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EDITORIAL

I hope that you are enjoying the balance of materials in the journal and welcome feedback at any time. At the top of this issue, I would like to thank the following AASE members who have contributed as members of the Editorial Committee or Practically Speaking Advisory Committee for several years and have stepped aside in 2006: Giovanni Gulli, Susan Montrose, Criss Moore, Robyn Yates. Our sincere thanks for your energies and commitment and best wishes for your future work in education.

It is also a great pleasure to welcome the following individuals who have accepted an invitation by the AASE (NSW) Chapter to join the Editorial Committee: Hank Bohanon-Edmonson, Barry Carpenter, Gordon Lyons, and Sally Roberts. We look forward to your input.

In this issue we present a range of papers that should be of interest to readers, and thank the authors for their thoughtful contributions. Jill Dean leads off by tackling the complex topic of challenging behaviour with a focus on risk management in educational settings. This is followed by the first in a series of informative MUSEC Briefings: this one reviews the literature on the use of multisensory environments in special education and provides the reader with useful follow-up sources.

In this issue we are delighted to present four refereed papers: a report on a valuable intervention to enhance spelling in ESL learners by Brenda Fai Yu Lam and Peter Westwood; a stimulating piece on decision making in relation to controversial approaches in special education by Jennifer Stephenson; a new means of levelling texts contributed by Sally Pierce, Kevin Wheldall, and Alison Madelaine; and a report on innovative approaches to teacher education by the special education team at the University of New England, led by Lorraine Graham. Finally, we have a book review thanks to the continuing generosity of time given by Jennifer Stephenson.

As you can see, this is a feast of reading across diverse and important topics. Enjoy!

Michael Arthur-Kelly
Editor
Practically Speaking

RISK MANAGEMENT IN THE CONTEXT OF CHALLENGING BEHAVIOUR

Jill Dean

Some children, who present with challenging behaviours that are injurious to themselves, or others, push the boundaries at school and home to the point where these boundaries are no longer sustainable. If not prevented, the impact of these challenging behaviours can have serious implications and restrictions for future life options across multiple settings. A focus on preventing the behaviour, or minimising the impact should the behaviour occur, provides not only a safe teaching and learning environment for all, but is conducive to maximising the potential of the student, and other students.

Risk management, in the context of challenging behaviour, recognises the importance of a safe teaching and learning environment by valuing students, teacher aides and other support personnel. This methodology places a stronger focus on whole school responsibility to eliminate risk through establishing safe systems of work and safe work practices. It is about being vigilant for the safety of oneself, other staff and the students. It supports staff by reducing the anxiety and humiliation associated with ongoing injuries that can lead to a lack of motivation, loss of confidence and self esteem and, if it persists, to long-term illness and loss of employment. Being injured by the students we teach, whether intentionally or unintentionally, and whether students have a disability or not, is no longer “part of the job”.

The vast array of material available on behaviour intervention is testimony to the commitment of teachers in supporting students to learn new socially acceptable ways to respond to events and situations encountered. However, risk management expands on the traditional behaviour management methodology by focusing on a whole school system-wide preventative framework (see Figure 1). It does not merely place emphasis on the individual class teacher concerned, but places a greater emphasis upon the organisation to ensure safe premises, equipment, systems of work and work practices through the provision of adequate information, resources and the necessary instruction and training. The strength of the risk management approach in managing challenging behaviour is that it harnesses the educational expertise within a consultative framework into a process that supports informed and defensible decision making.
In occupational health and safety terms, risk management is the process of recognising the impact of situations, people, objects or events that have the potential to trigger unsafe behaviour, and taking action to prevent its occurrence by incorporating planned preventative strategies into existing whole school systems. Where incidents cannot be prevented, planning should focus on managing and recovering from incidents to minimise the impact on staff and others.

In short, risk management is a process consisting of well-defined steps, and involves consulting and communicating with staff to systematically:
1. identify behaviour that poses a risk of harm;
2. analyse the context of the behaviour in relation to the student and the learning environment;
3. assess the risk;
4. implement strategies to eliminate or manage the risk in relation to the people and the environment; and
5. monitor and review effectiveness.

**Step 1. Identify behaviour**

*What risk behaviour(s) cause the most concern?*

*Which groups or individuals are most at risk?*

The first step of the risk management planning process is to identify the behaviours that pose a risk to the physical or psychological health or safety and identify which groups or individuals
are most at risk. Behaviours may include hitting, kicking, biting, scratching, stalking, etc., and may be directed at staff, other students, themselves or a combination of the above.

Case Study: Student has a history of physically injuring both staff and other students by scratching, gouging at eyes and grabbing around the neck. Additional risk of infection.

**Step 2. Analyse the context of the behaviour in relation to both the student and the learning environment**

- What is the purpose of the risk behaviour?
- What can trigger this risk behaviour?
- Where is the risk behaviour likely to occur?
- When is the risk behaviour likely to occur?

An analysis of the context of the behaviour will assist the organisation to better consider where, when, and why the behaviour may occur and thus to target preventative strategies. Understanding the purpose of the behaviour and what situations, objects, or individuals may trigger it will involve taking into account the individual and how they interact within the learning environment. Individual characteristics that may impact on the behaviour can include medical, social, emotional, and cognitive factors. Environmental considerations may include premises, equipment and resources, systems of work and work practices, e.g., curriculum expectations, emergency preparedness, competency levels of staff or supervision levels. In understanding the inter-relationship between the student and the learning environment, an organisation is better equipped to prevent the behaviour from occurring, or minimise the risk of harm should the behaviour occur, by supporting the student to develop the knowledge and skills necessary to respond appropriately.

Case Study continued:

- What is the purpose of the risk behaviour? To gain attention and avoid new tasks/situations.
- What can trigger this risk behaviour? Working in close proximity to the student; packing away preferred activities, especially the computer; changing from one activity to another; unstructured situations, i.e., play.
- Where is the risk behaviour likely to occur? Playground (for students) and classroom (for staff).
- When is the risk behaviour likely to occur? During unstructured play activities in lunch breaks and when transitioning from one activity. Less likely to occur when engaged in preferred activities.
Step 3. Assess risk

*What is the frequency of this behaviour?*
*What severity of harm may result?*
*What is the level of exposure to this behaviour?*
*Other contributing factors.*

Frequency, intensity, and duration have long been associated with behaviour intervention assessment. Risk management uses these same principles within a safety context where the likelihood of a behaviour occurring and the resultant severity of harm is assessed. Other contributing factors such as the number and proximity of other students exposed to the behaviour, their age, maturity, or disability level may increase either the likelihood of an injury occurring or the severity of its outcome.

Various risk assessment matrices or graphs are available to produce a quantifiable risk rank. However, the purpose of risk assessment is to determine priorities for action and the comprehensiveness of controls required.

Case Study continued:
*What is the frequency of this behaviour?* Several times an hour, with increased frequency during lunch breaks.  
*What severity of harm may result?* Multiple scratch marks across face, neck, and arms. 
*What is the level of exposure to this behaviour?* All students and staff in close proximity.  
*Other contributing factors?* Targeted students are less mobile or unable to defend themselves. Student on medication. Student has younger brother who presents at school with multiple scratches resulting from what family refer to as “rough play”.

Step 4. Eliminate or control risk

*What needs to happen to prevent the behaviour?*
*What needs to happen to minimise the risk should the behaviour occur?*
*Who is responsible?*

At this step, the goal is to determine strategies to eliminate or control the risk. The responsibility for safety is shared across the organisation, the class teacher, and the student (see Figure 2).
**ORGANISATIONAL LEVEL**

What does the organisation need to do?
- To prevent the behaviour
- To minimise the risk should the behaviour occur

Premises & Equipment
Programs & Resources
Information, Training & Instruction
Emergency Planning/Crisis Management
Supervision

**STAFF LEVEL**

What does the class teacher need to do?
- To prevent the behaviour
- To minimise the risk should the behaviour occur

Teaching Practices
Personal Management
Duty of Care

**STUDENT LEVEL**

What does the student need to learn/do to eliminate or replace the behaviour?

Curriculum Support
Communication
Social Skills
Behaviour Support

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Figure 2. Levels of responsibility for safety within the school

**Organisational level**

With a strategic focus on prevention, the organisation has the responsibility for ensuring safety by incorporating safe systems of work and work practices across the organisation. At the school level, this may require consideration of what triggers the behaviour and the “when, where and why” of the risk. Using the hierarchy of controls, comprehensive preventative strategies can be developed. It is recognised that replacing student behaviours that pose a risk of harm to others will be a long term goal. In addition, the organisation will need to develop interim strategies to minimise the risk should the behaviour occur. Consideration should be given to ensure:

- premises and equipment are safe;
- access to specific programs, resources and expertise required to deliver the general curriculum and identified targeted support programs, e.g., social skills, communication programs, is available;
• information, training, and instruction required by staff is provided;
• supervision levels required to maintain safety are adequate;
• crisis management plans are implemented correctly; and
• there is a process for debriefing staff and students.

**Classroom teacher level**
The class teacher is responsible for ensuring that safe work practices are incorporated into daily routines and learning activities. This includes selecting and implementing programs that enable the student to access and participate in achieving syllabus outcomes in safety. Again, by reviewing data collected during *Step 2*, for each identified hazard, strategies are developed in terms of preventing unwanted behaviours by avoiding triggers to the behaviour and minimising the impact should the behaviour occur. Consideration will need to be given to:

• teaching practices and choice of activities used in the delivery of the curriculum;
• designing and implementing identified targeted programs, e.g., communication or social skills programs;
• personal management strategies to avoid injury to self;
• duty of care to others, including teachers’ aides, volunteers, other students, as well as the individual student.

**Student level**
The student has the responsibility to demonstrate safe behaviour through learning socially acceptable ways to meet the purpose of their behaviour. This cannot be achieved overnight and learning adjustments will focus on setting individual student learning goals that will develop the knowledge and skills necessary to achieve the functional purpose of the behaviour in safety.

**MONITOR & REVIEW**

*Is it working?*

*If not, what do I need to do next time to:*

*Prevent the behaviour?*

*Respond safely should the behaviour occur?*

Managing behaviour is complex due to the timeframe required to change behaviour and the number of variables that can impact on the behaviour, the learning environment, or the strategies selected. For that reason, monitoring and reviewing is a continuous process of identifying new risk behaviours that may emerge, new people at risk, or new contexts that
Case Study continued:
From each of the factors described in Step 2, consider:

The purpose of the risk behaviour was thought to be to gain attention. Goal may include student learning socially acceptable ways to gain attention or social interaction with peers. Task avoidance strategies may include providing a structured visual timetable and auditory cues when approaching transition times.

Triggers to this risk behaviour included working in close proximity to the student. Consider using a desk as a physical barrier when staff are required to work closely with student. Position the student away from other vulnerable students.

Where is the risk behaviour likely to occur? Playground (for student). Separate student from more vulnerable students and replace unstructured play activities that teach appropriate social interactions with peers.

When is the risk behaviour likely to occur? At any time during class. Less likely to occur when engaged in preferred activities. Program preferred activities frequently, reducing frequency as student achieves social and communication goals.

What needs to be done to implement above strategies?
At the ORGANISATIONAL level: additional play area to be provided away from more vulnerable students; additional supervision to be provided during unstructured play breaks; training needs of staff considered; revise school response to staff and students should an injury occur.

At the TEACHER level: social skills and communication program to be developed, including visual timetable to be designed and implemented; high risk situations anticipated and agreed strategies implemented consistently, i.e., verbal cues prior to transitioning; risk minimised by ensuring personal safety and safety of teacher aide and others using proximity controls, clothing with long sleeves.

At the STUDENT level: student learning will focus on communicating needs and wants in socially appropriate ways and initiating play and other social interactions with peers in safety.
may arise. The effectiveness of the existing strategies may change and responding to these changing circumstances requires the original plan to be changed, or at least modified.

The core business of schools is to provide quality learning for all students in a safe environment. In some settings, this requires balancing the needs of students with aggressive or challenging behaviours with the learning and working needs of others. When behaviour is identified as a potential physical or psychological risk, whether intentional or unintentional, the risks to the health and safety of staff, other students or the individual student, must be addressed.

Acknowledgement
The author recognises and acknowledges the work of the NSW Department of Education and Training in this important area.
MUSEC Briefings

Multisensory Environments to reduce challenging behaviour in people with severe disabilities

JENNIFER STEPHENSON

Statement of the Problem
Around 15-17% of people with developmental disability exhibit a range of challenging behaviours including aggression, self-injury, stereotypic and destructive behaviour.

Proposed Solution/Intervention
Multisensory environments (MSE) provide a range of sensory stimulation from equipment such as light projectors, mirror balls, fibre-optic sprays, vibrating pads, aroma producers and sound equipment, at a cost of up to $A20,000. Traditionally, the person is exposed to the MSE in the company of an accepting and non-directive support person but recently more direct teaching of programs has occurred.

The theoretical rationale — how does it work?
The sensory stimulation provided by the light, sound, movement and aroma effects from the equipment installed in the room is claimed to stimulate the senses and result in relaxation. Proponents of multisensory environments (or snoezelen) claim that relaxation will reduce agitation and self-injurious behaviour.

