Narrowing the Gap

Addressing Educational Disadvantage

Proceedings of the 'Narrowing the Gap:
Addressing Educational Disadvantage'
Conference

SiMERR National Conference
University of New England,
Armidale NSW

26 – 28 April 2007

Proceedings Edited by:
Lorraine Graham

SiMERR

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The National Centre of Science, Information and Communication Technology and Mathematics Education for Rural and Regional Australia

Proceedings of the Narrowing the Gap: Addressing Educational Disadvantage Conference

Edited by: Associate Professor Lorraine Graham, University of New England

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The Narrowing the Gap: Addressing Educational Disadvantage Conference was held at The University of New England, Armidale, New South Wales, Australia from 26 – 28 April, 2007.

FOREWORD

ADDRESSING EDUCATIONAL DISADVANTAGE: INTRODUCTION TO THE *NARROWING THE GAP* CONFERENCE PROCEEDINGS.

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As Chair of the Narrowing the Gap Conference Committee, I would like to thank all members of the committee (John Pegg, Deb Jenner, Russel Glover, Jenny Thomas, Noelene Raymond, Tony Brown and Sharon Gallen) who worked so hard to make the conference such a success. Director of SiMERR, John Pegg was instrumental in envisioning, planning and supporting SiMERR Australia's Student Diversity Hub representatives to attend Narrowing the Gap. Deb Jenner kept the conference organisation on track and worked capably alongside Sharon Gallen, manager of the UNE Conference Company. Tony Brown developed the website and tackled the complex job of providing ICT support for the three days of the conference. All members of the committee, but especially Deb Jenner, Russel Glover and Debbie Sozou made the Narrowing of the Gap conference very special by providing the extra touches of hospitality that set this important gathering apart.

To recap, the Narrowing the Gap Conference held at the University of New England from the 26th to 28th April 2007 brought together practitioners, academics, and administrators concerned with the conference theme of Addressing Educational Disadvantage. National and international keynote speakers elaborated on different aspects of this theme in their presentations.

Professor John Hattie discussed the major findings and practical implications of his extensive meta-analyses of educational research. The key concepts he elaborated on included teachers' conceptions of learning, the power of feedback, and multiple notions of achievement. In his address, **Professor Mike Royer** highlighted the critical role that efficient use of working memory plays in academic achievement. He pointed out that low-level aspects of academic skills such as reading, writing, and mathematics can become automatic and that virtually all higher-level academic learning is dependent on these automated low-level skills. Professor Royer also discussed how the development of automated cognitive skills can be blocked by individual differences in cognitive capacity, variation in world languages and poor instructional practices.

Whether education is failing to live up to its promise for many young people was the quandary posed by **Professor Geoff Masters** in his address. In his presentation, Professor Masters focused on two related concerns for Australian education: (i) the significant proportion of young people who become disengaged during their school years, achieve only minimal educational outcomes and have limited subsequent engagement in work or further learning; and (ii) the shortage of young people with the knowledge and skills required for effective participation in the future Australian workforce. Regarding such essential educational skills, **Professor Ian Hay** and **Professor Adrian Ashman** presented complementary keynotes on the importance of language skills to children's early reading acquisition and models of recreational reading and engagement, respectively. Lastly, **Professor John Pegg** and I gave the final keynote presentation that focused on ways to improve the performance of low-achieving students and described some key features of the *QuickSmart* intervention which targets students who consistently experience a lack of success with basic academic skills.

Alongside these international keynote speakers were 28 paper and symposia presentations delivered by presenters from the United Kingdom, New Zealand and throughout Australia. The papers included in this book of proceedings were written based on authors' conference presentations and have been successfully peer reviewed. Several established publishers have also been approached to support an edited book based on the major research themes presented at the Narrowing the Gap conference.

The ten papers included in this book of conference proceedings have all been peer reviewed in accordance with Department of Education, Employment and Workplace Relations regulations for Higher Education Research Data Collection. (http://www.dest.gov.au/sectors/research_sector/online_forms_services/higher_education_r esearch_data_collection.thm#2008_specifications). All authors have responded to reviewer comments in a professional and collegial manner.

