# Effective writing instruction in the junior primary years

School resources

Learning to write well is essential to success in school. Writing across the curriculum improves students' recall and understanding of new knowledge, and, perhaps most importantly, engaging in the writing process supports the development of creativity, logic, and reasoning<sup>1</sup>. It also supports reading, as spelling enhances decoding ability, and handwriting helps to secure letter and word forms in long term memory. Beyond school, writing continues to be vital, with writing required in over 70% of salaried jobs<sup>2</sup>.

lucation

Declining rates of achievement in writing could be considered a <u>call to action</u>. Amongst the most concerning data are findings from the (US) National Assessment of Educational Progress (2007), according to which only 33% of 8th Grade (NZ Year 9) students, and only 24% of 12th Grade (NZ Year 13) students performed at or above a 'proficient' level<sup>3</sup>. In New Zealand, similar rates of achievement were reported in the National Monitoring Study of Student Achievement (2018), with just 35% of Year 8 students achieving at (the expected) curriculum level<sup>4</sup>. Clearly, there is an urgent need to re-evaluate approaches for teaching writing, and to identify new methods that work. It is important to ask what the 'status quo' in writing instruction has been, and which particular methods have led to these poor results.

As is widely recognised in international literature, the Whole Language movement has been influential on the curricula of many countries since the 1970s<sup>5</sup>. For the teaching of writing, Whole Language advocates have recommended Process Writing, a set of methods developed on the premise that learning to write occurs somewhat 'naturally', like speech. Teaching handbooks emphasise the importance of student motivation to write, and recommend student choice of topic and the use of students' personal experiences as inspiration for writing. While motivation is important for writing, it is not sufficient in itself. The handbooks de-emphasise the importance of the explicit teaching of pre-determined learning objectives, as well as the teaching of technical skills such as handwriting and spelling. Instead, teachers are advised to support a free-flow drafting process, with conventions of correctness considered only in the final stages<sup>6</sup>.

Significantly, these recommendations were founded in anecdotal rather than empirical research<sup>7</sup>. Despite this, the theories have informed advice promulgated by the New Zealand Ministry of Education. For example, in *Effective Literacy Practice in Years 1-4*, writing is defined as, 'a creative act, not a set of quantifiable skills to be taught in sequence'<sup>8</sup>. In addition, while many teachers now reject Process Writing in its original form, recent research into teachers' practices indicates the ongoing influence of the Whole Language and Process Writing ideology<sup>9</sup>.

The following review is informed by this body of research. Information is drawn from studies with a range of designs, including:

- descriptive, in which observational data is collected under non-experimental conditions for example, collecting data on the composing process by asking writers to 'think aloud' as they write
- correlational, in which the relationship of two variables to each other is examined for example, the relationship between handwriting fluency and written expression
- experimental, in which the progress made by students in one condition (for example, a new method for learning spelling words) is compared with the progress made by students in a different condition, or in a 'business as usual' condition



 meta-analyses, in which data from a number of different scientific studies are analysed together to determine overall trends.

# The beginning writer's writing process

According to a seminal model, The Simple View of Writing, beginning writers must develop three skill sets: translation, transcription, and self-regulation. Translation refers to turning non-verbal thoughts into words and sentences. Transcription means getting the words down on the page, using spelling and handwriting. Self-regulation means having an internal voice (a conscious 'writing monitor') to coordinate planning, re-reading, evaluating and revising<sup>10</sup>. Clearly, the process is complex, and is made all the more challenging as it must be managed within the constraints of <u>working memory</u>. The working memory system stores and manages new information, and is limited in capacity, particularly for young children, with the average five-year-old able to hold about three elements for just a few seconds<sup>11</sup>.

Working memory limitations are a key consideration for teachers of young children. Consider all the cognitive processes involved in writing the word 'dog'. A student needs to hold a pencil comfortably, understand the instruction, hear the word correctly and segment it into sounds, recall the sequence of sounds, know which letters to use, and form these letters on the page. Until these tasks are automatised they are likely to occupy all of a student's working memory, making it impossible for them to focus on other aspects of the writing process, such as the ideas they wish to express. Expecting 'a story' from students who have not yet mastered the sub-skills will not lead to progress with composition, and the experience will be so uncomfortable for these students that they may come to avoid writing and therefore fall even further behind <sup>12</sup>.

