyses.

### Intervention Program

The Attitudes and Behaviours for Learning Program (AB4L) program was developed to provide teachers with explicit instruction in the use of five practices that can be employed throughout a literacy lesson to teach students various attitudes and

behaviours for learning. Teachers were trained to integrate the following five practices throughout the different components of a literacy lesson (before the lesson begins, during whole class, teacher-led instruction, during small group/dyadic/individual work, at end of literacy session –reflection on learning, assignment of literacy homework) (see previous Table 5).

1. Share with students the goals of the literacy lesson, have them set goals, monitor progress and when necessary revise learning methods and behaviour.
2. Prepare students to begin literacy lesson with a positive mindset.
3. Identify and discuss behaviours for learning.
4. Discuss positive (and negative) self-talk for learning.
5. Communicate behaviour-specific feedback for learning.

## **Measures**

*Learning Behaviours Scale (LBS)*. The Learning Behaviors Scale (LBS; McDermott et al., 1999) is a standardized 29-item teacher-completed rating scale. Items are rated on a 3-point Likert scale (*Most often applies*, *Sometimes applies*, or *Doesn't apply*) indicating the presence of the behavior over the past 2 months. Four dimensions are scored: Competence Motivation, Attitude, Attention/Persistence, and Strategy/Flexibility, as well as a Total Score. Internal consistency coefficients are high for the composite (.89-.92) and subscale scores (.70-.87) both overall and for age, gender, and ethnic subsamples, and stability coefficients across a 2-week interval were strong (.91-.94; McDermott, 1999). Inter-observer agreement has also been demonstrated across independent student ratings by teachers and teacher aides (Buchanan, McDermott, & Schaefer, 1998). Evidence of criterion validity for LBS scores has been shown in the prediction of teacher-assigned grades and academic achievement (Schaefer & McDermott, 1999).

Learning behaviour total and subscale scores were scored as per the manual. Data obtained from this study showed that Cronbach's alpha reliability for the Learning Behaviours Scale was 0.95 at Time 1 and 0.94 at Time 2. Whole sample Learning Behaviours Scale scores were correlated 0.48 across the two time points.

*Student Learning Behaviours Survey (SLBS).* A new rating scale, the Student Learning Behaviours Survey, was developed for this study that was designed to measure student self-perception of a variety of attitudes and behaviours associated with their engagement during literacy instruction (reading and writing). Questions were developed by the author of this report that examined student self-perception of their confidence, persistence, goal orientation, teamwork, disorganisation and worry associated with literacy instruction. The initial survey of 18 items asked students to agree or disagree with a series of questions; for example, "I get easily tired when I read or write," "I distract others during reading or writing time."

The SLBS had a mix of positively and negatively worded items. Positively worded items were scored disagree = 0 and agree = 1. Negatively worded items were scored disagree = 1 and agree = 0. Positively worded items were 1, 2, 3, 8, 9, 11, 14, 15, 16. Negatively worded items were 4, 5, 6, 7, 10, 12, 13. Scale scores were the mean of scored items. If a student had five or fewer missing items, his or her score was the mean of their non-missing items. If a student had more than five items missing his or her score was recorded as missing. Thus, scale scores ranged from zero to one. The score can be interpreted as the proportion of positive learning behaviours endorsed.

A factor analysis was conducted of the pre-intervention responses of all participating students to the initial set of 18 items in the SLBS. The first five factors explained 23.6, 10.9, 7.3, 6.6, and 6.2 percent of variance respectively. This suggested one main factor, a second smaller factor, followed by the scree. Inspection of the factor

loadings suggested that factor two was confounding worry about literacy with actual learning behaviours. As such, two items loading highly on the second factor (“17. I could do a lot better in my reading”; and “18. I could do a lot better in my writing”) were removed and a one factor solution was adopted.

Cronbach’s alpha reliability for the Student SLBS was 0.79 at Time 1 and 0.72 at Time 2. Across the whole sample scores were correlated 0.61 across the two time points.

*Reading Performance.* The Victorian Curriculum and Assessment Authority’s *On Demand Computer Adaptive Reading Test* (2006, 2010) was used to assess students’ level of reading comprehension and, specifically, the extent of development of reading comprehension competence over the three and a half month period of this evaluation project. This 30-item test presents 10 sub-test packets of three reading items to students. Each item is designed to test a specific skill associated with reading comprehension. Some examples of reading comprehension skills assessed include analyse imagery in a text, analyse plot in a text, analyse point of view in a text, analyse setting in a text, identify how attitudes are presented in a text, analyse how attitudes are conveyed in a text, compare the presentation of information in different texts, make inferences about characters' actions, make inferences about characters' qualities, make inferences about plot, and interpret the main idea of a text.

Each item in the On Demand Reading Tests is designed to assess a particular learning outcome at a particular level. The skill associated with each learning outcome is based on the Victorian Essential Learning Standards (VELS). The VELS detail the outcomes expected of a student at each of six Standard Levels. For Computer Adaptive Tests, the VCAA’s ‘On Demand Testing’ separates the VELS Standard Levels into three sub-levels (low, medium, high).

*On Demand Testing* is an online resource for teachers to use. It can be

administered to a single student and/or a whole class via a school's local computer network. Teachers create test sessions to which each student has a secure login using their Student ID, Date of Birth and the specific test session key generated when the session was created.

*The Computer Adaptive Tests* report a summative assessment of student knowledge, providing a Standard Score based on the difficulty value of each reading comprehension item presented to a student.

Across the whole sample Reading Performance scores were correlated 0.79 across the two time points.

### **Procedure**

During the two weeks before the first of three teacher training sessions, collection of evaluation data occurred. All teachers (those to receive training in the AB4L program; those who not receive training) completed the Learning Behaviours Scale for each of their students. Teachers had all students complete the Student Learning Behaviours Survey. All students also completed the On Demand Computer Adaptive Reading Test.

The teacher training sessions took place over a three- and a half-month period. The sessions were conducted by one of the developers of the AB4L program, Margaret Milne. Each session took approximately three hours.

Evaluation Data Collected (2 weeks before commencement)

Week 1. Teacher training Session 1.

Week 3. Classroom observation of teachers by trainer.

Week 6. Teacher training Session 2.

Week 8. Classroom observation of teachers by trainer.

Week 11. Teacher training Session 3.

Week 13. Classroom observation of teachers by trainer.

Evaluation Data Collected (2 weeks after commencement)

During Week 3, Week 8, and Week 13, the trainer conducted a classroom observation of each participating teacher as the teacher taught a literacy lesson. The purpose of the observation was for the trainer to determine the extent to which the teacher was implementing AB4L. After each observation, the trainer would summarise in an email the finding in terms of each teacher's strengths and areas for improvement (see example "Appendix 2. Session 2 Feedback to Year 3/4 Teacher").

## RESULTS

All analyses were performed using the statistical analysis software R Version 2.11.1 (R Development Core Team, 2010).

### **Research Question 1: What is the relationship between students' behaviours for learning and their reading performance**

Table 7 shows the correlations between the main dependent variables at time 1. Correlations between LBS total and subscales are not shown because they had overlapping items. It can be seen that the reading performance of the students was positively correlated with both student self-perception of their behaviours for learning (.34) as well as teacher ratings of students' behaviours for learning (.45). All sub-scales of the Learning Behaviours Scale were correlated with student reading performance. Finally, student self-perceptions of behaviours for learning were positively correlated with teacher ratings (.53).