As editor of the proceedings, I am very pleased to recommend this collection of papers to you.

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Contents

NARROWING THE GAP IN THE REGULAR CLASSROOM : SUCCESSFUL STRATEGIES FOR TEACHING AND LEARNING IN THE MIDDLE-SCHOOL YEARS

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Abstract

This paper focuses on the educational disadvantage experienced by middle years' students with learning difficulties. It has a specific focus on those students living in regional, rural and remote areas of Australia. Students in the middle school years who experience challenges with learning are repeatedly disadvantaged, yet the planned efforts of a reflective, well-informed teacher can make a great contribution to overcoming obstacles to successful learning encountered by these vulnerable students. The paper begins with a review of the concept of learning difficulties in a contemporary context and then goes on to identify obstacles to effective learning commonly experienced by middle years' students with learning difficulties. After a brief examination of these issues in the context of regional, rural and remote areas of Australia, the information is then synthesised into proactive frameworks for teachers, which link the factors of disadvantage with strategies for overcoming or 'working around' these cognitive obstacles. Based on the understanding that teachers have great potential for 'narrowing the gap' in performance and participation of students with learning difficulties, the frameworks describe evidence-based adjustments to teaching and learning in literacy, basic mathematics and content area learning, that can be readily implemented in a range of teaching and learning contexts.

INTRODUCTION

Students with learning difficulties are known to face considerable challenges during their middle school years. Poor achievement levels, lack of engagement with teaching and learning and poor participation rates in post-compulsory education are common indicators that, for older students with learning difficulties, schooling is challenging, unrewarding and at times, fails to meet their learning and affective needs.

Whilst younger students with learning difficulties justifiably attract a large proportion of research and support services, and students in the final stages of schooling can access various vocational and non-academic options, students in the middle-school years (years of schooling 6 to 9) with learning difficulties appear to be an under-served group that has not been a high priority in educational systems to date (Luke et. al, 2003)

Students in the middle school-years with learning difficulties living in regional, rural or remote locations are further disadvantaged because of restricted access to professional services including educational, therapeutic and medical support services. In such restricted circumstances, professional responsibility for providing equitable access to education and life opportunities for students with learning difficulties and additional needs defaults, almost entirely, to the classroom teacher, especially after the first few years of schooling.

Middle-school teachers want to address a perceived lack of engagement in learning among students, to improve their attitudes to learning and to ensure that all students experience success & enjoyment in learning (Cuttance, 2001). However, at times teachers are bewildered by the wide range of learning needs in their classrooms and concerned about their own levels of professional knowledge to assist them to cater for students with special education needs (Westwood & Graham, 2003).

This paper responds to these concerns by promoting the theme 'Power to the Teacher', based on the understanding that classroom teachers have the potential to narrow the gap in student under-achievement and to positively impact on student learning and affective outcomes. Whilst this may at first seem a somewhat glib statement, the implications are potentially empowering – regardless of student and environmental factors, classroom instructional processes are a major variable influencing on student achievement. This is particularly the case for student with learning difficulties (Hattie, 2005; Mastropieri, & Scruggs, 2002; Sanders & Rivers, 1996; Schacter & Thum, 2004).

The impact of poverty, disadvantage and deprivation on the learning achievements of students is implicitly understood by many teachers. Whilst these issues are crucial factors which undoubtedly impact on student achievement levels, they are not factors that teachers can readily influence. So, what can teachers do when faced with limited access to support services and increasing numbers of students with additional needs? Teachers can teach! Informed, reflective classroom teachers can and do make a difference to the learning outcomes and experiences of their students.

Effective classroom teachers use instructional strategies and approaches that better enable students with learning difficulties to 'work around' or even overcome the obstacles to learning they so frequently experience. This paper attempts to support this process by presenting background knowledge about learning difficulties and some of the cognitive and affective factors that impinge on student learning, in contemporary Australian classrooms during the middle school years. Also, in keeping with the regional, rural and remote theme of the conference, selected findings from two recent reports, commissioned by the Federal Department of Education, Science and Training, regarding education in regional, rural and remote Australia will be briefly reviewed and discussed in terms of their relevance to teaching, learning and learning difficulties. The final section of the paper refers to research about effective teaching approaches and strategies and presents tables containing effective teaching strategies that teachers can readily implement in inclusive classrooms for middle years' students.

