Literacy is the Secret to Boys Success (... and Phonics is the Key to Literacy)

Research shows that between 30 and 40 percent of Australian boys (and girls) have a reading level far below their expected outcome. Simply examine the results of the NSW basic skills and literacy tests. Its not debatable – its factual.

We believe that literacy among boys is possibly the single largest determinant of the 'success' of boys throughout their life.

Literacy impacts continuously upon their life chances ... the lack of literacy has many apparent causes, but we believe a single common thread runs through these causes – the dominance of the 'whole language' approach – typified by the Reading Recovery program – which is the dominant theology among Australian schools.

It seems strange to suggest that the 'solution' is in fact the problem ... but consider this. In nearly every school in Australia, kindergarten aged children are expected to learn to read by memorising the individual word, by each word's individual shape and letter contents.

They are encouraged not to 'sound out' the word (the proven, traditional phonics system) as has been the case until 20 years ago, but instead to essentially memorise and guess the words they encounter.

This technique has 'converted' the English language into the Chinese language, where each of the 6000 symbols are memorised.

But at the age of 5, a child already knows and uses 5000 words. By the age of 8, it is as high as 25,000 words.

As a learning technique, the Whole Language approach is a form of educational elitism. The technique works for children who have good memories, and those who are good at operating in a 'contextual environment' – guessing the word remnants they don't know.

Whole Language suggests that, simply by surrounding children with words (posters) and reading 'good' literature to them, they will become immersed, entranced, the knowledge will flow via osmosis.

Further, the Whole Language approach totally disdains the 'breaking' of words into their sound components – the decoding process. It is called the "whole word' system because it believes that each word is unique, and language should not be reduced to its 'elemental components'.

Lofty sentiments indeed. However, it leaves the bulk of children totally disoriented.

And boys, who have a slight, proven tendency towards 'mechanical' thinking, where thought is technical rather than intuitive, find themselves unable to learn the English language using a system which has no rules.

Lets restate that. Whole Language – the dominant form of language teaching – does not have rules. It does not have technique. It simply says that children should use a combination of rote learning and guessing (using contextual clues) to learn, by sight, the thousands and thousands of words in English.

It is beyond the scope of this submission to cover the full range debate regarding whole language. Nonetheless, three important points should be stated.

1. Phonics is a rule driven system which allows children to 'sound out' the words, matching the words they use in everyday speech with the 'new' words they're reading on paper. Phonics identifies 48 different sounds which are used in English, and identifies about 70 letter combinations which create these sounds. That's it – children need only remember 150 letter-sound associations to be able to work their way through 97% of words.

In other words, the rules of phonics can decode 97% of words. The other 3% are treated as 'sight words' – learnt by rote.

So, what's going on – we're using a 'technique' of rote learning/guessing to cover the whole language, when it should be applied to only 3%.

2. Parents are discouraged – and unable – to teach their children using the whole language approach. The Phonics process is a traditional process which allows the full family unit to contribute to the learn-to-read process.

Phonics is driven by simple rules, so the knowledge is easy to share and grow. But whole language has no rules, beyond endless rote and guessing. It is frustrating for the parents, and is absurdly difficult for our children.

3. Dare I say it ... whole language is a construct by teachers, for teachers. Children are no longer encouraged to read aloud, but are placed instead into quiet 'reading groups' where they attempt to deduce the words from the associated pictures.

Further down the track, there is also an endless supply of struggling students for the remedial classes. With the whole language approach, there will always be a demand for highly trained literacy teachers who teach the struggling child sufficient 'rote words' to bring them up to their peers. There's no comprehension, no independence, no system of thought which the students can learn and apply. Its disgusting!

Of course, such thoughts are a heresy to the system which promotes the whole language approach – in universities where teachers are 'taught' how to teach, they are told that the whole language approach is successful, that the 'Reading Recovery' program is unchallenged, that phonics is dead.

Its worth noting that the whole language approach swept through the USA and Canada 10 years before England, New Zealand and Australia. However, in the US (where study after study have exposed whole language to the sham it is) phonics is now being used instead.

It is our belief that literacy forms one of the most potent determinants of a boy's success. Prisons are full of illiterate male offenders. Literacy among the lowly paid is abysmal. Crime and punishment generally impacts upon people who can't read.

But these are the symptoms, rather than the causes. Naturally, there are specific reasons why certain groups have low literacy, and hence low income potential. Socio-economic clusters – such as migrants and indigenous Australian – have reduced access to parental assistance. But they all speak English, at whatever level they achieve – regrettably, whole language does not allow them to convert that natural skill into the learned skill of reading. Phonics, however, does.