What does the research say? What is the evidence for its efficacy?
There are few studies of the effect of MSEs on problem behaviour, and most of those have design flaws. Although many report within session improvements in behaviour, none show generalized out of session improvements in behaviour. There are also reports of problem behaviour exacerbated by MSE experiences. Most recently, a study reported in 2005, with 99 participants who all had a history of problem behaviour and who were randomly assigned to treatment conditions, showed MSEs were no better than the control activity sessions in reducing aggressive and self-stimulatory behaviour.

Conclusions
At this point given the poor designs of most studies, lack of evidence of effects outside the MSEs and the findings of the 2005 study, there is little evidence to support the use of MSEs as an intervention for challenging behaviour.

Alternative option
Interventions for challenging behaviour that are based on a functional assessment to identify the reinforcers of the behaviour are likely to be successful and have a strong research base.

The MUSEC Verdict: NOT PROVEN

Key references may be found at: www.aces.mq.edu.au/musec_co_brief.asp
ABSTRACT
This article reports outcomes from a 7-week intensive strategy-training program designed to improve ESL students’ ability to spell English words. The study was carried out in a Hong Kong primary school with two groups of Cantonese-speaking children in the age range 11–12 years. Children in the Experimental Group were taught a range of appropriate spelling strategies including phonological analysis, blending, onset-rime division, syllabification, identification of orthographic units, spelling by analogy, and visual imagery. Spelling lessons for the Control Group did not include strategy training but relied instead on fairly traditional rote memorisation and testing methods. Post-test scores indicated that the Experimental Group significantly out-performed the Control Group (mean post-test difference between groups = 6.58 words; effect size = 0.65; p < .001). Inspection of students’ individual weekly spelling test results provided further evidence of benefits from the training. Suggestions for classroom practice and further research are provided.

INTRODUCTION
Being able to spell accurately in the English language is important for a number of reasons. The reasons are valid not only for native English writers but also for students of English as a second language. Gentry and Gillet (1993, p. 57) state that “Spelling is a tool for writing. The purpose of learning to spell is so that writing may become easier, more fluent, more expressive, and more easily read and understood by others.”

English spelling has always presented a challenge to second-language learners—and, of course, to native English speakers too. In part this difficulty is due to the phonetic irregularity of a significant
percentage of English words. But in many cases the difficulty is also due to the writer’s lack of effective strategies for studying and remembering words (Varnhagen, 1995). Compared to poor spellers, skilled spellers have been found to possess a number of effective strategies they can use for generating, checking and, if necessary, modifying the spelling of any words they wish to write (Westwood, 2005).

For children to become increasingly independent in spelling, they need to be able to analyse words in a systematic and logical way. In this respect there is no difference between learners of English as a first or as a second language. Unfortunately, the explicit teaching of word-study strategies does not appear to be a common focus in teaching English as a second language. Unfortunately, the explicit teaching of word-study strategies does not appear to be a common focus in teaching English as a second language. For example, Cook (2001, p. 78) reports that in ESL contexts, “Spelling is hardly ever covered systematically in language teaching, vital as it may be to the students’ needs”. Prior to the commencement of the study reported below, a search of the relevant literature, including the indices of methodology texts for ESL, generally failed to reveal much specific guidance for teachers on approaches to spelling instruction.

A strategy-based approach
A “strategy” can be defined as a mental plan of action that enables an individual to approach a particular task—in this case the spelling of an English word—in a logical manner. Students become more independent in spelling when they can look at an unfamiliar word and decide the most effective strategy to use for mastering the spelling of that word. For example, they may decide that a word like *remember* is grapho-phonically regular and they can use the obvious “write-it-as-it-sounds” strategy (syllabification + phonics). On the other hand, a word like *choir* is not grapho-phonically regular and therefore needs the application of a visual memory strategy, coupled perhaps with repeated writing. Children also need to know how to use orthographic units (common letter-strings) from the words they can already spell to help them attempt unfamiliar words that sound or look similar (spelling by analogy) (Kirkbride & Wright, 2002). For example, knowing how to spell *east* can help directly with the spelling of the words *least, feast,* or *yeast.* Students’ spelling skills and confidence can be increased if they understand more about word structure, syllabification, and effective ways of subdividing words into pronounceable parts. To develop such skills, children need to engage in many activities that involve comparing and contrasting letter patterns and word structures (see Appendix C). As Templeton (1992, p. 455) has observed, “Spelling knowledge grows out of and supports reading, writing and vocabulary study. It also grows out of examining words in and of themselves” [emphasis added].
Evidence from training studies in English-as-first-language contexts has strongly supported the value of teaching children strategies for spelling (e.g., Graham, Harris, & Chorzempa, 2002). Such strategy training usually covers visual imagery techniques, repeated writing, phonemic analysis, recognition of orthographic units in similar-sounding words, and using meaning to help guide the spelling of certain words. Strategy training appears to result in significant improvements in students’ spelling skills and an increase in their confidence as spellers (Westwood, 2005).

It is recognised that the acquisition of spelling skills for native English speakers follows an age-related developmental sequence, beginning at a pre-phonetic level of understanding and progressing through an “invented spelling” phonic stage, a transitional stage where visual and phonological information are used together to build awareness of quite complex orthographic units, to a final stage of independence where an individual can use a variety of cues to spell and check unfamiliar words. The strategies taught to children at any particular age must take into account their developmental stage as spellers, and must help them move beyond their present stage toward greater independence.

**Learning English as a second language**
The study described here was designed to investigate the value of teaching a range of age-appropriate word-analysis strategies to Chinese children learning English as a second language. Learning an alphabetic written language like English presents a very different set of challenges (perceptually and cognitively) from learning to write Chinese characters. It was felt that specific teaching of word-study techniques for English might be particularly important for children coming from this different language background with its own unique phonology and script.

The phonological awareness developed by any individual reflects his or her first language background. Ultimately, differences in phonology between languages can cause difficulties in identifying and discriminating particular phonemes in a second language and therefore in producing those phonemes as graphemes in writing (Ho, 2003). There are potential difficulties, therefore, in switching from a logographic written language system that is not primarily phonetic and does not depend on well-developed phonic skills (Chinese) to a system that is based (albeit imperfectly) on phonic principles (Drucker, 2003). For this reason, students from non-English backgrounds may benefit from explicit instruction in all aspects of phonic analysis.

**The Hong Kong context**
The mother tongue of over 96% of the population in Hong Kong is Cantonese. British colonial influences up to 1997 had
ensured that the teaching of English was given some priority in schools, and English was the accepted medium of communication for all business and trade purposes. After the return of Hong Kong to Chinese rule in 1997, English was retained as one of the official languages and as the medium of instruction in some, but not, all schools. Currently there is much emphasis placed on raising the standards of spoken and written English in schools and in the workforce, with the long-term aim of ensuring that Hong Kong retains its competitive edge in the international arena.

Although in recent years the approach to teaching English in primary schools in Hong Kong has become more interactive, conversational and student-centred, the main focus in most schools is still on material presented in a textbook (Adamson & Morris, 1998). Most teachers place importance on covering a core vocabulary of words each week, taken from the meaningful context presented in the textbook and elaborated by the teacher. Usually a weekly dictation exercise will be studied for homework and used later to test the spelling of this core vocabulary. Although teachers differ in the amount of instruction they give their classes on how to learn new words, the common practice relies mainly on rote memorisation methods such as drilling, repeated writing, and self-testing, rather than on any systematic analysis of word structure. Against this background the study described here was implemented.

METHOD
Participants
The subjects selected for this study comprised 67 female students from primary grade 6 in a girls-only school in Hong Kong. The students represented the full ability range from high achievers to low achievers. The girls were organised in two parallel classes each containing the same age and ability range. The Experimental Group contained 33 girls in the age range 11.3 to 12.8 years. The Control Group contained 34 girls in the age range 11.2 to 12.7 years. However, due to an outbreak of illness causing several absences at the time of the post-testing, results from only 26 Control Group students could be used for final analysis (see Table 1). All subjects were Cantonese-speaking Chinese students learning English as a second language.

Procedure
The weekly spelling test results from the previous term were inspected to ensure that the overall spelling ability of the girls in the two classes was not significantly different. A pre-test containing a list of 60 words, graded in difficulty from simple to complex and dictated unseen to the students, was used to obtain baseline data for both groups (see Appendix A). Analysis using $t$ test for independent groups indicated that there was no statistically significant difference in spelling ability between the two groups before the training program began.
The Experimental Group (n = 33) received four sessions per week of specific training in word-analysis strategies. Each session lasted approximately 20 minutes and the duration of the program was 7 weeks. At the end of each week the students were tested on the target vocabulary using a simple dictation test with the words embedded in context. The activities the girls engaged in are summarised in appendix to this paper. The strategies covered whole-word method, phonological analysis, blending, onset-rime divisions, syllabification, spelling by analogy, and identifying orthographic units (see Appendix C).

The Control Group (n = 34) covered exactly the same vocabulary from the same textbook, but the teacher did not guide the students in any specific word analysis techniques. The girls were simply required to learn the words for each weekly test using whatever personal strategies they had developed incidentally for themselves (usually rote memorisation and recitation). The Control Group program was identical in number and duration of sessions and length of program.

After seven weeks students in both groups were retested with the same 60-word graded spelling list used for the pre-test. The pre- and post-test did not contain any of the target vocabulary from the training program—so any improvement in post-test scores might therefore be attributable to transfer and generalisation of the strategies taught in the program. Significance of difference between group means on post-test was again determined by t test, and the effect size (ES) of the training intervention was calculated.

The weekly spelling test results from Term 1 (before training) and Term 2 (during training) were compared for the Experimental Group students to determine any obvious change in students’ average attainment levels under the two conditions.

**Training program**

The words selected for each training session comprised the target vocabulary from each unit of work in their textbooks (*New Welcome to English*: Longman, 2000; and *Build Up Your English*: Educational Publishing House, 1993). A list of 70 such target words was prepared from these texts, with ten words allocated for study in each of the seven weeks (see Appendix B). The words were selected on the basis that (a) they were new vocabulary not previously covered; and (b) the structure of the words in terms of syllables and complexity of orthographic units was appropriate for the developmental stage of the students and for the strategies to be taught. The overriding “self-help spelling strategy” taught to the students in the Experimental Group is summarised in the Appendix C.

In the Experimental Group the strategies were first taught by explicit instruction. After demonstrating and modelling effective
application of the strategy to a target word, the teacher discussed with the students the value of the strategy. Students then engaged in guided and independent practice with feedback from the teacher. Follow-up activities included “word families”, “word sorts” and “word wall” to help students practise and consolidate their learning (see Appendix C). The extension and enrichment activities, including the “word wall” items contributed by the children, did not contain any words from the pre- and post-test lists.

The same target words for each week were used with the Control Group, but specific techniques for word study were not taught in that group. Instead the students read and discussed the words with the teacher, and then practised reciting and writing the words, mainly by rote in preparation for a weekly test.

RESULTS

Pre-test
Analysis of the pre-test scores for the Experimental Group and Control Group before the program began indicated that although the mean score was higher for the Control Group this difference was not significant at the .05 level of confidence ($t = 1.47$, $df = 57$, $p = .164$). For the purposes of this study the two groups were considered equivalent in general spelling ability.

Post-test
It must be remembered that the words in the post-test list were not words that had been taught in the program. Table 1 summarises the post-test means for Experimental and Control groups. The Experimental Group mean of 43.85 was 6.58 marks higher than that of the Control Group. This difference was significant beyond the .05 level of confidence.

<table>
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<tr>
<th>Groups</th>
<th>mean (SD)</th>
<th>difference</th>
<th>$t$</th>
<th>df</th>
<th>significance</th>
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<tr>
<td>Experimental (n = 33)</td>
<td>30.97 (8.78)</td>
<td>-3.84</td>
<td>1.47</td>
<td>57</td>
<td>.164</td>
</tr>
<tr>
<td>Control (n = 26#)</td>
<td>34.81 (11.20)</td>
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<tr>
<td><strong>POST-TEST</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Experimental (n = 33)</td>
<td>43.85 (9.24)</td>
<td>+6.58</td>
<td>2.61</td>
<td>57</td>
<td>.012*</td>
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<tr>
<td>Control (n = 26#)</td>
<td>37.27 (10.09)</td>
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Table 1. Pre- and post-test mean differences for Experimental and Control groups

Notes:
1. Although 34 Control Group students took the pre-test and also participated in the program, the results for only 26 of these students were available for both pre- and post-test situations. Pre-test mean above was re-calculated for 26 students.
2. * $p < .05$
The Experimental Group had actually increased its own score compared with the pre-test by 12.88 marks. The 26 subjects in the Control Group who were available for post-testing had improved their mean score over pre-test by only 2.46 marks.

**Weekly test results: Experimental Group**

Finally, the average weekly dictation test scores for the Experimental Group (n = 33) over a 7-week period in Term 1, when no strategy training had been used, were compared with the weekly scores obtained by the children during the 7-week training period in Term 2. Table 2 summarises the data.