STUDENTS WITH LEARNING DIFFICULTIES IN THE MIDDLE SCHOOL YEARS

There continues to be debate in the literature about learning difficulties, particularly regarding the discrepancy between a student's learning potential and level of achievement (e.g. Fuchs & Fuchs, 1998; Scott, 2004). Making the issue more complex is the profusion of terms used around this concept – learning difficulties, learning disabilities, learning delays, dyslexia, ADD/ADHD etc. In Australia, there is no operational definition of learning difficulty nationally and there is considerable overlap in the use of the terms 'learning difficulty' and 'learning disability' (Scott, 2004).

The percentage of students identified with learning disabilities or difficulties continues to increase. Currently, about 7% of the school-age population in North America is considered to have some form of learning disability (Gersten, Fuchs, Williams & Baker, 2001). In Australia, where the definition of learning difficulties is broader and includes students with various learning difficulties, at least 20% of school students are considered to have problems in academic areas and of these students 5% are considered to have specific learning difficulties (Westwood & Graham, 2000).

In Australian schools the term "learning difficulties" is usually applied to students based on their classroom performance and results obtained from school-based assessments or state mandated academic skills tests. Educators and researchers generally make a definitional distinction between students with a diagnosed disability and those with a learning difficulty, although the validity of this distinction has been questioned (Scott, 2004). In Australia, students with learning difficulties that are not related to any disability or condition are the largest single group of students with special educational needs (Westwood, 2003).

Inefficient Cognitive Processing

Students with learning difficulties in the middle-school years frequently display certain cognitive characteristics that impede learning. Generally, for example, students with LD are very inefficient in their approaches to learning. Such inefficiencies relate to cognitive procedures such as using inappropriate or inefficient strategies that are slow and produce high error rates, having difficulty recalling previously encountered knowledge, and flexibly using accumulated knowledge (Doyle, 1983; Westwood, 1993a). Thus, in the classroom LD students often use lower-order strategies, such as counting on fingers to work out number facts or using sounds to decode previously encountered words, because they use inefficient cognitive habits, or non-strategic ways of thinking.

The processes and functioning of working memory have been identified as key underlying factors in all learning difficulties (Keeler & Swanson, 2001). Working memory has been described as the "mental workbench" (Borich & Tombari, 1997) where immediate and short-term cognitive operations take place. An essential characteristic for learning is that working memory functions by simultaneously storing and processing information (Ashbaker & Swanson 1996).

Students with LD not only experience inefficiencies within and between the components of working memory, but also in terms of their working memory capacity (the amount of information they can hold 'in mind') which is thought to be less than that of their non-LD peers under particular conditions (Swanson & Siegel, 2001; Swanson, 2000). These limitations in working memory functions or processes, which are often closely related to deficiencies in executive processes such as memory and attention, pose significant obstacles to successful learning for students with learning difficulties.

Lack of Automaticity in Basic Academic Skills

On entering the middle school years many students with LD will have developing understandings about basic academic concepts and procedures, yet many of these students get 'stuck' and are unable to apply or develop this knowledge with ease because of their poor literacy and numeracy skills. This lack of automaticity in basic skills such as reading and calculating can be readily observed and is commonly seen by teachers as the essence of learning difficulties.

Automaticity in basic academic skills was initially thought to occur when almost no cognitive resources were used (Anderson, 1980; La Berge and Samuels, 1974) to recall well-known facts or use practiced procedures but more recently researchers have linked automaticity to extremely efficient cognitive processing (Perfetti, 1988; Stanovich, 1990). From this perspective the most important feature of automaticity is not that it enables fast recall but rather, that it reflects increasingly efficient and effective cognitive processing (Perfetti, 1992). Automaticity in basic information retrieval is of prime importance because it allows for small decreases in time to accrue in undertaking sub-tasks which frees up cognitive resources (working memory, attention, etc) to focus on other aspects of the task.

