

Appendix 3

Background Notes for Observation and Interview Schedules

Helpful descriptions/definitions

Learning difficulties

Learning difficulties are multi-faceted and multidimensional. For the purpose of this project, Year 4, 5 and 6 students with *learning difficulties* are defined as those who experience significant difficulties in acquiring literacy and numeracy skills and are performing at or below national 'benchmark' levels, but excludes students who have an intellectual, physical or sensory impairment. This group of students includes (but is not limited to) those with specific learning disabilities, dyslexia, Attention Deficit Disorder and Attention-Deficit/Hyperactivity Disorder, and language and communication difficulties. Typically, these students have memory and organisation problems and do not make satisfactory progress with the regular classroom curriculum. However, contributing factors include: socio-economic and socio-cultural impoverishment, indigenous status, as well as inadequate and/or inappropriate teaching and learning provision.

Effective practices

From the local and international evidence-based research, the following teaching strategies are consistently identified as 'effective' for students, whether or not they experience learning difficulties (see also: Commonwealth of Australia, 2005; Ellis, 2005; Hoad *et al.*, 2005; Purdie & Ellis, 2005):

Corrective reading is a *direct instruction* approach (see below) to the teaching of reading with individuals or small groups – characterised by explicit performance expectations, systematic prompting, structured practice, monitoring of achievement, reinforcement and corrective feedback. A widely used corrective reading program is *Reading Mastery* for students in Grades K to 6. This program uses an explicit phonics approach and emphasises students' ability to apply thinking skills in order to comprehend what they read.

Direct instruction (sometimes referred to as *explicit instruction*) '... is a systematic method for presenting material in small steps, pausing to check for student understanding, and eliciting active and successful participation from all students' (Rosenshine, 1986, p. 60). Grounded in behaviourist theory, this mode of instruction places emphasis on the learning environment and gives little attention to the 'causes' of learning difficulties or the student's underlying abilities (Casey, 1994; Engelmann, 1999; Kameenui *et al.*, 1997). Thus, *direct instruction* programs are designed according to 'what' and 'how', not 'who' is to be taught. Individual differences among students are allowed for through different entry points, reinforcement, practice, and correction strategies (see: Farkota, 2003a,b; Hempenstall, 1996, 1997). Findings from meta-analyses of more than 500,000 studies consistently indicate that *direct instruction* methods have significantly greater positive effects on students' learning progress than any other methods (Hattie, 2003, 2005).

Phonics is the explicit teaching of reading and spelling via letter-sound correspondences involving decoding and phoneme/grapheme translations (see: Center, 2005, p. 267; Ehri *et al.*, 2001).

Phonics instruction is different from instruction in phonemic awareness to the extent of providing explicit instruction and practice with reading words in and out of text. Several approaches have been used to teach phonics systematically, including: *synthetic phonics*, *analytic phonics*, *embedded phonics*, *analogy phonics*, *onset-rime phonics*, and *phonics through*

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spelling. Key features of these approaches are summarised below, drawn from Ehri *et al.* (2001):

Analytic phonics uses a whole-to-part approach that avoids having children pronounce sounds in isolation to recognise words. Rather, children are taught to analyse letter-sound relations once the word is identified. For example, a teacher might write the letter 'p' followed by several words: *put, pig, pet, play*. The teacher would help students to read the words by noting that each word begins with the same sound that is associated with 'p'.

Synthetic phonics programs use a part-to-whole approach that teaches children to convert graphemes into phonemes (e.g., to pronounce each letter in 'stop', /s/-/t/-/o/-/p/) and then blend the phonemes into a recognisable word.

Embedded phonics and **onset-rime phonics** approaches teach children to use letter-sound relationships with context clues to identify and spell unfamiliar words encountered in text.

Analogy phonics teaches children to use parts of written words they already know to identify new words. For example, children are taught a set of key words that are posted on the classroom wall (e.g., *tent, make, pig*) and are then taught to use these words to decode unfamiliar words by segmenting the shared rime and blending it with a new onset (e.g., *rent, bake, jig*).

Phonics through spelling programs teach children to segment and write the phonemes in words.

Some phonics programs are hybrids that include components of two or more of these approaches, and may differ in important ways (Ehri *et al.*, 2001). Two of these ways include: (a) the extent to which the teaching approach involves direct instruction in which the teacher takes an active role in eliciting student responses, or a 'constructivist', problem-solving approach is used; and (b) how interesting the explicit instructional activities are for teachers and students.

Strategy instruction assumes an active reader (mostly for students beyond the early years of schooling) who constructs meaning through the interrogation of existing and new knowledge, and the flexible use of cognitive and meta-cognitive strategies to foster, monitor, regulate and master comprehension (Dole *et al.*, 1991, 1996). In contrast to *direct instruction*, which focuses primarily upon the acquisition of foundational skills (a 'bottom-up' approach), *strategy instruction* aims to develop students' higher-order cognitive abilities (a 'top-down' approach).

