Focused analysis

The qualitative inventory of word knowledge

The qualitative inventory of word knowledge (Schlagal, 1989) was designed to assess spelling error patterns in year levels 1 to 6. There is a strong correlation between the frequency with which words occur in children's speech and the year level at which they learn to read and write them. Hence words were arranged, in order of difficulty based on word occurrence within speech, vocabulary-controlled reading schemes, children's writing and published spelling schemes. They were chosen on the basis of their orthographic pattern and the likelihood that they would cause difficulty at each year level.

The orthographic patterns represented by the words are listed under the heading category for those who wish to use the inventory as a diagnostic tool. It is the pattern that is important, rather than the word that is chosen as an exemplar. While the words originally came from an American context, their spelling has been altered in several instances to reflect the Australian standard. If any words are inappropriate for your class, you could substitute another word that uses the same pattern and is roughly equivalent in difficulty.

For the purpose of scoring performance using the inventory, Schlagal established functional levels as follows:

- independent level: 90% or better

- instructional level: 70–89%

- frustration level: 69% or below

Although these figures are arbitrary, they do provide a useful basis for determining levels of performance and, therefore, for indicating growth across time.

The qualitative inventory of word knowledge

Level I	Level II	Level III	Level IV	Level V	Level VI
girl	traded	send	force	lunar	satisfied
want	cool	gift	nature	population	abundance
plane	beaches	rule	slammed	bushel	mental
drop	centre	trust	curl	joint	violence
when	short	soap	preparing	compare	impolite
trap	trapped	batter	pebble	explosion	musician
wish	thick	knee	cellar	delivered	hostility
cut	plant	mind	market	normal	illustrate
bike	dress	scream	popped	justice	acknowledge
trip	carry	sight	harvest	dismiss	prosperity
flat	stuff	chain	doctor	decide	accustom
ship	try	count	stocked	suffering	patriotic
drive	crop	knock	gunner	stunned	impossible
fill	year	caught	badge	lately	correspond
sister	chore	noise	cattle	peace	admission
bump	angry	careful	gazed	amusing	wreckage
plate	chase	stepping	cabbage	reduction	commotion
mud	queen	chasing	plastic	preserve	sensible
chop	wise	straw	maple	settlement	dredge
bed	drove	nerve	stared	measure	conceive
	cloud	thirsty	gravel	protective	profitable
	grabbed	baseball	traffic	regular	replying
	train	circus	honey	offered	admitted
	shopping	handle	cable	division	introduction
	float	sudden	scurry	needle	operating
			camel	expression	decision
			silent	complete	combination
			cosy	honourable	declaration
			graceful	baggage	connect
			checked	television	patient

Monitoring spelling

Name: _____   **Date:** _____

Preliminary

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Begins to match letters and sounds		
Visual	Displays an awareness of letter names		
Visual	Uses terminology for: • letters • sounds • words • sentences		
Visual	Understands print concepts: • word • letter • left to right • top to bottom		

Semi-phonetic

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Hears sounds on their own		
Phonological	Hears different sounds in words		
Phonological	Segments spoken words into sounds		
Phonological	Represents sounds heard in words in order		
Phonological	Manipulates sounds		
Phonological	Provides rhyming words with rhyming sounds		
Phonological	Segments words into syllables		
Visual	Segments sentences into words		

Comments:

Monitoring learning: Semi-phonetic – phonetic

Name: _____ **Date:** _____

Semi-phonetic

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Hears sounds on their own		
Phonological	Hears different sounds in words		
Phonological	Segments spoken words into sounds		
Phonological	Represents sounds heard in words in order		
Phonological	Manipulates sound		
Phonological	Provides rhyming words with rhyming sounds		
Phonological	Segments words into syllables		
Visual	Segments sentences into words		

Phonetic

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Understands that sound can be represented by more than one letter		
Phonological	Uses onset and rime analogy to spell new words		
Phonological	Builds word families in modelled spelling sessions		
Visual	Identifies visual patterns and common letter sequences in words		
Visual	Uses analogy to spell new words		
Visual	Uses sight words		
Visual	Recognises misspellings of common sight words		
Morphemic	Builds word families by adding suffixes		
Morphemic	Adds suffixes such as -s, -ed and -ing as appropriate in unfamiliar words		
Etymological	Discusses origins of familiar words and terms, eg TV, telephone		

Comments:

Monitoring learning: Phonetic – transitional

Name: _____   **Date:** _____

Phonetic

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Understands that sound can be represented by more than one letter		
Phonological	Uses onset and rime analogy to spell new words		
Phonological	Builds word families in modelled spelling sessions		
Visual	Identifies visual patterns and common letter sequences in words		
Visual	Uses analogy to spell new words		
Visual	Uses sight words		
Visual	Recognises misspellings of common sight words		
Morphemic	Builds word families by adding suffixes		
Morphemic	Adds suffixes such as -s, -ed and -ing as appropriate in unfamiliar words		
Etymological	Discusses origins of familiar words and terms, eg TV, telephone		