It can be observed from the mean scores in Table 2 that progression week by week through the program was not smooth and uniform. This can be explained by the fact that the specific words for study in any particular week might have been slightly easier (or slightly more difficult) than the words in the preceding or following week. What is important to note in Table 2 is that in five out of the seven comparisons the children’s average test scores during the training were significantly higher than their mean scores in Term 1. This information adds support to the conclusion that the strategy training approach was effective, at least in the short term. It would be necessary to check for maintenance of this improvement in spelling achievement after a period of several weeks without further training; but such follow-up testing was not possible in this particular study due to time constraints.

<table>
<thead>
<tr>
<th>Week</th>
<th>Term 1 (no training) mean</th>
<th>Term 2 (training) mean</th>
<th>difference</th>
<th>t</th>
<th>df</th>
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<td>3.57</td>
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<td>.001**</td>
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<td>2</td>
<td>84.50</td>
<td>84.75</td>
<td>0.25</td>
<td>0.10</td>
<td>31</td>
<td>.920</td>
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<td>3</td>
<td>71.94</td>
<td>84.45</td>
<td>12.52</td>
<td>3.53</td>
<td>30</td>
<td>.001**</td>
</tr>
<tr>
<td>4</td>
<td>84.61</td>
<td>92.55</td>
<td>7.94</td>
<td>3.49</td>
<td>32</td>
<td>.001**</td>
</tr>
<tr>
<td>5</td>
<td>83.09</td>
<td>90.88</td>
<td>7.78</td>
<td>2.49</td>
<td>31</td>
<td>.018*</td>
</tr>
<tr>
<td>6</td>
<td>81.39</td>
<td>91.67</td>
<td>10.27</td>
<td>4.76</td>
<td>32</td>
<td>.000**</td>
</tr>
<tr>
<td>7</td>
<td>86.22</td>
<td>91.28</td>
<td>5.06</td>
<td>1.97</td>
<td>31</td>
<td>.057</td>
</tr>
</tbody>
</table>

* *p < .05  ** *p < .01
DISCUSSION
The effectiveness of strategy training is already well documented for children from backgrounds where English is the first language (e.g., Ellis, 2005; Gaskins, Ehri, Cress, O'Hara, & Donnelly, 1997). The results from this small-scale exploratory study support the view that training ESL students to apply appropriate word-analysis strategies has a beneficial impact on their ability to spell English words. In particular, the attention given to improving phonic analysis and to using procedures such as syllabification appears to have given the students confidence and increased their interest in words. One student in the Experimental Group commented to the teacher, “It is good to have a lesson to learn about pronunciation and how to break words up. If I forget a word now, I think of the sounds and the pattern, then the word appears in my mind.”

Given the benefits of strategy training for spelling as identified in this study, it is strongly recommended that teachers of English as a second language give higher priority to such training for their students. The instructional emphasis in second-language teaching needs to include not only the content and pragmatics of the language but also the metacognitive skills that help a learner to know how to study that language most effectively.

Limitations and recommendations
Obvious limitations in this study must be acknowledged. It was not a large-scale study and involved only two classes. The subjects were all female, so it would be necessary to carry out additional investigations to determine whether similar gains in spelling ability occur in male students. It would also be important to discover at what age this form of training has most impact. This study focused on upper primary (grade 6) students. Is it also applicable in the early years of primary school? Is it too late to try to introduce it to secondary students?

The greatest need is for further study to check on maintenance and generalisation in the use of the strategies and skills over a longer period of time. It is possible that some of the measured improvement in spelling ability in these students was due simply to the students showing more interest in spelling and devoting more time and attention to it because they knew they were in the Experimental Group. If this is the case, one might anticipate some drop off in performance after a period of time.

REFERENCES


Appendix A

Pre- and Post-test: Dictated word list

1. on       21. hung       41. sight
2. cup      22. shell      42. protest
3. bin      23. think      43. dragon
4. jam      24. jump       44. mixture
5. pet      25. sling       45. computer
6. top      26. frill       46. contestant
7. hat      27. shark       47. newspaper
8. nut      28. space       48. position
9. and      29. stream      49. resident
10. for     30. greet       50. submarine
11. plan    31. seat        51. television
12. tram    32. joke        52. independent
13. chop    33. joy         53. composition
14. ship    34. kite        54. entertainment
15. rock    35. swine       55. transportation
16. most    36. knife       56. supervisor
17. them    37. tray        57. disagreement
18. stand   38. clear       58. calculator
19. blend   39. stool       59. contribution
20. patch   40. coast       60. coordinate
Appendix B

Weekly quota: New words

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. fussy</td>
<td>dangerous</td>
<td>parties</td>
<td>careless</td>
<td>petrol</td>
<td>information</td>
<td>wealthy</td>
</tr>
<tr>
<td>2. customer</td>
<td>goats</td>
<td>games</td>
<td>accident</td>
<td>electricity</td>
<td>hard</td>
<td>afraid</td>
</tr>
<tr>
<td>3. popular</td>
<td>shallow</td>
<td>ghosts</td>
<td>famous</td>
<td>check</td>
<td>interesting</td>
<td>stole</td>
</tr>
<tr>
<td>4. wore</td>
<td>float</td>
<td>witches</td>
<td>model</td>
<td>search</td>
<td>Internet</td>
<td>hole</td>
</tr>
<tr>
<td>5. expensive</td>
<td>crocodiles</td>
<td>ride</td>
<td>detective</td>
<td>travel</td>
<td>leaflet</td>
<td>covered</td>
</tr>
<tr>
<td>6. loudly</td>
<td>attack</td>
<td>trick</td>
<td>robbers</td>
<td>traffic</td>
<td>barbecue</td>
<td>bridges</td>
</tr>
<tr>
<td>7. pale</td>
<td>smoke</td>
<td>treat</td>
<td>million</td>
<td>remember</td>
<td>hike</td>
<td>Territories</td>
</tr>
<tr>
<td>8. advised</td>
<td>streams</td>
<td>night</td>
<td>dollars</td>
<td>bumping</td>
<td>education</td>
<td>beautiful</td>
</tr>
<tr>
<td>9. ashamed</td>
<td>volcano</td>
<td>sweet</td>
<td>photograph</td>
<td>space</td>
<td>something</td>
<td>suitable</td>
</tr>
<tr>
<td>10. quickly</td>
<td>destroyed</td>
<td>neighbours</td>
<td>together</td>
<td>special</td>
<td>telephone</td>
<td>business</td>
</tr>
</tbody>
</table>

Appendix C

Sample activities from the spelling program

Main self-help strategy

Students in the Experimental Group were taught to use the following self-help strategy when meeting a new word. This strategy was revisited regularly throughout the program.

I must ask myself:

- Do I know this word?
- How many syllables can I hear when I say the word?
- Do I know any other word that sounds almost the same?
- Which letter-groups do I need to write?
- Does the word I have written look correct?
- I’ll try again.
- Does this look better? Let me check.

Activities

In addition to applying the general strategy above, the students engaged in the following related activities each week, although not every activity featured in every lesson.
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1. **Basic phonics:** Each week, practice was provided in the identification and writing of basic phonic units such as single grapheme-phoneme correspondences, consonant blends, short and long vowel sounds. The target words for the week were used as the starting point.

2. **Onset-rimes:** Target words were looked at, pronounced in two parts—initial sound plus the rest (e.g., g/oat; p/ale; tr/eat; ch/eck). Words were then written from memory. Students asked themselves, “How does this word begin? What letters will come next?”

3. **Word families:** Extensive practice was given in building other words from basic orthographic units contained in certain target words (e.g., *game*, was used to generate the words *came, lame, name, same, tame, blame, fame*, etc. Whole-class, group, and individual activities were used to help students acquire the strategy of spelling by analogy. Students were trained to ask themselves, “Think of another word that sounds a little like this word.” (See also, reinforcing activities under “snake games”, “word sorts”, and “word-walls” below.)

4. **Syllabification:** Students participated in regular activities that required target words to be broken down into pronounceable units (e.g., pop/u/lar; croc/o/dile; to/ge/ther). Phonic dictation reinforced the writing of the appropriate letter groups. Students were encouraged to ask themselves, “Can I break this word into sounds? How do I write this sound?”

5. **Blending:** Students gained experience in writing polysyllabic words from a given sequence of dictated sounds and syllables (e.g., num/ber; str/eam; re/mem/ber). Words used were from target words for the week and other words generated in the “word family” activities (see above).

6. **Prefixes and suffixes:** Regular discussion centred on whether a target word contained a prefix or suffix. Common prefixes and suffixes were added to students’ growing knowledge of common orthographic units. Students would ask themselves, “Do I see a prefix in this word? Do I know this word-ending?”

7. **Snake games:** Students played a word-building game in which initial consonant blends, printed on a card representing part of a snake's body, were added to vowel and final
consonant or consonant blend units on cards to form target words (or words created in previous word family). As new words were made the snake grew in length (e.g., dr/eam + cr/eam + scr/eam + str/eam).

8. **Word Sorts:** Students classified words provided on cards into appropriate sets, based on either shared orthographic patterns or similar sound patterns when read aloud. Students asked themselves, “What is the same about some of these words?”

9. **Word Wall:** Over the seven-week period the students also contributed regularly to a large display-board in the classroom. Target words, word families, and newly discovered words were added to the wall. The words were used regularly for revision and overlearning. A little time was devoted each week to classifying and re-classifying some of the words into families. Students used the word wall as a resource if necessary when writing. It should be noted that none of the words on the word wall included items from the pre- and post-test lists.

10. **Visual Imagery:** The students were trained to ask themselves, “Can I write this word as it sounds, or must I learn it as a whole?” For the irregular words the students were taught the effective use of the “look-say-cover-write-check” strategy. The students were also encouraged to use repeated writing of the irregular words to build up automaticity in recall.

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**About the contributors**

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Refereed Papers

A TEACHER’S GUIDE TO PITFALLS IN DECISION MAKING

Jennifer Stephenson
Macquarie University Special Education Centre

ABSTRACT

Special educators, families, and other professionals are confronted with a wide range of programs and practices, some of which are evidence-based and others that are controversial and unproven. They need to make responsible and informed decisions about the best interventions for students with disabilities. This paper explores the decision-making process and examines some of the cognitive, social and emotional biases that may be unconscious influences on decision making. It draws on the work of Cialdini (2001), Gilovich (1991), and others to provide a framework for the consideration of potential pitfalls in decision making. People who are aware of the limitations of natural decision making are more likely to make fully informed decisions based on sound information and are less likely to be misled by advocates of fads and unproven practices.

Controversial practices have always been problematic in special education. Some of these controversial practices are unproven, or have been shown to be ineffective, while others are controversial for other reasons such as the demands they place on families. New fads constantly arise along with new information on research-based practices. Teachers, parents, and other professionals regularly make decisions about educational strategies to be used with students with disabilities, including whether or not to adopt new strategies, programs, or treatments. Various authors have identified particular unproven or controversial practices used with or advocated for students with special education needs. These include conductive education, Lovaas approach to autism, facilitated communication, sensory integration, Doman-Delacato patterning, auditory integration training, gentle teaching, dolphin assisted therapy, and modality training (McWilliam, 1999; Mostert, 1999/2000; Stephenson, 2004).

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A troubling aspect of the use of controversial practices is the seemingly uncritical orientation that lies behind decisions to use unproven practices. Why are people so ready to believe that a new, unproven teaching strategy, therapy, or treatment will be more successful than existing strategies? How can practitioners be more critical in appraising new approaches but, at the same time, not overlook promising new practices? This paper explores some of the human qualities that make us susceptible to fads, and considers ways that we can avoid the uncritical acceptance of new “miracle cures”.

An uncritical acceptance of stories, accounts of events, beliefs, and superstitions is not confined to education. People also hold erroneous beliefs and act on them in many areas of life, including health care practices, investment schemes, and weight loss programs. In both education and medicine, new practices may have a research base that demonstrates some degree of effectiveness, but some practices may be relatively ineffective or may even be harmful. A common concern is that use of unproven alternative approaches may supplant or interfere with the use of strategies known to be efficacious. Practitioners need to be able to make good decisions about which practices to use, which practices if used should be closely monitored and which practices should be avoided. Mostert (1999/2000) described a condition of educators which he called discriminative disability. This is “the inability to know or understand what works effectively, what does not work effectively, and the inability to tell the difference” (p. 120). Describing the condition, however, does not help us understand how we are susceptible to it nor how we can guard against it. The aim of this paper is to alert practitioners to possible pitfalls in decision making. An awareness of common flaws in the decision-making process may ensure that all evidence is considered in an objective manner and irrelevant influences are discounted.

Gilovich (1991) suggested there were two broad kinds of reasons why people adopt and hold erroneous beliefs. He identified cognitive factors and social/motivational factors. Huebner and Emery (1998) used this framework as part of their analysis of the reasons why facilitated communication was so rapidly adopted by many practitioners in the field of disability. This discussion of the difficulties in making rational, evidence-based decisions will also draw on this framework to explore those influences on our thinking that we are likely to be unaware of. These factors can lead us into poor decisions, but if we are aware of their existence, we can take steps to avoid them.

