

Should young talented readers be considered gifted students?

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Abstract

Due to the lack of empirical research that currently exists on talented readers this paper takes a three-tiered approach to determining whether our talented readers should be considered gifted students. First, this paper investigates the literature on talented readers; then it reviews relevant issues in reading theory; and finally it discusses how these concepts currently sit within gifted education.

Key words: talented reader, precocious reader, gifted

She discovered I was literate and looked at me with more than faint distaste. Miss Caroline told me to tell my father not to teach me anymore, it would interfere with my reading.

“Teach me?” I said in surprise. “He hasn’t taught me anything, Miss Caroline. Atticus ain’t got time to teach me anything”, I added, when Miss Caroline smiled and shook her head. “Why he’s so tired at night he just sits in the living room and reads.”

(Harper Lee, *To Kill A Mockingbird*, 1960, Chapter 2.)

How is the talented reader defined?

While this is a logical question to ask, it is surprisingly difficult to answer because “defining talented readers is challenging (as) no consensus exists in the research” (Reis, 2008, p. 656). This section will look at past attempts to define this population, the issues behind the lack of consistency, and draw on theoretical underpinnings to offer a possible solution to this dilemma.

Reis, Gubbins, Briggs, et al. (2004) undertook a study that observed twelve third and seventh grade classrooms over a nine-month period in order to determine if talented readers in the United States of America received appropriate differentiated reading curriculum and instructional strategies in line with their talents. The study also looked at the existing literature

on talented readers and found that it was primarily anecdotal, as little consensus currently exists on how to define these students.

Qualitative identifiers

Despite most of the current literature on talented readers being anecdotally based, the identifying characteristics proffered by authors writing about this population tend to be quite similar. For example, talented readers begin reading early and are sometimes self-taught (Catron & Wingenbach, 1986; Halsted, 1990; Kaplan, 1999; Moore, 2005; Vacca, Vacca & Grove, 1991; Weber, 2010); may have developed superior thinking skills (Catron & Wingenbach, 1986; Clarke, 1997, Feldhusen, 1989; Fogarty, 2009; Sternberg & Davidson, 2005); are enthusiastic readers using more effective reading strategies than their same-aged peers (Clark, 1997; Collins & Aiex, 1995; Halsted, 1990; Kaplan, 1999); and have advanced literacy and comprehension skills (Bond & Bond, 1983; Dooley, 1993; Fogarty, 2009; Schnur & Lowrey, 1986; Vosslander, 2002; Wood, 2008).

Enjoyment in the reading process:	<ul style="list-style-type: none"> • Read avidly and with enjoyment • Use reading differently for different reading purposes • Demonstrate thirst of insight and knowledge satisfied through reading. • Pursue varied interests in and curiosity about texts • View books and reading as a way to explore the richness of life • Seek and enjoy depth and complexity in reading • Develop a deeper understanding of particular topics through reading • Demonstrate preference for non-fiction • Pursue interest-based reading opportunities.
Read early and above level:	<ul style="list-style-type: none"> • Read at least two grade levels above chronological grade placement • Begin reading early and may be self-taught.
Advanced processing:	<ul style="list-style-type: none"> • Retain a large quantity of information for retrieval • Automatically integrate prior knowledge and experience in reading • Utilize higher-order thinking skills such as analysis and synthesis • Process information and thoughts at an accelerated pace • Synthesize ideas in a comprehensive way • Perceive unusual relationships and integrate ideas • Grasp concepts ideas and nuances
Advance language skills	<ul style="list-style-type: none"> • Enjoy the subtleties and complexities of language • Demonstrate advanced understanding of language • Use expansive vocabulary • Display verbal ability in self-expression • Use language for humour • Use colourful and descriptive phrasing • Demonstrate ease in use of language

Figure 1: Collated characteristics of talented readers (from Reis et al., 2004, p. 317)

Reis et al. (2004) also found similar trends in the literature and from this created a list of characteristics shared by talented readers. This list is divided into four major categories: enjoyment in the reading process; read early and above expected levels for their age; advanced processing skills; and advanced language skills (see Figure 1 on previous page).

Quantitative identifiers

Almost thirty years ago Dole and Adams (1983) provided a definition for talented readers still favoured by a number of authors (Catron & Wingenbach, 1986; Fogarty, 2009; Reis, 2008; Wood, 2008). The definition provided a measurable indicator that considers both performance and potential beyond a reliance on characteristic traits.

Reading approximately two or more years above grade level as measured by a standardised reading test, or children who may not have achieved two or more years above grade level on a standardised reading test, but who have been identified as intellectually gifted with potential for high reading performance. (Dole & Adams, 1983, p. 66).

