

Assessing Poor Comprehenders: A guide for teachers

In this article, **Katrina Kelso, Anne Whitworth and Suze Leitão** discuss some of the findings from Katrina's Ph.D. research at Curtin University. They explore the issue of how students with poor reading comprehension can be identified in the classroom and discuss the practical implications of the assessments used.

This paper discusses a group of poor readers known as 'poor comprehenders'. These children have the opposite profile to children with 'classic' dyslexia, as they have difficulty understanding what they read in the presence of intact word reading skills. As a result of this profile, they tend to be less well identified. To assist in increasing awareness and identification of poor comprehenders, we will present an overview of the profile of their strengths and weaknesses, followed by a discussion of issues relating to assessment. We conclude with some practical ideas for identification and directions for future research.

Who are "Poor Comprehenders"?

The primary goal of reading is to comprehend what we read. Unsurprisingly, children who struggle to decode words accurately and read fluently, commonly referred to as having dyslexia, can have difficulty with reading comprehension (Snowling, 2013). This relationship between decoding and reading comprehension is represented in the Simple View of Reading (SVR) which proposes that reading comprehension is the product of decoding and language comprehension, and that skills in both these key components are necessary for comprehension to occur (Gough & Tunmer, 1986). Further, decoding is specific to reading while language comprehension skills are utilised in both listening and reading. Support has been found for the dissociation of the two components (Hoover & Gough, 1990), therefore, the SVR supports the existence of another group of poor readers, often referred to as poor comprehenders, who do not have difficulty with decoding but who have poor reading comprehension.

The reported prevalence of poor comprehenders has varied over time as selection criteria have differed between studies, however, current evidence suggests that around 7% of children in the middle primary school years can be classified as poor comprehenders (e.g., Elwér et al., 2015; Nation et al., 2010; Snowling, 2013). Further, this number increases across the school years from a reported prevalence of 16% in second grade (USA) to 30% in eighth grade amongst all children identified as having reading comprehension problems,



while data from the same study indicated that, within the general population, the prevalence of poor comprehenders increased from 3% in second grade to 9.6% in tenth grade (cited in Hogan et al., 2014). Nevertheless, as a result of being able to read aloud accurately and fluently these children tend to be poorly identified in schools, particularly as their oral language comprehension difficulties may not be overt enough to warrant referral for assessment (Catts et al., 2006; Kelso et al., 2020).

The Skill Profile of Poor Comprehenders

Decoding (or word reading as it is more frequently referred to in recent literature) and language comprehension have been found to explain almost all the variability in reading comprehension in school age children (e.g., Kim, 2017). While these two components underpin reading comprehension, they, in turn, rely on a number of subcomponent skills. Some of the key subcomponents that have been explored in the research

are represented in an expanded visual representation of the SVR in Figure 1 (Hogan et al., 2011) under the upper-level headings of ‘word reading’ and ‘listening comprehension’. This research has consistently found that poor comprehenders do not have difficulties with word reading, as evident by their ability to read real and nonwords accurately and fluently, along with having intact letter knowledge and adequate phonological processing skills, at least once beyond the preschool years. In contrast, poor comprehenders have been found to have difficulty with a range of oral language skills, and longitudinal and retrospective studies have shown that these difficulties are present in the early years, although they may be at a subclinical level (e.g., Catts et al., 2006; Elwér et al., 2015; Nation et al., 2010).

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As can be seen in Figure 1, the oral language skills that contribute to listening comprehension are separated into what are sometimes referred to as lower and higher-level language skills. The lower-level language skills

of vocabulary and grammar are used to construct the literal meaning of a text and provide the foundation for the higher-level language skills of inferencing, knowledge of text structure and comprehension monitoring. These higher-level skills are needed for the reader to obtain an overall representation, or mental model, of the meaning of a text i.e., the reader goes beyond the literal meaning of the text and makes inferences from background knowledge to construct a deeper understanding of what the author has written. Exploration of these lower-level and higher-level language skills has found that not all poor comprehenders have difficulty in all skill areas (Nation et al., 2004), however, two broad hypotheses have emerged as to the source of the reading comprehension difficulties of poor comprehenders. Nation and colleagues have identified weaknesses on various measures of vocabulary and grammar (e.g., Nation et al., 2004, 2010) along with higher-level language difficulties, while Oakhill, Cain and colleagues have identified groups of poor comprehenders with only higher-level language difficulties (see Oakhill et al., 2015).

