

Spelling in Pictures: A Visualisation Success Story

By Cate Turner Clark

Can you teach a gifted visual spatial learner how to spell? My answer is 'Yes'. The 'How?' will hopefully be addressed by this article.

William had experienced obvious problems with spelling since about Year 2. He had started school early, with a high reading ability and precocious knowledge of everything you would ever want to know about dinosaurs. Kindergarten covered much of the literacy of which William was already aware whilst adding the fine motor component of writing. William also enjoyed furthering his maths awareness, fine tuning his social skills and physical activity.

William did not like to write and had not enjoyed any form of written activity before school. Perhaps this was due to his younger hands not having the same control as his class peers, perhaps it was due to his inability to put what was in his head onto paper or perhaps it was due to William's inability to spell. However, William completed Kindergarten and Year 1 without any real sign of an emerging problem, thoroughly enjoying school.

It was during Year 2 and Year 3 that William's problems with spelling became apparent.

He struggled to complete written work, lacked enthusiasm in attempting new tasks and was seen by his teacher as chronologically underachieving. By this his teacher meant that she could see more academic potential in William than what he was exhibiting in the classroom.

William's mother (Alyce) had not though had the problems that William had experienced in learning to spell. To her, spelling had come naturally – she would look at the word and memorise it, remembering relatively easily where each letter had appeared. She could not see why a child, *her child*, who was an advanced reader was not also an advanced speller. Alyce was becoming incredibly frustrated with her son.

It was at this point that Alyce began researching and discovered that William was quite likely to be a visual spatial dominant learner. It had been quite obvious to all who knew William as a preschooler that he was gifted – what had escaped detection from educators surrounding William was the fact that William's fundamental learning occurred in pictures.

Whilst William could learn in an audio sequential manner it was a process that he didn't enjoy nearly so well as learning in a visual spatial manner. Lesley Sword (Sword, www.giftedservices.com.au/visualthinking.html) suggests that 'Gifted people have a preference for visual thinking because it is faster and more powerful than auditory thinking' so quite possibly it should have come as no surprise to William's mother that William's learning should take place predominately on the right side of the brain.

Once Alyce realised that her son had a problem with the way in which spelling was taught, that is learning words by phonics and repetition, she decided to approach his

teacher and suggest an alternative approach – one that involved teaching William how to memorise his weekly spelling list in a way that employed his right brained dominate method of learning. She explained (tactfully) to his teacher that the audio sequential or phonic approach of teaching spelling that had occurred during the last few years did not suit William’s style of learning and that it would probably be of little benefit to William to continue in this way. At the end of the conversation William’s teacher agreed to excuse William from literacy homework in order to allow his mother to teach him ‘her way’.

Before any of this had occurred Alyce had approached her son and asked him whether he would be interested in trying to learn how to spell in a way that was different to how they learned at school. William agreed to try, mainly because he had been watching the amount of homework that his sister in High School had been bringing home. He had said to his mother that “I will never be able to cope with High School if I can’t spell”. Perhaps at another time, he would have been resistant and the experiment to learn how to spell visually would not have taken place – but the timing was perfect and William agreed to try.

The program that William was to follow was supplied to Alyce by Helen Dudeney, a counsellor and educator who had a great interest in assisting visual learners to believe in themselves and their abilities.

Helen’s program is set out below. Included in this are the questions that she would usually ask the child if they had been brought to her for assessment. The questions are asked to determine if the child can actually see words written in their head. If the child could not see the word game then the method below would not be suitable.

A Visualisation Approach to Spelling

Based on the work of Dr Linda Kreger Silverman, Lesley Sword, Allie Golon and Helen Dudeney

Testing Visualisation Skill

1. Can you spell the word ‘game’?
2. Once you have spelled it correctly can you see the word written on a whiteboard in your head?
3. What colour is it written in?
4. What is another colour that you like?
5. Can you change the colour of the letters to that colour?
6. Where on the white board is it located?
7. Can you move the word up to the middle of the white board?
8. Can you blow up the letters so that they are huge – but so that you can still read the word?
9. Can you shrink them down so they are tiny – but so that you can still read the word?
10. Can you move them to the bottom right hand corner of the whiteboard?
11. Can you add the word ‘boy’ after the word ‘game’?
12. What strategy did you use? (I’m looking to find out how they fitted the extra word in.)

Spelling – Strategy

1. Write a word that the child can’t spell in large print in a bright colour (red is best) on a sheet of A4 paper (landscape).
2. Hold the page at arm’s length from the child.