Less effective practices

From the local and international evidence-based research, the following teaching strategies are consistently identified as 'less effective' for students, whether or not they experience learning difficulties. Despite its various forms and wide endorsement throughout the education community (see: Ellis, 2005; Purdie & Ellis, 2005), research findings from the application of *constructivism* (as a theory of *knowing* and *learning* rather than of *teaching*) indicate that the literacy and numeracy learning needs of students with learning difficulties are not served well.

Constructivism. The key element in *constructivism* is that the learner is an active contributor to the learning process, and that teaching methods should focus on what the student can bring to the learning situation as much as on what is received from the environment. This approach has its origins in the work of Piaget, Bruner and Vygotsky, and in Ausubel's (1968) assertion that 'the most important single factor influencing learning is what the learner already knows' (p. 332). Learning that builds effectively on the learner's current knowledge is said to be within the child's *zone of proximal development* (ZPD). The ZPD establishes what the learner already knows, and can do with minimal assistance by a teacher or peer – following which the individual is expected to undertake learning tasks independently.

Hence, the role of the teacher is to be a *facilitator* of learning (rather than a director), and to provide opportunities for individual learners to acquire knowledge and construct meaning

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through their own activities, and through discussion, reflection, and the sharing of ideas with other learners with minimal corrective intervention (Cambourne, 2002; Daniels, 2001). Sasson (2001) refers to *constructivism* as '... a mixture of Piagetian stage theory with postmodernist ideology' (p. 189) that is devoid of evidence-based justification for its adoption as an effective method of teaching. In brief, *constructivism* emphasises the social nature of the learning process, the role of language in learning and concept formation, and the pedagogical strategy of 'scaffolding'. Adoption of a constructivist approach in the classroom involves a shift from predominantly teacher-directed methods to student-centred, active *discovery learning* and *immersion* approaches via cooperative group work, discussion focused on investigations and problem solving (Cambourne, 1988; McInerney & McInerney, 2006; Selley, 1999) – activities with which students with learning difficulties struggle to engage purposefully and successfully. Its tenets have given rise to what is known and practiced as *whole-language* approaches to literacy instruction and to the teaching of reading in particular (see below).

Whole-language. Essentially, the *whole-language* approach to teaching and learning reflects a constructivist philosophy of learning in which children are viewed as inherently active, self-regulating learners who construct knowledge for themselves, with little or no explicit decoding instruction.¹ However, there is a strong body of evidence that *whole-language* approaches are not in the best interests of children experiencing learning difficulties and especially those experiencing reading difficulties.² Similarly, for children from disadvantaged backgrounds who often do not have rich phonological knowledge and phonemic awareness upon which to base new learning, being taught under constructivist modes has the effect of compounding their disadvantage once they begin school (see: Munro, 1997, 1998, 1999, 2000a,b). This is particularly the case for children from non-English speaking backgrounds, including Indigenous children where English may be their second or third language.

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¹ For recent critiques of the inappropriateness of *constructivism* as an operational theory of *teaching*, see: Ellis (2005); Purdie and Ellis (2005); Wilson (2005).

² See: Anderson *et al.* (2004); Colheart (2005a-c); de Lemos (2002, 2004a,b); Loudon *et al.* (2005); Moats (2000); Rohl and Greaves (2004); Sweet (1996); Wheldall and de Lemos (2005); Westwood (1999, 2003, 2004).

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Appendix 3

Observation & Interview Schedule 1

Teaching Strategy	Not At all	Very little	Some-times	Quite a lot	Comments from observations and/or interview
Corrective approaches for reading and/or maths					
Direct (explicit) instruction for maths and/or reading					
Systematic phonics for the teaching of reading					
Strategy Instruction approaches for reading and maths					
Teacher 'connectivity' with students' individual learning needs					
Teacher 'connectivity' with students as 'valued persons'					

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Observation & Interview Schedule 2

Teaching Strategy	Not At all	Very little	Some-times	Quite a lot	Comments from observations and/or interview
Constructivist approaches for reading and/or maths					
Whole-language approaches to literacy, and especially to reading					
Teacher 'connectivity' with students' individual learning needs					
Teacher 'connectivity' with students as 'valued persons'					

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School:		Class Teacher:	
Date:	Time:	Lesson:	No of adults in class: No of students in class:
Strategies observed with class activities			
Instruction: (verbal, visual, multi-modal, etc. (examples provided)			
Modification /Differentiation for students with LDs			

Class Structure	Observations
Groupings	
Whole class activity	
Table groups on similar but not shared activity	
Groups but same activity	
Teacher target group:	