Assessment Methods for Identifying Poor Comprehenders

With so many potential areas of difficulty, and so much variation

between poor comprehenders, it is not easy to effectively identify these children within the classroom context. Kelso et al. (2020) investigated using a short testing protocol based on the components of the SVR, consisting of two oral language tasks: (1) a phonological awareness task, the Elision subtest from the *Comprehensive Test of Phonological Processing-2* (CTOPP-2; Wagner et al., 2013), and (2) a listening comprehension task, the Understanding Spoken Paragraphs subtest from the *Clinical Evaluation of Language Fundamentals-4* (CELF-4) Australian Edition (Semel et al., 2006). Follow-up testing on reading tasks to confirm a poor comprehender profile found that children in School Years 3-6 were over-identified by the two oral tasks (Kelso et al., 2020). The findings suggested that the two-phase approach could be effective in identifying poor comprehenders and reduce the time spent in testing. It was unclear whether the short testing protocol missed potential poor comprehenders, as it was beyond the scope of the study to assess the reading skills of children who did not meet the criteria to move into the next phase of testing. Key findings therefore included (a) reading needed to be tested to confirm that a child was a poor comprehender, and (b) based on their informal judgement, only five of the 24 confirmed poor comprehenders were judged to be weak readers by their teacher (Kelso et al., 2020).

Reading Comprehension Tests

Selecting which reading comprehension test to use to identify poor comprehenders is not straightforward, as tests can differ in terms of what component contributes most to reading comprehension, such as word reading, listening comprehension, memory, and background knowledge (see Oakhill et al., 2015, for an overview). Further, the component that contributes can vary within a test, so that word recognition can explain more or less of the variance in reading comprehension for a child that scores at the 10th percentile than it does for a child who performs at the 90th percentile on the same test (Hua & Keenan, 2017). Tests can also vary in format in relation to their text type (e.g., narrative, expository, fiction, nonfiction), and length of the texts used (sentence, paragraph, passage). The tests may require texts to be read aloud or silently; they may

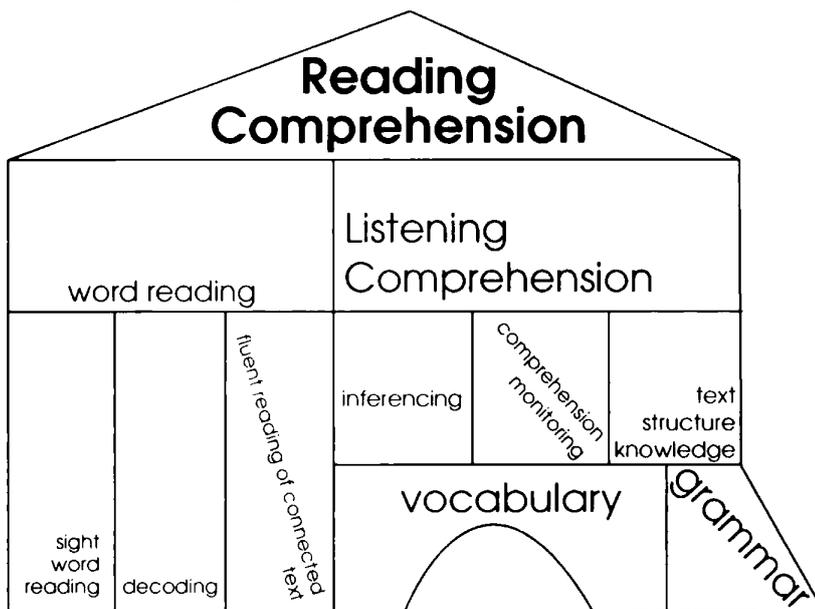


Figure 1. Visual representation of the Simple View of Reading including direct and indirect links to reading comprehension through word reading and listening comprehension

Note. From “Increasing Higher Level Language Skills to Improve Reading Comprehension” by Hogan et al., (2011). Focus on Exceptional Children, 44(3), p. 2. (<https://digitalcommons.unl.edu/spcedfacpub/79/>). Reprinted with permission.

be timed or untimed; and response format may involve picture selection, retell, multiple choice or opened ended questions, and cloze tasks (Collins & Lindström, 2021). Comprehension tests with an open-ended question format and longer texts are considered to be the most sensitive method of assessing comprehension, as answers are not cued by response options. There are, however, disadvantages to this approach, in particular that these tests usually need to be administered individually and can penalise children with expressive language difficulties (Oakhill et al., 2015). Best practice also suggests assessing real and nonword reading on a test separate to reading comprehension.

If potential reading comprehension difficulties are identified, referral to a speech-language pathologist for more detailed testing of oral language skills that can inform intervention may be warranted.