Our capacity to manage information and use it to draw conclusions is not perfect (Gilovich, 1991). Along with these cognitive factors, there are social/motivational factors
to consider. We believe what we want to believe and deal with information in ways that support our existing beliefs and values. We are also subject to influences from the way information is presented to us and to influences from the people who present the information to us. We may be manipulated by those who want us to form particular views. We tend to believe what those around us believe and do what we observe others doing (Gilovich, 1991).

Cognitive factors
There are a number of aspects of the way we think that contribute to poor decision making, and may make us susceptible to poor arguments for new practices. What we need to be able to do is to consider all the evidence, weigh it fairly, and decide if a practice is likely to be efficacious. If we decide to use a practice that is still unproven, we need to decide how to use it in a responsible and informed way.

Decision making: Failure to consider all the alternatives
Kavale (2001, p. 262) described decision making in special education as “an intricate set of decision points requiring knowledge, wisdom and experience to optimally reach an end point”. Our thinking about purportedly successful treatments can go wrong at any decision point because we do not stop to consider the alternative explanations. Indeed, failing to search for, and then consider, the alternatives is a common error in thinking that leads to faulty conclusions (Dawes, 2001; Shermer, 1997). There are reasons why this happens. The pace of life pushes us to make decisions more rapidly than we might like, so we do not seek out and evaluate all the available information (Cialdini, 2001). If we do attempt to collect information we are likely to be overwhelmed by the information available. A Google search for sensory integration on the Internet yields over 300,000 hits; dolphin therapy gives 10,100 hits. With this amount of information indiscriminately available we then, understandably, take short cuts in our decision making. Some of these short cuts will be discussed later under social/motivational factors, and some are related to cognitive factors that we may be unaware of.

In weighing evidence, we can be over-influenced by examples that confirm a belief or by evidence that only reports the desirable outcomes of an intervention; we do not automatically compare things rationally (Dawes, 2001; Gilovich, 1991; Piatelli-Palmarini, 1994). We need to consider not only an observed or purported relationship between a practice and an outcome but also whether or not the outcome is always associated with the practice, and what the outcome would be if the practice was not adopted. It helps to visualise the entire situation in a 2x2 table containing four boxes, as in Table 1.
Table 1. Practice/outcome relationships

<table>
<thead>
<tr>
<th>Practice adopted</th>
<th>No or adverse outcome</th>
</tr>
</thead>
</table>

We can then consider what we know, and ensure there is information in all the boxes as well as the practice adopted/desirable outcome box (Gilovich, 1991; Piatelli-Palmarini, 1994). It is also important to recognise that the evidence available may be incomplete. The four box system may help to pinpoint the fact that we do not know, for example, what happens if an intervention is not adopted, and we can seek further information. We can thus circumvent our tendency to rely solely on positive examples of observed or reported relationships between an intervention and desirable outcomes by including information that includes non-occurrences of outcomes, adverse outcomes, and outcomes in the absence of intervention.

Social/motivational factors
As well as the cognitive factors relevant to the collection and consideration of the evidence, there are a number of emotional or social factors that can influence our decision making. Hopefully, an awareness of these factors can help make our decision making more rational.

We believe what we want to believe: How we are influenced by existing beliefs
In evaluating data, we need to be aware that our expectations, existing beliefs, and preconceptions will influence the way we deal with new information (Gilovich, 1991). It is natural that we should be more comfortable accepting information that confirms or is consistent with our existing beliefs. We cannot go through life critically evaluating each observation we make, each piece of information we acquire. We need to use our prior knowledge and experience to make sense of the world. If we are aware of this tendency, we can be more careful in evaluating ambiguous data and in dealing fairly with unambiguous data that contradicts our existing beliefs.

Influence from the way in which information is presented
The information that we rely on when making decisions about adopting new practices is most likely to come from second-hand sources. We will read or listen to the experiences of others and read or listen to arguments based on information collected by others. The teller or informant may knowingly or unknowingly “massage” the information to provide a “good story”. Story tellers will omit details and simplify a story as, generally, listeners do not want extraneous information. If it is second-hand information they are conveying, they may increase its immediacy by telling us that it happened to a friend. Story tellers
may explicitly or implicitly include their interpretation of causal influences when recounting a series of events. They may select the stories they tell us in order to support their argument (back to the four boxes again). They may define the events they report as antecedents or consequences of other events and ignore other possible connections and causal links (Dawes, 2001; Gilovich, 1991). When gathering information from second-hand sources, or listening to advocates of a practice, we need to be aware of our susceptibility to a good story. This susceptibility to a good story is nicely illustrated by urban myths (a startling event which happened to a friend at work ...) that are rapidly circulated by uncritical recipients.

Influence of others
We tend to follow the lead of other people, particularly if those people are like us and are people we like. We can see this factor operating in “bandwagons” where people rapidly join others in their profession in implementing and supporting a particular treatment without examining the evidence for themselves (Mostert 1999/2000). Advertisers exploit this tendency when they assure us that a new product is the most popular or consumption is rapidly rising (Cialdini, 2001). Most people are followers rather than leaders. Unfortunately, the leaders themselves may not have examined the evidence (or lack of it) themselves and thus have not made a rational choice.

Often, believing what others believe and doing what others do is a useful short-cut strategy to behaving appropriately (Gilovich, 1991). The problem is that we tend to overestimate the degree to which others are actually in agreement with us; we tend to believe that others share our beliefs and attitudes. We wish to see ourselves as part of a community (Cialdini, 2001; Gilovich, 1991), and this can lead us to see others as being like us, sharing our beliefs and values when they do not actually do this. Once a group of people are acting alike, they reinforce each other’s beliefs and actions and overestimate the extent to which others might agree with those actions and beliefs (Gilovich, 1991). Huebner and Emery (1998) pointed out that when people work in small groups or teams, as is recommended practice in special education, the group may be susceptible to the influence of one person who is more charismatic and who may be committed to a particular position.

These factors do operate in education. Research on effective staff development tells us that teachers are more likely to implement a practice if there is a community of support around them, if support networks are formed with teachers who are doing the same thing, if teachers can see models of the practice, and if the school administration supports the practice (Klingner, 2004). That is, if they can witness others like themselves acting in a particular way and espousing particular beliefs and attitudes.
Similarly, in relation to decision-making processes, Landrum, Cook, Tankersley, and Fitzgerald (2002) examined which sources of information teachers thought were most trustworthy, usable, and accessible. Although a range of sources was rated positively, teachers consistently rated colleagues, workshops, and in-service presentations as more trustworthy, usable, and accessible than professional journals and university coursework. The opinions of other teachers, people like themselves, were more valued than the more distant opinions of researchers. Similarly, workshops and in-service presentations are likely to be presented by others involved in direct service provision—people who are similar to teachers and who can demonstrate that similarity through familiarity with school settings. Gersten, Vaughn, Deshler, and Schiller (1997) noted that one of the features of successful professional development bringing about change is that teachers see that the change is closely related to their particular contexts and problems; in other words, they may be looking for evidence that those promoting change are similar to themselves.

In considering whether or not to take up a controversial practice, then, we should consider if the original proponents have made a strong rational case for its effectiveness. In some cases, proponents of a practice (especially those who might stand to gain financially) may deliberately use tactics to have us believe that many others are also using this practice, and we should join this forward thinking group. In other cases, the original proponents have made an error in their reasoning (have not considered all the information) and social proof is operating automatically as people take up the practice (Cialdini, 2001).

**Power of testimonials**

Related to our predisposition to imitate others and the power of a good story is the acceptance of anecdote or testimony as strong evidence. Many of those who are selling controversial practices (and advertisers of everyday products) exploit this by offering testimonials as evidence (Cialdini, 2001). Many websites promoting controversial treatments will have a selection of personal stories about the wonderful changes wrought by their treatment. Testimonials are limited because they only report on positive outcomes from the application of a treatment, not on the contents of the other three boxes that should be considered. As already noted, we are susceptible to accept this kind of positive reporting without considering the whole picture. If the person providing the testimonial is seen as similar to us, or having a similar problem, there are emotional as well as rational factors that may lead us to place inappropriate weight on testimonial evidence. The testimonial story may also be consciously or unconsciously manipulated to provide us with a good story rather than factual information.
**Power of experts**

Another short cut to decision making is to rely on experts or authorities (Cialdini, 2001; McWilliam, 1999). Again, this is usually a reasonable strategy, but is one that assumes the expert has made a rational judgement and is providing unbiased advice. Parents and other professionals may defer to a professional who confidently diagnoses and prescribes within their discipline area. There are difficulties with this. Proponents of a particular treatment may be motivated to keep a treatment under their exclusive control and thus provide biased advice or be unable to see the utility of other treatments (McWilliam, 1999).

Confirming that the expert has considered all four boxes is important. It is worth checking that the expert has no vested interests in the intervention or treatment they are advocating. Be wary when the expert assessing the problem is the same expert who will provide the treatment, particularly if there is financial benefit involved. Consider how the expert will benefit if you adopt the advocated practice (Cialdini, 2001). There is also the tendency, noted by Gilovich (1991), for consumers to “expert shop” until they find one whose beliefs confirm their own. Remember, we find it easier to deal with confirming evidence than disconfirming evidence.

Cialdini (2001) suggests that we ask if the expert is really an expert. We may need to check what credentials the person has and how they are regarded by others in the same field. We may need to ask how relevant the credentials are to the problem and intervention under consideration. It may also be helpful to consider how the expert is regarded within the field of special education, as opposed to their own professional area. For example, sensory integration is well accepted by many occupational therapists, but within the field of special education its educational benefits are viewed as dubious (Hoehn & Baumeister, 1994; Roberts, 2004).

**Lack of critical feedback**

We might expect that people holding unfounded beliefs would eventually come up against people who disagreed with them, and that they would receive feedback that might lead them to question those beliefs. However, it seems that this feedback is often not forthcoming as people are not eager to question others’ beliefs (Gilovich, 1991). It is generally seen as “polite” to maintain pleasant relationships and avoid conflict. However, if beliefs are not questioned, if people are not challenged to consider all the evidence, poor practices and false beliefs can continue because people mistakenly believe consensus exists when it does not. Cialdini (2001) describes the mass suicide of 910 cult members at Jonestown as an extreme example of the power of the influence of group beliefs and actions in an environment where no one questioned those group beliefs and actions.
Influence of values

McWilliam (1999), in his discussion of controversial practices, believed that when the battle is between data and values, values are likely to win. It is not unreasonable to consider values when choosing an intervention approach; ignoring values may lead to the use of effective interventions for dubious goals. Ethical issues should be part of decision making, and our first priority should be to do no harm (Scheuermann & Evans, 1997). This means it may be unethical to use a practice that has not been shown to be effective as it may be harmful and it may supplant interventions that are known to be effective. Mostert (1999/2000) quoted with some despair a preservice teacher who stated “I will never let research stand in the way of me doing what I think is best for a child” (p. 117). The commitment to doing what is best is admirable, but we can only know what is best by looking at all the evidence available, not by following our own inclinations.

We do tend to look for practices and evidence that confirm, and conform to, our beliefs and values. McWilliam (1999) suggested that values, rather than knowledge about what is regarded as best practice in early childhood education, determined whether or not early childhood teachers would adopt recommended practices. Kavale (2001) suggested that opposition to the use of stimulants to treat ADHD might be values-based in that medication is seen as an inappropriate response, even though the research demonstrates that it is a component of effective treatment for this condition. Similarly, practitioners may be unwilling to consider interventions drawn from Applied Behaviour Analysis (which are likely to be effective) because of a perceived values conflict. In modern culture freedom and independence are valued, but the language of Applied Behaviour Analysis (control, consequences, punishment) is seen as “coercive and controlling” (Axelrod, 1992, p. 31). Decisions based on values rather than the likelihood of positive outcomes for the student may result in the use of less than ideal interventions.

Influence of teacher perspectives and preference

Campbell and Halbert (2002) reported on a survey where they asked early intervention workers to nominate three wishes for changes in early intervention. They found that most of the wishes elicited were not congruent with best practices in early intervention. They found that most of the wishes elicited were not congruent with best practices in early intervention. The questionnaire did not explore reasons why the respondents made those wishes, but Campbell and Halbert suggested that practitioners were preoccupied with logistical day-to-day issues and were more interested in improving paperwork systems, for example, than changing practice for the better. Many teachers are likely to view new interventions from this logistical perspective and perhaps be more likely to adopt a practice that makes fewer demands on them in an attempt to reduce workload.
Teachers may resist new practices, even though they know their existing practices are not effective, because they enjoy the way they do things. For example, they may place their own perceptions of what is boring and repetitive above actual observations of student response (Gersten, Morvant, & Brengelman, 1995). Klinger (2004) found that one reason teachers gave for not adopting a practice was that it didn’t fit their style of personality and they felt uncomfortable with the practice. The corollary of these observations is that if a new practice is similar to existing practices that the teacher prefers or enjoys, this may be a factor in motivating them to adopt an unproven practice.