**Table 7. Intercorrelations of Main Variables at Time 1**

	SLBS	RP
SLBS		
Reading Performance	0.34	
LBS Total	0.53	0.45
LBS Strategy	0.43	0.32
LBS Motivation	0.48	0.53
LBS Attitude	0.47	0.38
LBS Persist	0.51	0.43

Note. Correlations based on pair-wise deletion of missing data. Smallest n = 130. Correlations greater in absolute value than 0.18 are significant at alpha = .05.

### **Research Question 2. Are there gender differences in behaviours for learning?**

Table 8 compares scores for boys and girls at time one on both measures of learning behaviour. Girls scored higher than boys on all scales measured, although this was only statistically significant for LBS Total, LBS Strategy, LBS Attitude, and LBS

Persist.

**Table 8. Means and Standard Deviations on Main Variables for Boys and Girls at Time 1**

	Girls	Boys		
	M (SD)	M (SD)	d	p
SLBS	0.75 (0.21)	0.70 (0.22)	0.24	0.14
Reading Performance	3.21 (1.09)	3.09 (1.20)	0.10	0.53
LBS Total	40.21 (9.51)	35.11 (12.23)	0.46	.003
LBS Strategy	1.79 (0.29)	1.58 (0.48)	0.52	.001
LBS Motivation	1.44 (0.52)	1.35 (0.57)	0.16	0.31
LBS Attitude	1.70 (0.39)	1.44 (0.54)	0.54	.001
LBS Persist	1.54 (0.54)	1.22 (0.61)	0.55	.001

Note. d is female mean minus male mean divided by pooled standard deviation at time 1. p-values are based on independent groups t-tests.

**Research Question 3. Will the B4L program have a positive effect on students' behaviours for learning?**

**Research Question 4. Will the B4L Program have a positive impact on students' reading performance?**

Table 9 reports means and standard deviations for the two conditions at two time points (before and after AB4L introduced). Table 10 presents effect sizes and significance tests for the effect of the intervention. The effect size estimate, labelled, is discussed further in Morris (2008). It is a standardised difference in the differences between time 1 and time 2 for the control and experimental conditions. Thus, for example, a value of 0.5 would indicate that the experimental group increased from time 1 to time 2 by half a standard deviation more than the control group increased from time 1 to time 2. Cohen's (Cohen, 1992) proposed rules of thumb of thumb may provide guidance in interpretation, whereby .20, .50, and .80 represent small, medium, and large effects respectively.

**Table 9. Means and Standard Deviations for Experimental and Control Conditions at Time 1 and Time 2 on Main Outcome Variables**

	Cont T1	Exp T1	Cont T2	Exp T2
	M (SD)	M (SD)	M (SD)	M (SD)
SLBS	0.75 (0.21)	0.7 (0.22)	0.75 (0.18)	0.83 (0.17)
Reading Performance	3.12 (1.19)	3.18 (1.11)	3.26 (1.26)	3.44 (1.06)
LBS Total	39.6 (9.71)	35.68 (12.3)	43.81 (7.13)	43.17 (9.65)
LBS Strategy	1.74 (0.36)	1.62 (0.45)	1.82 (0.28)	1.8 (0.38)
LBS Motivation	1.55 (0.47)	1.26 (0.57)	1.71 (0.34)	1.7 (0.44)
LBS Attitude	1.63 (0.42)	1.51 (0.54)	1.83 (0.26)	1.79 (0.38)
LBS Persist	1.48 (0.51)	1.27 (0.65)	1.62 (0.43)	1.66 (0.51)

**Table 10. Effect Size and Significance Tests of Intervention on Main Outcome Variables**

	Cont T2-T1	Exp T2-T1	<i>d</i>	<i>p</i>
SLBS	0.01	0.13	0.55	<.001
Reading Performance	0.1	0.23	0.11	.32
LBS Total	3.98	7.37	0.30	.03
LBS Strategy	0.07	0.18	0.27	.02
LBS Motivation	0.15	0.41	0.48	.003
LBS Attitude	0.16	0.25	0.18	.20
LBS Persist	0.13	0.36	0.39	.01

Note. *d* is the size of the difference of the differences divided by the pooled time 1 standard deviation. *p*-values are based on an independent groups *t*-test with intervention as the predictor variable and change scores as the outcome variable.

It can be seen that the AB4L program had a positive impact on the behaviours for learning of students who received the program. Students in the control group showed no significant improvement over the same time period. The positive impact was found both in student self-perceptions and teacher ratings of students with the exception of the LBS sub-scale of Attitude where no improvement was observed.

In terms of the impact of the AB4L program on reading performance, it can be seen that the .13 improvement in the reading performance was not statistically different

from the .01 improvement in the reading scores of students in the control group who did not receive the program. Therefore, while the AB4L program benefitted students' behaviours for learning, it did not show the same overall effects on reading performance.

**Research Question 5. Will students in the bottom 50 percent of their class in reading performance who receive the AB4L program show greater improvement in their reading than students in the bottom 50 percent of their class in reading performance who do not receive the program?**

A further analysis was conducted of students in the lower half of their class in their reading scores at time 1. For these students, there was significantly greater increase in reading scores in the experimental group (Time 1,  $M = 2.34$ ,  $SD = 0.74$ ; Time 2,  $M = 2.88$ ,  $SD = 0.65$ ) relative to the control group (Time 1,  $M = 2.07$ ,  $SD = 0.51$ ; Time 2,  $M = 2.29$ ,  $SD = 0.62$ ),  $t = 0.42$ ,  $p = .03$  (one-tailed).

**Research Question 6. Will the AB4L program have a different impact on the behaviours for learning and reading performance of boys versus girls?**

Table 11 and 12 show means and standard deviations for pre and post intervention variables for boys and girls respectively. Table 13 shows how there was no evidence for differential effects of the intervention for boys and girls.

**Table 11. Means and Standard Deviations for Experimental and Control Conditions at Time 1 and Time 2 on Main Outcome Variables for Boys Only**

	Cont T1	Exp T1	Cont T2	Exp T2
	M (SD)	M (SD)	M (SD)	M (SD)
SLBS	0.73 (0.22)	0.66 (0.22)	0.74 (0.18)	0.8 (0.17)
Reading Performance	3.18 (1.26)	3.00 (1.14)	3.43 (1.34)	3.21 (1.04)
LBS Total	37.82 (10.83)	32.21 (13.09)	43.62 (7.99)	40.04 (11.73)
LBS Strategy	1.67 (0.42)	1.48 (0.52)	1.77 (0.34)	1.68 (0.45)
LBS Motivation	1.50 (0.51)	1.21 (0.60)	1.74 (0.35)	1.58 (0.54)
LBS Attitude	1.56 (0.48)	1.33 (0.59)	1.82 (0.27)	1.67 (0.47)
LBS Persist	1.39 (0.56)	1.04 (0.62)	1.60 (0.45)	1.51 (0.59)

**Table 12. Means and Standard Deviations for Experimental and Control Conditions at Time 1 and Time 2 on Main Outcome Variables for Girls Only**