3. Ask the child to look at the word and get a really clear picture of the word on the white board in their head.
4. Ask the child to close eyes and check if the word is clear.
5. Ask the child 'What is the last letter of the word that you are spelling?'
6. Ask the child 'What is the first letter of the word that you are spelling?'
7. Ask the child 'How many a-e-i-o-u's are in the word?' (or any other letters ask one letter at a time)
8. Ask the child 'What is the second last letter of the word?'
9. Ask the child 'Are there any letters in the word twice?'
10. Say to the child 'Look at the word and read the letters from the end of the word till the beginning of the word'.
11. If the child is successful be very affirming. Comment on how great their picture must be.
12. Say to the child 'Look at the word and read the letters from the beginning of the word till the end of the word'.
13. If the child is successful be very affirming. Comment on how great their picture must be.
14. If the child has any problems spelling the word go back to the written word and add novelty to the picture. Eg: eyebrows on the 'e' or a face on an 'o' or even just a different brighter colour on the letter/s that caused problems.
15. Repeat some of the questions from 5 – 9, ask questions about the letters that caused problems eg 'What letter comes before the 'e' with the eyebrows?'
16. Repeat 10 – 13.
17. Get the child to write down all of the letters.
18. Tell the child that once they have the correct picture in their brain it will be there forever. Tell the child that they just need to store it and be able to find it.
19. Ask the child to suggest where they could store their word? Eg filing cabinet, computer, roman temple or even a coloured box – whatever works for them.
20. Ask the child to put the word 'game boy' on their whiteboard again.
21. Repeat questions 12 -13 and then 1 – 9. (This is assuming each step is successful.)
22. Ask the child to put the word 'game boy' away in their storage spot and get out the other word (that they were having trouble with).
23. Repeat 5 – 9.
24. Usually the child will be tired after this so a rest would probably be a good idea.

Try not to talk about spelling as this may link to low self efficacy or poor expectations. Use visual language throughout this dialogue and make sure to use lots of positive verbal feedback.

The above only needs to be used for words that the child does not know.

Spelling Homework

1. Always ask words orally.
2. For words able to be spelled orally – ask the child to write them down.
3. For words the child cannot orally spell – use the **above method**.
4. For words the child can spell orally, but not write down correctly get them to try typing them on a computer.
5. If still no luck, use the above method.
6. Work on words the child can't spell. Do not spend too much time on those words they can spell.

7. For other spelling activities, e.g. definitions, use in a sentence, and use a computer if that makes the process easier and more successful.

Alyce started William's spelling week by asking William to place words that caused him trouble on his blackboard. William had not much experience with whiteboards and blackboards were much more real for him. He used plain white chalk when creating his words and red chalk for the difficult letters. Below is an example of a spelling week – William style!

At the beginning of the week William completed a Pre test of the week's spelling. He brought this home as it gave Alyce a place to start.

Pre Test

- | | |
|--------------------|---|
| 1. clerk | √ |
| 2. member | √ |
| 3. voting | √ |
| 4. compulsory | √ |
| 5. debate | √ |
| 6. oppotion | × |
| 7. polition | × |
| 8. ballot | √ |
| 9. federal | × |
| 10. state | √ |
| 11. local | √ |
| 12. govenment | × |
| 13. parlorment | × |
| 14. ceneter | × |
| 15. electorate | √ |
| 16. election | √ |
| 17. cabinot | × |
| 18. ministor | × |
| 19. minstory | × |
| 20. representative | × |
| 21. corut | × |
| 22. Camberra | × |
| 23. nansional | × |
| 24. conserturean | × |
| 25. expersition | × |
| 26. exqutive | × |
| 27. legivslative | × |
| 28. duedishal | × |

Test Words

- clerk
- member
- voting
- compulsory
- debate
- opposition
- politician
- ballot
- federal
- state
- local
- government
- parliament
- senator
- electorate
- election
- cabinet
- minister
- ministry
- representative
- court
- Canberra
- national
- constitution
- exposition
- executive
- legislative
- judicial

10/28

For starters Alyce and William did not bother rehashing what was already known. This meant that William's task of learning was reduced to 18 words rather than 30 for the week.

- | | |
|-------------|---|
| 1. oppotion | x |
| 2. polition | x |

3. federal ×
4. govenment ×
5. parlorment ×
6. ceneter ×
7. cabinot ×
8. ministor ×
9. minstory ×
10. representative ×
11. corut ×
12. Camberra ×
13. nansional ×
14. conserturean ×
15. expersition ×
16. exqutive ×
17. legivslative ×
18. duedishal ×

Alyce then asked William whether he thought that he had remembered any of the other words after having written down the correct words after the pre test.

