

Learning to read is about words AND mind

James Chapman

Learning requires not only skills and ability related to learning tasks but also self-beliefs in being able to achieve success (Toste, Didion, Peng, Filderman, & McClelland, 2020). In the context of learning to read, students' self-beliefs about themselves as beginning readers have a powerful influence on motivation. These self-beliefs play a role in determining whether children's engagement in reading activities is sought or avoided, how much effort they put into reading, and how hard they try when faced with difficulties (Henk & Melnick, 1992).

Children who experience initial and ongoing learning difficulties often develop a cluster of negative self-beliefs that impede efforts to provide effective remediation.

Students' achievement-related self-beliefs that contribute to motivation include a variety of associated factors such as self-concept, self-esteem, self-efficacy, and causal attributions. Specifically, in relation to learning, *self-concept* refers to the perceptions, knowledge, and beliefs children hold about themselves as learners. *Self-esteem* is more about how children self-evaluate their sense of worth in learning situations. *Self-efficacy* relates to self-confidence and the sense of personal agency in being able to bring about successful outcomes when learning. The opposite of a positive sense of self-efficacy is *learned helplessness*:

the idea that "no matter how hard I try it never works so I might as well give up". *Causal attributions* refer to the beliefs individuals have about what causes learning outcomes. In general, children take credit for successful outcomes either because they believe they have the ability, used a good strategy and stuck with the task, or because the teacher or someone else helped them. The former are "internal" causes, whereas the latter is an "external" cause. For unsuccessful outcomes, children might believe they are responsible because they are "dumb" (internal), because they didn't try hard enough and gave up (internal), or because the task was too hard and no one helped them (external). Children who have more positive causal attributions tend to see successful outcomes as the result of their ability, effort and appropriate strategy use, and unsuccessful outcomes as changeable by trying harder and/or changing how they work on a particular task. Children who have more negative causal attributions tend to ascribe unsuccessful learning outcomes to causes that are beyond their control, such as has not having enough ability ("I'm dumb") and/or feeling the task was too hard, not getting enough help, or just plain bad luck.

There is considerable evidence now that self-beliefs children develop about their learning affect achievement motivation and achievement outcomes (e.g., Toste et al., 2020). Children who experience initial and ongoing learning difficulties often develop a cluster of negative self-beliefs that impede efforts to provide effective remediation. This cluster involves developing negative academic self-concepts, loss of self-esteem, diminished beliefs that they can bring about successful learning outcomes, and an overall view that trying hard doesn't work so it's better not to try but to just give up (e.g., Baker & Wigfield, 1999; Chapman, 1988; Chapman & Tunmer, 2003; Zimmerman, 2000). Teachers who do not understand these factors often label children with learning difficulties as 'lazy'. They

are not. 'Giving up' is a reasonable psychological reaction to feeling that trying hard and failing is worse than not trying at all.

Research on specific reading-related self-beliefs

Each of these motivational factors has been studied in relation to students' achievement over three to four decades. Less attention, however, has been paid to specific reading-related self-beliefs. To address this lack of focus on specific reading self-beliefs of beginning readers, my colleague, Bill Tunmer, and I developed the *Reading Self-Concept Scale* (RSCS) (Chapman & Tunmer, 1995, 1999). We argued that children's achievement-related self-beliefs were closely related to achievement outcomes when they were more specifically linked to particular achievement areas. Hence, we proposed that specific *reading* self-concepts would be more highly associated with reading achievement outcomes than more general *academic* self-concepts that covered a wider range of achievement situations.

Research with the RSCS revealed a number of important findings:

- 1 Reading self-concepts develop in relation to initial and ongoing reading achievement during the first 2 ½ years of schooling (Chapman & Tunmer, 1997).
- 2 Differences in reading self-concept among children appeared within the first 2 months of schooling. In a longitudinal study that followed children from the start of Year 1 to the end of Year 3, general academic self-concept using the *Perception of Ability Scale for Students* (Boersma & Chapman, 1992) was assessed during the middle of Year 3. Three groups were formed based on their academic self-concepts scores: low, average, and high (Chapman, Tunmer, & Prochnow, 2000). Children in the low group had poorer

phonological sensitivity skills and letter-name knowledge when they began schooling at the start of Year 1. By the end of Year 1 and again during the middle of Year 3, children with more negative academic self-concepts read lower level books in class and performed at lower levels on measures of word recognition and reading comprehension than did those children who held more positive academic self-concepts.