	Cont T1	Exp T1	Cont T2	Exp T2
	M (SD)	M (SD)	M (SD)	M (SD)
SLBS	0.77 (0.20)	0.73 (0.22)	0.76 (0.19)	0.86 (0.16)
Reading Performance	3.05 (1.12)	3.35 (1.06)	3.07 (1.14)	3.66 (1.04)
LBS Total	41.89 (7.61)	38.91 (10.67)	44.05 (5.95)	46.38 (5.39)
LBS Strategy	1.82 (0.24)	1.76 (0.33)	1.88 (0.17)	1.92 (0.23)
LBS Motivation	1.6 (0.43)	1.31 (0.55)	1.67 (0.34)	1.83 (0.27)
LBS Attitude	1.72 (0.33)	1.69 (0.43)	1.83 (0.23)	1.91 (0.19)
LBS Persist	1.59 (0.44)	1.5 (0.61)	1.64 (0.40)	1.81 (0.38)

**Table 13. Comparison of Effect of Intervention by Gender**

	<sup>g</sup>	<sup>b</sup>	<sup>b-g</sup>	<sup>p</sup>
SLBS	0.60	0.50	-0.10	.70
Reading Performance	0.27	-0.04	-0.30	.17
LBS Total	0.41	0.23	-0.18	.52
LBS Strategy	0.27	0.27	-0.01	.98
LBS Motivation	0.69	0.28	-0.42	.19
LBS Attitude	0.13	0.25	0.12	.67
LBS Persist	0.39	0.42	0.03	.91

Note  $b_b$  and  $b_g$  refer to the estimated standardised treatment effect for boys and girls respectively.  $b_{b-g}$  refers to the difference between these estimates subtracting the girl estimate from the boy estimate. p-values are based on the interaction effect in a model with time 1 to time 2 change scores as the outcome variable and gender and intervention as predictor variables.

**Research Question 7. Do students who show improvements in their behaviours for learning show concomitant changes in their reading performance?**

Table 14 shows the correlations between change scores separately for the two conditions. In the sample, correlations of change scores SLBS and LBS with Reading Performance were larger in the Experimental Condition. A test of significant differences between independent correlations using Fisher’s r to z transformation was performed (for formulas, see Cohen, 2003). It can be seen that for students in the Experimental condition, those who showed increases in their behaviours for learning as measured by both the SLBS and LBS showed improvements in their reading performance.

**Table 14. Correlation of Change Scores on Main Outcome Variables with Reading Performance Change Scores across Experiment and Control Conditions**

	$\Delta$ RP	$\Delta$ RP
	Cont	Exp
$\Delta$ SLBS	0.03	0.22
$\Delta$ LBS Total	0.10	0.27
$\Delta$ LBS Strategy	0.06	0.24
$\Delta$ LBS Motivation	0.07	0.27
$\Delta$ LBS Attitude	0.10	0.24
$\Delta$ LBS Persist	0.03	0.13

Note Correlations larger in absolute value than 0.22 are statistically significant at the .05 level.

**Teacher Written Feedback on AB4L**

At the conclusion of the project, all teachers trained in AB4L were provided with a form to evaluate the AB4L program and its’ impact on students and teachers.

As can be seen in Appendix 3, “Teachers’ Comments on Attitudes and Behaviours for Learning Project,” the overall comments were extremely positive about the program. These results will be summarised in terms of the different questions in the feedback form the teachers completed.

### **1. Comments on Training**

- a. What were the positives about the training; what did you like the most?

Teachers said they liked working with teachers from other schools; they liked roundtable discussions, sharing of common problems with students and the positive focus on behaviours for learning.

- b. What are some ways the training could be improved? Would two sessions have been enough?

Three of the four teachers wrote that two sessions would be enough for initial training; several said that a follow-up session several months later would be beneficial

- c. How important/valuable was getting feedback from the trainer based on classroom observation?

Consensus was that being observed delivering AB4L and getting feedback was vital and valuable; comment was that honest feedback though threatening also serves to encourage growth and reinforces improvement

### **II. Comments on Impact of Training in ‘Attitudes and Behaviours for Learning’ in Your Teaching**

- a. What has been the main impact of the training on the way you teach?

Teachers commented they are now more aware, focused, and clear about the importance of student attitudes and behaviours for learning; one teacher commented that she now is able to provide students with a common language and understanding about how to learn

- b. What do you consider to be the most important aspects of the program in terms of quality and effective teaching (e.g., developing positive mindset, discussing behaviours for learning, self-talk; providing behaviour-specific feedback)?

Consensus comments on the value of discussing behaviours for learning, communicating behaviour-specific feedback; one teacher commented on use of positive self-talk to help students cope with distractions; one commented on the value of teaching the attitude “It’s OK to make mistakes”

### **III. Comments on Impact of ‘Attitudes and Behaviours for Learning’ on Your Students**

- a. How has the training impacted your students (attitude; engagement; effort; confidence)?

Teachers were very positive about the impact on students; several commented on students having more positive attitudes towards learning; several comments on how student confidence has grown; one teacher commented on students taking more responsibility for their learning and being more engaged; and one teacher commented: “The focus in my class has moved away from behavioural issues to learning behaviours and the talk is positive, not negative.”

- b. What percent of your students have benefited from the approach?

One teacher said that it was hard to tell; the other three teachers indicated 100% of their students benefitted from AB4L

### **IV. Any Other Comments**

One teacher commented that as a result of AB4L, students and teacher are more effective workers; another comment by a teacher was that students now want to improve their learning.

Of interest is the lack of negative comments of teachers concerning the intrusiveness of AB4L in their daily teaching. No teacher expressed the opinion that

the time spent in discussing attitudes and behaviours for learning took away from time needed to present the literacy lesson.

### **Student Verbal Feedback on AB4L**

After the conclusion of this research project, the trainer visited each of the four classrooms where AB4L was implemented and asked for students to comment on what they learned from the program and what they liked. Students who raised their hands had their contributions recorded and transcribed (see Appendix 4, “Students Comments on Attitudes Behaviours for Learning Project.”). It is recognised that some students may not have formed a positive opinion of AB4L and its’ benefits; however, these students did not volunteer to make these feelings known.

An examination of the comments of students reveals a view that their class was more focused on learning (“Everyone’s on task”, “Class has settled down”). This echoes the comments of teachers.

Several students remarked on how the program helped them to be more positive with one student commenting he is less stressed about learning because he no longer is afraid of making mistakes. Several students commented they are now trying harder. And one student commented he was using positive self-talk to help him to be less distracted and to get on and complete his work.

## DISCUSSION

This investigation centered around the question of the extent to which schools with high proportions of students from socially and economically disadvantaged backgrounds should concern themselves with ensuring that the set of student characteristics referred to as attitudes and behaviours for learning should be an essential aspect of educational policy and practice. Research reviewed in the first section of this paper convincingly makes the case that a central factor in explaining the over-representation of low achievers of students from low socioeconomic backgrounds is the lack of opportunity of these young people to learn the foundational attitudes and learning behaviours they need to be competent learners.

This project reports on an evaluation of a new and innovative teacher training program, Attitudes and Behaviours for Learning (AB4L) which is designed to incorporate a host of teaching practices that enable teachers to be quite explicit and consistent in enhancing a wide range of attitudes and behaviours students need to be engaged in and self-managing of their learning. The curriculum domain of interest in this study was literacy and interest was in exploring the extent to which teachers could enhance foundational attitudes and learning behaviours while presenting a literacy lesson.