William said that he realised that he had spelt court wrong and verbally spelt out the letters correctly. William had remembered another word.

That left 17 words to learn.

William also stated that he knew that judicial started with a 'judi' not duedi as in the pre test. He knew this now as he had an acquaintance called Judi and "It looks like the first part of her name".

Alyce then looked for the words that had the least amount of letter errors, either one letter incorrectly inserted or in the wrong place or back to front with the letter next to it. She then got William to write out the word in what ever colour he chose – but getting him to write the letters that he made the mistake with in different colours. If there was an extra letter that needed to be omitted William simply wrote out the whole word in the same colour

William thus wrote:

1. **g**overnment
2. **c**abinet
3. **m**inister
4. **C**anberra
5. **l**egislative
6. **f**ederal

It took William a couple of attempts but he achieved 6/6 after 10 minutes practise.

This left 11 words to learn by the end of the week.

1. oppotion
2. polition
3. parlorment
4. ceneter

5. minstory
6. representative
7. nansional
8. conserturean
9. expersition
10. exqutive
11. duedishal

Alyce then looked to see if there was anything interesting in the form of a pattern or sequence that would strike a chord with William.

She came across the word grouping 'cia' in politician and in 'judicial'. Both 'cia' groupings made a 'sh' sound so a funny story would help William to remember that 'cia' in these instances would equal 'sh'. She suggested to William that the 'cia' were going take the politicians into the judicial system. William thought that it was funny that the police were going to arrest the politicians and take them to court (as he saw it) – so he easily retained the knowledge that both politician and judicial had the cia in them. (William would also, as past history had indicated, then remember that sometimes 'cia' equalled 'sh' – something that would increase his word 'attack' skills.)

As expected William soon equated 'cia' with the 'sh' sound and the words were then remembered. (Remembering that William had already worked out that judicial had a 'judi' at its beginning.)

There were nine words (listed below) to go.

1. oppotion
2. parlorment
3. ceneter
4. minstory
5. representative
6. nansional
7. conserturean
8. expersition
9. exqutive

It was at this time that 'time' was called. William had worked for 40 minutes straight. The first afternoon was always the longest. After that the time was reduced to 30 minutes in the morning as William was a lot fresher am rather than pm.

Alyce found that if they could 'fix' a lot of the simple errors in the first afternoon William would gain confidence. It is markedly different knowing that there are then only 9 words to learn in 3 days rather than 18 words in 4 days.

Day 2

Next on the list was 'representive'.

Again, using colour, Alyce encouraged William to write out all the correct letters in one colour and the missing letters in another colour.

representative

William immediately noticed that the two missing letters formed a word 'at'. He then formed a sentence in his mind to help him remember. His sentence was "I am a representative at soccer". (Grammatically incorrect but it doesn't matter when you are using your imagination to help you spell!)

Eight words left.

Alyce and William then went back through what they had learned the previous day. The first revision was oral – as William much preferred that to writing the words down.

The below words were correct:

- government
- minister
- Canberra
- legislative
- federal
- court
- judicial
- representative

The below words were incorrect:

- politions (politician)
- cabinenet (cabinet)

At times William needed some prompts but for the greater part he remembered 8 out of the 10 words.

For the second revision – written – William was encouraged by Alyce to say the letters of the words as he was writing them down so as not to lose his way inside the word. This was not something that William had commonly done before starting on this program.

William wrote down:

- politions (politician)
- feederal (federal)
- goverment (government)
- judishal (judicial)
- Canberra
- court
- legislative
- cabinet
- representative (representative)
- minister

5/10

Alyce asked William to tick the words that he knew were right and cross the words that were wrong. He was correct in all of his marking and also volunteered where he had gone wrong on federal, representative and government. It is interesting to note that William in most occasions knew where he had made the mistake – it was just that sometimes he didn't know how to fix it! It is also interesting to note that William's

results decrease when writing becomes involved (as per Helen's comment to teach orally).

However, Alyce then asked William "For the last time this morning - how do you spell

- politician
- federal
- government
- judicial
- representative
- politician?"

William orally spelled all words except 'politions'.
Alyce could see that this was going to be a difficult word.

All of these morning activities had taken about 15 minutes. As Alyce and William had set aside about 30 minutes they spent the rest of the time using the whiteboard technique described above for:

- exposition
- national
- parliament
- executive
- ministry
- senator

With two words left to investigate William went off to school.

It is important to note here that sometimes, if William is receptive, Alyce works on revision with him in the afternoon. However, such revision activities are usually only of 15 minutes duration and it must be emphasised that they were only pursued if William was interested.