- 3 Reading self-concept was first assessed 6 to 8 weeks after children commenced schooling. Those who had developed more negative academic self-concepts by the middle of Year 3 already felt less competent as readers and had more pessimistic attitudes towards reading after just two months of schooling, compared to those with more positive mid-Year 3 academic self-concepts.
- 4 Put another way, children who started school without the necessary reading-related language skills quickly developed negative tendencies in terms of reading self-concept and continued to experience reading difficulties over their first three years of schooling. The initial more negative reading self-concepts spread to generalised negative academic self-concepts.

Children in the research referred to above (Chapman et al., 2000; Chapman & Tunmer, 1997) were all in predominantly whole language instructional settings. In the absence of effective initial literacy instruction, coupled with ineffective remedial intervention (such as Reading Recovery; see Chapman, Tunmer, & Prochnow, 2001), negative self-beliefs stemming from ongoing reading difficulties often result in enduring reading problems that tend to spread to other subject areas. As Spear-Swerling and Sternberg (1994) noted, "Once children have entered the 'swamp' of negative expectations, lowered motivation, and limited practice, it becomes increasingly difficult for them to get back on the road to proficient reading" (p. 101).

Implications for remedial reading approaches

Findings of the strong association between both phonological sensitivity and letter-name knowledge and

subsequent reading performance, reading self-concept and academic self-concept, raise questions about what can be done to help children who develop reading difficulties become competent readers. To build competence in reading, children need to acquire efficient word recognition strategies, which are necessary for the development of rapid word decoding skills. High levels of automaticity in word recognition in turn frees up cognitive resources for comprehension and text integration processes, both essential for making progress in learning to read. To use reading strategies effectively (e.g., word identification strategies), however, children need to believe that the strategies they are taught to use will be beneficial in helping them read and worth the effort in applying them. This is crucial in terms of motivation.

... word identification strategies based on word-level information are much more reliable than strategies involving contextual guessing.

Positive motivation means that when children come across difficult reading tasks, such as unfamiliar words in text, they know that if they have an effective strategy that has worked in the past and if they persevere, they will likely be successful in working out what the word is. This knowledge relates to the notion of *self-efficacy*, or sense of personal agency in being able to positively cause a successful outcome, such as figuring out an unknown word.

Because word identification strategies are so important for developing efficient word recognition skills during the reading acquisition phase, we examined use of these strategies in relation to reading performance and self-efficacy (Tunmer & Chapman, 2002). In general, two word identification strategies are normally adopted in literacy programs. One involves the 'three-cuing', contextual guessing approach; the other stresses the use of letter-sound patterns.

Depending on sentence context cues and guessing to figure out an unfamiliar word in text is highly unreliable and relatively ineffective, and by definition, must frequently fail those children who use them most. As Jorm and Share (1983) pointed out decades ago, 35-40% of words used in

beginning reading materials appear only once. Sentence context is of little use because the average predictability of content words (nouns, verbs, adjectives) in running text is about 10%, compared to about 40% for function words (e.g. *to, the, on*). Such a strategy, with a chance factor of 10% for correctly identifying an unknown word, is highly unreliable.

On the other hand, word identification strategies that are based on word-level information, such as letter-sound patterns, are generative. *Generative* refers to the ability to apply knowledge of how words work when coming across new words. Applying knowledge of letter-sound patterns is generative and is important in helping children to identify unfamiliar words when they come across them. As such, word identification strategies based on word-level information are much more reliable than strategies involving contextual guessing. Consequently, children who have more reliable and effective word identification strategies are more likely to develop proficiency in reading, together with positive reading-related self-beliefs.

For children who develop early and persistent difficulties in learning to read, remedial reading programs should be offered early and should include two key elements to increase the chances of success. The first element addresses the fundamental skills needed for developing proficiency in reading, and the second focuses on strategies for overcoming negative reading-related self-perceptions that typically develop in response to difficulties in learning to read.

Learning to use letter-sound cues is crucial for developing the ability to identify unfamiliar words in text. As Pressley (1998) noted, "the scientific evidence is simply overwhelming that letter-sound cues are more important in recognizing words than either semantic or syntactic cues..." (p. 16), and that heavy reliance on the latter two cues is a "disastrous strategy" for beginning readers (p. 32). For older poor readers, in addition to working on any word decoding deficiencies, explicit and systematic instruction may be needed in the use of comprehension strategies.