# **Teaching the skill sets**

Writing is a highly complex cognitive process, challenging for beginners and skilled writers alike. Teaching it effectively requires an intentional programme, targeting a range of basic skills in the first instance, to support students' higher order processes later on. The work of writing teachers is never easy, but the benefits of effective instruction, for our students, are profound. The first two skill areas that need to be intentionally and explicitly taught are **translation and transcription**. Teachers need to focus on these in dedicated daily lessons, outside of the composition lesson. Explicit teaching and regular opportunities for practice will ensure that students develop fluency with oral language and automaticity with handwriting and spelling, thus freeing up cognitive resources with which to manage the writing process.

## **Translation**

Translation is the expression of thoughts in language, with oral language as a key starting point. Oral language programmes should focus on **the development of vocabulary and building awareness of sentence structures**<sup>13</sup>.

Oral language skills can be taught explicitly. For **vocabulary development**, teachers can read a picture book several times a week and use this to teach three or four high interest words by discussing their meanings, and by providing many opportunities for students to practise using the words themselves. For **sentence structures**, teachers can show students a range of toys or miniatures, and model thinking of an idea and 'saying a sentence' about one of the toys, before supporting students to do the same<sup>14</sup>. Another approach is to record parts of sentences on colour-coded strips. Explain the parts using child-friendly definitions (for example, the subject as the *who*). Students can then physically manipulate these strips to build interesting sentences<sup>15</sup>.



Vocabulary and sentence structure can also be taught indirectly, through language experience, using activities such as play-acting, re-telling stories, and reading picture books to prompt discussion. Teachers can target vocabulary for various themes and support the development of more advanced grammar by modeling, asking open questions, expanding on students' own comments, or using recasting (which means repeating students' own comments in more sophisticated forms)<sup>16</sup>. Vocabulary can also be taught across the curriculum.

## Transcription

In the first years at school, spelling and handwriting skills are the most important underlying factors in writing, together accounting for more than 50% of the variance in the quality of stories written by students<sup>17</sup>. This is likely due to the fact that, until these skills are automatised, they will occupy all of a student's working memory and prevent them from thinking about other, more creative aspects of the process<sup>18</sup>. Difficulty with transcription may lead to frustration and embarrassment, a lack of motivation, and the avoidance of writing practice<sup>19</sup>.

The contribution of spelling and handwriting to writing development cannot be overstated. These skills should be prioritised in the early years, and taught for short periods of time, every day. Teaching these skills well will benefit reading development too. Spelling skills benefit decoding<sup>20</sup>, and handwriting letters and words is more effective for retaining knowledge in long term memory when compared to practice using typing, tracing or letter tiles<sup>21</sup>.

**Effective instruction in spelling** requires explicit teaching of phonemic awareness (hearing sounds and syllables in words), letter patterns, word structures, and word origins. While there is a lot to cover, the process is manageable when spread over the primary years, and so a sequence of instruction is helpful. In the junior years, teachers should focus on segmenting words, hearing sounds (phonemes) in different parts of words, and counting sounds and syllables. Students can learn to spell one syllable words with regular consonant and vowel sounds and one to one sound to letter correspondences (such as 'at', 'on', 'cat', 'pot'). They can be introduced to some early rules, such as the split digraph (vowel, consonant, 'e') for words with long vowels ('made', 'like', 'home'). Activities which engage the senses and incorporate movement are effective and fun. Students can clap and dance to syllables, count sounds on their fingers, or move counters to represent changing sounds in words<sup>22</sup>.

Research demonstrates that four principles should guide effective handwriting instruction and practice:

- A sequence of instruction: letters should be taught in formation groups. For example, the letters t, I, I, k all consist of vertical downwards strokes, while h, n and m consist of vertical strokes and 'tunnels'<sup>23</sup>.
- **Modeling**: teachers need to physically model the formation of letters, and verbally describe their formation, using as simple a set of prompts or verbal reminders as possible in order to protect limited capacity working memory<sup>24</sup>.
- **Practice**: students need to form the letters from scratch, rather than tracing them. They need to practice for a short period every day and should be monitored closely during this time<sup>25</sup>.
- Kinaesthetic perception (the sense of movement and position of one's own body): handwriting is
   a visual and motor skill, so kinaesthetic perception is an important element of letter formation.
  Writing on blackboards can increase kinaesthetic feedback. The resistance of the blackboard is also
   helpful for motor memory and strength, and using a short piece of chalk ensures that the correct
   'tripod' grip will be used<sup>26</sup>. While a variety of sensorimotor skills are required for fluent handwriting,
   sensorimotor activities without handwriting practice will not improve letter formation<sup>27</sup>.



