Scan

The journal for educators

NSW GOVERNMENT

Pasi Sahlberg on equity in education

Mathematical fluency

Making selective education fairer

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Scan is a leading refereed journal, published quarterly between February and November. Scan aims to bring innovative change to the lives and learning of contemporary educators and students. Through Scan, teachers' practice is informed by critical engagement with peer reviewed research that drives improved school and student outcomes across NSW, Australia and the world. Scan aims to leave teachers inspired, equipped and empowered, and students prepared.

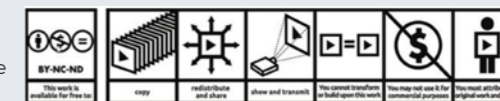**Welcome to the Term 3 issue!**

As a result of your feedback, Scan has returned to quarterly publishing. Our Term 4 issue will be released in November.

Comments or questions? We'd love to hear from you at Editor.Scan@det.nsw.edu.au.

Happy reading!

Understanding equity in education.
Part 1: What is equity?

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Dr Pasi Sahlberg investigates the concept of equity as it applies to education. This article is the first in a two-part series on equity in education.

What do people want?

Three years ago, I asked my colleagues the following questions: What do Australian adults think about educational equity? Do they think our school education is fair and inclusive for all students? What do they think equity in education means? Do they care about this issue at all?

We did what academics normally do; we conducted a survey that included more than 2,000 adults in NSW to find out their beliefs and attitudes about educational equity. The results were surprising (Gonski Institute for Education, 2020). By using a scale from 1 to 10, the importance of achieving educational equity in Australia was rated 9, on average. These same people rated the NSW school systems a 6.3 on a 10-point scale evaluating their performance on educational equity. Nine of every ten respondents

thought equity should be either a single or dual priority in Australian education.

My takeaway was that NSW parents and other adults do want more equitable education. Many of them see it as a moral imperative, some even as a human rights issue. The survey also showed that people have a wide range of beliefs regarding what equity is all about.

Equity in education has become a key national goal for schooling during the past decade or so (Sahlberg and Cobbold, 2021). The Organisation for Economic Cooperation and Development (OECD) that coordinates the well-known PISA survey advises governments to give equity similar high priority in education policies as they give to excellence (OECD, 2012). Equity is also one of the main goals in the [Alice Springs (Mparntwe) Education Declaration](#) (Council of Australian Governments Education Council, 2019). In short, it is becoming clear that a world-class education system is hard to achieve without smarter investments in equity of education.

Around the world, equity is frequently mentioned in national education policies, but it has never been clearly defined, either elsewhere or here in Australia. This has resulted in different interpretations, inadequate targets, inappropriate monitoring, and the sad fact that at the end of the day no one is held responsible for increasing inequities in our education systems. If we want to move away from repeating the fashionable policy rhetoric aiming at 'excellence and equity' and start to build more equitable and sustainable education for all our children, we need a commonly agreed definition for 'equity in education'.

Equality of opportunity is not equity

In education policy documents and literature, 'equity' is sometimes used as a synonym for 'equality'. The principle of 'equality of opportunity' has been the

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key idea in the Nordic education systems where increasing access to secondary and tertiary education have been policy priorities since the early 1990s. In the past, it has meant providing all students with the 'equal opportunity' to pursue their talents and aspirations. As we have stated elsewhere (Sahlberg and Cobbold, 2021), equality of educational opportunity has a strong, meritocratic element in that the quality of education provided should not be dependent on a student's domicile, gender, or social or ethnic background.

The problem with the concept of 'equality of opportunity' is that it is difficult to compare different individuals' education opportunities in the same way we can compare their age, height or weight. Consequently, a wide range of different interpretations of the concept exist. These include equal access to education, equal access to high quality curriculum, equal resources for all students, and equal educational outcomes.

So, what is wrong with ensuring that every child is given equal opportunity in education? Nothing, but the difficulty arises because the degree of equality or inequality cannot be quantified (or measured). We are unable to determine how much equality or inequality of opportunity is just and acceptable. In other words, it leads to setting limited or even wrong-headed educational targets for enhancing equity.

What is most problematic with this view of equity is that it tolerates wide inequalities in learning outcomes between students from different socio-economic backgrounds. It is common knowledge that affluent and well-educated parents can foster their children's abilities and talents more than disadvantaged or poor parents, even if all children would have 'equal' access to education. Lipsey (2014, p 37) writes,

'Equality of opportunity, when combined with gross inequality of outcome, is the worst possible recipe for a harmonious society'. Unfortunately, this has been evident in many education systems during the past two decades. Therefore, we need a better definition of 'equity in education'.

> **A new definition of equity in education is essential to making real progress towards world-class schooling …**

Defining equity

The Review of Funding for Schooling, or the Gonski Review, ten years ago defined equity in schooling as 'ensuring that differences in educational outcomes are not the result of differences in wealth, income, power or possessions' (Gonski et al., 2011, p 105). According to this definition, 'all students must have access to an acceptable international standard of education, regardless of where they live or the school they attend' (Gonski et al., 2011, p 105). The OECD (2012), defines equity in education through two dimensions: fairness and inclusion, which is similar to the definition adopted by the Gonski Review.

Many of these earlier efforts to define equity in education fall short of adequately combining equality of access and equality of outcomes in education. The new meaning of equity in education should state that 'all students receive an adequate education, and educational outcomes for different social groups should be similar'. Let me explain what this new definition means.

In reference to equity in education, this definition of equity has two facets – individual and social. From an individual perspective, equity means that all students receive an education that enables them to realise their talents and fully participate in society in a way of their choosing. We call this an 'adequate' education (Sahlberg and Cobbold, 2021). This individual dimension of equity means that everyone has the right to learn the knowledge, skills and competencies to understand the world, choose their own path in society, and actively take part in shaping society. This formulation makes education a basic human right.

From a social perspective, equity means that students from different social groups should achieve similar average outcomes and a similar range of variation in these outcomes. People often think that equitable education means that all students should achieve the same education outcomes in school. This is, of course, a naïve and utopian expectation. However, it is reasonable to assume that the different talents and abilities that drive good learning outcomes are distributed similarly across different social and ethnic groups in society. Thus, it is fair to expect that urban and rural students' outcomes have similar averages and distributions across the achievement scale. Similarly, educational outcomes of Aboriginal and non-Aboriginal students, affluent and disadvantaged students, and girls and boys should behave the same way.

Closing the achievement gap, a common policy slogan addressing equity in education, is not enough to accomplish equity. The goal needs to be to close the achievement gaps between different equity groups.

The dual goal of equity

The previously mentioned dual goal of equity in education is easy to justify. First, it does not require any compromising or lowering of educational expectations to achieve the same educational outcomes for all students. Instead, it promises a proficient level of education for all, and a fair share of the benefits brought by education for different social groups. Second, the dual goal of equity provides an operational policy framework for system leaders and school principals by

> **Achieving equity and excellence in education for all Australian children, as is promised in the Alice Springs (Mparntwe) Education Declaration, is a challenging goal.**

offering a measurable approach to monitoring and assessing progress towards more equitable education. In other words, it sets concrete targets to be followed up and achieved. Questions such as: What proportion of students complete Year 12? What are the learning gaps between affluent and disadvantaged students? Or between Aboriginal and non-Aboriginal students? should be asked.

A new definition of equity in education is essential to making real progress towards world-class schooling in NSW. International evidence suggests that we can reduce the negative correlation between social disadvantage and student achievement if we want to do so (Sahlberg, 2021). It would be wrong to think that schools can fix inequities in education alone. Lessons from successful countries show that fairer and more equitable education only becomes a reality when different public policy sectors and stakeholders join forces to combat social and educational inequalities.

Achieving equity and excellence in education for all Australian children, as is promised in the Alice Springs (Mparntwe) Education Declaration, is a challenging goal. The fact that we live in a country that has large income and wealth inequalities, where gender equality still remains a dream, and where inequality experienced by First Australians continue to grow, does not make building equitable education systems any easier. But as one of the wealthiest nations, we can afford to keep the promise of equity and excellence for all.

It is important to understand that no society can be called a democracy while some social groups continue to be discriminated against in the provision of education or, indeed, in the provision of other public services such as health, elderly care and social protection.

Equity in education as the fundamental education policy goal in Australia is important not only for economic reasons – it is first and foremost a moral imperative, especially in the country that has made a promise to give all its people 'a fair go'.

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What does true mathematical fluency look like in the classroom?

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Dr Katherin Cartwright offers ways to engender and observe mathematical fluency in primary school students.