'Expert' learners have highly automatised component sub-skills while 'novice' learners, in this case, students with learning difficulties, need to work effortfully on the component skills they have encountered many times before (Stanovich, 1990). In this way, limited automaticity in basic academic skills further depletes constrained working memory resources and frequently precludes students with learning difficulties from engaging in higher-order or procedural aspects of a task.

Affective Factors
Experiencing persistent learning difficulties can have serious, negative impacts on students' emotional well-being and can have detrimental effects on social interactions (Fuller, 2002; Vaughn & Hogan, 1990). Students with learning difficulties have an increased likelihood of displaying inappropriate social skills and tend to be less popular with their peers than non-LD students (Elbaum & Vaughn, 2003; Vaughn, Hogan, Kouzekanani & Shapiro, 1990). Poor social competence is often a confounding factor that adversely affects on school experience and constitutes another obstacle to successful learning for many students with learning difficulties.

Self-esteem, defined as the value one puts on one's self and behaviour, is almost entirely created by an individual's experience of success and failure (Seligman et.al, 1995). Accordingly, the low self-esteem displayed by some students with learning difficulties is not usually the cause of learning or behaviour problems, but develops as the result of repeated lack of success (Westwood, 2004).

The feeling of powerlessness that may lead students with learning difficulties to believe that they are unable to succeed has been termed "learned helplessness" (Diener & Dweck, 1978). Learned helpless behaviour has a highly debilitating effect on academic performance. Specifically, if students perceive that they cannot possibly achieve success because of factors beyond their control, then their levels of participation, engagement and performance on any task will decrease.

Learned helplessness and low self-efficacy can result in the following affective characteristics, displayed during the middle school years by many students with learning difficulties: reduced motivation, lack of persistence in the face of failure, negative expectations about the future, a tendency not to develop a strategic approach to learning, avoidance strategies and a generally negative affect (Weiner, 1992; Westwood, 2004).

Clearly, experiencing persistent learning difficulties presents students with many obstacles to successful learning. Cognitive processing constraints, poor skill level in basic tasks and negative self-perceptions are major influences on the school success of students with learning difficulties. The additional complexities of these issues for regional, rural and remote middle years students with learning difficulties and their teachers will be briefly reviewed in the next section.

RURAL AND REGIONAL PERSPECTIVES
At the Narrowing the Gap conference held in rural NSW it is particularly relevant to consider issues of teacher work and student diversity in rural, regional and remote Australia. In doing so, two reports recently released by the Commonwealth Department of Education Science and Training (DEST) will be selectively reviewed. Both reports are quite extensive and cannot be justly represented here. However, some of the findings are very relevant to this discussion. Importantly, in both reports, students with learning difficulties in regional, rural and remote communities were identified as a significantly disadvantaged group.

Impact of Drought Report
The first report, 'The impact of drought on secondary education access in Australia's rural and remote areas' (Alston & Kent, 2006), was compiled by researchers from the Centre for Social Research at Charles Sturt University. These researchers describe children living in drought affected rural or remote Australia as 'silent victims' whose access to a good education is compromised. The drought has led to an increase in debt, resulting in decreased opportunities for children and their families, an increase in poverty and flow-on effects such as increased school drop-outs and more frequent translocation.

The impacts of the drought on education are frequently related to the accelerated rate of rural restructuring identified in the report. Rural restructuring results in, for example, farms amalgamating and the consequent loss of families and young people from regional, rural and remote areas. An ensuing effect is a decrease in school numbers which has a negative impact on the availability of education and affiliated services in the community. The closure of small schools and the down-turn in student numbers impacts on teacher numbers, subject offerings and teacher professional development opportunities.

The report noted that the drought has particular, harmful impacts on students from specific groups. As a result of the drought, Indigenous students experience even more limited access to literacy and numeracy classes and increased problems with absenteeism. Students with 'special needs' are noted to be especially disadvantaged when they live in remote areas away form services and support. As the report noted, key action is required to provide additional supports for Indigenous students and students with special needs living in drought affected areas so they can have equitable access to educational options.

SiMERR National Survey
The second report is 'The SiMERR National Survey' (Lyons et. al) which provides a much needed focus on teacher perspectives about teacher needs in regional, rural and remote parts of Australia. This report was compiled by researchers affiliated with the National Centre of Science, Information and Communication Technology and Mathematics Education for Rural and Regional Australia (SiMERR) at the University of New England.

