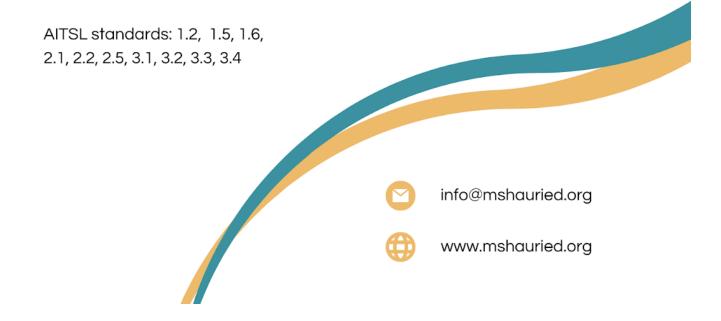
# Using the science of reading and school library to raise student achievement

A professional learning course for high school teachers

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#### About the author

Catherine Duffett has over twenty years' experience as a teacher in Australia. She has worked in Hobart, Darwin and Alice Springs in both public and private schools from different cultural backgrounds. She has over ten years' experience as a teacher librarian in both primary and secondary schools and currently works as a primary school teacher librarian. In 2013 she was awarded Tasmanian Teacher Librarian of the Year. Catherine has also taught Science and Maths to secondary school students. She is a qualified reading educator.

Catherine is passionate about using high impact evidence-based strategies to improve the educational opportunities for children, particularly those from disadvantaged backgrounds, and sharing her knowledge with others.

Catherine works part time on a pro-bono basis as an educational consultant with NGOs in developing countries to improve the educational outcomes of children from disadvantaged backgrounds. Her business name, *Mshauri Education* was given to her by her Tanzanian colleagues and *mshauri* is a Swahili word meaning *advisor* or *consultant*.

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#### How to use this course

This series of fact sheets can be used by individuals, small groups or whole staff for professional learning that can be undertaken over a period of time. It is recommended that where possible, educators work collaboratively through the material, to enable deep discussion and reflection regarding the research described. To facilitate this, the course is divided up into a number of units that provide discussion questions for teachers to reflect on.

The Final Word protocol (Faddis, n.d.) is a good approach to this type of professional learning, as it fosters collaboration and deeper thinking about the text. This works as follows:

- 1. Teachers are organised into groups of four and each teacher in a group is assigned A, B, C or D. (This will also work in groups of 3.)
- 2. The teachers have an opportunity to read the text or a section of it, select a piece of text or quote that resonates with them, and record their selected quote on a sticky note.
- 3. Teacher A reads aloud their statement or quote to their group and has 3 minutes to explain to their group the reason behind their choice.
- 4.Teachers B, C & D then have one minute to respond to their teacher A during which time they might express their own perspective, clarify Teacher A's comment or even question Teacher A's assumptions.
- 5. Teacher A summarises what has been said and also makes a comment about whether they have changed their own thoughts about the topic.
- 6. Teacher B discusses their selected quote or section that they found pertinent, including whether the discussion of teacher A's quote has affected their own views on their own sticky note and the whole process is repeated with teachers A, C and D responding to Teacher B's ideas.
- 7. Finally, Teachers C and D have their turns at sharing the section of the text that resonates with them.
- 8. The different groups then come together to share their ideas with each other.
- 9. To further consolidate the learning, time is allocated for teachers to either reflect with a partner, journal their new understandings or plan some action they will take using their newly acquired knowledge.

#### Reference:

Faddis, T. (n.d.). Promoting Ongoing Professional Learning Using Text and Discussion Protocols. *Instructional Practices*. [online] Available at:

https://www.literacyworldwide.org/get-resources/instructional-practices/promoting-ongoing-profession al-learning-using-text-and-discussion-protocols?Site=ILA [Accessed 29 May 2024].

#### Introduction

#### Rationale

There is a clear relationship between the amount students read and academic achievement (Gambrell, 2011). This effect has been coined *The Matthew Effect* - the more knowledge an individual has, the more likely they are to acquire more knowledge through reading. Students from disadvantaged backgrounds begin school with less knowledge than their counterparts and this knowledge gap widens as they continue through school (Wexler, 2020). To close this gap, students need a knowledge-rich curriculum where texts are at the core of learning.

Yet typically, the volume of reading that students engage in is insufficient, particularly for students from disadvantaged backgrounds. To improve students' academic achievement, students need to be reading a staggering 200%-500% more than they currently are (Guthrie, 2004).