When discussing fluency with classroom teachers, they often think first of fluency in reading. There are two important ways students can show fluency in reading – qualitatively (how the student is reading, that is, use of voice, intonation) and quantitatively (what the student is reading, which refers to the accuracy, the rate). From the perspective of a primary teacher, to read fluently requires the ability to comprehend what is being read, not merely the capacity of saying the words. But what about fluency in mathematics? Is it seen through these reading fluency dual perspectives, or is the focus more so on 'procedural' fluency – quantitatively, that is, solely on correct recall?

The question I considered is, does fluency with number facts really indicate a student's 'mathematical fluency'? My experiences and those of colleagues that I spoke with suggested that often students have a level of procedural fluency, but this may come without deeper understanding. One colleague stated, 'I feel sometimes students can be so procedurally fluent, that they don't even know when the answer is wrong'. If this is the case, how can we broaden our view of how we observe fluency to ensure how students understand (qualitatively) that the mathematics is also a focus.

When you think of fluency, what features come to mind?

In my research project, I asked teachers to write three words to describe fluency in mathematics (Cartwright, 2018). Figure 1 shows the words teachers chose and their frequency. Notice that 'efficient strategies' and 'accuracy' were quite popular, which fits within a procedural fluency definition. However, one of the top three words teachers chose was 'understanding'. Flexibility, transfer, and understanding were all commonly mentioned. These words may have a closer alignment with other mathematical proficiencies or working mathematically, including processes such as understanding and reasoning. Even from this initial survey, I could see that a broader way of observing fluency was needed to capture students' ways of knowing (Cobb and Yackel, 1995) and understanding was a significant aspect of being fluent.

Figure 1: Responses from teachers' activity on suggesting three words to describe mathematical fluency

What is mathematical fluency?

Mathematical fluency involves carrying out procedures flexibly, accurately, efficiently and appropriately as well as having 'factual **knowledge** and **concepts** that come to mind readily' (Watson and Sullivan, 2008, p 112). This definition is what underpins our current Australian Curriculum's (ACARA, 2015) view of fluency as one of the four mathematical proficiencies. Watson and Sullivan (2008) extend the definition Kilpatrick et al. (2001) propose with procedural fluency being a broader definition that highlights the interrelated nature of these processes, particularly the roles that knowledge and conceptual understanding play within fluency. While Kilpatrick et al. (2001) do discuss the interrelated nature of the 'strands of proficiency', they also acknowledge that the term 'procedural fluency' may lead teachers to see it as existing independently of the other aspects of being proficient. They acknowledge this when stating, '… one of the most serious and persistent problems facing school mathematics in the United States is the tendency to concentrate on one strand of proficiency to the exclusion of the rest' (p 11).

For my research, I extended Watson and Sullivan's (2008) definition to include using the procedures and being able to make a choice. Thus arguing:

> **'Mathematical fluency involves students' abilities to use procedures flexibly and appropriately indicating a need for decision making and choice'. (Cartwright, 2019)**

Reframing fluency as an overarching process

I suggest that fluency is the outcome visible when students have several aspects working together. Figure 2 illustrates the interplay between the processes and skills (strategies, understanding and reasoning) that **results** in mathematical fluency. When students have different aspects of mathematics working together, then we can observe 'mathematical' fluency.

Reframing fluency to incorporate **what** students know, **how** it works, and **why** it works provides scope for teachers in the classroom to pinpoint aspects of fluency students already have and what might need further strengthening.
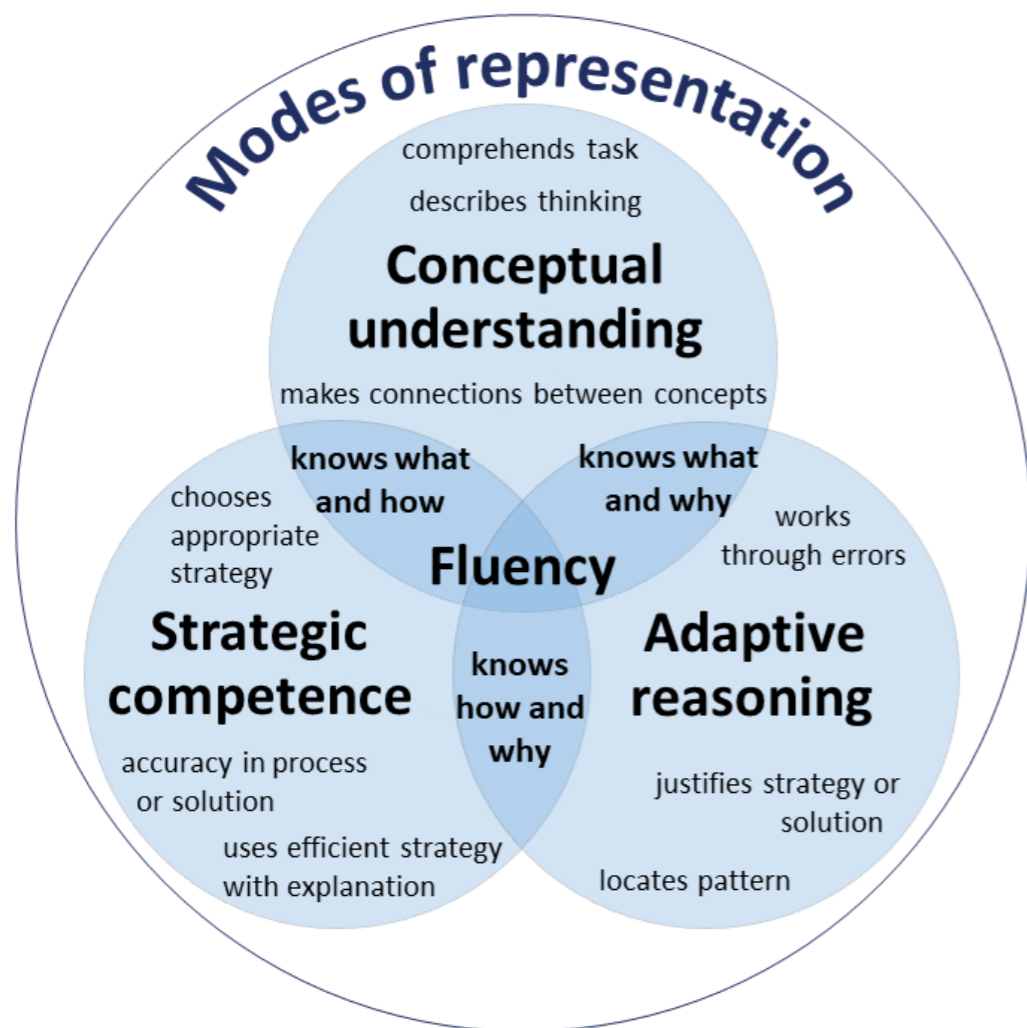
Figure 2: The overlapping nature of mathematical process that result in fluency

How do students 'show' fluency?

Figure 2 has a surrounding outer circle that highlights the importance of observing students' mathematical fluency through a range of representations. Numerical representations alone do not always provide sufficient evidence of fluency. Students oral, written and drawn representations are also valid and useful for observing fluency. During my research, I created a scaffold that lists some of the possible ways students might represent their fluency and found examples of these from student responses (see **Representation modes** for details).

Representations play an important role in providing different perspectives from which to observe mathematical fluency. Some characteristics are easier to observe in written responses (strategic competence) compared with those that are easier to observe orally (adaptive reasoning), particularly in circumstances where students provided no written reasoning (Cartwright, 2020).

Representation modes
Mathematics register (language)

Student uses language features that are linguistically dense in describing and explaining their mathematics. These language features include mathematical vocabulary, high modality (*I knew that, I know, it always, every time*) and syntactic patterns 'conditional (if), nominal (which), and adverbial (because, when) subordinators' (Wilkinson, Bailey and Maher, 2018, p 2). This mode is observed in written words (W) and oral responses (O).

Illustration from student data:
- Pia: I know I got all the combinations because no other group of numbers include 7, 8, and 9 and is also consecutive. Year 5
- Vincent: I used this method because it was easy, and you could do it in a pattern instead of randomly generating numbers consecutively. Year 5/6

Drawing a diagram (iconic)

Student draws a simple version of a picture using 'lines and shapes to embody the intended objects' (Bakar, Bobis, and Way, 2016, p 89). This mode is observed in students' drawings.

Illustration from student data:
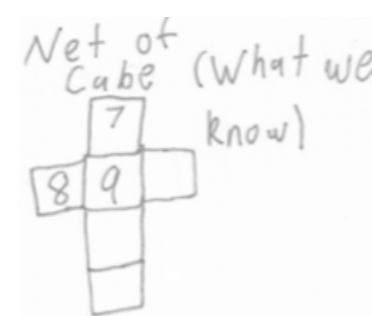
Malak, Year 5

Drawing of a picture (pictographic)

Student draws a simple version of a picture using 'lines and shapes to embody the intended objects' (Bakar, Bobis, and Way, 2016, p 89). This mode is observed in students' drawings.