As well as working on improving the skills associated with remedying reading difficulties, attention should also be devoted to the negative reading and academic self-perceptions that usually develop from difficulties in learning to read. One commonly used approach is for teachers to *praise* students for their reading, even when a child makes an

incorrect word identification (Chapman, Greaney, Arrow, & Tunmer, 2018). Teachers mistakenly assume that consistent praise will lead to changes in attitudes towards difficult reading tasks, which in turn enhances self-esteem and contributes to improved achievement. However, self-esteem is not the issue here. Rather, for children who struggle with learning to read it is their attitudes and beliefs about themselves as readers that are far more important. Further, there is little evidence that focussing on self-esteem independently of specific work on academic tasks will lead to improved learning outcomes.

Teacher feedback that includes attribution retraining procedures and that are used alongside explicit teaching of key skills required for successful reading acquisition will ... boost children's self-confidence and successful learning outcomes.

There is a more useful approach to enhancing the development of self-beliefs. Teacher feedback that includes attribution retraining procedures and that are used alongside explicit teaching of key skills required for successful reading acquisition will do more to boost children's self-confidence and successful learning outcomes. When used with specific skills teaching, attribution retraining involves explicit task-related teacher feedback that is designed to overcome children's self-beliefs that their reading problems are caused by lack of ability ("I'm dumb"), or the learned helpless view that "no matter how hard I try I'll never be a good reader". Teachers can support such children by providing assurances in their feedback that a child has sufficient ability to successfully complete a task that is reasonably challenging ("you can do this..."), with attention focussed on the use of specific skills or strategies as the main way to bring about success in reading ("...when you use our word tools!"). An important point here is that reading/learning tasks should be reasonably challenging, but within the reach of each child. Presenting easy tasks for children to complete contributes to the feeling that success is due to the work being easy more than to children feeling competent.

Teachers' responses to successful word reading outcomes should specifically mention: (1) correct use of the word identification strategy; (2) sticking with it until the word was identified; and, (3) confirmation that the child is able to successfully identify new and sometimes difficult words when the word tools are used. The purpose of this approach is to stress the link between the role of specific strategies and their effortful application in causing successful outcomes.

For unsuccessful word identification attempts or when children encounter difficulties, teacher feedback should focus on: (1) the inadequate or incorrect use of an appropriate strategy that has been taught already; (2) inadequate effort and giving up; and (3) affirming to the child that she/he has the ability and that the problem is about the proper use of strategies. This type of feedback is designed to assist children in developing beliefs that unsuccessful outcomes are not due to lack of ability, which is usually perceived as an enduring, unchangeable factor in poor reading, but to strategy use plus effort, both of which are more under the control of the child.

For example, training in a specific skill might involve the use of "vowel teams". When children use such a word-level strategy to successfully identify unknown words, teacher feedback should emphasise that the outcome was due to the appropriate and effortful application of the strategy. "*Great work Jo. You worked out that the word was 'street' because the vowel team 'ee' makes the long /e/ sound, and you already know a similar sounding word, 'feet'. You read well when you use our word tools.*" When a child continues to struggle with figuring out an unknown word, the teacher should focus attention of the inadequate or inappropriate application of a decoding strategy (e.g., guessing, looking at a picture) that led to difficulty in identifying the word. At that point, the teacher may ask to child to re-apply an appropriate strategy, or a more useful strategy may need to be re-taught. The emphasis should be on the strategy, rather than the child *per se* (Craven, Marsh, & Debus, 1991).

It's useful for teachers to be mindful that protecting children from the consequences of experiencing difficulties by overlooking mistakes, or by offering rewards or praise for incorrect or inadequate work, is not helpful in changing negative self-perceptions. Indeed, such feedback is deceitful. From an attributions point of

view, false feedback denies children the opportunity to learn from mistakes and to develop a positive and genuine sense of personal agency.