Teachers typically value interpersonal relationships with their students and want to build and maintain positive associations with them (Gersten & Brengelman, 1996; Malouf & Schiller, 1995). Teachers may thus be more likely to adopt a practice that emphasises these aspects of teaching rather than those that emphasise learning outcomes. In an analysis of the reasons why teachers may use multisensory environments with students with high support needs, Stephenson (2002) noted that teachers might be responding to the claims that these environments promote trust and relationship building and are fun for students to use.

Influence of intuitively appealing ideas and conventional wisdom
Some controversial practices are based on intuitively appealing ideas. For example, modality-matched instruction and practices based on learning styles are underpinned by the belief that different children learn in different ways. They may rely more on one sensory mode than another or have preferences about the way information is presented, and so instruction should be matched to the preferred mode or style. This is an appealing notion, but research shows that modality-matched instruction is ineffective (Kavale, 2001; Stahl & Kuhn, 1995). It is important to recognise that intuition is not a substitute for evidence.

Similarly there are many concepts and ideas that are conventionally accepted as a “good thing”. The notion that it is healthy for a child to have high self-esteem and that teachers should implement practices to build esteem is both intuitively appealing and conventional wisdom. However, research shows that this wisdom is wrong. Self-esteem is only weakly related to academic performance, and artificial boosts to self-esteem may even lower performance (Baumeister, Campbell, Krueger, & Vohs, 2005). People with high self-esteem are not more popular. High self-esteem does not reduce the tendency to violent or bullying behaviour (Baumeister et al., 2005). When we make decisions on interventions we cannot therefore rely on conventional wisdom to guide us.

Influence of hope
Parents and teachers want good outcomes for children and new approaches offer hope. People may feel they have nothing to lose by trying new treatments, particularly when the
child has autism or some other apparently unalterable condition (Scheuermann & Evans, 1997). Proponents of alternative interventions offer this hope but, again, the costs of using an unproven intervention over approaches that are known to be effective must be weighed. There are other aspects of belief related to hope that are raised by Huebner and Emery (1998). One is the belief that, if we work hard, we will get results. This belief may lead us to try fad treatments as well as conventional approaches. The other is the modern belief in the power of technology. We have seen the tremendous changes brought about by the use of technology in other fields and may thus be inclined to expect that interventions making use of technology are more likely to be effective.

Influence of career cycle
Huebner and Emery (1998) suggested that a person’s position in the career cycle may influence their susceptibility to fads for different reasons at different points. Younger professionals may be enthusiastic, but lack experience and thus are more prone to be influenced by others they regard as experts. At the other end of professional life, disillusioned practitioners may be more prone to make significant changes in practice to maintain or rekindle their enthusiasm. These challenges may be particularly salient in those working with people with high support needs, as any progress is likely to be slow.

A science-based approach to decision making
Kavale (2001) described instructional decision making in special education as part science and part art. Teachers need to combine knowledge from the scientific basis of education and combine it with artistry in individualising teaching for students with special education needs. They are also likely to benefit from taking a scientific stance when making decisions. Science has provided us with a rational decision-making process that can not only provide the range of information needed but also guards against many of the social and motivational factors that can influence decision making.

The gold standard in scientific research is the double blind controlled study. The idea of random assignment of people to groups, comparing treatment groups with a placebo and a control (no treatment), and having observers blind to the treatment of the person being assessed or observed is relatively new to science. Its use has only been standard since the 1950s (Dawes, 2001). This confirms that rational decision making is not an automatic or obvious process for us and is not part of our natural cognitive functioning. The scientific method of collecting and comparing data from different groups and conditions enables us to fill all four boxes as introduced earlier in this paper. This ensures we have data on what happens to a control group who
do not receive a treatment or intervention, as well as instances where the intervention or treatment has been applied but did not produce an outcome. Single subject designs (typically used in applied behaviour analysis) also help us to complete the four boxes by providing information about what happens when interventions are not applied. Data from baseline and return to baseline conditions where treatments or interventions are not applied can be compared to data from conditions where treatments or interventions are being applied. It is appropriate then to draw on scientific research to provide the range of information we need for rational decision making.

Scientific approaches and processes also reduce some of the social and motivational factors that can influence decision making. Peer review functions to temper the enthusiasm of proponents and forces them to consider feedback from those with opposing viewpoints. Both findings and methodologies are available for peer review and public scrutiny (Huebner & Emery, 1998). The biases of individuals may be eliminated by the replication of studies by others with different biases. Statistical procedures protect against the likelihood that random patterns will be seen as good information. Double blind procedures avoid observer bias. The anticipated effects of an intervention are clearly described in observable terms before the experiment is conducted, and the criteria for success are set beforehand, to avoid ambit claims of success (Gilovich, 1991).

CONCLUSION
This paper has demonstrated that decision making in special education is not a simple process and is fraught with potential difficulties arising from both cognitive and emotional influences. It is not surprising that practitioners who are unaware of the range of factors that can impact on their decision making are led to adopt practices that are unsupported by good evidence. The aim of this paper was to alert practitioners to some of the influences on their decision making in order to create an awareness of the pitfalls, and to suggest strategies to overcome them. A scientific approach to problem solving provides a rational approach that is designed to avoid many of the difficulties discussed. It is essential that decisions be based on as complete a set of data as possible, that information is available for all four boxes. An awareness of our in-built biases and the ways the actions of others influence decision making is also important.

Practitioners can make good decisions, and those who are consciously aware of their own decision-making processes may be less likely to be seduced by unproven practices and their advocates. Given that rational decision making is an essential skill for educators, it may be valuable to include critical thinking skills in professional preparation. Educators may not only benefit from these in their own decision making, but may be able to guide families and others through a rational decision-making process when they are asked to implement new interventions or approaches.
REFERENCES


MULTILIT BOOK LEVELS: TOWARDS A NEW SYSTEM FOR LEVELLING TEXTS

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ABSTRACT
This paper describes the development of a new system for levelling texts to enable the selection of appropriate books for use in the instruction of low-progress readers. Following a summary of the relevant literature providing empirical support for the importance of matching students to books to optimise reading progress, the MULTILIT Book Levels System is described and its development detailed. Various methods for placing students on these levels are suggested and described.

Primary school teachers frequently face the task of finding books at the right level of difficulty to accommodate the specific needs of students with differing levels of reading skill. Teachers of low-progress readers, in particular, face this challenge on a regular basis. This paper describes the development of a book levelling system for use by teachers when attempting to match low-progress readers with text at an appropriate level of difficulty.

The importance of placing both beginning and remedial readers on text that is instructionally appropriate has become increasingly recognised in recent years (Clay, 1991; Fry, 2002; Wheldall, Colmar, Wenban-Smith, Morgan, & Quance, 1992). Opinion has converged on the view that such students need to be working with text at an instructional level that is neither too hard (and therefore intimidating for the student), nor too easy (and thereby providing few learning opportunities). Wheldall (1995) has referred to this as the Goldilocks principle: not too easy, not too hard, but just right. In response to the growing body of empirical support for matching students to books to optimise reading progress, the MULTILIT Book Levels were developed.
Following a consideration of the existing empirical and theoretical literature (summarised below), the development and components of the MULTILIT Book Levels system are described. This is followed by an outline of suggested methods for placing students on appropriate MULTILIT Book Levels.

Rationale for placing students on levelled text
Levelled text refers to reading materials that represent a progression from easier to more difficult texts (Brabham & Villaume, 2002). Several reasons for using levelled books are elucidated in the research literature. The three main purposes of levelling books will be discussed with reference to relevant empirical research. The first two reasons relate to the relationship between the reader, the text, and the task. The third reason describes the use of levelled text to assess students’ current reading ability, to track progress, and to identify struggling students.

Reason 1: To optimise reading progress. Educators must consider the importance of matching reading materials to the reader and the task in order to ensure maximum instructional efficacy (Brabham & Villaume, 2002; Jamison Rog & Burton, 2001/2002; Weaver, 2000). Testing each child on random books until one is found that is at the right instructional or independent reading level is both time consuming and impractical. Brabham and Villaume (2002) refer to the need for teachers to have access to levelled text to allow them to choose reading materials that fit the instructional needs of all students, rather than relying on grade-level materials.

Guided reading, using instructional level texts, has been identified as an important component of literacy instruction (Brabham & Villaume, 2002; Lanning & LaMere, 2000). For instructional purposes (primarily guided reading), an accuracy level of 90–95% is suggested (Jamison Rog & Burton, 2001/2002; Lanning & LaMere, 2000; Paris, 2002) so that students have the opportunity to utilise reading strategies (such as decoding) in a supportive environment. Donovan, Smolkin, and Lomax (2000) consider instructional reading level to be the “highest level that could be read satisfactorily with assistance” (p. 310).

The readability of text has been identified as a critical variable in highly effective remedial reading procedures such as Pause, Prompt and Praise (Glynn, McNaughton, Robinson, & Quinn, 1979). The efficacy of this tutoring program has been demonstrated in numerous studies (see, for example, Glynn & McNaughton, 1985; Wheldall & Colmar, 1990; Wheldall, Colmar, & Freeman, 1991; Wheldall & Glynn, 1989). Wheldall et al. (1992) remark that “book level may be at least as important as the tutoring methodology; in fact, the effectiveness of the tutoring methods may be contingent upon appropriate book level” (p. 179).
**Reason 2: To provide opportunities for successful independent reading.** Another important reason for levelling books is to ensure that students experience success, rather than frustration, when reading independently. This assurance of success when reading for pleasure is particularly important for struggling readers for whom motivation is often an issue (Worthy & Sailors, 2001). Independent reading activities include silent reading at school, reading for pleasure at home, and reading to find information for a project. Independent reading level is considered to be around 96–100% accuracy (Jamison Rog & Burton, 2001/2002; Paris, 2002). Simply put, an independent reading level is “the highest level that could be read easily and fluently without assistance” (Donovan et al., 2000, p. 310).

Several studies have looked at students’ self-selection of recreational reading books and have typically found that students, in particular struggling students, choose books at an inappropriate level. Kragler (2000) found that above average students were generally choosing books that were too easy, while below average students were typically choosing books that were too hard, that is, within their frustration level. The term *frustration level text* is generally considered to be text read at less than 90% accuracy (Jamison Rog & Burton, 2001/2002; Paris, 2002). Donovan et al. (2000) found that only around 15% of books selected by first and second grade students were at their actual independent reading level.

**Reason 3: To monitor reading progress.** Another persuasive argument for having books levelled is to assist educators in assessing children’s reading development and to identify struggling students (Jamison Rog & Burton, 2001/2002; Paris, 2002). To ensure that students are progressing well, regular monitoring of performance is essential. Standardised tests are time consuming and should really only be carried out every three to six months, making them unsuitable for frequent use by classroom teachers. Having books levelled allows teachers to test students at regular intervals to determine their approximate current reading level, both independent and instructional. The current reading level may be defined as the highest level text the student can read independently (96–100% accuracy). With access to levelled text, students who were failing to make adequate progress may be identified and given appropriate intervention.

The relationships between the reader, the text, and the task are clearly deserving of consideration, particularly when educating low-progress readers. While determining the reading level of a student is apparently relatively straightforward, assigning an age or grade level to text is a complex issue. The readability of the text must be determined and considered.

**Methods for levelling books**
The term *readability* (as well as its synonyms *decodability* and *comprehensibility*) has
been defined as the difficulty level of text (Reynolds & Fletcher-Janzen, 1990, p. 915). For the purpose of this review, the term readability will be used when referring to the difficulty level of the text or book, irrespective of the method used.

The two main methods of estimating the difficulty of text are readability formulae and levelling procedures. A readability formula is defined as an objective numerical formula used to calculate the age or grade level of text (Fry, 2002). A levelling procedure is specified as a method used to estimate the readability of text, considering certain subjective factors of judgement (Fry, 2002).

Although the functions of readability formulae and levelling procedures are alike, the methods involved and the variables that need to be considered are quite different. While readability formulae are objective, and in most cases can be applied using a computer program, levelling procedures tend to be more subjective as they take into account factors such as content, format, and illustrations (Fry, 2002; Weaver, 2000). The strengths and weaknesses of each approach will be addressed following a brief history of each approach.

Readability formulae. According to Fry (2002) syntactic difficulty and semantic difficulty are the two measures upon which most traditional readability formulae are based. Syntactic difficulty is usually estimated by calculating sentence length. Word difficulty, frequency, familiarity, and length are considered to be facets of semantic difficulty (Brabham & Villaume, 2002; Fry, 2002).

Fry (2002) asserts that readability formulae were a “part of what became known as the scientific movement in education” (p. 290), which began in the 1920s. This was an era of testing students’ reading ability and IQ using national standardised tests. Word frequency counts led to vocabulary controlled reading series. Until the mid-1980s, these were the staple reading diet of primary aged students (Fry, 2002).