Illustration from student data:

Duha, Year 5/6

Use of markings (lines, circles, arrows, boxes or tables)

Student draws markings as organisers of solutions or to connect processes. For example, arrows between representations, rainbow arcs for combinations, lines or boxes to section off working out, or tables to organise solutions. This mode is observed in students' written work.

Illustration from student data:

Tyson, Year 6

Use of colour

Student uses colour to denote different solutions or attempts. This mode is observed in student's drawings and written work.

Illustration from student data:
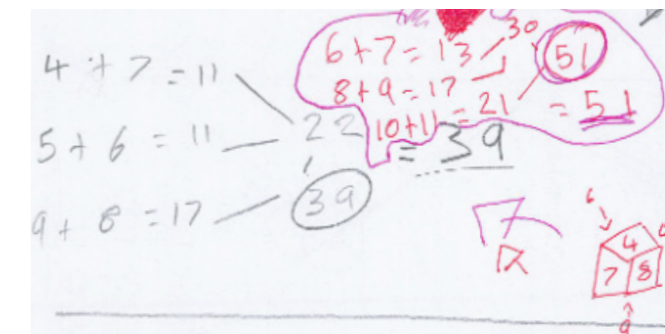
Asa, Year 5/6

Use of numbers (numerical representations)

Student writes numerals as part of the working out process (strategy) and/or to depict solutions. This mode is observed in student's written work.

Illustration from student data:
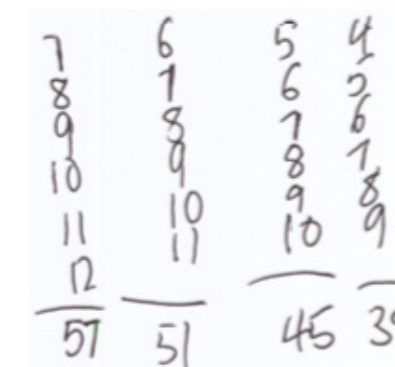
Ivan, Year 6

Use of symbolic representations

Student uses symbols to communicate their choice of appropriate strategy. For example, the equals sign or the four operations. This mode is observed in student's written work.

Illustration from student data:

Lauren, Year 6

Representation modes information has been adapted by K Cartwright (and used with permission) from Cartwright, K. (2021). *Noticing mathematical fluency in the primary classroom: Attending to and interpreting students' characteristics of mathematical fluency* [Doctoral dissertation]. The University of Sydney.

Observing fluency in student responses

My research involved asking upper primary students to solve the problem:

- · **The faces of this cube are numbered consecutively.**
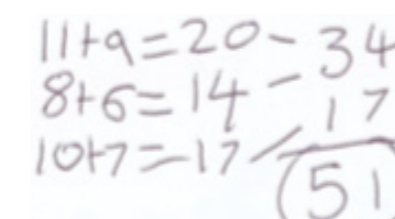- · **What might the sum of the faces be?**

Figure 3: Problem from Sullivan and Lilburn (1997)

I used a list of characteristics, based on other researchers' and curriculum document definitions of fluency and on the features which teachers proposed (Figure 4; Cartwright, 2018, 2019).

What am I looking for to 'see' or 'hear' fluency?

From the analysis, in deciding if a student is 'fluent', they need to be able to show evidence of the use and choice of an efficient strategy.

Either by:

a. showing numerically and/or symbolically how they came to their solution, the steps – a numerical answer alone was not enough;

b. using written words to explain how they worked out a solution; or

c. verbally explaining how they worked out their solution.

Some characteristics were evident in verbal but not in written form, ideally audio recordings and written samples should be analysed together to gain a full picture of a student's fluency (Cartwright, 2019).

Through analysing the students' written, drawn and oral responses, some students' responses showed evidence of well-developed levels of fluency, whereas other students were identified as having less-developed levels of fluency.

Well-developed levels of fluency

Laura's responses showed she had strategic competence with accurately adding numbers using known facts. Her use of place value concepts was evidence of conceptual understanding. Her conceptual understanding was also visible when she produced multiple solutions and was able to describe her thinking and her use of appropriate strategies. In the written response, Laura displayed some reasoning about the task when she noticed the pattern in the solutions and could describe the pattern using numbers.

Less-developed levels of fluency

Jayden's response showed he has some strategic competence with smaller number facts and could produce a correct, accurate solution. He chose an appropriate strategy to add the numbers, however, his written working out indicates an inefficient strategy (counting on by ones) for a student in Year 5/6. The correct response indicated he understood the task, so links to conceptual understanding – this is an area to strengthen though. Reasoning about the solutions and the task itself were not visible on the work sample nor in his oral response.
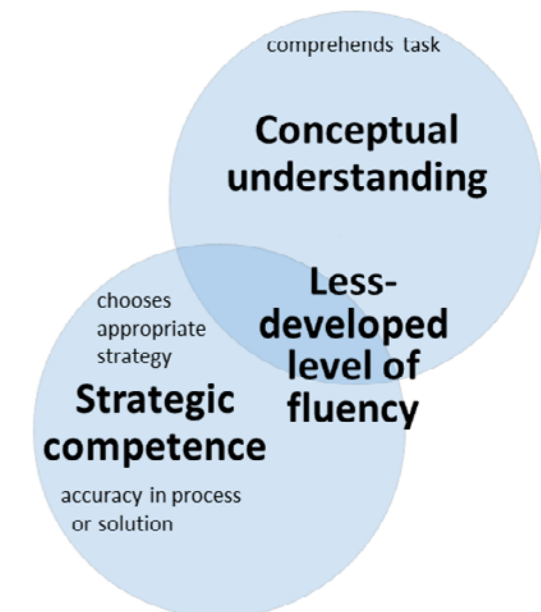
Laura, Year 5/6

Jayden, Year 5/6

Strategic competence	Conceptual understanding	Adaptive reasoning
· Appropriate strategy (for the problem) · Efficient strategy (for stage of learning) · Variety of strategies · Accurate process (correct solution) · Multiple solutions · Ease of mechanics (fluidity) - automaticity · Flexibility (to switch between strategies)	· Comprehension · Making connections between concepts (known to unknown) · Understanding and use of numbers and their relationships · Explanation of method (how they worked it out) · Description of thinking (what they found out) · Sharing strategies [with peers] (communicate)	· Justifying strategy (why the strategy worked) · Justify findings (why the answer is correct) generalises · Locates patterns in solutions · Self-checking method (reasonableness e.g. evidence of crossing out) · Working through errors (evidence of further attempts once error identified)

Figure 4: Characteristics of mathematical fluency

So, where's the fluency?

Here are a few of my reflections when observing students' responses to notice mathematical fluency:

- When students just wrote 'answers' it was hard to 'see' their fluency.
- In the past, correct answer may have been enough to say a student showed 'fluency'. But what do they really know? Is this true fluency?
- A basic knowledge of facts, does not necessarily equate to a well-developed level of fluency, it's just the beginning.
- Fluency is multifaceted. Students develop skills in **choosing** appropriate procedures, carrying out procedures **flexibly**, **accurately**, **efficiently** and **appropriately**, and recalling factual **knowledge** and **concepts** readily. They are fluent when they calculate answers efficiently and recognise **robust ways** of answering questions. (ACARA, 2015).

Using the framework in the classroom

Implementation of the framework in classroom settings has the potential not only to assess predefined elements but to **expose gaps in students' skills** that may be inhibiting the development of mathematical fluency (Cartwright, 2021). A framework is important as it provides teachers with the **tools to help them develop expertise in attending to/ noticing** the mathematics that matters. From the research and analysis of student responses, I further developed the framework of characteristics by creating an elaborated framework with definitions of the characteristics to look for, and a list of questions that teachers could use while observing students. It is hoped that my beginning research into mathematical fluency may provide teachers with scaffolds in what to look for, and how to elicit fluency through questioning.