The most commonly used standardised reading comprehension test in Australia for many years was the *Neale Analysis of Reading Ability-3* (NARA-3; Neale, 1999), but in recent years many Education Departments have accepted the *York Assessment of Reading for Comprehension (Primary) Australian Edition* (YARC-P; Snowling et al., 2012). The YARC-P has the advantage of being quicker to administer than the NARA-3 as every child reads and answers questions on only two passages, rather than continuing to read passages until the specified number of reading accuracy errors are made or all passages are read, as is required with the NARA-3. Colenbrander et al. (2016) compared Form 1 of the NARA-3 and Form A of the YARC-P and found that, while comprehension scores were more dependent on decoding skills on the NARA-3 than on the YARC-P, the NARA-3 diagnosed more poor comprehenders. Possible explanations were that (1) more passages were read on the NARA-3, with a greater number of comprehension questions answered, and (2) that the higher-level passages were more complex on the NARA-3 than on the YARC-P. This is particularly relevant to poor comprehenders with intact word reading skills, because on the NARA-

3 they are likely to read more of the complex higher-level comprehension passages. Overall, however, the consistency of diagnosis between the two tests was relatively high compared with previous research (Colenbrander et al., 2016).

Kelso et al., (2020) selected the YARC-P as their reading comprehension measure as it allows for analysis of performance on the different types of comprehension questions (e.g., literal, vocabulary, inference). This might provide useful insights into a child's comprehension problems that are not available from an overall test score and, in turn, might inform intervention and prove useful in helping a teacher to determine whether or not the relatively higher-order comprehension skills are more affected. Another criterion referenced, rather than norm referenced, test that provides this breakdown of question types is the PROBE-2 (Parkin & Parkin, 2011).

Other Approaches to Assessment

While reading comprehension tests with open-ended questions present as the best way to identify poor comprehenders, they usually need to be administered individually and are therefore time consuming to administer, so other more practical methods of identification, based on the research, need to be considered for the classroom. The first step, at all times, should be for teachers to be on the look-out for students who fail to engage in classroom discussions about texts, or who ask questions unrelated to the current topic. This is not a straightforward expectation to place on teachers; recall that only a small fraction of the students identified as poor comprehenders in the Kelso (2020) study had been informally identified by their teachers as poor readers.

Some suggestions for more systematic assessment are outlined below. Further ideas on ways to assess subcomponent language skills are provided in Oakhill et al. (2015).

- 1 As listening comprehension has been found to be highly correlated with reading comprehension, texts could be read aloud by the class teacher. This approach would be more practical with younger children when comprehension is likely to be constrained by word reading ability. Some reading comprehension tests

have parallel versions, so one set of passages could be presented orally and, with older children considered to be at risk, follow-up testing of reading comprehension carried out using the alternate version.

- 2 Children could write their answers to open-ended questions, although this is less practical with younger children, as well as for those with expressive language difficulties. If the texts are read aloud, a written copy would also need to be available for the child to refer to as they answer the questions.
- 3 Children could be asked to provide a short oral and/or written summary of a text they have read. This needs to be a cohesive summary of the main ideas of the text, rather than a verbatim recount of the entire text.
- 4 After a child has read a text, they could be asked to respond to higher-level questions requiring them to make predictions and inferences, or evaluate the text. Blank et al. (1978) have provided examples of four levels of questions relating to children's reading books, including both lower- and higher-order thinking skills, and this type of questioning could be adapted for use with children in the early childhood years and beyond.
- 5 Finally, while multiple-choice format tests can be administered to whole classes more readily, teachers need to be aware of the limitations of this type of test and be able to identify different question types (e.g., literal, inferential) to allow response analysis and/or follow-up.

Ideally comprehension assessment should assess all skill areas, but this is rarely possible in the classroom. If potential reading comprehension difficulties are identified, referral to a speech-language pathologist for more detailed testing of oral language skills that can inform intervention may be warranted.

Future Research

Using a short testing protocol, as explored by Kelso et al. (2020), is an option for an effective way to initially identify poor comprehenders. Further research, however, is required to see if more reliable tasks can be found, whether they can be administered at a small group or whole class level, and to determine whether poor comprehenders are under identified using this approach.

The other key area where research is required is intervention as, while a great deal is now known about the language profile of poor comprehenders, there is still much to be learned about effective interventions for this subgroup of poor readers.

To find out more about reading comprehension and interventions further resources can be found at: <https://www.cem.org/blog/10-essential-reads-to-improve-reading-comprehension/>

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Katrina Kelso along with Associate Professors Suze Leitão and Anne Whitworth have a broad programme of research investigating language and communication.

Much of their work can be accessed via the Curtin University website or <https://www.languageandliteracyinyoungpeople.com/>