Indeed, ask a migrant how they learnt to read English – they'll generally tell you they 'sounded it out', and broke up the word. They're instinctively doing what our teaching system refuses to do. They know!

Take your child out of the system, and seek the assistance of a speech pathologist (an expert in reading problems) and the first step they take is phonics. They know!

It is our contention that the cause of literacy problems is the whole language solution. It removes the teaching from the family, and embeds it in the classroom. It provides no rules which children can grasp, it kills self-esteem, it makes all other learning much more difficult, and provides an endless flow of children into remedial classes.

It is our belief that the current predicament of boys can be largely traced to this terrible process of teaching children, 'how to read'.

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Additional Background

Whole Language Philosophy

The last two decades has seen the rise of the "whole language" movement. This philosophy rejects the dominant role of phonics in learning-to-read. The whole language philosophy rejects phonics teaching on principle because it teaches reading using units less than the whole word, that is, via letters, syllables and morphemes.

The Whole Language approach tries to teach a 'generative' strategy, one which enables the reader to decode words previously unseen. This strategy does not make learning to read as easy as can be, for two major reasons.

First, the letter sounds differ (especially consonants)depending on the sounds around them in a word. So the sound for /d/ in "dim" is a different sound from /d/ in "bid", and from /d/ in "dose". If a teacher tries to teach the sound for /d/ it will come out /duh/ which is not the sound of /d/ in any of the preceding examples.

Because adults long ago mastered the alphabetic principle (that a written symbol represents a sound), we no longer notice the discrepancies, but children can be confused by the variation. It takes time and practice for children to appreciate that the phonic strategies allow an approximate speech sound, one sufficiently close to the actual phoneme, from which correct pronunciation follows.

The second problem is that our vowel letters carry responsibility for one, two or three different sounds. For example, "bar", "bat", "bake" each use the letter "a" for a different sound. The system is not chaotic but rule-governed; however, there are exceptions to most rules.

Phonic And Whole Word Approaches

Reading is an intellectually challenging task regardless of the way it is presented to children. The question is whether teaching the alphabetic principle and some rules (phonics) is more effective in the long run than using a Whole Word recognition strategy, and/or a process of guessing from the meaning of surrounding words (as whole language advocates would prefer).

Over the last thirty years or so, the bulk of research has supported the superiority of an initial phonics emphasis. This does not mean that there must be an either/or choice between meaning-emphasis approaches (such as whole language) and code-emphasis programs (phonics).

Some Whole Language purists consider phonic cues have no place at all in a reading program, though most would view them as of secondary importance. They view reading as primarily a linguistic, not a visual, exercise; one of only sampling segments of the print and actively predicting what the words will be. If children need assistance they are taught to guess more wisely. This approach is disastrous for children in difficulty, and has been thoroughly discredited by research over the last fifteen years.

The role of phonic cues in whole language approaches has been reduced to those needed to identify a letter or two of a word so as to aid the confirmation of the guess. Whole language advocates argue that these phonic cues can and should be learned without explicit teaching. Further it is claimed that exposure to meaningful, authentic literature is all that students need in order to learn to read because learning to read is much the same as learning to speak - a natural process. Since we learn to speak without formal instruction, so we should learn to read the same way.

Unfortunately it isn't so. Mastering a written language is an achievement which far outweighs the requirements of speech production. Written language is an artificial, visually-based device quite distinctly more challenging than biological sounds-based processes of speech. Many children need careful, systematic teaching of decoding skills, but will not receive it in a pure Whole Language program

About 40% of the population have reading problems severe enough to hinder their enjoyment of reading. These problems are generally not developmental and do not diminish over time; without appropriate interventions they into adulthood.

The most reliable indicator of a reading difficulty is an inability to decode single words. Research suggests that the best way to determine if this inability is "unexpected" is to compare the performance of a child with that of other children his or her age and/or compare reading ability to academic performance in other domains (e.g., listening comprehension, verbal expression, mathematics, written expression).

The definition suggests that traditional methods for identifying a reading difficulty, such as looking for an IQ-achievement discrepancy, are not as reliable.

What is Developmentally Appropriate?

Treatment intervention research has shown that appropriate early direct instruction seems to be the best medicine for reading problems. Reading is not developmental or natural, but is learned. Reading difficulties reflect a persistent deficit, rather than a developmental lag in linguistic (phonological) skills and basic reading skills. Children who fall behind at an early age (K and grade 1) fall further and further behind over time. Longitudinal studies show that of the children who are diagnosed as reading disabled in third grade, 74% remain disabled in ninth grade. Adults with reading problems exhibit the same characteristics that are exhibited by children with reading problems.