> **Fluency is multifaceted. Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and appropriately, and recalling factual knowledge and concepts readily.**

Characteristics and their definitions

Strategic competence

- **Appropriate strategy (for problem)**
  Student uses an appropriate strategy (way of solving) for the task, that is, if the task is multiplicative, do students use multiplication (rather than subtraction or division)?
- **Efficient strategy (for stage of learning)**
  Choice of efficient strategy for the student's stage of learning, that is, counting by ones may be efficient for K-2 students whereas this would not be seen as efficient for say a Year 5 student.
- **Variety of strategies**
  Students use more than one strategy to solve the task.
- **Accurate process (correct solution)**
  Student is able to find a correct solution for the task. Students should also be able to articulate this (and say why). This links to understanding and reasoning.
- **Multiple solutions**
  Students find more than one solution to the task (where the task is open-ended).
- **Ease of mechanics (fluidity) automaticity**
  Ease of mechanics – student is able to work with the numbers or processes with ease. The student can bring to mind the 'mathematics' they need to solve the task, recall but not necessarily 'with speed'. This links to articulation of accurate process. This is a verbally observed characteristic.
- **Flexibility (to switch between strategies)**
  Student is able to switch between strategies during the task, and may try a number of different strategies to find further solutions. The student may switch between addition and multiplication. This links to multiple solutions and variety of strategies. This is often observable verbally.

Conceptual understanding

- **Comprehension**
  Student understands the task and what it is asking them to do. This links to accurate process as some students may be able to show fluency but have not answered the question being asked.
- **Making connections between concepts (known to unknown)**
  Students make connections between concepts, moving from the known to the unknown.

Students do this often by saying 'I knew that' or using 'because' with reference to something else they know. These connections may be within a topic, for instance addition, or across mathematical concepts and ideas, such as area and multiplication.

- **Understanding and use of numbers and their relationships**
  Students use numbers and their relationships in solving the task. Students with fluency with numbers know how and when to use them, not just recalling facts or procedures alone. This links to making connections and assets of strategic competence like use and choice of strategies.
- **Explanation of method (process – how they worked it out)**
  The student is able to explain the process used to solve the task, this is usually a step-by-step description, for instance, first I …, then I …, and so on. It may include talk about the operation used.
- **Description of thinking (what they found out)**
  The student can describe what they found out, beyond just explaining the process, steps or method. This is more about their thinking about the solution/s of the task and how they went about solving it. They may say things like I knew …, I found out …, I think it's this because … This links strongly with adaptive reasoning and also to making connections as they see links between solutions.
- **Sharing strategies – communicate/collaborate with peers**
  The student is able to share their thinking and processes with their peers. This is more than just telling the teacher what they did. This characteristic is best seen when students are working in groups or pairs, collaborating on a task and finding solutions together. Much of this is oral discussion.

Adaptive reasoning

- **Justifying strategy (why the strategy worked)**
  This characteristic is about the student reasoning about why the strategy or method worked. They may talk about the strategy as efficient or 'quick' or 'easy' or how it relates to what the question was asking them to do. This characteristic links with explanation of the process.

- **Justify findings (generalises why answer is correct)**
  This characteristic is about students explaining and reasoning about why the solution is correct. It links with justifying why the strategy worked but goes deeper into understanding how their solution actually answers the question – not just that their process worked. What about the 'mathematics' gave them a correct solution?
- **Locates pattern in solutions**
  This characteristic may be classed as higher-order fluency and may only be seen where students are provided with tasks that actually allow for a pattern to be noticed, usually through the finding of multiple solutions. It is about starting to see and notice the pattern within the solutions being found that may then make finding further solutions easier.
- **Self-checking method (reasonableness – for example, evidence of crossing out – written, correct each other – verbal)**
  The student is able to review their work and check for reasonableness of the solutions or the processes applied. This characteristic may be evident through crossing out of work, arrows linking bits of information and solutions (this links with working through errors). This can also be observed through oral discussion and includes group self-checking/correcting.
- **Working through errors (evidence of further attempts once error identified)**
  This characteristic links with self-checking as it may been seen through students' use of crossing out or reworking solutions or processes. The difference is that students who can work through the error continue on with the task beyond when the error occurred. Students who do not have this aspect of fluency either cannot identify their error or stop working once the error happens.

Questions to guide awareness of mathematical fluency

While observing students, teachers could use the following questions to guide 'teacher noticing' when appraising students' strategic competence, conceptual understanding and adaptive reasoning.

Strategic competence

- **Choice of appropriate strategy (for the task)**
  - What strategy did you choose to solve the task? Why?
  - What in the problem made you think to use that strategy?
- **Use of efficient strategy (for student's stage of learning).** Keep the questioning open, not leading:
  - What happened here?
  - Can you tell me about this? Can you explain why you did it this way?
  - Why do you think that?
- **Accurate process and/or accurate solution**
  - How did you work out the problem?
  - What solutions did you get?
  - Do you think your strategy is correct? Why?

Conceptual understanding

- **Comprehension of task.** Rephrasing, defining terms:
  - What does that mean?
  - What operation do you think you might use?
- **Makes connections between concepts**
  - What did you already know that helped you work that out?

- **Describes thinking and findings**
  - Tell me about what you found?
  - What did you find out?
  - What were you thinking as you worked on the problem?

Adaptive reasoning

- **Justifies strategy and/or solution (why)**
  - Will that strategy work all the time?
  - Can you give me another example of when that works? Why?
  - Why do you think your solution is correct?
- **Locates a pattern**
  - What do you notice?
  - What do you notice about your solutions?
  - What do you notice about the way you (for example, 'added') the numbers?
- **Working through errors**
  - I noticed that you crossed this out here, can you talk about that?
  - Did you get stuck anywhere?
  - What might you do next time?

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Making selective education fairer

Dr Rosalind Walsh
Education Lead, High Performing Students Program

Dr Rosalind Walsh explains recent changes to the selection process for opportunity classes and selective schools.

NSW's first academically selective high schools opened in 1883 and the first opportunity classes in 1932. With such a long history, it is unsurprising that there are many myths and misconceptions about the schools and their function. This article outlines some of the recent changes to the selection process and aims to dispel some of the myths that exist about selective education in NSW.

Figure 1: 'What are opportunity classes and selective high schools?' by NSW Department of Education [2:50 minutes, Brightcove]

In 2018, the NSW Department of Education carried out a [review of selective education access](#). The review highlighted a variety of ways in which selective education in NSW could be strengthened to meet the needs of high potential and gifted students. In response to the review, the department is introducing changes to the ways that students access opportunity classes and selective high schools to make the process fairer.

Since 2019, the High Performing Students Team has worked to implement the actions identified by the review, including:

- working with a new test provider to develop a new test which is designed to be less coachable
- changing the weighting of different components of the test to redress an over-emphasis on mathematical ability
- ensuring that gifted learners with disability can access the test on a fair basis through the provision of reasonable adjustments for the testing process. Since reasonable adjustments have been provided, the number of students with an identified disability taking the test has increased threefold.

In July 2022, the Minister for Education and Early Learning, Sarah Mitchell, announced further improvements aimed at making the placement process fairer for gifted students from groups who are currently under-represented in selective education.

Figure 2: ['What do we mean by high potential and gifted students?'](#) by NSW Department of Education [2:34 minutes, Brightcove]

The Equity Placement Model: Making placement fairer

The Equity Placement Model was developed using the latest research about identifying and

meeting the needs of gifted students from groups who are traditionally under-represented in gifted education. The model employs the concept of 'local norms', which means that gifted students from underserved groups are compared against each other, rather than against more educationally advantaged students.

The four under-represented groups that have been targeted for placement in selective education are:

- students from low socio-educational backgrounds
- Aboriginal students
- students from rural and remote areas
- students with disability.

In developing the Equity Placement Model, we compared the current representation of these groups in opportunity classes and selective high schools against their representation statewide. Target benchmarks were established based on the gap between current representation and statewide representation (see Figure 3).
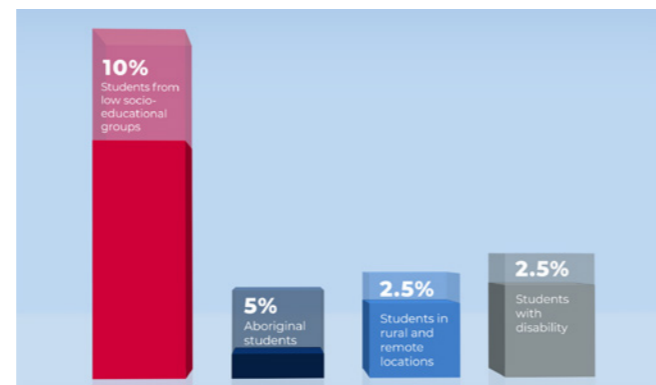

Figure 3: Percentage of students currently enrolled in selective education (unshaded) and equity placement targets (shaded)

Under the Equity Placement Model, places for equity students are held in each opportunity class and selective high school. Students placed under the equity model still sit the placement test. Seventy five percent of places are allocated to schools based solely on test performance. The next 20% of places are allocated as follows:

- 10% to students from low socio-educational backgrounds
- 5% to Aboriginal students
- 2.5% to students from rural and remote areas
- 2.5% to students with disability.