This statement is problematic within the Australian context as it relies on standardised tests that quantify reading achievement on year- or grade-based criteria. Locally, standardised reading assessments like TORCH (Tests of Reading Comprehension) and PAT-R (Progressive Achievement Tests in Reading, Fourth Edition) use normative data based on Australian students and achievement is reported using the language of stanines and percentages. Therefore, the Dole and Adam's definition is not altogether practical in Australian classrooms.

Gifted, talented or precocious?

The literature on labelling highly able readers reflects the similar lack of consistency found in gifted education. An author's use of the terminology 'gifted' or 'talented' generally reflects their own preferred theoretical model of gifted pedagogy. In the literature discussing highly able readers, four labels appear to be in common use. The most popular term used by the largest group of authors has been 'gifted readers' (Bonds & Bonds, 1983; Catron & Wingenbach, 2001; Collins & Aiex, 1995; Dole & Adams, 1983; Dooley, 1993; Halsted, 1990; Kaplan, 1999; Levande, 1999; Polette, 2009; Smutny, 2000). A smaller group of researchers has preferred to label these children as 'talented readers' (Reis, 2004, 2008; VanTassel-Baska, 1996). A third group has chosen to use the label 'gifted and talented readers' (Kingore, 2011; Wood, 2008; Cooter & Alexander, 1984); and a fourth group has

identified these children to be ‘precocious readers’ (Durkin, 1990; Fogarty, 2009; Jackson, 1988, 1992). Within this final group, a small yet well-published subgroup have believed that the ability to read beyond one’s age peers should not be automatically considered an indication of giftedness.

In the late 1980s and 1990s there was a push to exclude highly able readers from gifted programs with the argument that “not all academically gifted students read at high levels, and not all talented readers will be identified as academically gifted” (Durkin, 1990; Jackson, 1988, 1992; Reis et al., 2004). As mentioned, Dole and Adams (1983) identified that intelligence may not manifest in advanced reading performance in a child’s early school years, and the research of Jackson (1988, 1992; cf. Durkin, 1990) supported this stance:

The relationship between general intellectual ability, as measured by scores on standard tests, and precocious reading ability has been investigated repeatedly and always has been found to be modest. ... Neither does a high level of general intelligence guarantee that a child will be a precocious reader.

In supporting this stance, these authors offered the condition of hyperplexia to sustain their argument for why precocious reading ability should not be linked to intelligence. Fogarty (2009) explained hyperplexia as:

Decod[ing] very early but with little sense of the meaning behind the text. These students have the ability to observe patterns that allow them to break the reading code. Hyperplexia is sometimes found in children with autism. These students usually do not remain above-average readers once peers are able to decode well and comprehension has increased significantly in the ability to read well. (p. 697)

One of Jackson’s (1988, 1992) concerns was that precocious readers were being placed into gifted programs in later years based on early reading precocity, and these children would not possess the necessary cognitive skills to cope with the work that would be expected of them. Her research showed only a very modest association between reading ability and general intelligence and therefore, these students would not have the reasoning skills necessary in an elementary gifted program. One flaw in this argument is the assumption that inclusion into a gifted program should be reliant on a child’s performance in their early years of school, rather than based on the child’s current performance levels.

While Jackson’s (1988, 1992) research focused on preschool populations, her arguments have been supported and reinforced by later researchers with older children (e.g. Durkin, 1990;

Reis et al., 2004; Reis, 2008). Jackson moderated the claim acknowledging a link between comprehension, language, knowledge, and reasoning abilities. For example, as readers progress to more difficult texts, the limits of their comprehension will relate to their current reasoning abilities, knowledge of the subject they are reading about, and their general language competencies. It is important to note at this point that the stance of both Jackson (1988, 1992) and Durkin (1990) is based on earlier views of the reading process that have since been usurped by more recent research and accepted understandings of what constitutes the reading process.

Gifted models for talented readers

As mentioned, an author’s preference for labelling ‘giftedness’ or ‘talented’ will reflect their own preferred theoretical model of gifted pedagogy. Articles by Moore (2005) and Vosslamber (2002) attempted to define and cater for highly able readers using Renzulli’s (1976) Three-Ring Conception of Giftedness (see Figure 2). Vosslamber (2002) took Renzulli’s three clusters of human traits and dissected reading skills into the categories of above average ability, task commitment, and creativity. For example, Vosslamber placed characteristics such as strong comprehension, early reading, good memory and advanced IQ within the above average ability ring. Characteristics allocated to task commitment include a long attention span, voracious reading ability, and indicators of creativity are reflected in complex thoughts and ideas, good judgement and high level of sensitivity (p. 16).