Teachers in regional, rural and remote areas, specifically teachers of Mathematics, Science and ICT, are challenged by factors such as high annual staff turn-over rates and by having to teach in subject areas in which they are not qualified. The teachers were keenly aware that, relative to students in metropolitan and major regional areas, their students could only access a limited range of options for learning experiences. The participating teachers identified a significant unmet need to provide alternative activities for specific groups of students, including Indigenous students and students with learning difficulties.

The report highlighted two key challenges identified by teachers in regional, rural and remote areas which pertain to inequities in resourcing and in accessing professional development. Teachers in regional and remote areas of Australia indicated a high level of unmet need in terms of adequate resourcing to develop appropriate learning support programs that encompass student diversity, accompanied by the further unmet need for professional development to cater for the needs of Indigenous and special needs students.

Although this is a selective review of the findings of both reports, the information presented here does clearly indicate that meeting the additional learning needs of students with learning difficulties and Indigenous students is an issue of great concern for teachers as well as an area of perceived inequity. The paucity of additional professional services available in regional, rural and remote Australia is not just an issue for students with learning difficulties and their families but also for teachers who are limited in their access to information, appropriate resources and professional development opportunities. Although this situation is challenging and demanding for the students and their teachers, it is not hopeless or unalterable because of the power of effective teaching to positively impact on student learning outcomes. The following section will provide information about specific strategies and approaches to support this process.

'POWER TO THE TEACHER' FRAMEWORKS

Effective teaching for students with learning difficulties generally does not require new or specific instructional strategies but rather relies on what many practitioners would call "just good teaching" or what Westwood (1993b, p.92) calls "the tried and true basics of skilled teaching". Research has shown that instructional strategies that enhance learning outcomes for students with LD result in improved outcomes for ALL students (see Vaughn, Gersten & Chard, 2000). The 'Power to the Teacher' theme rests on the understanding that effective teaching is concerned with things teachers do to increase student participation and learning (see Mastropieri & Scruggs, 2002; Rosenshine, 1997). Effective teaching necessitates a focus on teacher actions and decision making. Westwood (1993a) defined effective teaching as the clear teaching of important skills, information and appropriate strategies.

Strategies for Addressing Cognitive Factors of Learning Difficulties

Effective teaching for students with learning difficulties requires explicit teaching and strategy instruction. In an influential meta-analysis of reading interventions (word reading and reading comprehension), Swanson (2000) highlighted that a combined instructional model that includes components of strategy instruction and direct instruction yielded a very substantial effect size for reading comprehension. For word reading, a direct instruction approach also exceeded criteria for a substantial effect size. There is also considerable evidence in the literature to support the claim that direct instruction is an effective approach for students with learning difficulties in mathematics (e.g. Baker, Gersten & Lee, 2002; Kroesbergen & Van Luit, 2003) Further, evidence is emerging, in both reading and mathematics learning difficulties research, that student-centered or discovery-learning instructional approaches are not particularly effective for improving learning outcomes for students with learning difficulties (see Baker, Gersten & Lee, 2002; Ellis, 2005; Rowe, 2006). Explicit instruction is especially necessary when teaching new or difficult information and when content is critical to subsequent learning (Mercer, Jordan & Miller, 1996).

In a more fine-grained analysis, Swanson and Hoskyn (2001) used measures of effect size to identify instructional components that best predict positive outcomes for adolescents with learning disabilities. Effect-size is an index that measures the magnitude of a treatment effect, independent of sample size. The researchers' results identified advanced organisers (i.e., statements or strategies that direct students to preview instructional material and provide information about the learning task) and explicit review and practice as the most important instructional components related to high effect sizes in intervention studies designed to improve the academic performance of students with learning disabilities. Specifically, review and practice encourages the development of a reliable knowledge base that can be efficiently accessed, and the use of advanced organizers provides students with a mental scaffold of the targeted learning content. In Figure 1 these instructional components are listed, along with others, as strategies teachers can implement to support middle years' students experiencing constraints in cognitive processing that impact on the acquisition and retention of knowledge.