The results reported on in the previous section address the seven research questions addressed in this study. These research questions and findings are now discussed.

### **Research Question 1. Are students' behaviours for learning associated with their reading performance?**

Consistent with previous research (e.g., Rock & Pollack, 2002; Schaefer & McDermott, 1999), high levels of reading comprehension were correlated with high levels

of learning behaviours and low levels of reading performance correlated with low levels of learning behaviours. This is true for both teacher reports of students' learning behaviours and student self-perceptions. If this relationship was not found, there would be less point in including behaviours for learning as part of literacy instruction for students from lower socioeconomic backgrounds.

A significant by-product of this investigation was the initial development of a survey (Student Learning Behaviours Scale) that students can complete that provides data on their self-perception of the development of a range of attitudes and behaviours for learning that they utilise for literacy learning. Completion of this survey by students can offer teachers insights into the learning needs of individual students. The measurement of learning behaviours yields information for predicting academic failure so that suitable interventions can be planned.

## **2. Are there gender differences in behaviours for learning?**

Teachers rated girls higher in behaviours for learning than they did boys confirming previous findings of gender differences (e.g., Schaeffer, 2004). Of interest is that when student self-perceptions were examined, no gender differences were found. This inconsistency with teacher ratings may be due to a tendency of boys to provide unrealistic ratings of their learning behaviours resulting in the elevation of scores on the Student Learning Behaviours Scale. One implication of this finding is that teachers may need to be more explicit in providing boys with feedback concerning their use and non-use of various attitudes and behaviours for learning.

## **3. Will the AB4L program have a positive effect on students' behaviours for learning?**

The AB4L program had a positive impact on the behaviours for learning of students who received the program. Students who did not receive the program from

their teachers showed no significant improvement over the same time period. The positive impact was found both in student self-perceptions and teacher ratings of students. This finding that behaviours for learning are teachable is supported by extensive previous research (McDermott, Leigh, & Perry, 2002; McDermott, Mordell & Stoltzfus, 2001).

These results indicate that within a period of less than four months, a program that on a daily basis explicitly targets positive attitudes, behaviours for learning, positive self-talk and uses behaviour-specific feedback as part of literacy instruction has benefits for a whole classroom of students. A novel aspect of AB4L is that it is not a stand alone program taught where students are taught foundational positive attitudes and learning behaviours apart from academic instruction. Integrating the teaching of attitudes and behaviours for learning as a part of literacy instruction is likely to produce a much stronger effect than a program taught on its' own.

#### **4. Will the AB4L program have a positive impact on students' reading performance?**

While the AB4L program benefitted students' behaviours for learning, it did not show the same overall effects on reading performance of all students. As we know, there are multiple influences on students' reading competences and achievement and while the enhancement of student learning behaviour places students in a better position to profit from instruction, we also know that prerequisite, background knowledge is a major factor in predicting and explaining levels of achievement (e.g., Wahlberg, 1984). Perhaps, participating students' pre-requisite reading comprehension skills were so under-developed that improvements in a reading comprehension test (Reading in Demand) was not possible in such a short period of time.

Alternatively, it is the case that there are students in the two low SES schools in the sample who are reading near grade level expectations. It may be the case that these

students have reasonably well-developed learning behaviours despite the low SES index of the school. For these students, it may be the case that the benefits of AB4L on reading performance may be seen in the long-term.

**5. Will students in the bottom 50 percent of their class in reading performance who receive the AB4L program show greater improvement in their reading than students in the bottom 50 percent of their class in reading performance who do not receive the program?**

Results reveal a significant benefit of AB4L on the reading performance of those students who scored in the lower 50 percent of their class on the reading comprehension survey used in this project. This analysis and finding adds to our understanding about those students in low SES schools most likely to immediately benefit from explicit instruction in attitudes and behaviours for learning. Comments from teachers reported in the Results section of this paper indicate a shift in focus of class concern from reducing negative behaviour to advancing positive behaviour and an increase in whole-class student interest wanting to be successful. It may be the case that this shift in classroom culture along with the explicit teaching of positive attitudes and behaviours for learning had the most impact on the disengaged, under-achieving students.

**6. Will the AB4L program have a different impact on the behaviours for learning and reading performance of boys versus girls?**

The finding of equal benefit of impact of AB4L on boys and girls is an important finding especially for the education of boys. It appears that the explicit teaching practices employed in AB4L where students are asked to practice ways of thinking and learning behaviours to use during classroom instruction combined with behaviour-specific feedback equally suits the learning styles of boys and girls.

**7. Do students who show improvements in their behaviours for learning show**

### **concomitant changes in their reading performance?**

Of some significance is the finding that students in classes where AB4L was implemented who showed improvements in their reading comprehension also showed increases in their behaviours for learning. This would suggest that behaviours for learning are, indeed, mediating factors in the chain of influence leading to academic competence and achievement (e.g., Keith, 2002).

Additionally, this evidence of correlated changes in reading achievement and behaviours for learning suggests that the positive impact of AB4L was a specific effect of explicit teaching of attitudes and behaviours for learning and the teaching practices employed rather than solely a general effect of teachers being more positive.

## CONCLUSION

Based on these findings and previous research, student characteristics and their role in academic development and achievement needs to be in the center of the radar screen of education reform efforts to improve literacy achievement –especially in schools with low socioeconomic backgrounds of the student population. That is, in addition to ensuring high quality and quantity of instruction as well as ensuring as much as possible that students have positive learning environments (safe, positive, supportive), we need to make sure that at all levels of educational policy, decision-making and classroom practice that educators are well informed about student characteristics and school learning. More specifically, teacher preparation and professional development programs should incorporate positive attitudes and behaviours for learning as foundational competences that all teachers need to enhance in all students; especially, for students who are most likely to be at risk for educational failure as well as those who are under-achieving.

## REFERENCES

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261–271.
- Australian Government Department of Education, Employment and Workplace Relations for the Council of Australian Governments (2009). *Belonging, being and becoming. The early years learning framework for Australia*. Canberra, Australia.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Self-Control*. New York: Freeman.
- Barnett, D. W., Bauer, A. M., Ehrhardt, K. E., Lentz, F. E., & Stollar, S. A. (1996). Keystone targets for changes: Planning for widespread positive consequences. *School Psychology Quarterly*, 11, 95-117.
- Bernard, M.E. (1997). *Teacher Guide for Boosting Student Motivation, Self-Esteem and School Achievement., 2nd Edition*. Oakleigh, VIC: Australian Scholarships Group.
- Bernard, M.E. (2004). The relationship of young children’s social-emotional-motivational competence to their achievement and social-emotional well-being. Invited presentation, Annual Research Conference of the Australian Council for Educational Research, Adelaide.
- Bernard, M.E. (2006a). *Providing All Children with the Foundations for Achievement, Well-Being and Positive Relationship, Third Editions*. Oakleigh, Vic: Australian Scholarships Group, pp. 286.
- Bernard, M.E. (2006b). It’s time we teach social-emotional competence as well as we teach academic competence. *Reading and Writing Quarterly*. 22, 103-119.
- Bernard, M.E. (2008). The effect of You Can Do It! Education on the emotional resilience of primary school students with social, emotional, behavioural and achievement challenges. *Proceedings of the Australian Psychological Society Annual Conference*, 43, 36-40.
- Bernard, M.E. (2008). The social and emotional well-being of Australian children and adolescents: The discovery of “levels.” Paper presented at the 43<sup>rd</sup> Annual Conference of the Australian Psychological Society, Hobart, Tasmania.
- Bernard, M.E. (2009). *The Social-Emotional Well-Being Surveys* (Student Form, Year 2-4; Student Form, Years 5-12; Teacher Form; Second Edition). Camberwell, Victoria: Australian Council for Educational Research.
- Bernard, M.E., Stephanou, A., & Urbach, D. (2007). *The ASG Student Social and Emotional Health Report*. Technical Report. Oakleigh, VIC: Australian Scholarships Group, pp. 146.