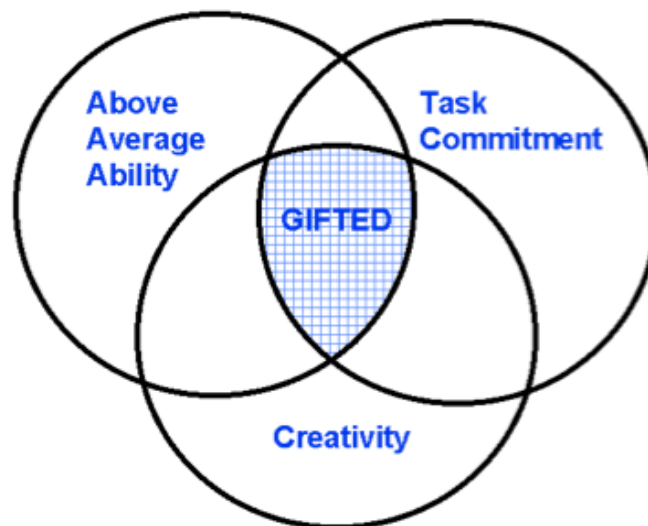


Figure 2: Renzulli’s (1977) three-ring conception of giftedness.

While this definition utilised Renzulli's model to connect talented readers within a renowned and popular gifted model, Renzulli (2016) himself did not specify that giftedness requires "the interplay of all three attributes in his model" (p. 4), noting that students "need not manifest all three clusters of traits, but rather that students are identified as capable of developing these characteristics" (p. 15). Therefore, a child interested in reading would reflect the necessary 'interest' and even curiosity that has been shown to be one of the strongest markers of academic success, as demonstrated in Clynes' (2016) longitudinal study of exceptional children (cf. Kaufman, 2017). Those students who might also lack self-belief or motivation to read might also fail to excel in their reading practices (Gross, 2004).

In a similar vein, Reis, Eckert, Jacobs et al. (2005) developed the Schoolwide Enrichment Model-Reading Framework (SEM-R) specifically designed to increase attitudes towards reading, while increasing oral fluency and reading comprehension. The SEM-R has been validated through research using cluster-randomised methodology with experimental and control class groups. This model reflected Dole and Adam's (1983) definition of talented readers and built on the original SEM-program designed by Renzulli and Reis (1997) as a three-phase program. Phase 1 is teacher focused with book talks, reading aloud together and higher level questioning. In Phase 2 students read silently and independently while the teacher assesses student comprehension with higher order questions during individualised reading conferences. Phase 3 allows the students to proceed with reading activities or short term projects based on a selection of choices that can include listening to books on CD, using technology, reading alone, or reading with friends.

Evaluating the effectiveness of this program researchers found significant differences favouring the treatment group in reading fluency and/or comprehension, as well as increases, for example, in student ability to stay self-regulated to read for extended periods of time (Reis, 2008). The SEM-R model offered differentiation designed to challenge talented readers; however, it did not explain the developmental processes involved in enabling and developing exceptional reading ability, nor did it factor intrapersonal issues that may influence long-term reading practices.

Within the Australia context, the Australian Curriculum, Assessment and Reporting Authority (ACARA) has presented an alternative as a preferred model of giftedness, one that has addressed the terms 'giftedness' (or high potential) and 'talent' (high performance). The creator of this model is Canadian François Gagné (2008) and the model is the Differentiated Model of Giftedness and Talent (DMGT 2.0) (Gagné, 2008; see Figure 3 on next page).