These series, however well graded, were criticised for their repetitive language and contrived stories (Fry, 2002; Goodman, 1986; Hoffman, Roser, Salas, Patterson, & Pennington, 2001). It was the move away from vocabulary controlled and carefully graded books to “whole-language” or “real books” in the late 1980s (Hoffman et al., 2001) that created the need for a reliable way to level books (Fry, 2002). While real books were thought to be more interesting, they were not graded, which made it difficult for teachers to choose appropriate materials for their students (Fry, 2002; Hoffman et al., 2001; Jamison Rog & Burton, 2001/2002). A way of levelling or grading real books to allow easy matching of books to students’ level of reading skill was clearly required.
Lively and Pressey proposed the first readability formula in 1923 (Lively & Pressey, 1923). Their method was to compare 1000 words from a book to an extensive most frequent word list (from Thorndyke’s *Teacher’s Word Book*). Since then a plethora of formulae have been developed and published to estimate text difficulty (Fry, 2002; Klare, 1984).

In an attempt to make the determining of readability faster and simpler, Edward Fry published his two-factor (syllables and sentences) formula in 1963. This widely used formula was designated for application in grades 1 through 12. To determine the grade-level of a book, the user looks up on a chart the average number of syllables and sentences in three 100-word passages (Fry, 1977; Klare, 1984).

In addition to the numerous two-factor formulae, formulae were developed that employed the cloze procedure to determine the difficulty of text. The first such formula was developed by Coleman in 1965 (Klare, 1984). Every nth word from a text was replaced with a blank, which the student was required to fill in. The cloze procedure, although reputable, is considered to be time consuming to score, and it does not allocate grade levels to the results (Allen, 1985).

A major advance, in terms of both reliability and efficiency, was the introduction of computerised readability formulae. This increased level of sophistication allowed larger samples and often entire books to be analysed. The Lexile Framework, the ATOS, and the Degrees of Reading Power are three computerised readability formulae used by large book publishers (Fry, 2002).

The validity of readability formulae has been primarily supported by research examining the correlations between the various formulae (Fry, 1977). Britton and Lumpkin (as cited in Fry, 1977) compared five of the most widely used readability formulae at the time and found close agreement in grade level designation and almost perfect agreement in ranking. This close agreement is very possibly due to the fact that similar syntactic and semantic variables are considered when applying most formulae to text.

Readability formulae are not so reliable when tested using students’ actual reading performance as the criterion index for assigning a reading age or level. Fuchs, Fuchs, and Deno (1984) examined the adequacy of six readability formulae to predict passage difficulty. When compared to the actual reading scores of 271 students, the readability formula scores were found to be poor predictors of passage difficulty. Moreover, they mostly failed to agree with each other.
Readability formulae have also been criticised for being too objective (Bailin & Grafstein, 2001; Beals, 1989; Brabham & Villaume, 2002; Weaver, 2000). In particular, they do not consider the impact of grammar, style, textual coherence, content, and so forth on the readability of books (Bailin & Grafstein, 2001; Beals, 1989; Brabham & Villaume, 2002; Fry, 2002; Weaver, 2000). While these variables may contribute to the readability of a book for some children, it is not realistic to consider the background knowledge or interests of every student in the class, state, or country when levelling books.

During the 1980s, a more comprehensive view of readability became popular (Allen, 1985; Beals, 1989; Brabham & Villaume, 2002). New factors were suggested for consideration (Allen, 1985). This more subjective, rather than formulaic, view of readability led to the development of book levelling procedures (Brabham & Villaume, 2002).

**Book levelling procedures.** In the past decade, the focus has shifted away from formulae to book levelling procedures. These procedures differ from their predecessors, readability formulae, in their consideration of more subjective text features when determining readability (Brabham & Villaume, 2002; Fry, 2002). While readability formulae generally consider syntactic and semantic difficulty, book levelling procedures consider factors such as content and themes, format of the page, and use of illustrations (Brabham & Villaume, 2002; Fry, 2002; Jamison Rog & Burton, 2001/2002; Weaver, 2000).

A number of authors pay credit to Marie Clay (1991) for the part her Reading Recovery System played in the initial stages of book levelling procedures (Fry, 2002; Jamison Rog & Burton, 2001/2002; Weaver, 2000). Extensive training is required to implement this book levelling procedure, as resources are not readily available to the public (Weaver, 2000). Text support factors considered when determining the readability of books include amount of natural language, understanding about print, picture support, and the number of high frequency words (Weaver, 2000). As Reading Recovery is a first-grade intervention program, books are only levelled for Grade 1 to Grade 2.9 (Fry, 2002) limiting its usefulness.

Fountas and Pinnell (1999) published their book levelling procedure, for grade K–3 books, in 1999. It is similar to the Reading Recovery levels in its consideration of predominantly subjective text features of amount of print, text format, language patterns, and vocabulary type (Weaver, 2000). As with the Reading Recovery System, an extensive list of levelled books is available. Unlike the Reading Recovery System, teachers may level their own books using the published procedure.
Jamison Rog and Burton (2001/2002) analysed and synthesised the levelling procedures of Clay (1991), Fountas and Pinnell (1999), Hiebert (1999a, 1999b), and Peterson (1991) in the development of their book levelling system. One criticism of these procedures was that the criteria or text characteristics of each level were sometimes vague (Jamison Rog & Burton, 2001/2002).

One appeal of book levelling procedures is the provision of finer gradations at the primary levels (Fry, 2002). This allows for a more gradual text progression, which is crucial for low-progress readers. Labelling books with grades or ages that progress one year at a time limits their usefulness for teachers. Most book levelling procedures cater to the wide range of reading ability in each grade by assigning grade or age levels in years and months (Hatcher, 2000).

The numerous and varied factors considered in such procedures are subjective and as such are less likely to be replicated accurately. Using the same book levelling procedures, teachers have assigned different ratings to the same books (Hoffman et al., 2001). Related to the large number of subjective text and reader characteristics to be considered is the issue of time. The number of features to be considered makes the application of most procedures very time consuming.

When assessing the readability of a book, levelling procedures take more factors into account than most formulae. The inclusion of these factors has wide appeal to teachers (Brabham & Villaume, 2002; Fry, 2002). However, there is scant published research proving that these factors actually predict the difficulty of text. In fact, many book levelling procedures have been criticised due to the lack of published empirical data to support their validity and reliability (Fry, 2002; Weaver, 2000). Consequently some authors have attempted to solve the riddle of “Which method?” by combining a readability formula with a book levelling procedure.

Hybrid approaches to determining readability. Both the Weaver book levelling procedure (Weaver, 2000) and Gunning’s Primary Readability Index (Gunning, 1998) combine these subjective text features with the objective reliability of readability formulae. While these hybrid approaches take more text factors into consideration than most individual book levelling procedures and readability formulae, they are also lacking in sufficient supporting evidence. There is certainly no evidence to say that the more factors considered the more reliable the formulae or procedure will be in predicting text difficulty.

Limitations of the existing research. It should be emphasised that the abundant information on how to employ readability formulas and book levelling procedures far
outweighs the empirical research supporting their validity and reliability when applied to primary level books (Hatcher, 2000). A major problem with most research in this area is that the difficulty of text is rarely assessed using students’ actual reading as the criterion index of passage difficulty. Fuchs, Fuchs, and Deno (1984) provided a rare exception in this field of research.

More research is needed, examining the reliability and validity of readability formulae and book levelling procedures using student performance as the primary indicator of the readability of the text. It does not matter how easy a formula is to apply or how thorough a levelling procedure seems if it has not been truly tested.

**Origins of the MULTILIT Book Levels**

Teachers and researchers at Macquarie University Special Education Centre (MUSEC) have developed their own book levelling system, now known as the MULTILIT (Making up Lost Time in Literacy) Book Levels. The MULTILIT program is an intensive literacy program directed by Professor Kevin Wheldall from MUSEC (Wheldall & Beaman, 2000). Low-progress readers attending the various MULTILIT programs needed to be placed on text at their instructional level so as to optimise reading progress. In the case of older low-progress readers, books were needed that were both readable and age appropriate.

Common reading schemes and a sample of the books that have been levelled so far are summarised on the MULTILIT Book Levels Chart (see Appendix A). All books and schemes included have been levelled on the basis of expert judgement and reader performance. The procedures used to estimate the difficulty of books and to place students at the appropriate MULTILIT book level are outlined below following an overview of the MULTILIT Book Levels.

**The MULTILIT Book Levels**

The 10 MULTILIT Book Levels represent a progression from simple to more challenging text. Books have been levelled using a combination of expert judgement and analysis of reader performance. The primary function of the MULTILIT Book Levels is to make the process of matching students to appropriate level text more efficient and reliable. With the exceptions of Levels 1 and 10, each MULTILIT Level includes books that span a readability range of one semester of instruction. There is a need for finer grading within Level 1, the subject of continuing research, whereas at Level 10 the assumption is that strict book levelling is no longer necessary.

Knowing the approximate grade-level of books a student can read confidently also allows teachers to identify struggling students in need of extra reading instruction. If a student in the second semester of Year...
3 is only able to access books levelled at the first semester of Year 2 (represented by Grade: Semester-2:1 on the chart), then it is reasonable to assume that this student is struggling and is in need of additional reading tuition.

The levelling procedures used

The book levelling procedure used differs slightly depending on the type of book. Vocabulary controlled books, mainly found in basal reading schemes, are simpler to level than real readers. The procedure recommended for each book type is outlined below.

**Basal reading schemes.** The Australian Reading Rigby basal reading scheme was one of the first to be used at MUSEC. It was produced and published during a time when carefully graded and vocabulary controlled books were widely used. Although now out of print, Rigby levels were included as they formed an integral part of the book levelling procedure originally used at MUSEC. The placement of each Rigby Level on the chart was based on the ages assigned in the Waddington Reading Module (Waddington, 1986).

The Waddington Reading Module is a comprehensive and extremely useful guide including over 70 reading schemes, spanning the readability levels of Kindergarten to Year 6. The Endeavour, Oxford, Young Australia, Trend and Heinemann reading schemes were assigned to the MULTILIT Books Levels based on the difficulty level (represented by a reading age) assigned by the Waddington Reading Module.

Once basal reading schemes were discarded by many publishers in favour of “real books”, staff at MUSEC were forced to level new books themselves. Since the Waddington Reading Module was published in 1986, more recent reading schemes have been levelled, such as the New Reading 360 series published by Ginn. The older basal reading schemes assigned levels via the Waddington Reading Module are used as representative text samples in the levelling process for real readers. The more recent basal reading schemes were also levelled using the method outlined below.

**Real Readers.** The term Real Readers refers to recreational readers that are not part of a graded reading scheme. Generally, these books are not vocabulary controlled and are more suited to students with a reading age of at least nine years. See Appendix B for a sample of some of the real readers found at each MULTILIT level. For a more complete listing of titles, please see http://www.multilit.com/resources/booklevels

This levelling of real readers is carried out using a two step process. Firstly, each book is compared informally with books from the Reading Rigby scheme or another graded scheme to assign an
approximate MULTILIT Level. Factors such as the number of phonically regular (i.e., decodable) words, familiar (i.e., high frequency) words, sentence length and content are considered.

Next, a sample of students (at least three), with a reading age known to be similar to the one assigned to the book, are tested on the new book. If the book is found to be at their instructional level (90–95% accuracy), then that is the level at which the book is placed. If the book is too hard (less than 90% accuracy) or too easy (96–100% accuracy) for the student, then students with a higher or lower reading age are tested until a consistently reliable match is found. The method described is recommended for use when levelling new books that are not included in the MULTILIT Book Levels Chart (Appendix B).

Methods for matching students to MULTILIT Book Levels

One valid criticism of some book levelling procedures and readability formulae is that schools need to purchase, and students need to take, a reading comprehension or cloze passage test to match students to text. Three methods for matching students to the correct MULTILIT book level will be described with consideration of their strengths and weaknesses.

Initial placement method 1: Standardised reading assessments. Many low-progress readers undergo a standardised reading assessment, the Neale Analysis of Reading Ability (3rd ed.) (1999), for example, when beginning a remedial reading program or when the existence of a reading difficulty is being established. Most standardised assessments give a reading age. This age is generally an indicator of the level of text they can read independently. Average chronological ages for each of the MULTILIT Book Levels are provided so that students who have a known reading age, via a recently completed standardised reading assessment, can be placed on the appropriate MULTILIT Book Level.

For the purpose of guided reading activities, text slightly harder than their independent level is recommended. If a child has an independent reading age of, say, 9 years 6 months (MULTILIT Level 6), then his or her instructional reading level would be one to two levels above that (MULTILIT Level 7–8).

Initial placement method 2: Informal reading inventories. Informal Reading Inventories (IRIs) are considered to be useful tools in ascertaining the instructional reading level of students (Kotula, 2003). IRIs are informal diagnostic reading tests, usually carried out in the classroom by the teacher (Paris & Carpenter, 2003). Commercial IRIs can be used to identify a student’s instructional and independent reading levels (Margolis & McCabe, 2003). They usually include assessments of oral reading fluency, accuracy, and
comprehension. Paris and Carpenter (2003) argue that the validity and reliability of IRI data are acceptable (p. 579). Several authors recommend the use of IRIs to establish the independent, instructional, and frustration reading levels of low-progress readers (Kotula, 2003; Margolis & McCabe, 2003).