- Buchanan, H.H., McDermott, P.A., & Schaefer, B.A. (1998). Agreement among classroom observers of children's stylistic learning behaviours. *Psychology in the Schools, 35*, 335-361.
- Butler, D. L., Beckingham, B., & Lauscher, H. J. N. (2005). Promoting strategic learning by eighth-grade students struggling in mathematics: A report of three case studies. *Learning Disabilities Research and Practice, 20*, 156-174.
- Carroll, J.B. (1963). A model for school learning. *Teachers College Record, 64*, 723-733.
- Christenson, S.L., Rounds, T., Gorney, D. (1992). Family factors and student achievement: An avenue to increase student success. *School Psychology Quarterly, 7*, 178-206.
- Cleary, T. J., Platten, P., & Nelson, A. (2008). Effectiveness of the self-regulation empowerment program with urban high school students. *Journal of Advanced Academics, 20*, 70-107.
- Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools, 41*, 537-550.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- Dembo, M.H., & Eaton, M.J. (2000). Self-regulation of academic learning during in middle-level schools. *The Elementary School Journal, 100*, 473-490.
- Devine, T.G. (1987). *Teaching Study Skills: A Guide for Teachers*. Boston: Allyn & Bacon.
- DiPerna, J.C. (2006). Academic enablers and student achievement: Implications for assessment and intervention services in the schools. *Psychology in the Schools, 43*, 7-17.
- DiPerna, J.C., & Elliott, S.N. (1999). The development and validation of the Academic Competence Evaluation Scales. *Journal of Psychoeducational Assessment, 17*, 207-225.
- DiPerna, J.C., & Elliott, S.N. (2002). Promoting academic enablers to improve student achievement: An introduction to the mini-series. *School Psychology Review, 31*, 293-297.
- DiPerna, J.C., Volpe, R.J., & Elliott, S. (2002). A model of academic enablers and elementary reading/language arts achievement. *School Psychology Review, 31*, 298-312.
- Fantuzzo, J., Perry, M.A., & McDermott, P. (2004). Preschool approaches to learning and their relationship to other relevant classroom competencies for low-income children. *School Psychology Quarterly, 19*, 212-230.
- Fantuzzo, J., Shearer, R.B., McDermott, P.A., McWayne, C., Frye, D., & Perlman, S. (2007). Investigation of dimensions of social-emotional classroom behavior and school readiness for low-income urban preschool children. *School Psychology Review, 36*, 44-62.
- Fulgini, A. F., & Stevenson, H. W. (1995). Time use and mathematics achievement among American, Chinese and Japanese high school students. *Child Development, 66*, 830-842.

- Gleason, M. M., Archer, A. L., & Colvin, G. (2002). Interventions for improving study skills. In M. R. Shinn, H. M. Walker, & G. Stoner (Eds.), *Interventions for Academic and Behavior Problems II: Preventive and Remedial Approaches* (pp. 651–680). Bethesda, MD: National Association of School Psychologists.
- Graham, S., & Harris, H. R. (2005). Improving the writing performance of young struggling writers: Theoretical and programmatic research from the Center on Accelerating Student Learning. *The Journal of Special Education, 39*, 19–33.
- Green, L. F., & Francis, J. M. (1988). Children's learning skills at the infant and junior stages: A follow-on study. *British Journal of Educational Psychology, 58*, 120-126.
- Greenwood, C.R., Horton, B.T., & Utley, C.A. (2002). Academic engagement: Current perspectives on research and practice. *School Psychology Review, 31*, 328–349.
- Guthrie, J. T., Wigfield, A., & VonSecker, C. (2000). Effects of integrated instruction on motivation and strategy use in reading. *Journal of Educational Psychology, 29*, 331–341.
- Gutt, D.M., Farmer, T.W., Bishop-Goforth, J., Hives, J., Aaron, A., & Jackson, F. (2004). The school engagement project: Academic engagement enhancement. *Preventing School Failure, 48*, 4-9.
- Keith, T.Z. (2002). Commentary: Academic enablers and school learning. *School Psychology Review, 31*, 394-402.
- Malecki, C.M., & Elliott, S.N. (2002). Children's social behaviours as predictors of academic achievement: A longitudinal analysis. *School Psychology Review, 17*, 1-23.
- Martin, A.J., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement and achievement. *Review of Educational Research, 79*, 327-365.
- McDermott, P. A. (1984). Comparative functions of preschool learning style and IQ in predicting future academic performance. *Contemporary Educational Psychology, 9*, 38-47.
- McDermott, P. A. (1999). National scales of differential learning behaviors among American children and adolescents. *School Psychology Review, 28*, 280-291.
- McDermott, P. A., Leigh, N. M., & Perry, M. A. (2002). Development and validation of the Preschool Learning Behaviors Scale. *Psychology in the Schools, 39*, 353-365.
- McDermott, P. A., Green, L. F., Francis, J. M., & Stott, D. H. (1999). *Learning Behaviors Scale*. Philadelphia: Edumetric and Clinical Science.
- McDermott, P.A., Mordell, M., & Stoltzfus, J.C. (2001). The organization of school performance in American school discipline, motivation, verbal learning and nonverbal learning. *Journal of Educational Psychology, 93*, 65-76.
- McWayne, C. M., Fantuzzo, J. W., & McDermott, P. A. (2004). Preschool competency in context: An investigation of the unique contribution of child competencies to early academic success. *Developmental Psychology, 40*, 633-645.

Melbourne Declaration on Education Goals for Young Australians (2008). .  
Published by the Ministerial Council on Education, Employment, Training and Youth  
Affairs, Curriculum Corporation.

Ministerial Council for Education, Early Childhood Development and Youth Affairs  
(2008). [www.mceecdya.edu.au/](http://www.mceecdya.edu.au/)

Montague, M. (2007). Self-regulation and mathematics instruction. *Learning  
Disabilities Research and Practice*, 22, 75-83.

Morisano, D., Hirsh, J.B., Peterson, J.B., Pihl, R.O. & Shore, B.M. (2010). Setting,  
elaborating and reflecting on personal goals improves academic performance. *Journal  
of Applied Psychology*, 95, 255–264.

Morris, S. (2008). Estimating effect sizes from pretest-posttest-control group designs.  
*Organizational Research Methods*, 11, 364.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs  
to academic outcomes: A meta-analytic investigation. *Journal of Counseling  
Psychology*, 38, 30–38.