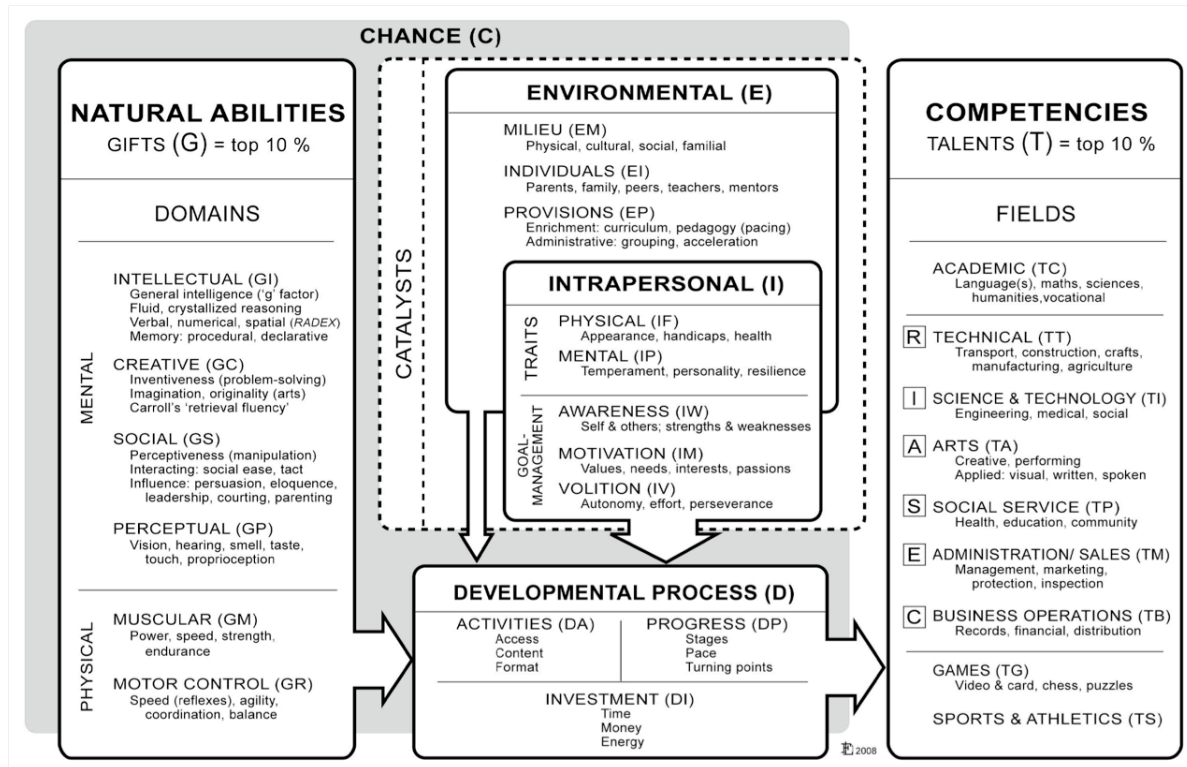


Figure 3: Gagné's (2008) Differentiated Model of Giftedness and Talent (DMGT 2.0)

Because the DMGT 2.0 does not rely solely on characteristics, it may provide a more holistic model for defining and identifying talented readers, while also highlighting how intrapersonal and environmental catalysts can impact the developmental reading process. This clearly has direct implications for teachers and classroom practices, and also offers a way to work with standardised tests that employ percentage comparisons, as is the case in Australia.

Current issues for talented readers

Talented readers are placed at risk in many schools. Many are not challenged and, therefore, their reading development can be delayed or even halted.

(Reis, 2008, p. 664)

This is a powerful quote that squarely places blame on the shoulders of educators and schools when young talented readers fail to reach their potential. There is little doubt the statement is an attempt to shift naïve and myopic attitudes of teachers who consider the learning needs of talented readers unnecessary (Wood, 2008). Reis et al.'s (2004) study included a number of quotes by classroom teachers supporting a narrow point of view, as reflected in the following example: "What choice do I have? With this kind of spread, perhaps 8 or 9 years, my moral obligation is to spend more time with the kids who read on first grade level or lower" (p. 78).

The shifting sands of understanding about the reading process

Current Australian initial teacher education (ITE) programs place emphasis on promoting the need to match instruction with learners' skills and abilities in providing continued and appropriate skill development. Chall and Conrad (1991) called for what they called an optimal match to ensure learning is efficient and avoids halted development. Vygotsky's (1978) Zone of Proximal Development (ZPD), another popular theory taught in ITE units, highlights the need to bridge the developmental level such as independent problem solving (1978). Therefore, if these theories are basic to Australian teacher education programs, why then are talented readers perceived as needing less teacher guidance than typical and struggling readers?

The answer may lie in the dark side of altruism and the social-cultural attitudes towards gifted education. According to Gagné (2011), "gifted education holds a marginal position within the larger field of general education" (p. 7). Or, is it as Tomlinson states, "there is no incentive for schools to attend to the growth of students once they attain proficiency, or to spur students who are already proficient to greater achievement, and certainly not to inspire those who far exceed proficiency" (cited in Tomlinson, Kaplan et al., 2002, p. 36)? That is, why continue to provide skill development and learning support for those readers who have already mastered skills years beyond their age peers?

Are there consequences to 'leaving them alone'?

Perkins and Salomon (1988) wrote a paper on 'Teaching for Transfer' in which they presented the 'Bo Peep' theory of transfer, adapting the nursery rhyme "leave them alone and they will come home, wagging their tails behind them" as a metaphor for their findings. I would also suggest that a 'Bo Peep' theory might also be an appropriate metaphor for teacher attitudes towards talented readers. The Reis et al. (2004) study documented a collection of comments by classroom teachers sharing the attitude that talented readers are already performing well and therefore do not need special learning programs: "They are reading above grade level so I don't work with them" (p. 69). This begs the questions: are there consequences if talented readers are 'left alone'?

Unfortunately, the evidence shows that there are consequences for failing to provide continued appropriate reading programs for talented readers. These include never learning to exert effort in reading, and as a result developing poor work habits. Reis (2008) stated clearly that some talented readers "grow accustomed by third or fourth grade to expending minimal

effort and learn few self-regulation strategies and few advanced reading strategies that they can use when they have to read more challenging content” (p. 664). So, is there a correlation between these United States findings and the Australian context? How do talented readers fair in the Australian education system?