These findings contradict the prevalent notion that children will begin to learn to read when they are "ready." The concept "developmentally appropriate" should not suggest delaying intervention, but using appropriate instructional strategies at an early age - especially in kindergarten. Although we now have the ability to identify children who are at-risk for reading failure, and we now understand some of the instructional conditions that must be considered for teaching, the majority of reading disabilities are not identified until the third grade.

Early Identification and Treatment

The best predictor in K or 1st grade of a future reading difficulty in grade 3 is performance on a combination of measures of phonemic awareness, rapid naming of letters, numbers, and objects, and print awareness. Phonemic awareness is the ability to segment words and syllables into constituent sounds units, or phonemes. Converging evidence from all the research centres shows that deficits in phonemic awareness reflect the core deficit in reading difficulties. These deficits are characterised by difficulties in segmenting syllables and words into constituent sound units called phonemes--in short, there is a difficulty in turning spelling into sounds.

Lack of phonemic awareness seems to be a major obstacle to learning to read. This is true for any language, even Chinese. About two in five children have some level of difficulty with phonemic awareness. For about one in five children phonemic awareness does not develop or improve over time. These children never catch up, but fall further and further behind in reading and in all academic subjects.

Instruction using the following types of phonemic awareness tasks has had a positive effect on reading acquisition and spelling for pre-readers: rhyming, auditorily discriminating sounds that are different, blending spoken sounds into words, word-to-word matching, isolating sounds in words, counting phonemes, segmenting spoken words into sounds, deleting sounds from words.

Explicit instruction in how segmentation and blending are involved in the reading process was superior to instruction that did not explicitly teach the children to apply phonemic awareness to reading (whole lanhuage). Kindergarten children with explicit instruction in phonemic awareness did better than a group of first graders who had no instruction, indicating that this crucial pre-skill for reading can be taught at least by age five and is not developmental.

In a study, seven weeks of explicit instruction in phonemic awareness combined with explicit instruction in sound-spelling correspondences for kindergarten children was more powerful than instruction in sound-spelling correspondences alone and more powerful than language activities in improving reading skills.

Explicit, Systematic Instruction in Sound-spelling Correspondences

Phonemic awareness alone is not sufficient. Explicit, systematic instruction in common sound-spelling correspondences is also necessary for many children. Researchers found that intensive instruction in sound-spelling relationships during reading (45 minutes per day) was more effective than sound-spelling instruction occurring only during spelling and not during reading.

Instruction in specific sound-spelling relationships was more effective than teaching students a strategy for using analogous word parts on transfer to new words and on standardized reading measures (Lovett, Borden, DeLuca, Lacerenza, Benson, & Brackstone, 1994). Torgesen et al. (in press) also found that explicitly teaching the sound-spelling relationships was superior to teaching word families and word analogies and superior to an implicit approach (whole language).

Researchers found that explicit, systematic instruction in sound-spelling relationships in the classroom was more effective in reducing reading disabilities than a print-rich environment characterized by interesting stories (whole language), even with children who had benefited from phonemic awareness instruction in kindergarten.

Prediction From Context is not a Useful Strategy for Word Recognition

Research quite clearly shows that overemphasizing prediction from context for word recognition can be counterproductive, possibly delaying reading acquisition. Stanovich and Stanovich (1995) recently summarized the research findings regarding the predictability of authentic text: syntactic, and graphophonemic cues), the semantic and syntactic cueing systems seem to play a minor role. Recent eye movement research indicates that good readers do not sample the text and predict to recognise words efficiently, but rather see every single letter on the page.

"...the word recognition skills of the good reader are so rapid, automatic, and efficient that the skilled reader need not rely on contextual information. In fact, it is poor readers who guess from context--out of necessity because their decoding skills are so weak."

In the NICHD interventions studies (Foorman, et al., in press; Torgesen et al., in press) teaching children to use context and prediction as strategies for word recognition resulted in greater numbers of reading disabilities than instruction that taught children to use their sound-spelling knowledge as the primary strategy for word recognition.