National Education Goals Panel. (1997). *Getting a Good Start in School*. Washington,  
DC: National Education Goals Panel.

Ning, H.K., & Downing, K. (2010). Connections between learning connections,  
study behavior and academic performance. *The Journal of Educational Research*, 97,  
299-309.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational  
Research*, 66, 543–578.

Perels, F., Dignath, C., & Scmitz, B. (2009). Is it possible to improve mathematical  
achievement by means of self-regulation strategies? Evaluation of an intervention in  
regular math classes. *European Journal of Psychology of Education*, 24, 17-31.

Pintrich, P.R., & Schunk, D. (2002). *Motivation in Education: Theory, Research, and  
Applications* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Pressley, M., & Afflerbach, P. (1995). *Verbal Reports of Reading: The Nature of  
Constructively Responsive Reading*. Hillsdale, NJ: Erlbaum.

R Development Core Team. (2010). R: A language and environment for statistical  
computing [Computer software manual]. Vienna, Austria. Available from [http://www.R-  
project.org](http://www.R-project.org) (ISBN 3-900051-07-0).

Rock, D.A., & Pollack, J.M. (2002). Early childhood longitudinal study – kindergarten  
class of 1998-99 (ECLS-K), psychometric report for kindergarten through first grade.  
Washington, DC: U.S. Department of Education, Office of Educational Research and  
Improvement, National Center for Educational Statistics.

Schaefer, B.A. (2004). A demographic survey of learning behaviours among American  
students. *School Psychology Review*, 33, 481-497.

- Schaefer, B.A., & McDermott, P.A. (1999). Learning behavior and intelligence as explanations for children's scholastic achievement. *Journal of School Psychology, 37*, 299-313.
- Schmitz, B., & Wiese, B. S. (2006). New perspectives for the evaluation of training sessions in self-regulated learning: Time series analyses of diary data. *Contemporary Educational Psychology, 31*, 64-96.
- Schunk, D. H., & Rice, J. M. (1993). Strategy fading and progress feedback: Effects on self-efficacy and comprehension among students receiving remedial reading services. *Journal of Special Education, 27*, 257-276.
- Schunk, D. H., & Swartz, C. W. (1993). Goals and progressive feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology, 18*, 337-354.
- Stott, D. H. (1981). *The Flying Start Learning-to-Learn Kits*. Chicago: Science Research Associates.
- Stromquist, N. (2007). Paper commissioned for the EFA Global Monitoring Report 2008, Education for All by 2015: Will we make it? For further information contact: [efareport@unesco.org](mailto:efareport@unesco.org).
- U.S. Department of Health and Human Services. (2003). The Head Start child's outcome framework. Retrieved May 5, 2005. from [http://www.headstartinfo.org/publications/hsbulletin76/hsb76\\_09.htm#top](http://www.headstartinfo.org/publications/hsbulletin76/hsb76_09.htm#top).
- Vernon, A., & Bernard, M. E. (2006). Applications of rational-emotive behavior therapy in schools: Prevention, promotion, intervention. In A. Ellis & M.E. Bernard (Eds.), *Rational Emotive Behavioral Approaches to the Problems of Childhood* (pps. 415-460). New York: Springer.
- The Victorian Curriculum and Assessment Authority's *On Demand Computer Adaptive Reading Test* (2006, 2010).
- Victorian Assessment and Curriculum Authority (2010). *Victorian Essential Learning Standards*. <http://www.vcaa.vic.edu.au/prep10/vels/index.html>.
- Walberg, H.J. (1984). Improving the productivity of American schools. *Educational Leadership, 41*, 19-30.
- Wang, M.C., Haertel, G.D., & Walberg, H.J. (1993). Toward a knowledge base for school learning. *Review of Educational Research, 63*, 249-294.
- Wigfield, A., & Tonks, S. (2004). The development of motivation for reading and how it is influenced by CORI. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept Oriented Reading Instruction* (pp. 249-272). Mahwah, NJ: Erlbaum.
- Yowell, C. M., & Smylie, M. A. (1999). Self-regulation in democratic communities. *Elementary School Journal, 99*, 469-490.

Zigler, E., Finn-Stevenson, M., & Hall, N. W. (2002). *The First Three Years and Beyond*. New Haven, CT: Yale University Press.

Zimmerman, B. J. (1989). Models of self-regulated learning and academic achievement. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated Learning and Academic Achievement: Theory, Research, and Practice* (pp. 1-25). New York: Springer-Verlag.

Zimmerman, B. J. (1994). Dimensions of academic self-regulation: A conceptual framework for education. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of Learning and Performance: Issues and Educational Applications* (pp. 3-21). Hillsdale, NJ: Erlbaum.

Zimmerman, B. J. (1995). Self-efficacy and educational development. In A. Bandura (Ed.), *Self-efficacy in Changing Societies* (pp. 202-231). New York: Cambridge University Press.

Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self regulatory skill through observation and emulation. *Journal of Educational Psychology, 94*, 660–668.

Zimmerman, B. J., & Martinez-Pons, M. (1988). Construct validation of a strategy model of student self-regulated learning. *Journal of Educational Psychology, 80*, 284-290.

## APPENDIX 1. LEARNING BEHAVIOURS SCALE

Fill in the appropriate circle for each statement to reflect your observation of the student over the past month or two in literacy.

Most Often Applies	Sometimes Applies	Does Not Apply
--------------------	-------------------	----------------

Your Name: \_\_\_\_\_

- |  |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|
| 1. Responds in a manner that shows attention.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Says task is too hard without making much effort to attempt it.                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Is reluctant to tackle a new task.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Sticks to a task with no more than minor distractions.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Adopts an I don't-care attitude to success or failure.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Seems to take refuge in dullness or incompetence.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Follows peculiar and inflexible procedures in tackling tasks.                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Shows little desire to please you.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Is unwilling to accept help even when a task proves too difficult.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Responds without taking sufficient time to look at the problem or work out a solution.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. Cooperates in small group activities sensibly.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. Gets quite upset when faced with a difficult question, problem or pressed for an answer. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. Has enterprising ideas, which often don't work out.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Student's Name: \_\_\_\_\_

	Most Often Applies	Sometimes Applies	Does Not Apply
14. Is distracted too easily by what is going going on in the classroom, or seeks distractions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Fidgets, squirms, leaves seat unnecessarily.			
16. Gets aggressive or hostile when frustrated or when work is corrected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Is very hesitant about giving an answer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Shows little determination to complete a task, gives up easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Uses headaches or other pains as an excuse for evading learning tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Is willing to be helped when a task proves too difficult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Is too lacking in energy to be interested in anything or to make much effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Relies on personal charm to get others to find solutions to problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Invents silly ways of going about tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Doesn't work well if in a bad mood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Shows a lively interest in learning activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Tries hard but concentration soon fades and performance deteriorates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Carries out tasks according to own ideas rather than in the accepted way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Accepts new tasks without fear or resistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Delays answering in the hope of picking up a hint.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Is under-achieving, is capable of doing better work.
31. Appears to be working to potential.

## APPENDIX 1. STUDENT BEHAVIOURS FOR LEARNING SURVEY

Your Name \_\_\_\_\_ Grade/Classroom \_\_\_\_\_

**Directions:** Please answer the following questions about your reading and writing. Circle either Agree or Disagree. Please be as honest as you can.