While little research has been conducted in Australia in this area, we can look at the results from the Organisation for Economic Cooperation and Development (OECD) assessments of 15 year old Australian students, as they near the end of compulsory education, in an assessment task titled the Programme for International Student Assessment (PISA). The focus is to evaluate and compare the standard of knowledge and skills of these students as they embark on their entry into society. The following excerpt is from a recent PISA Australian report written for the Australian Council for Educational Research (ACER):

Australia was the only high performing country to show a significant decline in reading literacy performance in PISA 2009. Of concern is that the decline is primarily among high-achieving students, and that the proportion of both males and females in the highest two proficiency levels declined significantly over the nine-year period, while the proportion of males in the lowest proficiency levels increased. ... In terms of proficiency levels, the proportion of students who achieved Level 5 or 6 declined significantly between PISA 2000 and PISA 2009, from 18 per cent in PISA 2000 to 13 per cent in PISA 2009. (Thomson, De Bortoli, Nicholas, Hillman & Buckley, 2011, p. 18.)

Within Australia there is an annual national assessment program of literacy and numeracy performance of students in Years 3, 5, 7 and 9 conducted by the Australian Curriculum, Assessment and Reporting Authority (ACARA). The tests are titled the National Assessment Program – Literacy and Numeracy (NAPLAN). The 2010 results reflected a declining trend in the performance of the talented readers as they progress through the system as shown in Table 1.

Table 1: NAPLAN reading results for highest bands (from Thomson et al., 2011)

	Year 3	Year 5	Year 7	Year 9
Highest Band	6	8	9	10
Proportion	22.2%	10.3%	10.1%	4.1%

This decline at the top end of reading performance in the older years is not unique to the Australian context. Halsted (cited in Reis et al., 2004) believed the drop-off in reading levels during middle school years should be ‘blamed’ on an increased participation in extracurricular activities or on an absence of challenging reading in school. Halsted also believed that if a child has become an independent reader by Year 2 they will have well-established reading patterns and habits by Year 5 that may be entrenched and difficult to shift beyond their comfort levels in later years.

As part of my doctoral thesis, I gathered anecdotal evidence that supports this view (Bannister-Tyrrell, 2012). In discussions with former students, some still engaged in recreational reading in senior years, preferring their own choice of authors rather than those texts they were being forced to read in English classes. Others had naturally outgrown former favourite authors, and no longer read fiction at all. Many of the students questioned found the Stage 5 and 6 English curriculum texts unappealing and they were not prepared to sustain effort on these challenging texts. This anecdotal evidence reflected the study by Reis and Boeve (cited in Reis, 2008) in which they identified that “the reading levels of these (talented readers) students may decline by the time they reach upper elementary as a result of an absence of challenge in reading in school” (p. 657). In another study, Reis and her colleagues (cited in Reis, 2008) found that underachieving readers in high school “consistently acknowledged that the easy curriculum they encountered in elementary and middle school failed to prepare them for the rigors of challenging classes in high school” (p. 659).

So, while a decline in the number of older students performing at the top reading level compared with younger readers is not unusual (Halsted, 1990), the PISA results mentioned above are not so easily explained, because this trend is not replicated in other first-world countries such as Korea, Finland, Canada and New Zealand. Therefore, ‘leaving them alone’ does not appear to be an option that is enabling young talented readers to continue, ‘wagging their tails’ as they progress through the English curriculum.

Programming options

While minimal research informs this field, a number of authors have addressed the perceived learning needs and programming options that in their opinion should be offered to talented readers. For example, Dooley (1993, p. 547) stated:

A stimulating reading program for young gifted readers has at least two major components: provisions for mastering the basic curriculum quickly through curriculum

compacting, and a differentiated curriculum created through modification of the content and the processes used to explore that content.

Overwhelmingly, authors have supported the use of gifted pedagogy when catering for talented readers, including acceleration, curriculum compacting, critical questioning, and higher order thinking (Reis, Burns & Renzulli, 1992; Dooley, 1993; Moore, 2005; Reis, 2008; VanTassel-Baska et al., 1988; Wood, 2008). Even Jackson (1988, 1992), who focused on proving minimal correlation between precocious reading ability and academic intelligence, stated, “consultation with a reading specialist is just as appropriate in planning instruction for an unusually precocious reader as it is in planning for a reader who is progressing slowly” (p. 203). Acclaimed researchers specialising in gifted education, such as Gagné (2011) and Gross (2003), have clearly stated that talented students require an enriched curriculum that is qualitatively and quantitatively different from that offered to typical students. Gagné (2011, pp. 6–7) summarised these components as:

1. an enriched curriculum / training program;
2. a clear and challenging excellence goal;
3. selective access criteria;
4. systematic and regular practice;
5. regular performance-based assessment of progress;
6. personalised – accelerated of course – pacing.

These components are reflected in the research on differentiated instruction and curricular strategies to challenge talented readers, collated by Reis (2008) and presented in Figure 4 (see next page).