## Self-regulation

While translation and transcription are skills which should be taught in their own dedicated time, outside of the composition lesson, self-regulation must be taught in the context of real writing. Skilled writing has been described as a 'goal directed thinking process'<sup>28</sup>. It involves many elements that must be coordinated by the developing writer, including the writing task, goals, ideas, and the processes of planning, re-reading, evaluating and revising. Self-regulation is key as it helps a writer to know which strategies to use in order to manage all these demands<sup>29</sup>.

There are a number of ways that teachers can help to develop self-regulation skills in younger students. As noted above, it is important to start by ensuring that students have some control over transcription skills before requiring them to write a sentence. Another important consideration is the nature of writing tasks that are set. Topics such as 'what I did in the holiday' or 'my family' may invite list-like responses rather than writing that is intentionally crafted to engage and inspire. Instead, high-level goals could be embedded in a task, such as to 'write a spooky story, one that is fun and interesting for yourself and for your reader'<sup>30</sup>.

An important way that teachers can begin to develop students' self-regulation in relation to writing is to use modeling and supported writing to teach simple methods for planning, re-reading and evaluating. At the start of the lesson, think aloud to show how to plan a sentence orally, and then write it down. Read and check your modeled sentence and make a positive comment evaluating your efforts, such as, 'I am proud of my writing today. My story is fun and interesting. I wrote real words, and I left spaces between my words'. Students can then plan by talking with a partner, and should be supported to transcribe, re-read and evaluate their own stories. They should be encouraged to plan, write and re-read at the sentence level, for just one perfect sentence, before being asked to write longer texts <sup>31</sup>.

Finally, incorporate <u>feedback</u> to develop metacognition, or knowledge of oneself as a learner and the strategies to manage a thinking task. Praise students when you observe them using the writing sub-processes - for example, 'I see you reading and checking your writing – well done'. Be explicit about a single learning goal for each student - for example, 'you are learning to write some real words by listening to sounds'. Give regular, targeted feedback on writing goals, and incorporate visual displays of progress<sup>32</sup>.

### Recommended further reading

See Joshi, R., Treiman, R., Carreker, S., & Moats, L. (2008). How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. American Educator, 6-43, for a highly practical guide to spelling instruction.

See Graham, S., & Harris, K. (2019). It can be taught, but it does not develop naturally: Myths and realities in writing instruction. School Psychology Review, 26(3), 414-424, for a useful overview of teaching writing.

See Ray, A., & Graham, S. (2019). Effective practices for teaching students who have difficulty with writing. Learning Difficulties Australia, 51(1), 13-16, for a description of methods demonstrated to be effective, for typically-achieving students as well as those who are demonstrating difficulty.

See Walls H., & Johnston, M. (2021). The Fast Feedback Method: A quasi-experimental study of the use of formative assessment for primary students' writing. Australian Journal of Learning Difficulties, 26(1), 21-46, for a discussion of the 'Fast Feedback' formative evaluation system.

#### Endnotes

1 Applebee, A. (1984). Writing and reasoning. Review of Educational Research, 54(4), 577-596;



© The Education Hub 2019. All rights reserved.

Ehri, L. & Wilce, L. (1987). Does learning to spell help beginners learn to read words? Reading Research Quarterly, 22(1), 47-65;

McCutcheon, D. (1988). 'Functional automaticity' in children's writing: A problem of metacognitive control. Written Communication, 5(3), 306-324.

2 Graham, S., & Hebert, M. (2010). Writing to Read. Carnegie Corporation: New York.

3 Graham & Hebert, 2010.

4 Ministry of Education (2021). How our education system is performing for literacy: Progress and achievement of New Zealand learners in English medium settings. New Zealand Government report.

5 Goodman, K. (1993). I didn't found whole language: Whole language found me! The Education Digest, 59(2), 64-67;

Graham, S. & Harris, K. (1994). Implications of constructivism for teaching writing to students with special needs. The Journal of Special Education, 28(3), 414-424.

6 For example, Graves, D. (2003). Writing: Teachers and Children at Work. Portsmouth: Heinemann.

7 Goodman, K. (1992). I didn't found whole language. The Reading Teacher, 46(3), 188-199.

8 Ministry of Education. (2003). Effective Literacy in Years 1-4. Wellington: Learning Media Limited, p.136.

9 Graham, S., Harris, K., MacArthur, C., & Fink, B. (2002). Primary grade teachers' theoretical orientation concerning writing instruction: Construct validation and a nationwide survey. Contemporary Educational Psychology, 27, 147-166;

Walls, H. & Johnston, M. (2022). Teachers' beliefs for the teaching of writing: influences on student progress. Assessing Writing (in press).