School library staff have a wealth of knowledge and expertise to help teachers increase students' reading volume and academic achievement and this expertise makes them well-placed to be at the centre of the learning and teaching.

Well-resourced and well-staffed school libraries have a significant impact on student academic achievement (Merga, 2019).

#### Who is this booklet for?

Drawing from the large body of research that contributes to the science of reading, this tool-kit is designed for content-area teachers and provides evidence-based pedagogical approaches that:

- assist in increasing reading volume
- build discipline-specific knowledge
- scaffold the inquiry process
- provide support for struggling readers, and
- improve students' motivation to read.

#### Contents

- 1. Strategic selection of texts
- 2. Activating background knowledge
- 3. Building knowledge through vocabulary
- 4. Questioning
- 5. Locating information
- 6. Skimming and scanning
- 7. Note-taking and note-making
- 8. Paraphrasing
- 9. Summarising
- 10. Supporting students with word reading difficulties

#### References:

Gambrell, L.B. (2011). Seven Rules Of Engagement: What's Most Important to Know About Motivation to Read. *The Reading Teacher*, [online] 65(3), pp.172–178. doi:https://doi.org/10.1002/trtr.01024.

Guthrie, J.T. (2004). Teaching for Literacy Engagement. *Journal of Literacy Research*, [online] 36(1), pp.1–30. doi:https://doi.org/10.1207/s15548430jlr3601\_2.

Wexler, N. (2020). The Knowledge Gap: The hidden cause of America's broken education system-and how to fix it. Avery.



### Strategic selection of texts

#### A library technician can:

 recommend quality resources including multi-media, fiction, nonfiction and articles.

#### A teacher librarian can:

 provide advice on how to effectively incorporate a range of texts into a unit of work.

#### The importance of non-fiction

The necessity for students to engage in a significant amount of reading at school cannot be understated. Students' reading diet should consist of a sizable amount of non-fiction for building their background knowledge and preparing them for reading the complex texts required for higher education study (Lemov, Driggs and Woolway, 2016).

There are a number of misconceptions that exist regarding selecting texts for classroom use. These are:

- Students are more engaged and can learn more from simpler texts.
- A high lexile level (a measure of reading difficulty) makes a text too challenging to read.
- Greater gains in fluency and comprehension are made by reading simpler texts.
- Some students can't read complex texts.
   (Lupo, Strong and Conradi Smith, 2018).

Instead, all students, including struggling readers, need an opportunity to engage with complex texts and to be supported to do so using appropriate scaffolding and need time to engage in wide

reading. (Lupo, Strong and Conradi Smith, 2018).

Careful text selection is one effective strategy for supporting struggling readers.

# Increasing reading volume and breadth using the Quad Text Set Framework

This tool helps increase the volume of non-fiction students read and also improves their comprehension of the target text. The framework involves the following steps:

- 1. Select a target text to meet the required learning outcomes.
- 2. Select at least 3 supporting resources including:
  - visual material or a video
  - an information text(s) e.g. article, non-fiction book or website
  - accessible text(s) e.g. picture book or material from popular culture.
- 3. Alternate between reading sections of the target text and supporting resources (Lupo et al, 2018).

Providing periods of sustained, focused independent reading, especially with challenging texts, is among the most valuable things teachers can do in school, in every subject, and at every grade level (Lemov, 2021).

#### Selecting grade level texts

Various tools are available to measure the reading level of texts. One widely used tool is Fry's Readability Graph which measures a text in terms of the number of sentences and syllables per 100 words to determine the grade level of the text. The average score from three randomly selected sections of a text are used and numbers and proper nouns are excluded in the data (Everts Danielson, 1987). Fry's readability graph and more detailed instructions provided by The Ohio State University can be found here.

While readability calculators can provide a quick way of assessing a text, they have been criticised for being overly simplistic. Lupo, Strong and Conradi Smith (2018) suggest that when selecting texts, other factors should also be considered including vocabulary difficulty, knowledge demands and the degree of difficulty of the concepts or themes that are presented in the text.

#### Discussion and reflection

- 1. How much nonfiction are your students currently reading during their lessons?
- 2. For an upcoming unit of work, select a variety of different texts to support students' learning using the Quad Text Framework.

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Albright, L.K. and Ariail, M. (2005). Tapping the Potential of Teacher Read-Alouds in Middle Schools. *Journal of Adolescent & Adult Literacy*, 48(7), pp.582–591. doi:https://doi.org/10.1598/jaal.48.7.4.

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