While comparison of these two sources suggests talented readers require similar learning design and program options as any gifted and talented student, there is research to suggest that gifted pedagogy may not automatically suit the learning needs of talented readers, and that adjustments may be necessary. For example, Reis states “differentiation for talented readers has met with varied results” (2008, p. 662). The study by Reis and Boeve (2007, as cited in Reis, 2008) entailed twelve sessions of intense instruction with self-selected reading materials, with a group of culturally diverse third and fourth graders who were considered academically talented readers. These participants achieved similar fluency growth during these limited sessions as might be expected of most readers in a year. However, when these

same students were returned to their school reading programs, and expected to work at above-grade-level readings, they experienced unexpected difficulties because:

These talented urban readers were accustomed to expending minimal effort and had few self-regulation strategies to employ and few advanced reading strategies that they could use when they were asked to read material that was slightly above their grade level (Reis, 2008, p. 662).

A closer look at the reading process is now required to determine if our talented readers should be considered gifted students.

Strategy	Literature support
Curriculum compacting	Reis, Burns & Renzulli, 1992; Reis et al., 2005
Acceleration	Southern & Jones, 1992
Substitution of regular reading material with more advanced reading books	Reis, et al., 2005; VanTassel-Baska, 1996
Appropriate use of technology for talented readers	Alvermann, Moon & Hagoood, 1999; Reis et al., 2005
More complex reading and writing	Reis et al., 2005; Renzulli & Reis, 1997
Independent writing options	VanTassel-Baska et al., 1996
Independent study and project opportunities	Reis et al., 2005; Renzulli & Reis, 1997; VanTassel-Baska et al., 1996
Grouping changes (within or across classes)	Kulik & Kulik, 1991; Reis et al., 2005; Rogers, 1991
Thematic instruction changes for talented readers (tiered reading for thematic units)	VanTassel-Baska et al., 1996
Substitution of regular instructional strategies with options	Renzulli & Reis, 1997; Reis et al., 2005; VanTassel-Baska et al., 1996
Advanced questioning skills and literary skills	Reis et al., 2005
Interest assessment and interest-based reading opportunities	Reis et al., 2005

Figure 4: Differentiated instructional and curricular strategies to challenge talented readers (from Reis, 2008, p. 663)

The reading process

Teaching reading IS rocket science.

(Louise Moats, 2012, from the title).

So, what actually happens when we read? Dehaene (2009, p. 11) explained that:

Written word processing starts in our eyes. Only the centre of the retina, called the fovea, has a fine enough resolution to allow for the recognition of small print. Our gaze must therefore move around the page constantly. Whenever our eyes stop, we only recognise one or two words. Each of the words is then split up into myriad fragments by retinal neurons and must be put back together before it can be recognised. Our visual system progressively extracts graphemes, syllables, prefixes, suffixes, and word roots.

Dehaene's (2009) research has shown how our brain processes language, and has challenged our previously held understandings of the reading process, demonstrating that regardless of the language we are reading, our brains must work hard, including rewiring of our 'primitive brains' to overcome our biological constraints. Our understanding of reading today is that of a multidimensional construct that employs a number of skills and knowledge that meld together to support this meaning making process. Simple decoding without understanding, reciting words or memorised passages, also known as barking at print, as Jackson (1988, 1992) previously suggested, is not reading as understood in current pedagogical practice.

The neuroscience of reading

The brain's function in reading, which has for many centuries remained a mystery (Dehaene, 2009), is now revealing its secrets with advancements in brain imaging research. Functional magnetic resonance imaging (fMRI) "images blood oxygen levels in active areas of the brain" (Geake, 2009, p. 33). Neuroscience has made advancements in identifying the reading circuitry, by highlighting the many components and processes the brain must engage in when reading. These range from visual pattern recognition systems, to the cognitive and linguistic systems (Dehaene, 2009; Sandak, Mencl, Frost & Pugh, 2004; Tan, Spinks, Eden, Perfetti & Siok, 2005). This imaging process has also revealed that regardless of culture or language, as long as a reader has not experienced physical trauma, brain activity during the reading process is the same in all people, from all cultures.

Reading is a cognitive, social and cultural activity that dates back five thousand years and whose surface forms are different from one culture to another. ... What is amazing is that

in spite of these vast differences in the way we learned to read, we all call on the same areas of the brain to recognise the written word. (Dehaene, 2009, pp. 71–72.)

Reading is a multidimensional and complex process that has developed as a direct result of the human invention of writing. Dehaene (2009, p. 4) discussed the enigma that he called the reading paradox, that is, “Why does our primate brain read?” He asked, “Why does the brain have an inclination for reading although this cultural activity was invented only a few thousand years ago?” (p. 4). Scientists have discovered that the brain and eye are poorly equipped for the act of reading, as Dehaene’s quote above reveals. However, the act of reading alters the brain’s “genetic blueprint that allowed our hunter-gatherer ancestors to survive” (p. 4) – it is brain plasticity that enables “brain rewiring” so that this complex communication and cultural transmissions can occur. Tomasello (2000) explained this process as a matter of human adaptation for culture at around the age of one. At this age, young children employ cultural learning to acquire the wisdom of their cultures. This neurological perspective is important because it supports education’s current understandings of the reading process as a socio-cultural practice.