1. I get easily tired when I read or write. Agree Disagree
2. I sometimes forget to bring to class things I need to learn (pencils, paper, book). Agree Disagree
3. I distract others during reading or writing time. Agree Disagree
4. At the beginning of a lesson (reading, writing), I set a goal for what I want to learn. Agree Disagree
5. I put up my hand to answer a difficult question (reading, writing). Agree Disagree
6. I like to read. Agree Disagree
7. I like to write. Agree Disagree
8. I worry a lot about my schoolwork (reading, writing). Agree Disagree
9. When reading or writing gets really hard, I can give up before getting it done properly. Agree Disagree
10. I can do schoolwork (reading, writing) that is hard to do. Agree Disagree
11. When I do not understand something (reading, writing), I give up easily. Agree Disagree
12. I am a good listener when working in my reading or writing groups. Agree Disagree
13. I help others when they do not understand something (reading, writing). Agree Disagree
14. I get distracted when I am doing my reading and writing. Agree Disagree
15. It takes me a long time to settle down to do my reading and writing. Agree Disagree
16. I lose confidence when reading or writing. Agree Disagree
17. I could do a lot better in my reading. Agree Disagree
18. I could do a lot better in my writing. Agree Disagree

**Thank you.**

## **APPENDIX 2. SESSION 2 FEEDBACK TO YEAR 3/4 TEACHER**

### **General Comments:**

- Lovely tone in the classroom...friendly and calm
- Great poem at the doorway about having a positive attitude
- Gorgeous (bright pink and light pink!) Positive Behaviours for Learning Poster
- Positive Self Talk for Learning Poster
- Positive Mindset Approach to Learning Poster
- Love the bright laminated stars attached to each desk as a reminder of behaviours for learning.

### **I. Before the Lesson:**

"Great to see everyone sitting ready to learn"

Monday Focus: Review and ask students to remember to...

1. Use our "I can do it" attitude and
2. Remain calm, take a deep breath and ask for help

### **II. Whole Class, Teacher-Led Instruction:**

(On board are 3 stars...

Top star..."Learning Intention" ...(goal)

Middle Star..."Learning Strategies" ...(behaviours for learning)

Bottom Star..."Success Criteria")

"What do we always start with? Our learning intention."

"So what do you think our Learning Intention is today? Any ideas?"

"Yes...our Learning Intention is... to be introduced to time connectives and identify juicy descriptive words in our text."

"Now what behaviours for learning do we need to remember? "

Student responses...

'Give it a red hot go'

'It's ok to make a mistake'

'Have an I can do it attitude'

'Look for little words inside a big word'

'Remain calm'

" ...Why is that important? By remaining calm we're giving our learning our absolute best. When you're stressed, and your knees are wobbly and your tummies nervous, that's what you're busy focusing on instead of the learning."

"What's our success criteria going to be then?"

- To be able to identify time connectives in read texts
- To be able to recognise juicy descriptive words

### **III. Small Group Activities:**

-Went thru task with each group and set them to work...Who's going to be the first person down to work?

Self-Talk for Learning...what do we do if we find ourselves stumbling over a word?...ask a friend...sound it out.. all of these are positive self talk like... "I can do it" ...."Stay calm...."Remember, we're the captain of our own team, it's important that we say "Come on Mary-Clare...keep on going, don't give up!"

#### Guided Reading Group:

Could mention the Behaviours 4 Learning and Self-Talk 4 Learning at the beginning of the guided group.

#### **Good Use of Behaviour Specific Feedback (BSF):**

"Brodie, I'm very impressed with the way you've got straight down to work"

"Great to see the groups who are working well."

"Brodie, are you really giving yourself your best chance to achieve your goal?"

"Excellent effort today Red Group"

"Terrific effort Yellow group, you've worked so well"

### **IV. End of Lesson: Share Time**

"I want you think about your learning today? Have you achieved your learning goal? Did you use any positive self talk?"

"Show of hands if you think you have achieved your Learning Intention

Those who haven't...what could you use so that tomorrow you are able to achieve your learning intention?"

So Matt?...I couldn't find any Time connectives

I could probably ...

What positive Self Talk could you use?

Say to yourself....

It's important that you give yourself the best chance of learning

### **V. Assignment of Literacy Homework**

"Now, who's been thinking about their homework? Great! Have we all started? Fantastic!"

"What could you think to yourself that will help you..."Like ...

"You can go on the internet..."

"You can read books or newspapers..."

"It's important to believe in yourself, and have a positive attitude!"

"So with your homework the 3 R's to remember when you go home are Read, Reread, and Remain calm."

## **APPENDIX 3: TEACHER 1 COMMENT ON 'ATTITUDES AND BEHAVIOURS FOR LEARNING' PROJECT**

Hello, this page provides you an opportunity to share your personal comments on the 'Behaviours for Learning' project. All comments would be welcome. Thank You.

### **1. Comments on Training**

- a. What were the positives about the training; what did you like the most?  
It was terrific to meet the other participants and discuss implementation strategies, successes and challenges. The simplicity was good.
- b. What are some ways the training could be improved? Would two sessions have been enough?  
I feel that two sessions would be sufficient. This is a fantastic program, but it is additional and leaving the classroom for training certainly added to my week those three times.
- c. How important/valuable was getting feedback from the trainer based on classroom observation?  
Vital; it provided support and guidance for future planning as well as acknowledgement of implemented strategies and displays.

### **II. Comments on Impact of Training in 'Attitudes and Behaviours for Learning' in Your Teaching**

- a. What has been the main impact of the training on the way you teach?  
I know that I am more consistent in describing what + and - behaviours look like. This clarity aids all of the children.
- b. What do you consider to be the most important aspects of the program in terms of quality and effective teaching (e.g., developing positive mindset, discussing behaviours for learning, self-talk; providing behaviour-specific feedback)?
  - "It's ok to make a mistake"
  - Discussing behaviours for learning
  - Behaviour specific feedback

### **III. Comments on Impact of 'Attitudes and Behaviours for Learning' on Your Students**

- a. How has the training impacted your students (attitude; engagement; effort; confidence)?

The children take more ownership of their learning and behaviour.  
They are more confident in pointing out each other's poor choices  
in a polite manner.

- b. What percent of your students have benefited from the approach?

**IV. Any other Comments**

Thank you for the opportunity to participate in this program. My  
students and I have learnt a great deal and have truly become  
more effective workers.

## APPENDIX 3: TEACHER 2 COMMENT ON 'ATTITUDES AND BEHAVIOURS FOR LEARNING' PROJECT

Hello, this page provides you an opportunity to share your personal comments on the 'Behaviours for Learning' project. All comments would be welcome. Thank You.

### 1. Comments on Training

a. What were the positives about the training; what did you like the most?  
*I really enjoyed the training sessions. Great learning atmosphere. Working with teachers from other schools was fantastic (they were encountering the same negative behaviours in their classroom as our first meeting).*

b. What are some ways the training could be improved? Would two sessions have been enough?

*I think a 4<sup>th</sup> "where to now" session or maybe a follow up in 3 or 4 months time to find out how the program is continuing, would be worthwhile.*

c. How important/valuable was getting feedback from the trainer based on classroom observation?