Table 1. **'Power to the Teacher' Framework for Addressing Cognitive Factors of Learning Difficulties**

Strategies For Addressing Cognitive Factors Of Learning Difficulties	
Obstacle: Cognitive Factors	**Effective Teaching Strategy (adjustment)**
Inappropriate or inefficient use of strategies	• Model efficient strategies in a supportive environment • Use teacher and peer 'think-alouds' • Teach by showing, demonstrating, peer modelling • Encourage reflection & talk about learning processes
Difficulty recalling previously encountered knowledge	• Provide explicit, repeated review & practice • Begin every lesson with review of prior content • Make strong connections with prior knowledge and current interests • Use mnemonics and other memory aids • Provide visual cues and supports to aide retention and recall
Limitations in working memory	• Teach cognitive strategies & procedures (repeatedly) • Use advanced organisers (preview and pre-teach) • Chunk (break up) content and tasks into achievable steps • Use graphic organizers (search the web for lots of samples of graphic organizers) • Provide scaffolds & proformas e.g. writing proformas for text types and subject-specific reports, scaffolds for assignment responses

Strategies for Addressing Difficulties with Reading, Writing and Basic Mathematics

Effective, explicit teaching involves showing, telling, using think-aloud protocols and self talk, as well as modeling and demonstrating by both teacher and peers so that a systematic and structured approach to instruction leads students toward mastery and success. Providing regular opportunities to practice and revise previous work is especially important in the acquisition and development of basic academic skills. Other strategies for classroom teachers to implement in word reading, comprehension, writing and basic mathematics skills are presented in Figure 2 and Figure 3. It is important to note that these strategies are relevant for content area learning in all subjects, not just English and Mathematics.

Table 2. **'Power to the Teacher' Framework for Addressing Limited Proficiency in Basic Literacy Skills.**

Strategies For Addressing Difficulties With Reading & Writing	
Obstacle: Limited Proficiency in Basic Literacy Skills	**Effective Teaching Strategy (adjustment)**
Poor word reading Lack of automaticity	• Provide frequent review and revision of basic words (common words and sight words). Practice these to the point of 'over-learning' • Pre-teach and frequently practice relevant vocabulary for every new content area • Display key words with a picture cue • Explicitly teach decoding strategies such as breaking words into parts e.g. onset & rime or syllables, sounding out parts of words, seeing small words or blends in big words, thinking of similar looking words, • Develop students' knowledge of parts of words: prefixes, suffixes, vowel blends (use word families) • Practice using repeated reading of familiar texts – focus on fluency • Use the Neurological impress method (NIM) • Provide peer reading, guided reading, readers' theatre
Difficulties with reading comprehension	• Preview content before reading to set context and to help activate background knowledge • Make predictions prior to reading • Use a highlighter to mark out important parts of the passage, unknown words, parts where meaning is unclear etc • Slow down pace of reading so focus can shift to meaning • Construct an overview of the text • Fill in a graphic organizer after reading • Teach question-answer strategies such as 3H strategy
Limited writing skills Reluctance to write	• Use scaffolds / outlines • Provide advanced organisers, e.g. concept maps, essay planners • Promote & model use of computer programs such as 'Kidspiration' & 'SparkSpace' to organize ideas; 'Read and Write Gold' & 'Co-Writer' featuring predictive text and spelling support • Provide display charts and 'reference sheets' showing key word spelling and content specific vocabulary • Practice writing fluency (timed activities and personal bests), encourage quantity as well as quality • Encourage students to develop keyboard skills

Table 3. **'Power to the Teacher' Framework for Addressing Limited Proficiency in Basic Numeracy Skills.**

Strategies For Addressing Difficulties With Basic Mathematics	
Obstacle: Limited Proficiency in Basic Numeracy Skills	**Effective Teaching Strategy (adjustment)**
Poor basic mathematics skills	• Provide opportunities for frequent review and practice of basic facts • Teach and practice similar facts together (+/- and x ÷) • Maintain the focus on practice activities over an extended period of time • Use timed practice activities so students can beat their 'personal best' times • Give preference to frequent, intense, short bursts of practice • Use a variety of practice approaches, e.g. flashcards, speed-sheets, games, repeated & timed practice on appropriate worksheets, peer activities etc. • Teach (repeatedly) & display counting and grouping strategies • Relate basic math facts to basic living skills – money, measurement, card-games, cooking etc.