10 Berninger, V., Graham, S., Vaughan, K., Abbott, R., Begay, K., Byrd Coleman, K., Curtin, G., & Minich-Hawkins, J. (2002). Teaching spelling and composition alone and together. Implications for the simple view of writing. Journal of Educational Psychology, 94(2), 291-304.

11 Brann, B. (2001). Working with Students with Learning Difficulties. Queensland: Merganza Training and Development;

Cowan, N. (2010). The magical mystery four: How is working memory capacity limited, and why? Current Directions in Psychological Science, 19(1), 51-57.

12 Brann, 2001;

Jones, Jones, D., & Christensen, C. (1999). Relationship between automaticity in handwriting and students' ability to generate written text. Journal of Educational Psychology, 91(1), 44-49.

13 Kent, S., Wanzek, J., Petscher, Y., Al Otaiba, S., & Young-Suk, K. (2014). Writing fluency and quality in kindergarten and first grade: the role of attention, reading, transcription, and oral language. Reading and Writing, 27, 1163-1188.

14 Brann, 2001.

15 Braid, C. (2021). Personal communication; Peninsula Cerebra Research Unit. (2018). Is Colourful Semantics an Effective Therapy for Improving Language Development in Children with Autism Spectrum Disorder? Exeter. University of Exeter Medical School.

16 Fricke, S., Bowyer-Crane, C., Haley, A., Hulme, C., & Snowling, M. (2013). Efficacy of language intervention in the early years. Journal of Child Psychology and Psychiatry, 54(3), 280-290.

17 Graham, S. (1997). Role of mechanics in the composing of elementary school students: A new methodological approach. Journal of Educational Psychology, 89(1), 170-182.



18 Berninger, V. (1999). Coordinating transcription and text generation in working memory during composing: Automatic and constructive processes. Learning Disability Quarterly, 22(2), 99-112;

McCutcheon, D. (1996). A capacity theory of writing: Working memory in composition. Educational Psychology Review, 8(3), 299-325.

19 Jones & Christensen (1999).

20 Ehri & Wilce, 1987.

21 James, K., & Englehardt, L. (2012). The effects of handwriting experience on functional brain development in pre-literate children. Trends in Neuroscience and Education, 1, 32-42.

22 Joshi, R., Treiman, R., Carreker, S., & Moats, L. (2008). How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. American Educator, 6-43.

23 Berninger, V., Vaughan, K., Abbott, R., Abbott, S., Woodruff-Rogan, L., Brooks, A., Reed, E., & Graham, S. (1997). Treatment of handwriting problems in beginning writers: Transfer from handwriting to composition. Journal of Educational Psychology, 89(4), 652-666.

24 Graham, S., & Weintraub, N. (1996). A review of handwriting research: Progress and prospects from 1980 to 1994. Educational Psychology Review, 8(1), 7-87;

James & Englehardt, 2012.

25 Hoy, P., Egan, Y., & Feder, P. (2011). A systematic review of interventions to improve handwriting. Canadian Journal of Occupational Therapy, 78, 13-25.

26 Lockhart, J., & Law, M. (1994). The effectiveness of a multisensory writing programme for improving cursive writing ability in children with sensorimotor difficulties. Canadian Journal of Occupational Therapy, 61(4), 206-214.

27 Hoy et al., 2011.

28 Flower, L., & Hayes, J. (1981). A cognitive process theory of writing. College Composition and Communication, 32(4), p. 366.

29 Bereiter, C., & Scardamalia, M. (1987). The Psychology of Written Composition. New Jersey: Laurence Erlbaum Associates.

30 McCutcheon, 1988.

31 Ray, A., & Graham, S. (2019). Effective practices for teaching students who have difficulty with writing. Learning Difficulties Australia, 51(1), 13-16;

Walls H., & Johnston, M. (2021). The Fast Feedback Method: A quasi-experimental study of the use of formative assessment for primary students' writing. Australian Journal of Learning Difficulties, 26(1), 21-46.

32 Walls & Johnston, 2021.

## PREPARED FOR THE EDUCATION HUB BY



#### Dr Helen Walls

Dr Helen Walls is a teacher, professional learning facilitator, and educational researcher, with nineteen years' experience working in schools. For her doctoral thesis, Helen conducted two empirical studies to investigate best practice methods for the teaching of writing. She has spoken at national conferences and has published with *The Australian Journal of Learning Difficulties*. Helen is an associate of Cognition Education and Tātai Angitu of Massey University.