Transitional

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Spells words containing less common digraphs and letter combinations		
Phonological	Groups words according to spelling		
Phonological	Spells unfamiliar words using syllables		
Phonological	Uses knowledge of alphabetical order to locate words in dictionaries, etc		
Visual	Uses an extended bank of sight words		
Visual	Recognises and corrects misspelling in own writing		
Morphemic	Groups words according to morphemic pattern		
Morphemic	Uses meaning and context to spell homonyms		
Morphemic	Draws on generalisations		
Etymological	Uses knowledge of word origins to spell more complex words		

Comments:

Monitoring learning: Transitional – transitional

Name: _____   **Date:** _____

Transitional

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Spells words containing less common digraphs and letter combinations		
Phonological	Groups words according to spelling		
Phonological	Spells unfamiliar words using syllables		
Phonological	Uses knowledge of alphabetical order to locate words in dictionaries, etc		
Visual	Uses an extended bank of sight words		
Visual	Recognises and corrects misspelling in own writing		
Morphemic	Groups words according to morphemic pattern		
Morphemic	Uses meaning and context to spell homonyms		
Morphemic	Draws on generalisations		
Etymological	Uses knowledge of word origins to spell more complex words		

Transitional

Knowledge	Outcomes	Evidence of approx	Evidence of success
Phonological	Uses three and four letter digraphs and less common letter strings		
Visual	Applies proofreading skills and strategies		
Visual	Applies strategies for remembering spelling of difficult words		
Morphemic	Uses meaning as a guide to spelling		
Morphemic	Uses context as a guide to spelling		
Etymological	Explores derivation and origin of words		

Comments:

Spelling analysis

Name: _____   **Date:** _____

Word table

Intended word	Actual word	Error category	Occurrences

Legend for error category

A. Random letters
B. Sounds/letters omitted
C. Phonetic spelling
D. Additional letters
E. Letters in wrong order
F. Incorrect: 1 consonant, 2 consonant digraph
G. Incorrect: 1 vowel, 2 diphthong/digraph
H. Mispronunciation suspected
I. Silent 'e': 1 omitted, 2 overgeneralised
J. Double letters: 1 omitted, 2 added
K. Homophones
L. Suffixes/Prefixes: 1 omitted, 2 incorrect, 3 incorrectly added

Word score

Total errors	Total words	Total misspellings

Total errors: the number of errors. Where the same word is misspelled in the same way more than once it counts as one error only. If misspelled in different ways it counts as an error for each one that is different.
Total misspellings: total number of misspellings regardless of repetition
Total correct: total words – total misspellings
% correct: total correct ÷ total words x 100

Additional comments:

The above analysis grid is based on the Writing and Reading Assessment Program – WRAP. (Education Department SA 1992) It has been modified and the number of categories reduced to make it more accessible for busy teachers. It is not a precise instrument and only intended to reveal patterns of errors to indicate where teaching might be focused.

Students in the **Semi-phonetic** phase can be expected to make most of their errors in the **A** to **F1** categories. Students in the **Phonetic** stage can be expected to make most of their errors in the **B** to **H** categories, while those in the **Transitional** phase may make errors across categories **B** to **L**, but the majority are likely to fall in categories **F** to **L.**

Relationship to the four types of knowledge

Category A

Students using random strings of letters may need to develop the concept of a word as well as sound segmentation and graphic representation.

Category B

A pattern of errors in this category would suggest that the student requires a focus on learning strategies related to the development of phonological and visual knowledge. It is important to recognise that some students may have hearing problems and may, therefore, require a greater concentration on visual strategies.

Category C

A pattern of errors in this category may well be a sign of spelling development, particularly as students move into the Phonetic phase. Once students are able to represent sounds it is important that they develop visual strategies so that a focus on these strategies is indicated.

Category D

A pattern of errors in this category may indicate the need for the teaching of either phonological or visual strategies.

Category E

Letters in the wrong order are often a sign of imperfect visual patterning. Errors in this category may also be related to a lack of phonological knowledge where the order relates to vowels.

Category F

A pattern of errors in this category suggests a lack of phonological knowledge if the errors are not related to mispronunciation.

Category G

Clearly any approach to teaching vowel sounds and vowel representation must combine phonological and visual elements. Because there are sixteen vowel sounds that are represented in various ways, vowels are confusing for young students. They are even more confusing in that the same vowel sound may be represented in several ways. It is important that students understand the various ways vowel sounds may be represented.

Category H

Errors related to mispronunciation can occur at any phase. They become a problem if they are persistent. Strategies are necessary to correct pronunciation.

Category I

The use of the 'silent e' involves phonological, visual and morphemic knowledge. Students need to understand how the 'e' modifies the preceding vowel, eg the differences in pronunciation between 'rid' and 'ride'.

Category J

A pattern of errors in this category may indicate imperfect visual patterning or, more likely, a lack of morphemic knowledge related to the addition of suffixes.

Category K

Confusion of homophones reflects a lack of morphemic and syntactic knowledge. Differences in spelling reflect differences in meaning and also in grammatical function.

Category L

The use of suffixes and prefixes requires morphemic and visual knowledge. It is not just the generalisations for adding them that children need to know, but they also need to understand that words related in meaning often preserve the spelling of the root (unbounded morpheme) despite pronunciation changes that may occur when prefixes or suffixes are added, eg nation, nationality; sign, signal, signature.