The remaining 5% of places are allocated to students who were unable to sit the placement test for a valid reason.
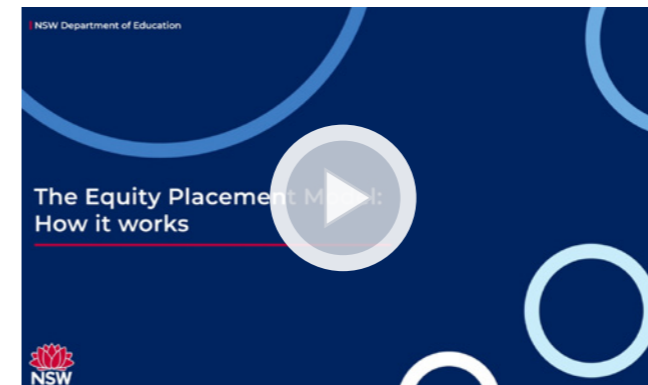
Figure 4: ['The Equity Placement Model: How it works'](#) by NSW Department of Education [4:01 minutes, Brightcove]

To ensure that equity students are able to be successful in the setting, the scores of the equity students must be within 10% of the lowest entry score of the students in the main pool. Selection committees are able to accept students who fall under the 10% if they believe the student would be able to cope in a selective environment.

Students don't need to apply for equity places. The places are allocated based on information that the department already holds. Likewise, for wellbeing and privacy reasons, students will not be aware that they have gained placement based on equity considerations.

As part of the model, we have replaced the scores which were previously published with a performance report to assist parents to better understand their child's performance as compared to other students who took the test. We have also ceased publishing the minimum entry scores to schools.
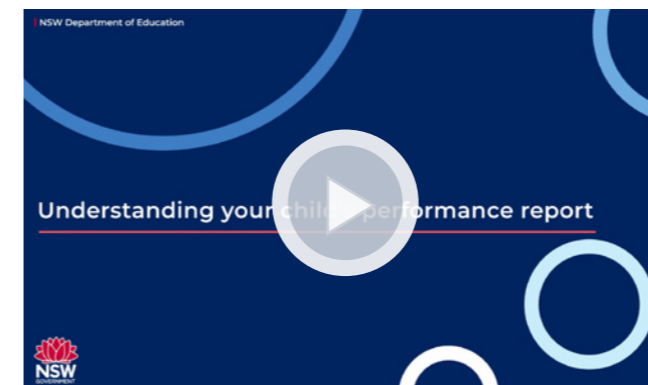
Figure 5: ['Understanding your child's performance report'](#) by NSW Department of Education [4:25 minutes, Brightcove]

Dispelling myths

As the selection and entry process changes, it is important that teachers in primary schools are aware of the expanded opportunities that now exist for high potential and gifted students from all backgrounds and that we help to dispel some of the myths about selective education.

Myth 1: Students need extensive tutoring to gain a place in an opportunity class or selective high school

The department's own research suggests that only around 20% of students who gain a place in a selective high school have undertaken formal coaching classes. Most students report using the department's practice tests (another new feature introduced since the review) to prepare for the test. In the coming year, we hope to expand the preparation materials that the department provides so that any student who wants to access preparation materials can do so on a fair and equitable basis.

Despite playground chatter, there is no credible evidence that tutoring increases scores on the selective high school placement test. Research about tutoring in general suggests that it is effective for children of low ability to increase educational outcomes, but when it comes to high potential and gifted students, there is very little value-add for tutoring (Nickow, Oreopoulos and Quan, 2020). Put simply, tutoring cannot make a student of average ability into a gifted student.

Perhaps the most detrimental impact of this myth is the effect that it has on students from low socio-educational backgrounds. During our community consultations, we had parents who told us that they had simply ignored the material that the school had given them about applying for a place at a selective high school because they knew students in their child's class who had studied for 3 years to prepare for the exam, and they didn't feel their child could compete.

The new placement test has been designed to be less coachable and to select students based on their ability, rather than their socio-economic status.

Myth 2: Students need to be good at maths to gain a place in an opportunity class or selective high school

One of the issues that was identified in the review was an unintentional weighting towards mathematical ability in the calculation of the placement score. This was rectified in 2020 and, as a consequence, we have seen that there is now no longer a significant difference between the scores of boys and girls. It is important that we ensure that parents and students are aware of this improvement and that we are encouraging students with strengths in literacy to apply for selective education placement.

Myth 3: Selective high schools are solely focused on academic development at the expense of the whole child

In a recent visit to a fully selective girls' high school, we asked the students what they thought would surprise people to learn about their school. Their answers highlighted a pervasive myth that exists about selective high schools only catering to the academic needs of students. 'People think we are just brains on legs,' said one student. 'But we aren't like that. There's so many people who are talented in music and drama and sport here.' The student went on to outline the extensive co-curricular opportunities that exist at her school.

Interestingly, the department's survey of parents who declined a place for their child found that many believed that the schools were unduly focused on academics. COVID-19 restrictions on school visits meant that many parents were not able to visit the schools, all of which have a broad range of co-curricular activities.

Myth 4: Students with disability will not be placed in opportunity classes and selective high schools

We know that approximately 10% of gifted students also have disability (Ronksley-Pavia, 2020; NSW Department of Education, 2021). We also know that parents can be reticent to reveal their child's disability

One of the projects that we are currently undertaking is supporting students with disability to transition into selective education.

when applying for placement in an opportunity class or selective high school as they believe the child may be discriminated against. The establishment of the disability equity group should serve to highlight that there are places available for these students and that they are welcomed into selective education.

One of the projects that we are currently undertaking is supporting students with disability to transition into selective education. We know that changing schools can be a pain point for those with disability and the selective education system has not made it easy for successful transitions to be planned and implemented. We want parents of students with disability to be confident that their child's needs will be met and that the child can be successful within a selective education setting.

What can teachers do to support the new model?

Encourage students to take the placement test, especially students from the targeted equity placement groups. As a general guide, students who score in the top two bands in any subject area on NAPLAN in Year 3 or Year 5 should be encouraged to take the placement test. Best practice in the identification of high potential and gifted students would suggest that universal testing, whereby all students take the test, is the most effective way to increase the numbers of under-represented students. One case in point is a study from Florida. It found that when universal testing was implemented in Florida's schools, the number of students identified as gifted increased by 130% for students of Hispanic background and by 80% for Black students (Card and Giuliano, 2015).

Encourage gifted students with disability to be open and transparent about their needs for the testing process and for placement. Emphasise that disability information is only considered where it advantages the student for placement.

Encourage students and their parents to visit the Selective high schools and opportunity classes website to view our new videos (Figures 1, 2, 4 and 5) and materials which will help them decide if an opportunity class or a selective high school might be the right setting for them.

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Information fluency:
A framework for teacher librarians as expert practitioners

June Wall
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June Wall explains the purpose and structure of the Information Fluency Framework and suggests ways the framework can be used in schools.

Abstract

The Information Fluency Framework (IFF) has been collaboratively developed by teacher librarians in the NSW Department of Education. It is a learning outcome framework mapped to curriculum outcomes through the lens of information use. The IFF enables teacher librarians to be expert practitioners using the various aspects of information use and creation as the core to learning. It can also be used in consideration with new and emerging pedagogies.

Introduction

The development of the Information Fluency Framework (IFF) has been long and considered. It started as a leadership opportunity (Wall, 2010), then became an innovative thought about how teacher librarians (TLs) could have more evidenced-based impact on teaching and learning in their schools (Wall and Bonanno, 2014a, 2014b; Wall, 2016). Finally, it became an empowered process of development for a large team of TLs in NSW public schools.

The collaboration was initiated from ongoing conversations (Wall, 2016, 2018a, 2018b) and became formalised at the NSW Department of Education TL state conference in 2018 ('Learning from others to innovate for learning'). Since 2018, over 100 NSW TLs have been part of a truly collaboratively developed document that grew and changed as our thinking deepened and broadened (Cook, 2021; Wall, 2019, 2021a). The advent of the COVID-19 pandemic in 2020 and 2021 delayed some actions but, in true TL form, we persevered and can now present the complete Information Fluency Framework (NSW Department of Education, 2021, PDF 931 KB).

Information fluency

Information fluency is the ability to critically think while engaging with, creating and utilising information and technology, regardless of the information platform or medium (NSW Department of Education, 2021). It incorporates our understanding of information literacy, the Australian General Capabilities, and the growing range of necessary work skills and enterprise skills. Information fluency is viewed through the lens of 2 strands – as an **information consumer** and also as an **information creator**. The framework was developed based on 5 elements:

- Social
- Literate and literature
- Innovation
- Critical and creating
- Ethical.