Major Implications for Early Reading Instruction

Below are the seven key principles of effective reading instruction identified in the research along with concrete examples of what these principles mean. The examples are taken directly from the research studies. The research findings indicate that to prevent reading problems classroom teachers should do the following:

1. Begin teaching phonemic awareness directly at an early age (kindergarten).

Children who are able to recognise individual sounds in words are phonemically aware. Phonemic awareness can be taught with listening and oral reproduction tasks similar to those listed below. When concurrent instruction in sound-spelling relationships occurs, growth in the development of phonemic awareness seems to accelerate. Teachers should initiate instruction in phonemic awareness before beginning instruction in sound-spelling relationships and continue phonemic awareness activities while teaching the soundspelling relationships.

Examples of phonemic awareness tasks

Phoneme deletion: What word would be left if the /k/ sound were taken away from cat?

Word to word matching: Do pen and pipe begin with the same sound?

Blending: What word would we have if you put these sounds together: /s/, /a/, /t/?

Sound isolation: What is the first sound in rose?

Phoneme counting: How many sound do you hear in the word cake? **Deleting phonemes:** What sound do you hear in meat that is missing in eat?

Odd word out: What word starts with a different sound: bag, nine, beach, bike?

Sound to word matching: Is therea /k/ in bike?

There is little correlation between developmental stages and phonemic awareness. Every school child is ready for some instruction in phonemic awareness. In fact, if the children who fall behind do not begin receiving explicit teacher-initiated instruction, they are very likely to continue falling further and further behind. Phonemic awareness and other important reading skills are learned and do not develop naturally. The earliest direct interventions have been initiated in kindergarten with very positive results. How preschoolers respond to instruction is a question currently under investigation.

2. Teach each sound-spelling correspondence explicitly.

Not all phonic instructional methods are equally effective. Telling the children explicitly what single sound a given letter or letter combination makes is more effective in preventing reading problems than encouraging the child to figure out the sounds for the letters by giving clues. Many children have difficulty figuring out the individual sound-spelling correspondences if they hear them only in the context of words and word parts. Phonemes must be separated from words for instruction.

Explicit instruction means that a phoneme is isolated for the children. For example, the teacher shows the children the letter m and says, "This letter says /mmm/." In this way a new phoneme is introduced. A new phoneme and other phonemes the children have learned should be briefly practiced each day, not in the context of words, but in isolation. These practice sessions need only be about 5 minutes long. The rest of the lesson involves using these same phonemes in the context of words and stories that are composed of only the letter-phoneme relationships the children know at that point.

3. Teach frequent, highly regular sound-spelling relationships systematically.

Only a few sound-spelling relationships are necessary to read. The most effective instructional programs teach children to read successfully with only 40 to 50 sound-spelling relationships. (Writing can require a few more, about 70 sound-spelling relationships.) The chart below is not taken from any particular program but represents the 48 most regular letter-phoneme relationships.

a as in fat	o-e as in pole
g as in goat	Z
V	ch as in chip
m	ou as in cloud
1	kn as in know
e	ea beat
t	oy toy
h	oa boat
u-e as in use	ee need
S	ph phone
u	oi boil
p	er fern
I as in sit	qu quick
c as in cat	ai maid
w "woo" as in well	ay hay
f	sh shop
b	ar car
j	igh high
a-e as in cake	th thank
n	au haul
I-e as in pipe	ew shrewd
d	ir first
k	aw lawn
y "yee" as in yuk	
r	

The 48 most regular sound-letter relationships

Teach Systematically

To teach systematically means to coordinate the introduction of the sound-spellings with the material the children are asked to read. The words and stories the children read are composed of only the sound-spelling relationships the children have learned, so all the children must be taught using the same sequence.

The order of the introduction of sound-spelling relationships should be planned to allow reading material composed of meaningful words and stories as soon as possible. For example, if the first three sound-spelling relationships the children learn are a, b, c, the only real word the children could read would be cab. However, if the first three sound-spelling relationships were m, a , s, the children could read am, Sam, mass, ma'am.

4. Show children exactly how to sound out words.

After children have learned two or three sound-spelling correspondences, begin teaching them how to blend the sounds into words. Show them how to move sequentially from left to right through spellings as they "sound out," or say the sound for each spelling. Practice blending words composed of only the sound-spelling relationships the children have learned every day.

5. Use connected, decodable text for children to practice the sound-spelling relationships they learn.

The findings of the NICHD research emphasise that children need extensive practice applying their knowledge of sound-spelling relationships to the task of reading as they are learning them. This integration of phonics and reading can only occur with the use of decodable text. Decodable text is composed of words that use the sound-spelling correspondences that children have learned to that point and a limited number of sight words that have been systematically taught. As the children learn more sound-spelling correspondences, the texts become more sophisticated in meaning, but initially they are very limited. Only decodable text provides children the opportunity to practice their new knowledge of sound-letter relationships in the context of connected reading.