Day 3

All words are tested in the morning firstly orally and then in writing.
William correctly tested 14/16 orally and 12/16 written.

Then, the last words are introduced. These are:

- executive and constitution

These are placed one letter at a time (except for 'it' in constitution) onto the whiteboard in William's brain.

William recites them forwards and backwards.

Day 4

William is tested on all words this morning, so that he will be prepared the next day for the full test. In his oral test William scores 26/28 and in his written test 21/28. This is a good result for William and if he achieves a similar mark in the formal test the next day he will have done well.

William and Alyce in the 10 minutes remaining go back over 'executive' and 'politician' as William is frustrated that he knows how to spell them orally but not how to write them.

William asks Alyce to 'test' him when they are walking the dog in the afternoon. So Alyce throws a few words at William whilst they take the dog for a walk around the block. Alyce has noticed that if William is engaging in some form of physical activity his 'spelling' brain will often kick in quite well.

Day 5

William scores 23 out of 28 in the spelling test and he is well pleased with himself. He knew that it was a more difficult list than what he had been working with in previous weeks and was not disappointed with the result. Whilst it is not generally helpful to compare your child with another, it is done all the time by the children in the classroom and William knew that he had performed relatively well as compared to others.

Below are William's results.

- | | |
|--------------------|---|
| 1. clerk | √ |
| 2. member | √ |
| 3. voting | √ |
| 4. compulsory | √ |
| 5. debate | √ |
| 6. opposition | √ |
| 7. poliatcian | × |
| 8. ballot | √ |
| 9. federal | √ |
| 10. state | √ |
| 11. local | √ |
| 12. government | √ |
| 13. parliament | √ |
| 14. senitor | × |
| 15. electorate | √ |
| 16. election | √ |
| 17. cabinet | √ |
| 18. minister | √ |
| 19. ministry | √ |
| 20. representative | × |
| 21. court | √ |
| 22. Camberra | × |
| 23. national | √ |
| 24. constitution | √ |
| 25. exposition | √ |
| 26. execuitive | × |
| 27. legivslative | × |
| 28. judicial | √ |

I asked Alyce whether as the program progressed William was making similar mistakes as he did in the beginning.

Alyce said that she believed William's mistakes were different. There were more single letter mistakes; an 'e' for an 'i' for example rather than the whole word, excluding one letter, being wrong.

When discussing William's overall results for the two terms that he had been attempting the program Alyce was quick to pull out William's school report. The Year 4 report dated September 05 stated:

Although William is a capable reader his overall progress in English does not reflect his ability. Work completion is slow and he often lacks the motivation to complete activities and distraction comes easily.

Writing is still an unpleasant task for William and he rarely finishes his work. Spelling, grammar and punctuation continue to improve slowly but William must be absolutely proactive in this process. William's handwriting remains in printed format but is quite legible and well spaced.

Compare this to the report dated June 06:

William is continually improving in all areas of English. He participates in classroom discussion and is always able to communicate effectively in formal and informal situations. William's reading is progressing in confidence and fluency and he understands most of the texts that he is given. William's spelling has improved greatly and therefore he has extended his vocabulary. William produces some great imaginative work, and is learning to plan his writing so that he can lengthen it. He also works hard to edit his own grammar and spelling in his written work.

Such is the difference in the two school reports, it is almost as though two different children are being discussed!

William's overall feelings of accomplishment have improved his self efficacy to the extent that when asked by an adult recently what his favourite subject was he answered "Spelling" – causing Alyce to feel that she should probably have her hearing checked! Was this her son saying that he enjoyed spelling?? She wasn't quite sure, but boy could she cope with hearing it again!

Many thanks must go to Helen Dudeney who has assisted tremendously with the creation of this spelling procedure and hence this article.

Please note that the real names of the above individuals are not used.

This article was first published in TalentEd 25 (1). 2007

Bibliography

Dudeney, Helen. (2003) Seminar - Gifted Visual Spatial Learners with School Based Learning Problems. *15th Biennial World Conference for Gifted and Talented Children*. World Council for Gifted and Talented Children. Adelaide.

Freed, J. and L. Parsons (1997). *Right-brained children in a left-brained world*. New York, Fireside.

Silverman, L. K. (2002). *Upside down brilliance: the visual-spatial learner*. Denver, DeLeon.

Sword, L. (2000). I Think in Pictures, You Teach in Words: The Gifted Visual Spatial Learner. *Gifted* **114**: 1,27-30.

Cate Turner Clark is Editor of the NSWAGTC's journal: Gifted - where she writes a quarterly column about ideas to assist VS learners. Cate holds a COGE and a Degree in Librarianship.