Once a student is assessed using an IRI, they should be placed for instruction at the MULTILIT Level that corresponds in difficulty to the passage on which they scored 90–95% accuracy (Jamison Rog & Burton, 2001/2002; Lanning & LaMere, 2000; Paris, 2002). The student’s independent reading level, for activities such as silent reading, would be the level at which they scored 96–100% (Jamison Rog & Burton, 2001/2002; Paris, 2002). Levels on which they scored below 90% would be at frustration level. This text would only be recommended for activities during which the teacher or parent reads to the students. An IRI specifically designed to assign students to MULTILIT Book Levels using benchmark passages is being considered for development as a placement test.

In addition to establishing the WARP’s validity and reliability as a measure of reading progress, Madelaine and Wheldall (2002b) were also able to generate approximate norms for reading fluency for students halfway through each year. The fluency ranges for each MULTILIT Level were extrapolated from this research, which listed the mean number of words read correctly per minute by grade (Madelaine & Wheldall, 2002b).

Once the student’s reading fluency (labelled as WARP fluency on the MULTILIT Book Levels Chart) is established, the student may be placed on the appropriate independent and/or instructional book level. For example, students who are beginning the second semester of Year 4 are likely to read an average of 121 words correctly per minute (wpm) (Madelaine & Wheldall, 2002a). If a student read around 121 wpm on a WARP passage, it is reasonable to assume that they could be placed at the MULTILIT
Level that corresponds to a Year 4 reading age for independent reading purposes. The instructional level would be one to two levels above this independent reading level. The fluency ranges given on the MULTILIT Book Levels Chart allows for the placement of students on the correct level from a simple to administer one-minute test.

All three reading assessment tools have their own merits for assigning reading ages to children. The use of IRIs, the WARP, and standardised tests to match students to the MULTILIT Levels would benefit from further empirical confirmation and comparison. The process of matching students to books within the appropriate MULTILIT Book level are summarised in Appendix C.

Once students are placed on the appropriate MULTILIT Level, ongoing monitoring to ensure that the reader to text match is maintained is essential.

Methods for ongoing placement on the MULTILIT Book Levels

Data-based teachers ensure that their students are mastering skills taught and are progressing by regularly assessing their progress. This regular assessment is even more crucial when teaching low-progress readers. In the case of many regular classroom teachers and special educators, weekly or monthly testing of reading level or progress is not the norm. In order to monitor the efficacy of their teaching, teachers need a fast and reliable way of regularly placing students on the correct book level for optimal learning. Of the four procedures described for matching students to books, the WARP is arguably the most convenient measurement tool for regular testing.

In addition to being the quickest to administer, the WARP comprises 10 weekly progress passages as well as the series of three basal passages for initial assessment (Wheldall & Madelaine, in press). By weekly monitoring of reading progress using the WARP, teachers will have a good idea of when to move students to the next MULTILIT level.

A more direct method, however, is simply to spot check a student’s current reading accuracy level on his or her current MULTILIT level by asking the child to read a 100-word selection from their current book. If the student makes fewer than five errors, then they should be considered for placement on the next MULTILIT book level. It is recommended that students are promoted to the next level once they have scored 96% or higher on two consecutive 100 word spot checks. The criterion that students must pass on two different books or parts of the same book reduces the risk, say, of an easier passage within the book being the cause of their improved result. It is important to bear in mind that many books, particularly “real readers”, have
inconsistent levels of difficulty throughout the text. A child may read one page with an accuracy of 93% (instructional level) but read another page from the same book with an accuracy of 97% (independent level).

Limitations and recommendations for further research and development
The MULTILIT Book Levels were developed on the basis of the available empirical evidence. While each book was placed within a book level using reader performance as a guide, testing on a larger sample would provide additional confidence in the reliability of book placement. This is an ongoing process. Further research and development is also warranted to develop an informal reading inventory with passages that correlate in terms of difficulty level to the MULTILIT Book Levels.

The MULTILIT Book Levels are designed to match students to text at a suitable level of difficulty to optimise learning. While it clearly saves teacher time, the teacher still has a critical role to play when matching students to text. Teachers should use the MULTILIT levels as a guide or starting point when matching individual students to appropriate book levels. Once the appropriate MULTILIT book level has been estimated, teacher judgement is particularly important to choose books that are content and age appropriate. To increase motivation, a student’s interests and background should also be considered when selecting books from within their level.

CONCLUSION
The MULTILIT Book Levels were developed in response to research suggesting that reading progress is optimised when students are matched to text at the right level of difficulty for them, rather than to their chronological age. The carefully levelled books and schemes included in the MULTILIT Book Levels provide a reliable selection of books for low-progress readers. The placement procedures outlined allow educators and parents to select books that are neither too hard, nor too easy, but at an appropriate instructional level.

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POWERFUL PARTNERSHIPS: SPECIAL EDUCATION TEACHERS AS SECONDED FACULTY

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ABSTRACT
In response to the current teacher shortage and its accompanying demand on universities to graduate more teachers, some education faculties have explored the viability of filling staff vacancies with experienced personnel from school systems. 2006 represents the sixth year of operation of an innovative program of secondments at the University of New England (UNE), New South Wales, Australia, that has been used successfully to team teach core special education units to undergraduate teacher education students. Few studies have investigated issues related to such secondments from the profession. Members of the Special Education team at UNE addressed this lack of research in the current study that explores personal and professional issues surrounding this secondment experience. Three secondees, two who had returned to teaching positions and one who was continuing in a subsequent seconded position, completed an in-depth questionnaire about their experiences before, during, and after their secondment. Overall, the opportunity to contribute to teacher education courses was evaluated positively by the secondees and by the special education faculty. Specifically, analysis of the questionnaire data indicated that a set of themes related to the concept of self-renewal permeated the responses of these mid-career educators. This research emphasises the importance of providing varied professional development opportunities for special and inclusive educators, and underscores the contribution that professional educators can make to teacher education programs in general.

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INTRODUCTION
The short-term secondment of teachers to university settings is an increasingly common way of addressing staffing shortfalls. Although secondments have historically been used as fruitful and cost-effective ways of providing professional development to staff members in business, industry, health, and military sectors, education providers have not routinely organised or expected such opportunities. The benefits and challenges associated with the secondment of special educators to teach in core units focusing on inclusive education are explored in this paper. In particular, the viewpoints of seconded teachers are examined in relation to their experiences before, during, and after their secondment to the Special Education team at the University of New England (UNE).

Traditionally, there are three parties involved in facilitating, organising, and making secondments work. These are the individual being seconded, the releasing institution or work place, and the receiving institution. It is important to realise that the purposes of secondment may be viewed differently depending on the perspective of each of these parties. For example, secondments may be arranged in order to provide information, training, and development to another work site or institution e.g., armed forces personnel deployed to another country. Alternatively, staff can be seconded in order to learn a new skill or to gain particular knowledge from an institution (Black & Martyn, 1999; King, 2003). Whatever the case, most individuals view secondment as a career development pathway that offers significant professional opportunities and challenges (Tuohy & Lodge, 2003).

The use of secondments to provide professional opportunities and challenges for special educators is the particular focus of this paper. In general, limited information is available regarding the use and success of secondments within educational systems. However, reviews of secondments within the Irish Education system (Tuohy & Lodge, 2003) and the Scottish Education system (Gatherer, 1988) have been generally positive. Other papers that have investigated secondments from an individual perspective have also been drawn upon in conceptualising the current study (e.g., McEachern & Polley, 1993; Oplatka, Bargal, & Inbar, 2001). The research described here adds to the literature through an exploration of the secondment experience that is specifically focused on educators who have been seconded to join the Special Education teaching team of a regional Australian university.

The context of the secondments
Five full-time academics make up the Special Education team of the School of Education at the University of New England, Australia. In addition to postgraduate teaching
and research, this group of academics is responsible for teaching the special education courses that are a mandatory component of pre-service teacher education in New South Wales. The content of these courses covers general characteristics of a range of disabilities, educational policies and provisions underpinning inclusive practices and effective instruction for all students.

Two main factors influenced the decision to begin seconding colleagues from local primary schools to assist in the teaching of core special education courses in 2001. The first factor was related to the need for additional staffing in response to increased on-campus student numbers during 2000 and 2001. The second factor was a recommendation from a UNE Faculty Review that university educators should work more closely with school professionals. Staffing through a seconded position was seen as an effective way to increase local involvement in teacher education with the added benefit of forging ongoing links between the university and schools.

It was clear that in addition to providing the much needed staffing support for internal teaching, there could be several other benefits associated with a seconded educator joining the Special Education team. Firstly, it was anticipated that the experience of a year’s work at the university would be professionally rejuvenating and could enhance the teacher’s expertise on return to the classroom. Further, there was a possibility that the seconded individual may undertake postgraduate studies, which would be facilitated by being on campus on a daily basis.

There was also a further benefit on a broader scale to the University of New England by involving a seconded practising teacher in the process of developing new courses. The Special Education team had identified the need to design a Masters in Education (Special Education) program during 2001 to replace the existing postgraduate course, Bachelor of Education (Special Education). The involvement of a seconded teacher in the development of this course was seen as beneficial to the integrity of the design of the Masters program.

It was also predicted that there would be benefits to the Special Education team at UNE in terms of professional collaboration. Because the Special Education team advocates the process of collaborative teaching as integral to effective education for all children in schools and models collaboration through team teaching of courses and units, the inclusion of a seconded teacher from the school system was seen as a way of strengthening this model of professional collaboration.

Another benefit of including a seconded teacher in the teaching of undergraduate programs at UNE was that this model of staffing would facilitate students’ exposure
to current processes and procedures being used in classrooms. The provision of special education and inclusive education in Australian schools was going through rapid changes at the time the seconded position began, with funding criteria and procedures changing each year as school systems grappled with the increased numbers of children seeking funding for support in regular classes. Accessing a seconded educator’s more immediate knowledge of these processes meant that our student teachers could be provided with reliable and current information with which to inform their teaching. Unfortunately, information does not always flow freely between school systems and the university sector. The involvement of a school educator with recent and relevant classroom experience added extra credibility to the teaching of pre-service units. Although some members of the Special Education team had recent and ongoing professional roles in schools, this was sometimes not perceived by undergraduate students as being as valuable as that brought by “real teachers”.

The program of secondments
In 2001, the Special Education team recruited our first seconded educator, Phillipa (all names are pseudonyms). Phillipa came to UNE from a special education position with the NSW Department of Education and Training, and was a member of the group until the end of 2002. Her teaching experience encompassed working with students with learning difficulties, mild intellectual disabilities in separate and inclusive settings, and students with behaviour difficulties and disabilities in mainstream classes. In 2003, a new seconded colleague joined the Special Education group. Diana came from an inclusive primary classroom in a local school and remained with the Special Education team for that year. In 2004, Helene filled the seconded position. She had most recently taught students with mild to moderate intellectual disabilities in a local school. Like Phillipa, Helene had broad experience in special education including management and consultancy roles.

The duties of colleagues seconded to the Special Education team have been similar throughout the last five years. Most of their teaching has been in the on-campus undergraduate special education courses. In addition, secondees have contributed to the teaching of off-campus distance education special education courses and to the development and ongoing refinement of a range of special education course offerings.

As the secondment program has been operating within the Special Education team since 2001, it is timely to explore the personal and professional issues related to the program. Part of this evaluation, in terms of surveying the opinions of the seconded teachers, is the focus of this paper.
METHOD
Because of the intimate nature of this research into individuals’ experiences with professional secondments, a questionnaire was used to gather information from the three teachers who had joined the Special Education team on secondment since 2001. This questionnaire was derived from those already administered by Tuohy and Lodge (2003) and McEachern and Polley (1993). It focuses on issues relevant to the Australian context and probes respondents’ experiences before, during, and after their secondment. A copy is provided in Appendix A.

The questions included in the questionnaire were carefully selected. It was decided that the use of closed questions and attitude scales would be too prescriptive and would not enable the participants to present their views fully. Therefore, open questions were chosen in order to gather data reflective of each participant’s experience of the secondment. Each question was framed in a way that encouraged participants to make personal associations to their own experiences.

The questionnaire was distributed in print form and as an electronic file to each participant at the same time. Respondents were asked to write a response to each question and to return the completed questionnaire to a member of the Special Education team within a week.

Two electronic versions and one handwritten questionnaire were collected from the participants. These were printed, where necessary, copied and distributed to all members of the Special Education team who read and analysed responses for emerging themes. Each faculty member’s analysis of the questionnaire responses was then shared and discussed at a group meeting in order to identify general themes that emerged from the data.

RESULTS AND DISCUSSION
Analysis of the questionnaire data indicated that a strong set of themes related to the overall concept of “self-renewal” was evident in the responses by these mid-career educators. The phenomenon of self-renewal in terms of career stages has been explored by researchers such as Hudson (1991), Oplatka et al. (2001), and Mezirow (1990).