The Information Fluency Framework provides a framework that can show the expertise of teacher librarians through understanding of what it means to be fluent in any skill set or capability.

Learning framework

The framework is positioned as a series of progressions that can be accessed from a range of entry points:

- Stages of learning (NSW curriculum stages) or year levels
  - Which elements are important for your school?
  - Given the context of your school, what do you need to focus on?
- A specific element. For example, the library in XYZ primary school has a high impact on literacy, and so the focus is on literature and reading. Therefore, the Literate elements could be utilised.
  - Which element is appropriate (for example, Critical and creating)?
  - Do you need to focus on just one of the strands (for example, information consumers)?
- If a project-based learning (PBL) approach is taken in a school, then a range of outcomes from the IFF could be integrated in a teaching sequence to meet needs.
  - For PBL, the Social, Literate and Critical elements may be more important.
- A scope and sequence could be developed that focused on the strand of information consumer.
  - If your school places a higher priority on students as consumers, then only select that.
  - Is there a focus on literacy? Perhaps select the Social and Literate elements, and then only the consumer sub-element.
- A sub-element or elements could be the focus, depending on student needs.
  - Is it more important for your students to know how to research or how to learn or how to persuade etc? Therefore, select sub-elements that will meet these needs.

While specific library jargon has been avoided, the outcomes incorporate all aspects of the basics of teaching a student how to use the library. View the sample units provided later in the article to see this in practice.

Teacher librarians as expert teachers

To be great TLs, we must be great teachers. The IFF provides a framework that can show the expertise of TLs through understanding of what it means to be fluent in any skill set or capability. Using the IFF shows the TL's knowledge and understanding of curriculum, as well as the ability to be agile or flexible in how this integrates with information fluency.

An expert TL is one who:

- demonstrates curriculum expertise across the school that is mapped to information fluency
- demonstrates an ability to be flexible and agile in thinking about teaching and learning and delivering teaching and learning
- demonstrates leadership in innovative pedagogies and maintains a watching brief on new pedagogies
- is expert in the use of digital technologies, based on the needs of the students in their school
- implements diagnostic and assessment tools to determine the progress of students in information fluency.

Teacher librarians using the IFF have a tool that will assist them in being expert teachers and to showcase this to other teachers in the school.

Innovative pedagogies and information fluency

The difference between successful innovators and everybody else is that innovators keep failing until they don't. They have to be irrationally passionate. Innovators keep banging their head against the wall until they make a door (Ashton, 2015).

With an innovative mindset, TLs can begin to reflect on and consider their role in relation to changing educational needs and the rapidly changing digital and educational landscape. Specifically, for TLs who have expertise in a variety of pedagogical practices, the need to provide support and ideas for pedagogical innovation (Baker, 2010) is core to the future of the profession.

Innovative pedagogies, as outlined by OECD (Paniagua and Istance, 2018, p 79), provide an approach for TLs to determine the most appropriate pedagogy for any given learning outcome. This is also appropriate for information fluency outcomes. Here are some examples

of the teaching of IFF outcomes through a combination of innovative pedagogies selected from the clusters:

- Embodied learning – pedagogies using creative experiences and active student involvement
- Experiential learning – active experience, inquiry and reflection
- Computational thinking – problem solving
- Blended learning – blended online and face-to-face learning, determined by student need
- Gamification – pedagogical core of gaming
- Multiliteracies and discussion – developing cultural distance and critical capacities.

These approaches provide both evidence of a high level of expertise from the TL as well as direct pathways for the teaching of information fluency outcomes. A problem-based learning methodology could include blended learning, gamification, multiliteracies and discussion.

From an information perspective, the design of blended learning and gamified learning experiences would require an information fluent approach for both the design of the learning experience and the scaffolding students would need to actively participate in the learning.

A review of innovative pedagogies noted, in particular, that formative analytics, place-based learning and teachback (Herodotou, 2019) were some examples of pedagogies that met the conditions of evidence, 21st century skills and educational theories, and formed a framework for how to select the most appropriate pedagogy for a teacher's purpose.

Teacher librarians as instructional leaders

Leadership for TLs is about showing a level of instructional expertise in utilising information fluency while, at the same time, delivering curriculum outcomes. Leadership is where the TL shows vision and an ability to look beyond issues within the school to focus on the future of students.

The following sample units are provided as one way into using the IFF and developing learning sequences that focus on curriculum and information fluency, and integrate the traditional teaching of how to use a library. A scope and sequence has been developed for the K-6 unit to show how the new English K-2 syllabus can be mapped for library purposes.

- Stage 1 English in the library – scope and sequence, plus unit sample
- Stage 3 English, PDHPE and geography – project-based learning and the Information Fluency Framework (Grimmett, 2021, p 12):
  ◦ PowerPoint (PPTX 7.7 MB)
  ◦ teaching program (PDF 597 KB).
- Stage 5 history (Year 10, Core Study: Depth Study 4) – lesson sample.

Next steps

The development of the Information Fluency Framework has been long in process but it is not yet complete. A curriculum mapping process has begun to focus initially on English, history, science and geography. This will then

provide further entry points to the IFF and make designing a teaching and learning sequence easier for all TLs.

The original idea was to then develop assessment strategies for the IFF outcomes and I hope this will continue to grow. The Information Fluency Framework is a framework that could be used as curriculum changes as it has, at its heart, the core understanding of students as lifelong learners.

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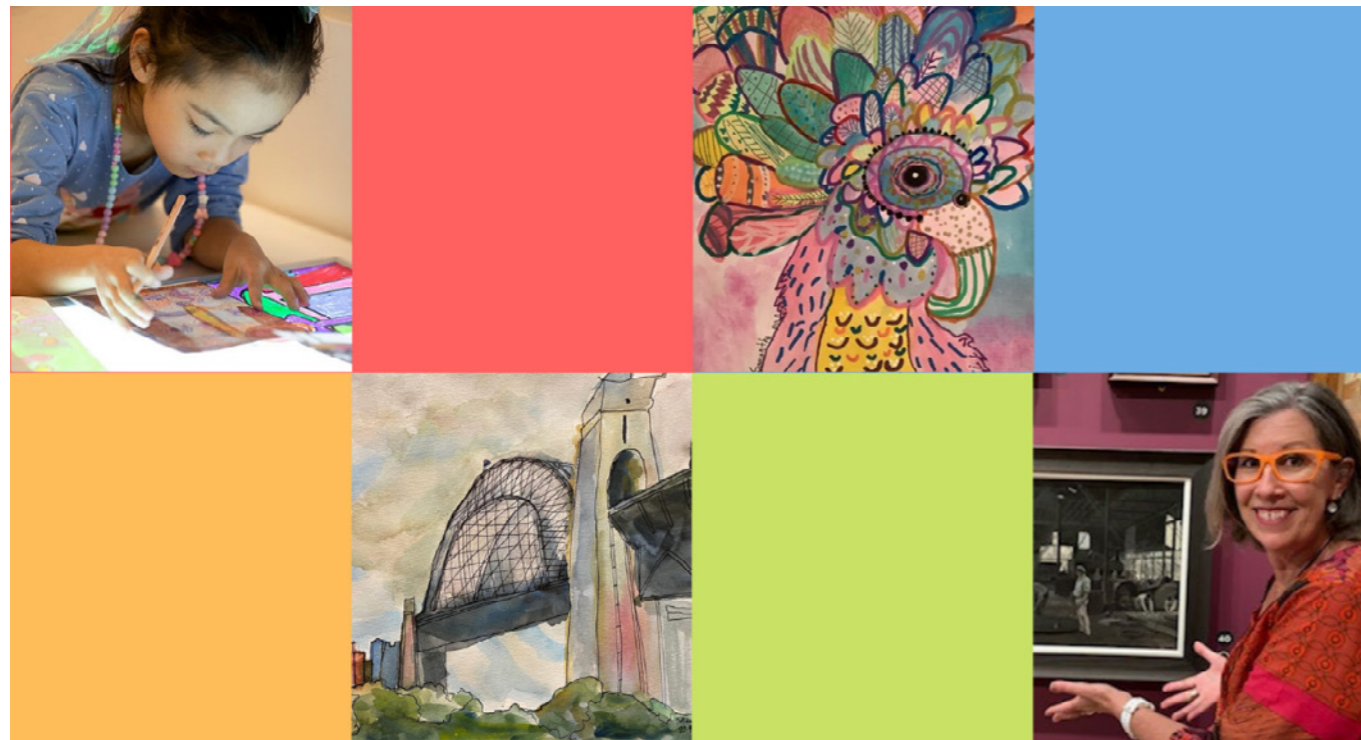
Building creative communities at the State Library of NSW

Susan Brawn
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Alicia De Audney
Education Officer, State Library of NSW

Andrea Sturgeon
Education Officer, State Library of NSW

Susan Brawn, Alicia De Audney and Andrea Sturgeon offer details about three exciting online children's clubs hosted by the State Library of NSW.