Limited competence and confidence in mathematics problem solving	• Teach a 'step-by-step' approach, e.g:
	    Identify the problem
	    Draw the scenario
	    Select a strategy to solve the problem
	    Put the information into an algorithm
	    Calculate
	    Evaluate
	• Teacher & peer modelling, followed by guided & independent practice
	• Explicitly teach strategies such as:
	  Use models, number lines or concrete materials
	  Look for key words
	  Make a drawing or diagram
	  Act it out / visualise
	  Remove irrelevant detail
	  Construct a table or graph
	• Pre-teach and frequently practice key words for each new Mathematics topic as well as generic math prefixes and suffixes e.g. deci-, centi-, milli-, -meter, -gram, pent- etc.

Strategies for Supporting Social & Affective Aspects of Learning.
Improving students' academic skills can led to significant gains in academic self-concept, self esteem and self-efficacy (Vaughn, Gersten & Chard, 2000; Westwood, 2004). Therefore, it is important for teachers to take every opportunity to "break the cycle of failure" by providing students with experiences and tasks at which they can be successful. Accordingly, regulating the level of task difficulty, that is, providing work at an appropriate level for the student, is one of the most significant adjustments to instruction that teachers can make. Identifying and discussing the reasons that students use to explain their success or failure (their attributions), may also help students identify maladaptive attribution patterns and encourage them to take greater responsibility for their own learning. Other strategies that can support students to overcome affective obstacles to learning and participation are listed in Figure 4.

Table 4. **'Power to the Teacher' Framework for Addressing Affective Factors of Learning Difficulties**

Strategies For Supporting Social & Affective Aspects Of Learning	
Obstacle: Affective Factors	**Effective Teaching Strategy (adjustment)**
Poor social competence	• Carefully planned co-operative learning activities • Consideration re seating / placement • Use careful groupings to facilitate good peer modeling • Tell students about the structure of the lesson, e.g. "First we are doing…….. then….." • Classroom rules clearly displayed, regularly referred to and consistently and fairly enforced • Consequences for non-compliance need to be known in advance and (where possible) logical to the offence
Poor academic self-concept / low self-esteem	• Adjust the level of task difficulty, ensure the work is at an appropriate level for the student's capabilities & skills • Avoid failure situations, e.g. asking students to answer questions unexpectedly, reading aloud without prior warning, assignments & assessments without adjustments • Reward effort more than achievement • Measure progress against previous achievement (where possible) rather than standards-referenced benchmarks
Poor self-efficacy & learned helplessness	• Student reflection about learning, examine attributions • Teacher feedback to students - focus on strategies used, persistence and effort • Encourage realistic pre-task expectations of performance • Model & use 'think-alouds' from other students to show a range of attributions regarding why individual were able to succeed at a task

CONCLUSION

In many instances, students with persistent learning difficulties in the middle school years are unlikely to 'catch up' with their average-achieving peers without appropriate support services and specific, longer term academic skills interventions. The teachers of these students also require access to specialist teacher support and professional development to enable them to better meet their students' needs. There is certainly more to be done at the policy and program levels to deliver equitable educational outcomes for middle years' students with learning difficulties. This is especially true for those living in regional, rural and remote parts of Australia.

However, there is much that classroom teachers can do to improve participation in learning and consequently increase the learning and living opportunities available to vulnerable young Australians. Effective teaching, using explicit instruction, strategy instruction and other research-based instructional strategies, is a powerful paedagogical approach. The frameworks presented in this paper specify teaching approaches and strategies that are available to most classroom teachers as they generally do not require particular programs or resources. The frameworks also provide a guide for teachers and education administrators regarding sound educational approaches for middle years' students with experiencing persistent learning difficulties. This information has the potential to 'narrow the gap' in student achievement levels and to reduce the educational disadvantage currently experienced by a significant minority of middle years' students in Australian schools. Teachers can teach – power to the teachers!

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