The reading process: an Australian perspective

As with all areas of education, reading pedagogy has evolved as a response to the changes in the ideological and cultural influences of the society it serves. Human activities, such as reading, take place in cultural contexts, and are mediated by language and other symbol systems (John-Steiner & Mahn, 1996). To have a better understanding of reading pedagogy as it is taught in Australian schools today, a brief overview of this evolutionary process is now presented. Turbill (2002) gives a succinct representation of this evolution through her Four Ages of Reading Pedagogy:

1. The age of reading as decoding;
2. The age of reading as meaning making;
3. The age of reading-writing connections;
4. The age of reading for social purposes.

The age of reading as decoding that dominated teaching practices from the 1950s through to the early 1970s focused on decoding and phonics, which was based on the ideology that “if we taught children how to decode, comprehension would follow” (Turbill, 2002, online). The age of reading as meaning making began in the late 1970s as focus shifted to the individual child as a learner. One theoretical representation of the reading process from this time (and

still currently taught in pre-service teaching literacy courses) is called the Three Cueing System. Efficient readers create meaning through the employment of the three cues or subsystems of semantic (knowledge of the field), syntactic (grammar), and graphophonic (graphology and phonology) knowledge (Harris, Turbill, Fitzsimmons & McKenzie, 2006; see Figure 5).

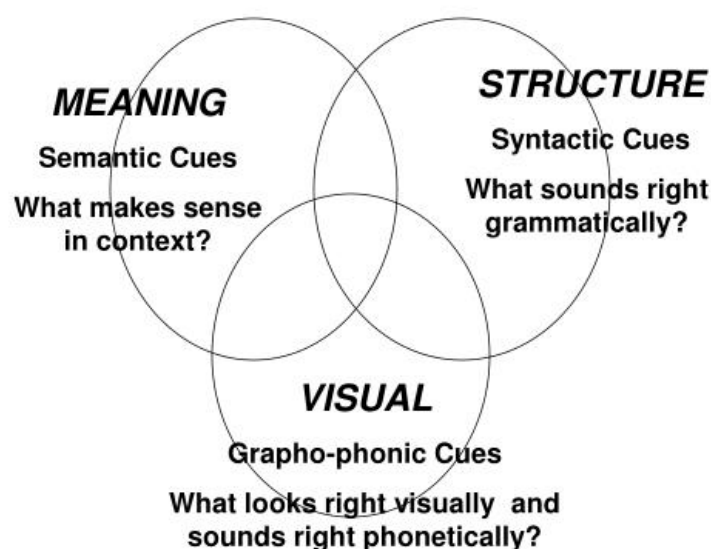


Figure 5: The Three Cueing System of the reading process

The age of reading-writing connections evolved in the early 1980s, when research showed that children actually begin to develop literacy abilities and skills before school. Halliday (1985) was one of a group of functional linguistics researchers who influenced the teaching of reading at this time, and pedagogy broadened to include different text types, such as non-fiction and fiction into reading programs. The early 1990s hailed the age of reading for social purpose, which evolved in response to a change in understandings about literacy as socio-cultural practice. Freebody and Luke (1990, p.7) contextualised these new understandings in their Four Resources Model, which describes four necessary but not sufficient ‘roles’ for the reader in a postmodern, text-based culture:

- Code breaker (coding competence)
- Meaning maker (semantic competence)
- Text user (pragmatic competence)
- Text critic (critical competence).

The Three Cueing System was then integrated with the Four Resources Model to create a Social Model of Reading (Turbill, 2002; see Figure 6 on next page).