Oplatka et al. (2001) characterise “self-renewal” as a transitional phase that is marked by a reappraisal of career commitment and a possible modification of one’s life structures. These researchers have identified five elements of the self-renewal process that are common within the mid-career stage. These elements, Reframing, Internal reflection, Searching for new opportunities, Enthusiasm, and Updating professional knowledge, can be recalled using the mnemonic, RISE UP. The RISE UP elements of self-renewal proved useful in categorising the questionnaire responses gathered from seconded colleagues and consequently became the framework used
to make sense of the findings of this study. It is important to realise, however, that although these elements are presented as discrete categories, in many cases they overlap, intersect, and interact. Representative quotes from the responses of the seconded teachers related to each of the RISE UP elements of self-renewal are presented below.

**Reframing existing perspectives.** Oplatka et al. (2001) defines this element in terms of the reorganisation of old plans and ideas and the restructuring of attitudes about self and society. This is evidenced in the following quotes as sustained growth in personal confidence, an enhanced sense of self-efficacy, and a willingness to reframe and change classroom practice.

**Phillipa:**

*My teaching practice has not markedly altered. I am more confident with the knowledge I possess. Unfortunately, this is viewed by some people as “arrogance”. I also developed a love of the precise academic language ... when using this clear and concise language with classroom teachers, some interpret it as being “academic jargon”. I struggle to balance these aspects.*

**Diana:**

*I had the opportunity to research new teaching resources that I now use in my classroom. Through time to reflect on my own teaching, I have made changes in my teaching and classroom management ... I am doing much more cooperative group work with emphasis on Bloom & six thinking hats.*

**Helene:**

*I had fascinating conversations about education with not only the Special Ed team, but with lecturers from across the whole school, resulting in new friendships that have lasted beyond the period of secondment ... I was still surprised that my opinion was sought, and that I was treated as an equal—I was very conscious of my lack of detailed knowledge in comparison to the specialist lecturers ... I grew in confidence with the positive feedback from students and colleagues ... Young adults, particularly when motivated and interested, are a dream audience, and wonderful to teach.*

**Internal reflection.** Internal reflection, as it relates to “self-renewal”, focuses on the evaluation of career choices and current beliefs.

**Phillipa:**

*The opportunity to teach the theory that drives the practice offers the opportunity for professional reflection. This time of reflection can re-affirm values and beliefs regarding children as learners and, subsequently, influences teaching strategies.*
Diana:

I had time to reflect on my teaching practice in the classroom. I felt I was doing something that needed change. I discovered I could contribute valuable knowledge and practice to trainee teachers ... I had the opportunity to research new teaching resources that I now use in my classroom ... It gives teachers time to assess their own teaching strategies and make changes. The change from the classroom provides time for teachers to re-charge the battery and get enthusiastic about teaching again with new ideas that can be implemented in their classrooms.

Helene:

The actual teaching was very enjoyable— I loved talking about education in depth, making connections for the students between their experiences and what we expected them to learn, hearing their stories. I found the students’ commitment, creativity, and enthusiasm quite inspiring ... Longer days, but more flexible time. My own office space and computer, which made a wonderful working environment. No minutiae or demands—just the freedom to think, read, reflect, meet (can’t forget the meetings).

Searching for new opportunities and tasks. This element is operationalised by Oplatka et al. (2001) as actions that individuals take in searching for new opportunities, tasks, and challenges that move them beyond the known. The act of applying for secondment itself indicates that each of the successful applicants, as well as those who were unsuccessful, was actively seeking challenges in her professional life. Although all the secondees reported initially some level of self-doubt regarding their ability to meet the challenges of working with tertiary students, they were very interested in the opportunity to explore theories, practices, and resources. The secondment was, in a sense, viewed as a “safe” way to be challenged, which may lead for some to the contemplation of further career changes.

Phillipa:

Each secondment I have applied for has been through advertisement from the NSW DET. I was attracted to apply as I already knew and have had working relationships with two of the members of the TRG. Subsequent applications have stemmed from very high levels of professional satisfaction gained in the secondee role from working with the students, and because of the very positive working relationships developed and demonstrated by the other members of the teaching team.

Diana:

I was enthusiastic about teaching in the classroom again. There were new
ideas, theories, and teaching practice I wanted to experiment and trial ... I may take leave and enter Juvenile Justice [system] if an opportunity arises as I am very interested in this area.

Helene:
I met the criteria, the job sounded interesting, I was looking for a move, and I felt I had a broad enough range of experience (both special ed. and regular class inclusion, plus admin. knowledge) to be useful ... I’ve always gone to conferences and tried to keep up with the research, and good academic results in my Masters work encouraged me to think that I wouldn’t be too far out of my depth.

Enthusiasm and replenishing of internal energy. Oplatka et al. (2001) describe this element as characterised by individuals who perceive their jobs as very exciting and who feel satisfied with life. In their responses, the three teachers commented on the satisfaction they gained from their professional work, but also recognised the need to be challenged in some new way. The teachers wrote enthusiastically about being refreshed, recharged, and challenged by their secondment experiences.

Phillipa:
I learned that I love working with future educators in the area of students with diverse needs and student behaviour management. I found that colleagues and students valued my particular professional experience ... I found I enjoyed presenting my knowledge to groups of all sizes ... I realised the difference between being “happy” to go to work and “wanting” to go to work.

Diana:
The change from the classroom provides time for teachers to recharge the battery and get enthusiastic about teaching, and working with new ideas that can be implemented in their classrooms ... Yes, I was enthusiastic about teaching in the classroom again. There were new ideas, theories, and teaching practice I wanted to experiment with and trial.

Helene:
I enjoy the processes around building teacher expertise—finding innovative and motivating ways to encourage teacher development—and my experience across the region has helped me be very clear about the teacher skills and competencies required to make inclusion successful ... Personally, I really enjoyed the stimulation of meeting new, interesting people, both students and lecturers. While the job was challenging at times, it was very fulfilling and rewarding to be valued in the position ...
Updating professional knowledge. Professional up-dating is an important element of the concept of “self-renewal” that is shown by individuals’ voluntary involvement in educational activities, either formally organised in-service activities or independent learning through reading, or attending lectures. It is clear that opportunities for professional development were a feature of the time at UNE for our seconded colleagues. In all cases, these teachers were involved in professional reading and discussion as part of the daily work of an academic. Because Phillipa and Helene came to the secondment experience with Masters degrees in education, engaging in further formal study was not a high priority for them; nevertheless, Phillipa has subsequently enrolled in a doctoral research degree.

Phillipa:
*On a professional basis, my knowledge of educational theory and practices increased. I am able to discuss more confidently with other teaching staff the knowledge I possess.*

Diana:
*The benefit of a seconded position is that it provides professional development in a new environment. It gives teachers time to assess their own teaching strategies and make changes ... I have also benefited by having the voluntary help of UNE students in my classroom and within our whole school.*

Helene:
*I learned, and consolidated, an enormous amount of information and ideas about inclusion, quality teaching, research methods, Indigenous education, theories of teaching and learning, etc. And my computer skills are much more advanced. I also became much more knowledgeable about universities in general, and teacher education in particular ... Supporting students on School Experience ... allowed us to visit a variety of schools, including Catholic and secondary schools, talk to Principals and teachers, and see innovative programs ... The secondment experience served to organise my knowledge about inclusion—very little of the material in the text/unit was new, but I now have my ideas clearly categorised and structured for easier recall.*

CONCLUSION
The inclusion of seconded colleagues has enabled the Special Education team at UNE to cover the undergraduate teaching responsibilities of the group efficiently and to develop closer working relationships with local education providers. In return, members of the Special Education team have gained valuable collegial and personal friendships, as well as insights into the many operational issues facing teachers in contemporary classrooms. Specifically, UNE faculty members are now more aware
of the processes and procedures used to meet the needs of all learners and the constraints under which teachers currently work.

As a consequence of the secondment program, the Special Education team has been able to model collaborative practice to undergraduate students even more effectively than before. Seconded colleagues, as part of teaching teams, have delivered lectures, facilitated small group seminars, and participated in the planning of day-to-day activities related to the education of preservice teachers. An important aspect of this collaboration has also been in the form of the development and validation of new and existing special education courses. Having critical feedback from colleagues with very recent experience in schools and classrooms has sharpened the focus of teaching materials and course options. In addition, collaboration with seconded colleagues has made teaching about classroom practice more credible. Undergraduate students have been exposed to many examples of how the practice and theory of teaching interact and can inform each other.

Because this qualitative study involved only three participants, it has considerable limitations in terms of the application of its findings to other settings where secondments are used as methods of meeting staffing challenges and professional development needs. The perspectives of the teachers surveyed were gathered retrospectively at one particular point in time in this study. As a future direction for this research it would be of interest to continue to follow this cohort of secondees in their careers to gauge the long-term effect of the secondment experience on their professional lives.

In summary, however, despite its limitations, this research has emphasised the importance of providing varied professional development opportunities for special and inclusive educators, and underscores the contribution that professional educators can make to teacher education programs in general. From the perspectives of both UNE team members and our colleague educators, the program of secondments that has been in operation since 2001 represents a powerful partnership. As Helene described the secondment experience in her questionnaire:

*It’s a wonderful, stimulating, exciting experience that everybody should try. It’s a lot of work, long hours, and sometimes you may feel a long way from your comfort zone—but for an experienced teacher who needs renewal, it’s a perfect opportunity ...*  
*I was very happy in the secondment because I felt stimulated, successful and appreciated. It was one of the best years of my professional life.*

As a postscript, it is worth noting that the success of the process of employing colleagues from school systems has been noted by other groups within the School of Education to such an extent that currently five seconded educators are working in the field of teacher education at the University of New England.
REFERENCES


Appendix A. Semi-structured interview for seconded colleagues

Prior to the secondment
1. Tell me about your teaching career up to the time of the secondment.
2. Were you happy in your teaching position?
3. Where did you see your career going? Had you any hopes or plans at the time?
4. How did you hear about the seconded position? What attracted you to apply for it?
5. What was the reaction of your colleagues and school management when you applied for the secondment?

During the secondment
6. In the early days of the secondment, what was the biggest difference between being a teacher and your new position?
7. As your role developed, did you discover anything new about yourself?
8. How did your relationship with colleagues develop during the secondment?
9. What opportunities for personal and professional growth did the secondment offer you?

After the secondment
10. As your secondment came to an end, were you looking forward to going back to school? Why or why not?
11. Did you return to your old job at school, or a different job?
12. How has your teaching practice been influenced by your secondment experience?
13. What was the reaction of your colleagues and school management when you returned from the secondment experience?
14. Have you changed any of your career plans as a result of the secondment?
15. If a colleague came to you looking for advice about taking a secondment position, what would you tell him or her?

Before reading this book I had not heard of Sherborne Developmental Movement and had no idea what it was. After reading the book, I have now heard of it but am not much wiser as to what it actually is. It is something developed in the UK by Virginia Sherborne (now deceased), a physical education teacher, and the book is written by one of her disciples. It appears there are no set replicable intervention procedures, but rather a set of attitudes and beliefs which are brought into play by practitioners during sessions involving movement “experiences” with children and adults. It was initially developed through work with people with high support needs but has now been extended to anyone.

The initial chapters outline Veronica Sherborne’s life and her reluctance to be specific about her intervention (she was reluctant to call it a therapy, but her followers appear not to be), the rather fuzzy theoretical underpinnings and the implications. The primary aims are to develop an awareness of self and awareness of others. There are numerous positive benefits claimed for the approach, such as the development of concentration and attention, self esteem and altruism, and social skills. The approach is claimed to be similar to that of Accelerated Learning and Feuerstein’s Instrumental Enrichment, both of which have been discredited.

The middle section of the book outlines what actually happens in a movement session, examining ways of exploring the movement of the body and the space where the body moves. A non-directive approach is taken. People who cannot move independently may be assisted by helpers by, for example, being pulled around on a blanket. There is a discussion of safety issues and issues around touch which is an essential element of the sessions, but which may be problematic in terms of child protection. This is followed by sections written by other Movement practitioners which describe work in early intervention and within dance education; a therapy team approach; the use of Movement therapy within family therapy...
and in education. The chapter on education describes how the activities used may be linked to the British curriculum.

The final section has a discussion of frequently asked questions about Sherborne Developmental Movement, a description of sessions used to teach a unit on light and sound to students with high support needs (the summary states that all the students enjoyed it, but there was no evidence offered that they learned anything), a description of research projects, and a summary. The research includes an Action Research project aimed at demonstrating that participation in Movement sessions would result in increased ability to attend and be on task and increase positive interactions. The research is methodologically flawed (as the author notes), and appears not to have been published in a refereed journal. Two other research projects are also briefly described, but also do not appear to have been subjected to peer review. In a summary chapter the author concludes that the approach works. However, as the author also notes, there is still no coherent theoretical underpinning and no sound research to support this claim.

The appendices contain diagrammatic representation of the aims of the Movement, four progressive stages of Sherborne Developmental Movement Experiences, an assessment procedure, and a list of additional resources.

Given that the approach has no firm theoretical underpinning and that its effectiveness in achieving specified outcomes remain in doubt, it should be treated with suspicion. Practitioners who might like to try it should have clear goals in mind and set up a reliable monitoring system to ascertain whether or not it is having the desired effect. I imagine that many of the enjoyable movement activities described could be exploited to teach a range of social and communication skills without the teacher being a qualified Sherbourne Movement advocate or subscribing to its philosophy.

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