Texts that are less decodable do not allow the integration of the phonological knowledge the children gain with actual reading. For example, the first sentence children read in a meaning-based program that added an unintegrated phonic component was: "The dog is up."

The sound-letter relationships the children had learned up to this point were: d, m, s, r, and t. This is how much of the sentence the children could read by applying what they had learned in the phonic component: " $___d___$ ". In this case, it is impossible for the children to use their phonics knowledge to read.

Here is a different example:

"Sam sees a big fist." The sounds the children have learned to this point are: a, s, m, b, t, ee, f, g, and I. This is how much of the sentence the children can read using the sound-spelling relationships they have learned: "Sam sees a big fist."

This sentence is 100% decodable. Here the children can apply the sound-spelling relationships they have learned to their reading of this sentence, so the phonics component is integrated into the child's real reading. Only decodable text provides children a context for using their new knowledge of sound-spelling relationships in the context of real reading.

Text that is less decodable requires the children to use prediction or context to figure out words. Much research has evaluated the effectiveness of prediction as a strategy for word recognition. Though prediction is valuable in comprehension for predicting the next event or predicting an outcome, the research indicates that it is not useful in word recognition. The following passage is a sample of authentic text (from Jack London). The parts of the text that are omitted are the part that a child was unable to decode accurately. The child was able to decode approximately 80% of the text. If prediction is a useful strategy, a good reader should be able to read this easily with understanding:

He had never seen dogs fight as these w__ish c__ f_t, and his first ex______t ____t him an unf______able l_____n. It is true, it was a vi_____ ex_____, else he would not have lived to pr___it by it. Curly was the v_____. They were camped near the log store, where she, in her friend_ way, made ad______ to a husky dog the size of a full-_____ wolf, th_____ not half so large as _he. ___ere was no w___ing, only a leap in like a flash, a met___ clip of teeth, a leap out equal_ swift, and Curly's face was ripped open from eye to jaw.

It was the wolf manner of fight__, to st___ and leap away; but here was more to it than this. Th____ or forty huskies ran -o the spot and not com___d that s____t circle. But did not com___d that s___t in____, not the e___ way with which they were licking their chops. Curly rushed her ant____,who struck again and leaped aside. He met her next rush with his chest, in a p____ fash___ that tum___ed her off her feet. She never re____ed them. This was __at the on____ing huskies had w_____ for.

The use of predictable text, rather than this authentic text, might allow children to use prediction to figure out a passage. However, this strategy would not transfer to real reading, as the above passage demonstrates. Predictable text gives children false success. While this false success may be motivating for many children, ultimately they will not be successful readers if they rely on text predictability to read.

6. Use interesting stories to develop language comprehension.

The use of interesting authentic stories to develop language comprehension is not ruled out by this research. Only the use of these stories as reading material for nonreaders is ruled out. Any controlled connected text, whether it is controlled for decodability or for vocabulary, will not be able to provide entire coherent stories in the early stages of reading acquisition. During this early stage of reading acquisition, the children can still benefit from stories that the teacher reads to them. These teacher-read stories can play an important role in building the children's oral language comprehension, which ultimately affects their reading comprehension. These story-based activities should be structured to build comprehension skills, not decoding skills.

7. Balance, but don't mix.

The sixth feature, using interesting stories to develop comprehension, should be balanced with the decoding instruction described in the first five features. The comprehension instruction and the decoding instruction should be separate from each other while children are learning to decode, but both types of instructional activities should occur. In other words, comprehension and decoding instruction should be balanced.

A common misconception regarding the balance that is called for by the research is that the teacher should teach sound-spelling relationships in the context of real stories. This mixture of decoding and comprehension instruction in the same instructional activity is clearly less effective, even when the decoding instruction is fairly structured. The inferiority of instructional activities with mixed goals (embedded phonics) has been demonstrated in several studies.

During the early stages of reading acquisition, children's oral language comprehension level is much higher than their reading comprehension level. The text material used to build children's comprehension should be geared to raise their oral language comprehension level. The material used to build their decoding should be geared to their decoding skills, with attention to meaning. While decodable text can be meaningful and engaging, it will not build children's comprehension skills nor teach them new vocabulary to the extent that might be needed. Comprehension strategies and new vocabulary should be taught using stories more sophisticated than the early decodable text. The teacher should read this text to the children and discuss the meaning with them. After the children become fluent decoders, the children can apply these comprehension strategies to their own reading.