Conclusion

A comprehensive approach to remediation is required for children to overcome both skill deficiencies in reading and any associated negative reading-related self-beliefs. For beginning readers, the development of word-level skills and strategies is essential and the simple view of reading provides a useful framework to do this (Tunmer & Hoover, 2019). In addition, attribution retraining involving task-specific and honest teacher feedback provides a positive approach for teachers to assist their children overcome the negative self-beliefs that can impede remedial instruction. As Lepola, Salonen and Vauras (2000) noted some time ago, there needs to be a shift from a "pure cognitive interpretation to (a) motivational and emotional co-determination of beginning reading skills" (p. 175). Learning to read is about words AND the mind!

References

- Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly, 34*, 452-477.
- Chapman, J.W. (1988). Cognitive-motivational characteristics of learning disabled children: A longitudinal study. *Journal of Educational Psychology, 80*, 357-365.
- Chapman, J.W., Greaney, K.T., Arrow, A.W., & Tunmer, W.E. (2018). Teachers' use of phonics, knowledge of language constructs, and preferred word identification prompts in relation to beginning readers. *Australian Journal of Learning Difficulties, 23*, 87-104.
- Chapman, J.W., & Tunmer, W.E. (1995). Development of young children's reading self-concepts: An examination of emerging subcomponents and their relationship with reading achievement. *Journal of Educational Psychology, 87*(1), 154-167.
- Chapman, J.W., & Tunmer, W.E. (1997). A longitudinal study of beginning reading achievement and reading self-concept. *British Journal of Educational Psychology, 67*, 279-291.
- Chapman, J.W., & Tunmer, W.E. (1999). Reading Self-Concept Scale. In R.

Burden (Ed.), *Children's self-perceptions* (pp. 29-34). NFER-Nelson.

Chapman, J.W., & Tunmer, W.E. (2003). Reading difficulties, reading-related self-perceptions, and strategies for overcoming negative self-beliefs. *Reading and Writing Quarterly*, 19, 5-24.

Chapman, J.W., Tunmer, W.E., & Prochnow, J.E. (2000). Pre-reading skills, early reading performance, and the development of academic self-concept: A longitudinal study. *Journal of Educational Psychology*, 92, 703-708.

Chapman, J.W., Tunmer, W.E., & Prochnow, J.E. (2001). Does success in the Reading Recovery program depend on developing proficiency in phonological processing skills? *Scientific Studies in Reading*, 5, 141-176.

Craven, R.G., Marsh, H.W., & Debus, R.L. (1991). Effects of internally focused feedback and attribution feedback on the enhancement of academic self-concept. *Journal of Educational Psychology*, 83, 17-27.

Henk, A., & Melnick, S.A. (1992). The initial development of a scale to measure "perception of self as reader." In C.K. Kinzer & D.J. Leu (Eds.), *Literacy research, theory, and practice: Views from many perspectives* (pp. 111-117).

The National Reading Conference
Jorm, A., & Share, D. (1983). Phonological recoding and reading acquisition. *Applied Psycholinguistics*, 4, 103-147.

Lepola, J., Salonen, P., & Vauras, M. (2000). The development of motivational orientations as a function of divergent reading careers from pre-school to the second grade. *Learning and Instruction*, 10, 153-177.

Pressley, M. (1998). *Reading instruction that works: The case for balanced teaching*. Guilford Press.

Spear-Swerling, L., & Sternberg, R.J. (1994). The road not taken: An integrative theoretical model for reading disability. *Journal of Learning Disabilities*, 27, 91-103, 122.

Toste, J.R., Didion, L., Peng, P., Filderman M.J., & McClelland, A.M. (2020). A meta-analytic view of the relations between motivation and reading achievement of K-12 students. *Review of Educational Research*, 90, 420-456.

Tunmer, W.E., & Chapman, J.W. (2002). The relation of beginning readers' reported word identification strategies to reading achievement, reading-related skills, and academic self-perceptions.

Reading and Writing, 15, 341-358.

Tunmer, W.E., & Hoover, W.A. (2019). The cognitive foundations of learning to read: a framework for preventing and remediating reading difficulties. *Australian Journal of Learning Difficulties*, 24, 75-93.

Zimmerman, B.J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25, 82-91.

James Chapman is Professor Emeritus of Educational Psychology at Massey University in Palmerston North, New Zealand. His research interests are cognitive-motivational factors associated with reading difficulties, and approaches to remedial reading in the junior primary school.

"We have a long way to go" sighed the boy.
"Yes but look how far we have come" said the horse.



Charlie Mackesy

Reprinted with permission from *The boy, the mole, the fox and the horse* by Charlie Mackesy.