The State Library of NSW is Australia's oldest library. Its rich and fascinating collection has inspired generations of creative minds. Now, a new generation is being invited to engage with the collection in an enjoyable, creative and playful way through three online after-school clubs: Art Club, Young Writers Club and, most recently, Book Lovers Club.

These clubs provide a safe, supportive environment to experiment with ideas and build creative confidence. More than 1000 children and young people have already joined, and the number is constantly growing as the word spreads.

What do these clubs involve?

Art Club and Young Writers Club are fortnightly online after-school groups with sessions held on alternate weeks. During each session, members are guided through a series of engaging activities with a focus on improving their creative skills. Presenters use the State Library's collections in unexpected and unconventional ways to promote creativity and challenge members to take risks and experiment in imaginative ways.

Each session is highly interactive, with members communicating with presenters using the Zoom Q&A and receiving responses in real-time. A playful approach to each club has helped to build a strong following and shows that the best learning happens when children and young people are relaxed and having fun.

Following the success of Art Club and Young Writers Club, a third club, Book Lovers Club, was launched this year. This club meets from 4pm to 5pm on the first Tuesday of each month, during school term time. Each month a special guest author, illustrator or book-loving expert shares a list of their favourite books and joins our members for an online discussion. Book Lovers Club follows the same two-way conversation approach that has been so successful for both Art Club and Young Writers Club.

Taking a closer look
Art Club
Art Club is presented by art educator, Andrea Sturgeon. Each fortnightly session features a different artwork from the State Library collection, with a brief introduction to the painting and its history. Members are then encouraged to leap into the fun of creating artworks based on the image.

Art Club has explored many kinds of images including portraits, landscapes, seascapes, children's book illustrations, colourful map cartouches, original historical and contemporary artworks created by First Nations artists and depictions of scenes of Australian life.

Andrea models art techniques in real-time and provides step-by-step instructions via an over-desk document camera. This is an integral part of each Zoom session. Art clubbers are invited

to email their work to the State Library after each session and receive a supportive personal email in response. This helps them to develop confidence in their abilities and shows that their efforts are being acknowledged and appreciated in the wider world.

Andrea shares the artworks sent in with the wider group during the Zoom sessions building stronger connections between the members. These artworks are also displayed in a gallery on the website.

Young Writers Club
Young Writers Club is presented by education officers and literature enthusiasts, Alicia De Audney and Susan Brawn. Each term, the online sessions focus on a different, exciting genre. Some of the most popular genres have been cosy crime, fantasy fiction and time travel.

Following the unique conventions of the selected genre, Susan and Alicia infuse these stylistics into the simple ingredients required to build a great story. They guide members through the process of piecing a story together, just like constructing a jigsaw puzzle. Each week, a writing project is set, usually covering a section of the narrative by drawing on activities completed during the session.

By the end of the term, the young writers have a completed story that they can share on the bespoke website created for the purpose. Members who choose to make their work public have their writing published for all to see. In addition, they can learn from one another by reading the work submitted by their peers.

Book Lovers Club
Book Lovers Club is the most recently created club. Launched in June 2022, this club is facilitated by Alicia De Audney and Susan Brawn in conversation with special guests. The first distinguished guest author was Australian Children's Laureate 2022-2023, Gabrielle Wang.

> **Presenters use the State Library's collections in unexpected and unconventional ways to promote creativity and challenge members to take risks and experiment in imaginative ways.**

Susan Brawn and Alicia De Audney presenting a Young Writers Club session.

Club members have an opportunity to interact with special guests throughout each session by typing their questions and comments into the Q&A area. After the session, club members engage in a 'book chat' with a different question or stimulus each month. For instance, in June, members were asked, 'If you could bring any fictional character to life, who would you choose?' Book lovers post their responses to a webpage where they can see the feedback from their peers and enjoy a sense of community.

A monthly drawing or writing project is also set, challenging members to think creatively. By way of example, a recent project asked members to draw a scene from one of the books on the monthly reading list.

What makes these programs successful?

When planning the sessions for each of these online clubs, differentiation is a high priority. Everything is designed to be open-ended and accessible to all club members, regardless of their age or skill level. During the sessions, members are offered a good deal of support and encouragement when they share their contributions.

Through modelling and breaking activities down into small parts, the presenters help members to work at their own level. All are encouraged to contribute and create, regardless of their age, experience and ability. For example, in Young Writers Club, younger members are steered towards producing lively, thoughtful writing, while teenagers are urged to take up the prompts and 'run' with them, thereby leading to writing detailed chapters with exciting imagery and characterisation.

These clubs are about engagement, creative experimentation and bringing together like-minded individuals. The groups have led to the formation of a creative community in which members support and value one another, share ideas and discover a sense of belonging.

When planning the sessions for each of these online clubs, differentiation is a high priority.

What is the impact?

It is not only the children and young people involved in the clubs that recognise the benefit of their participation. While the members themselves might simply love being part of the fun and having a go at creating something new or discussing ideas, their parents are noticing that the impact of the clubs is far more wide-reaching.

Alicia and Susan have received feedback from many parents who are amazed at how much more confident their child has become with their writing, and how quickly they have noticed improvements. Andrea also receives emails from overjoyed parents who are observing their child transform into a confident artmaker through their engagement with Art Club. Parents appreciate that their child is being provided with more complex stimuli, gathered from a range of sources, thus providing greater creative opportunities and deeper learning, rather than merely another drawing of a favourite television or movie character.

These online clubs help young artists, writers and book lovers to become aware that they can respond in a creative way to just about anything seen, heard or experienced. Through their involvement in these clubs, members begin to develop the creative skills and processes that practising artists, writers and readers use every day.

Setting children up for life-long creativity

By reflecting on these three successful clubs and their positive impact on members, it is easy to see the

Parents appreciate that their child is being provided with more complex stimuli, gathered from a range of sources …

importance of providing creative opportunities for children and young people. What began as an online afternoon art class designed to help children and young people during a global pandemic has become so much more.

These clubs provide more than step-by-step instructions on how to draw or write in a particular way. They set participants up for a lifetime of learning and creativity by giving them the confidence to try new things and a space to showcase their creativity.

Along the way, club members build a relationship with the oldest library in Australia, so when the time comes for these club participants to write their first novel or prepare for an art exhibition, perhaps the State Library of NSW will be the place they return to for inspiration as so many successful creative people before them have done.

Writing for Scan

Is your school - or someone you know - doing something innovative or inspiring? We're currently sourcing content for 2023 - standard articles, research, and SPaRKs (Shared Practice and Resource Kits).

Check out the Writing for Scan section on our website to view our writer and research guidelines. Then email us with your article idea!

Diversity, inclusion and representation: Resourcing the curriculum

Rebecca Toltz
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Rebecca Toltz considers the need for, and implications of, curating and using diverse texts in school libraries and the curriculum.

Identity, culture and connection

The resources teachers share with students speak to who we are and what we value. They also aid our understanding of contemporary Australian culture and help us to 'build culturally inclusive teaching and learning [through which] students explore difficult questions around power relations, notions of identity, and cultural complexity' (NSW Department of Education, 2022a).

As part of culturally sensitive and inclusive pedagogy, the careful selection and use of classroom and library texts can transform our teaching and students' learning by introducing new concepts and perspectives and by challenging students to think beyond traditional stereotypes. In her seminal essay on the value of reading, Mirrors, windows and sliding glass doors, Rudine Sims Bishop (1990) notes that books and reading, as well as being mirrors in which students can see themselves and connect with their own experiences, can also serve as windows into the lives of others and sliding doors through which students can walk and step into other's shoes. Research (Adam et al., 2020) plus anecdotal evidence from authors and educators suggests that this reflective and empathetic aspect of reading described by Bishop can have a profound and positive effect on the academic engagement and personal wellbeing of students, particularly those from traditionally marginalised groups.