*The honest feedback Margaret gave us was essential to make sure we were implementing the Program as it was intended.*

### II. Comments on Impact of Training in 'Attitudes and Behaviours for Learning' in Your Teaching

a. What has been the main impact of the training on the way you teach?  
*I am now much more aware of how important it is to include these behaviours for learning and the impact that this awareness has on the children's learning.*

b. What do you consider to be the most important aspects of the program in terms of quality and effective teaching (e.g., developing positive mindset, discussing behaviours for learning, self-talk; providing behaviour-specific feedback)?

*'Behaviours for Learning' has been very powerful in my classroom. There are 2 year levels and all children have 'picked up' and 'ran' with them, from the youngest to the oldest.*

### III. Comments on Impact of 'Attitudes and Behaviours for Learning' on Your Students

a. How has the training impacted your students (attitude; engagement; effort; confidence)?

*Program has really had an effect on the running of literacy sessions. Children are really very aware of the advantages for their learning by having a positive attitude.*

b. What percent of your students have benefited from the approach?

*100%*

### IV. Any other Comments

### **APPENDIX 3: TEACHER 3 COMMENT ON 'ATTITUDES AND BEHAVIOURS FOR LEARNING' PROJECT**

Hello, this page provides you an opportunity to share your personal comments on the 'Behaviours for Learning' project. All comments would be welcome. Thank You.

#### **1. Comments on Training**

- a. What were the positives about the training; what did you like the most?  
The round table conversations with other teachers in similar school settings were very valuable.
- b. What are some ways the training could be improved? Would two sessions have been enough?  
Two sessions would have been enough and then a follow up about 10 weeks later. I would be interest to discuss how we have travelled solo and what the behaviours look like.
- c. How important/valuable was getting feedback from the trainer based on classroom observation?  
Honest feedback can be threatening but, ultimately helps facilitate the greatest changes to teacher practice.

#### **II. Comments on Impact of Training in 'Attitudes and Behaviours for Learning' in Your Teaching**

- a. What has been the main impact of the training on the way you teach?  
Training was perfect timing. I haven't taught classroom for 10 years (art specialist). I have a grade of disengaged kids we needed a common understanding and language. We needed strategies and we needed some positives and growth to be able to see the "point" of learning.
- b. What do you consider to be the most important aspects of the program in terms of quality and effective teaching (e.g., developing positive mindset, discussing behaviours for learning, self- talk; providing behaviour-specific feedback)?  
For my students; discussing behaviour and behaviour specific feedback seemed to have the most impact. I don't think my kids really embraced the positive mindset. However now they are experiencing success I believe we can work on this aspect.

### III. Comments on Impact of 'Attitudes and Behaviours for Learning' on Your Students

- a. How has the training impacted your students (attitude; engagement; effort; confidence)?

Before the program I felt my students didn't understand what learning looked like or felt like. As they have experienced success, their confidence has grown. The focus has moved from behaviour issues to learning behaviours and the talk is positive, not negative.

- b. What percent of your students have benefited from the approach?  
100%

### IV. Any other Comments

We have days when we all struggle (usually Mondays). This is something we have discussed and we are working on it.

When I met this grade there wasn't many learning moments in our day. We couldn't have a conversation about anything, let alone our learning and learning behaviours. Now, the kids really want to improve their learning. We have class meetings, everyone gets an opportunity to speak and be heard.

The kids have turned their learning behaviours around and we are all feeling "the joy". They still have their moments, but they are manageable and infrequent.

Thanks for the opportunity to be involved. The timing was perfect. Still a great deal to work on but, we are on our way.

## APPENDIX 3: TEACHER 4 COMMENT ON 'ATTITUDES AND BEHAVIOURS FOR LEARNING' PROJECT

Hello, this page provides you an opportunity to share your personal comments on the 'Behaviours for Learning' project. All comments would be welcome. Thank You.

### 1. Comments on Training

- a. What were the positives about the training; what did you like the most?  
*Meeting and discussing various SEL strategies.  
Friendly, welcoming group.  
Positive reinforcement of all we did.*
- b. What are some ways the training could be improved? Would two sessions have been enough?  
*2 sessions probably would have been enough – going through the DVD once may have been enough?*
- c. How important/valuable was getting feedback from the trainer based on classroom observation?  
*I felt it was both important and valuable – giving positive feedback and encouragement, as well as ideas to try next time.*

### II. Comments on Impact of Training in 'Attitudes and Behaviours for Learning' in Your Teaching

- a. What has been the main impact of the training on the way you teach?  
*More focus on learning intentions and behaviours for learning. Showing children that they are responsible for their own learning and that they all have the right to learn.*
- b. What do you consider to be the most important aspects of the program in terms of quality and effective teaching (e.g., developing positive mindset, discussing behaviours for learning, self-talk; providing behaviour-specific feedback)?  
*Discussing behaviours for learning lent itself to both a positive mindset and self-talk for my children. They were able to see how important it was not to be distracted as well as understand how distractions can affect others.*

### III. Comments on Impact of 'Attitudes and Behaviours for Learning' on Your Students

- a. How has the training impacted your students (attitude; engagement; effort; confidence)?  
*Children have benefitted in all areas. Their attitude to learning is great – they are keen and willing to try and so positive. Their confidence has also grown and they know so long as they try they have achieved success!*

- b. What percent of your students have benefited from the approach?  
*100%*

**IV. Any other Comments**

*We've had a new student come into our class who has not had the benefit of this program. It is amazing to see the difference in his approach to learning, self-talk, etc. as compared to the other children. This is also very evident in the Learning Behaviour Scale.*

#### **Appendix 4. Students' Comments on "Attitudes and Behaviours for Learning"**

It's helped me because I don't get so stressed. I know if I make a mistake it's not the end of the world.

-Elise Year 5

I didn't really try to get my work done before, but now I give it a red hot go!

-Jordan Year 6

Since we've learned these skills it hasn't been hard to work and everyone's been on task.

-Jake Year 5

Before we started I used to distract a lot of people but since we got it I've been using positive self talk and getting my work done.

-Tahlia Year 6

Now I have an I can do it attitude...I say to myself - 'You can do it!'

-Liam Year 4

It's improved all my work...it's getting into my brainwaves!

-Jack Year 3

It's helped me with my spelling and maths. At the start of the year my spelling was at grade 2 level and now it's gone up. Actually the positive mindset has helped me the most...how to stay calm even when you don't understand it

-Sarah Year 4

I used to have a negative mindset. Now I say to myself I can do it...I'm not going to give up on myself

-Jayden Year 4

I used to multi task and talk and do my work and I ended up not getting as much done as I thought I would. Now I'm starting to have a positive attitude and getting my work over and done with.

-Samantha Year 4

I always try my hardest and I try to do as much as I can. When I read the posters I think they make some pretty good points. I listen to most of them and do what they say.

-Luke Year 4

I think the class has settled down...they've actually got on with their work and been a lot quieter. It's helped me because I don't give up so easily any more. I say to myself 'If I get it done I'll be able to do the things that I want to do even quicker.'

-Blake Year 6

I think the posters have helped everybody to get their tasks done and gives them a positive attitude and helped them to do their work a lot easier.

-Samuel Year 6