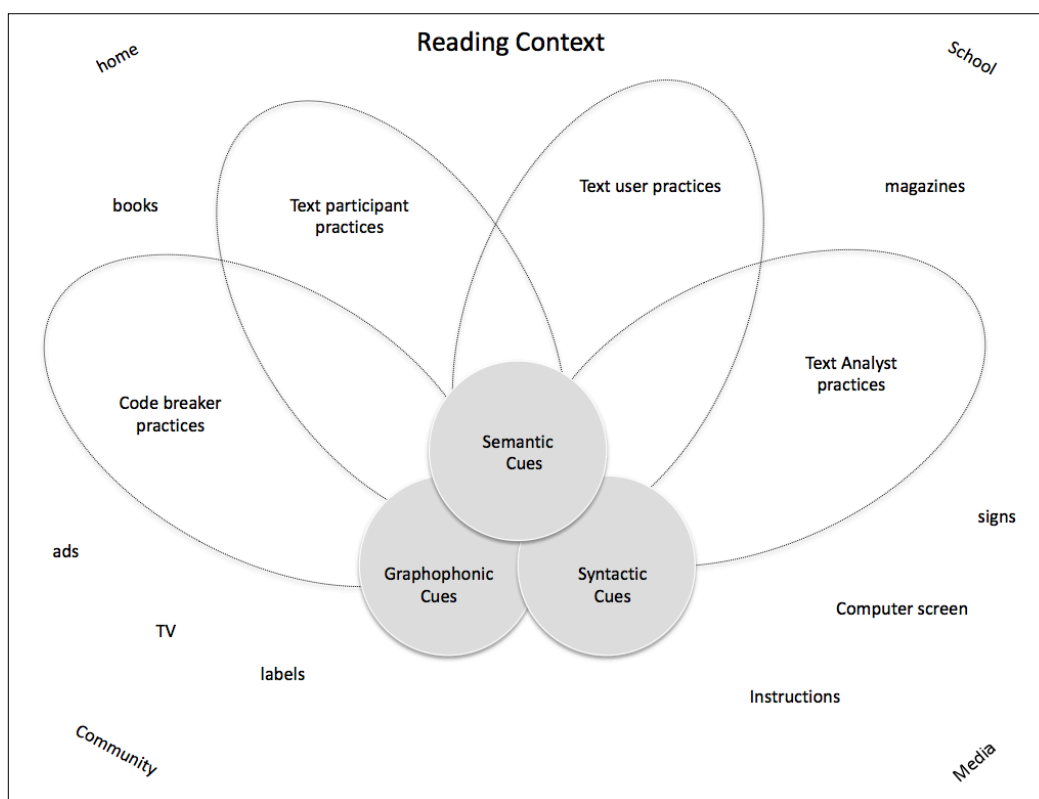


Figure 6: Turbill's (2002) Social Model of Reading.

At that time, Turbill (2002) correctly predicted reading pedagogy moving into a fifth age, the age of multiliteracies, in response to the influx of technology into everyday lives.

Also in the 1990s, Cope and Kalantzis (1996) identified the Five Semiotic Systems that currently impact pedagogical practices as:

1. auditory: music, sound effects, silence
2. gestural: facial expressions, body posture
3. linguistic: grammar, punctuation, alphabets
4. spatial: organisation of objects in a setting
5. visual: still images, moving images, page or screen, layout, colour.

These Five Semiotic Systems have not replaced the earlier models but coexist with the Three Cueing System and the Four Resources Model. This is a simplistic overview of some of the many aspects that impact reading pedagogy in this country today, but gives a snapshot of the plurality of skills and knowledge required by efficient readers in the twenty-first century, if they are to successfully make meaning from texts. The metalanguage of reading also continues to evolve and reflect this expanding construct. For example, the term 'text' includes a myriad of options of anything that can be read, such as digital information, posters,

paintings, film, and even body language. Subsequently, Freebody and Luke (cited in Luke, Freebody & Land, 2000, p. 20) defined reading as “the flexible and sustainable mastery of a repertoire of practices with texts of traditional and new communication technologies via spoken, print and multimedia.” And, again for example, the fourth ‘role’ of the Four Resources Model, critical competence, has become important in understandings of literacy as ‘critical literacy’ (Sommer, 2006).

Reading and intelligence

Let us now return to Jackson’s (1988, 1998) discussions about precocious readers and intelligence. The conception of reading, as developed in the previous section, demonstrates why hyperlexia cannot and should not be considered reading as it is currently defined, at least in Australia. Decoding letters and words without meaning, or reciting slabs of passage from memory, is not reading in the context of current pedagogy. Hence, this challenge to Jackson’s perspective also questions her argument that children can be precocious readers, irrespective of their intelligence.

Neuroscience has confirmed what teachers of reading have always known, that “years of hard work are needed before the clockwork-like brain machinery that supports reading runs so smoothly that we forget it exists” (Dehaene, 2009, p. 4). While most healthy brains have the architecture necessary to allow for the cognitive ‘rewiring’ that enables reading, some children pass through this stage years quicker than their peers. Whether this rewiring of the brain is related to intelligence is still unproven, yet the ability to comprehend text, to be fully integrating the four reading roles while still very young children certainly suggests an advanced level of intellectual competency. My study (Bannister-Tyrrell, 2012) has demonstrated how Gagné’s DMGT 2.0 supports the multidimensional nature of how natural abilities, catalysts, and the developmental process combine for outstanding performance. Therefore, if Gagné’s definition of high performance equates to talent, and if a young child is not simply de-coding the text before them but is able to read with advanced critical and pragmatic competence and understanding – with all the neurological rewiring that needs to take place for a young child to become a proficient reader, possibly well in advance of their age peers – these children should be considered to be gifted students.

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