According to Nieto and Bode (n.d.), 'culture consists of the values, traditions, worldview, and social and political relationships created, shared, and transformed by a group of people bound together by a common history, geographic location, language, social class, religion, or other shared identity.' As this definition and the NSW Department of Education (2022a) suggest, the notion of culture is complex, contested and dynamic; however, if teachers are to build culturally inclusive learning environments that help meet the needs of students and their families, cultural diversity is a concept that must be understood and made manifest through teaching and learning activities. To assist teachers in this regard, the NSW Department of Education (2022a) website offers two recordings by Professor Greg Noble that explore the complexity of the term 'culture' and the relationship between culture, diversity and identity.

Identity and promoting cultural understanding through literature

Among the diverse aspects that make up a student's identity and shape the ways they engage with the curriculum are culture, language, colour, gender, gender identity, religion, mental health, socio-economic background, disability and neurodiversity.

> **The intentional integration of diverse texts ensures that students have equitable access to literature that enables them to see themselves and others positively and empowers them to be thoughtful and active citizens …**

The manner in which these aspects interact is described as 'intersectionality' and can potentially expose students to 'overlapping forms of discrimination and marginalisation' (Victorian Government, n.d.).

By intentionally integrating culturally diverse and inclusive books into the curriculum and school libraries, schools can work towards addressing intersectional biases and cultural absence that exist in traditional mainstream children's literature. As Dr Helen Adam and colleagues (2020) note, 'research over many years has shown books can empower, include and validate the way children see themselves. But books can also exclude, stereotype and oppress children's identities. Minority groups are particularly at risk of misrepresentation and stereotyping in books' (para. 5). The intentional integration of diverse texts ensures that students have equitable access to literature that enables them to see themselves and others positively and empowers them to be thoughtful and active citizens, thus helping to develop personal and social capability, as outlined in the Australian Curriculum (Australian Curriculum, Assessment and Reporting Authority (ACARA), n.d.-c). By nurturing strong, inclusive learning communities in this way, student diversity is also increasingly revealed as a powerful pedagogical resource; inherent in our learners is a rich diversity of ideas, skills, perspectives and lived experience.

Using literature to promote critical thinking

Cultural sensitivity can enhance students' understanding of the world, with research suggesting that exposure to multicultural literature can increase students' awareness of the various social practices, values and belief systems of other cultures (Evans, 2010). Exposure to, and the study of, culturally diverse and inclusive texts in school library and classroom collections can also develop students' knowledge and critical thinking skills.

Critical and creative thinking is another of the Australian Curriculum's (ACARA, n.d.-a) general capabilities and is integral to learning across the curriculum (NSW Education Standards Authority (NESA), 2021). The critical thinking general capability is also embedded with the Information Fluency Framework (NSW Department of Education, n.d.-b); an easy to use and inspiring tool for use with culturally diverse

and inclusive literature. The progression of outcomes in the Social and Ethical elements of the Information Fluency Framework provide appropriate entry points for teachers and teacher librarians to identify and implement literature-based learning tasks to develop students' skills and understandings.

Auditing existing school resources for diversity

The first step to ensure that the texts we provide for students reflect diversity and promote a sense of inclusion is to sensitively identify diversity within our students and the wider community. In addition to school-based data, other sources of demographic information, such as the Australian Bureau of Statistics (n.d.) and the NSW Education Data Hub (NSW Department of Education, 2022d) can provide local population snapshots. Using knowledge and an understanding of a school's demographic 'make-up' and acknowledgement of the diverse local, national and international contexts in which the school operates, teachers and teacher librarians can then take practical steps to provide young people with texts that reflect the complexities of life in contemporary society.

A complete diversity audit of a school's resources is a large and long-term project; there is no avoiding the reading involved and careful consideration of a text's suitability against criteria that ensure curriculum requirements and student needs are met. Karen Jensen (2018) however, provides several alternatives to a complete diversity audit of a school's resources, which include: random sampling of library or classrooms collections; identifying diversity through a subject heading search in the library catalogue; and conducting a 'reverse diversity audit,' where texts are examined against published lists of texts that focus on traditionally marginalised groups. For example, the 'Diverse Picture Book' recommendations for primary and secondary students from the State Library NSW (2022) and resources from the National Centre for Australian Children's Literature (2022). Additionally, the value of human resources in the form of recognised members of diverse communities to assist in diversity audits should not be overlooked. For example, Queensland teacher librarian, Dale Robertson, and Kerry Klimm, journalist and proud Gugu Yalanji and Koko Lamalama woman, collaborated to decolonise a high school library collection to better represent Aboriginal and Torres Strait Islander peoples (Klimm and Robertson, 2021).

## Selecting and assessing culturally inclusive content

Curating curriculum and library collections to incorporate texts that mirror the diversity in our student population, our school community and our society more broadly, gives all students opportunities to see themselves in texts and develop empathy and understanding as they experience the stories of others. In addition to backward mapping a school's resources to ensure 'all students can access and fully participate in learning' (NSW Department of Education, 2022b), teachers and teacher librarians should be guided in future resource acquisition by the policies and resource recommendations provided by their governing education body. For example, the NSW Department of Education provides criteria and key questions to guide teacher choices about culturally inclusive content and more specific resources such as *Using picture books for intercultural understanding: Learning across the curriculum* (a K-10 resource offering learning activities focused on texts recommendations to progress intercultural understanding) and *Intercultural understanding through texts: English K-10 resource*, which reviews texts specifically aligned with the Australian Curriculum's (ACARA, n.d.-b) general capability, Intercultural Understanding. Primary teachers with the NSW Department of Education can also access the short MyPL module, 'Choosing quality resources' within the 'Quality curriculum implementation K-6' course.

Various selection tools and checklists for choosing resources that acknowledge and promote diversity and inclusion can also guide decision-making when acquiring resources. For example, Adam (2021) shares a number of evaluative checklists to guide the selection of resources to assist teachers to create inclusive learning environments, while Qureshi and Mouglalis (2015) provide criteria for selecting resources to support the implementation of multicultural education in NSW public schools.

Resource lists, particularly those provided by people with lived experience, such as author Jasmine Seymour, also offer a valuable starting point for research into, and selection of, diverse texts that promote inclusion. There is no single list that will accommodate the diverse teaching and learning requirements of the curriculum, nor the personal social and emotional needs of all students. That said, the following shortlist provides a starting point for text selection:

- Aboriginal Studies Press
- American Library Association: the Rainbow Book List
- Batchelor Institute Press
- BlackWords (AustLit)
- Christchurch City Council Libraries: Rainbow Reads
- Ed Wiley Autism Acceptance Lending Library
- IBBY: IBBY Collection for Young People with Disabilities
- LBHTQ Reads
- Magabala Books
- National Centre for Australian Children's Literature (NCACL): NCACL Cultural Diversity Database and NCACL Aboriginal and Torres Strait Islander Resource
- Not an Autism Mom
- Raising Luminaries: Books for Littles
- Reading Australia: Books by First Nations creators
- Readings: LGBTQIA+ books for kids
- Source Kids: Books for young readers that feature disability
- State Library of NSW: Diverse picture book collections
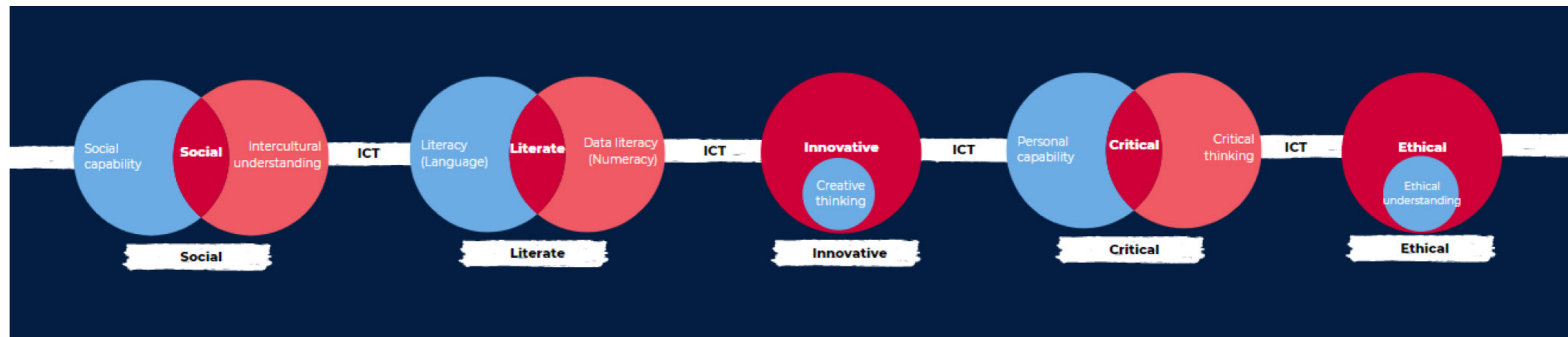
Elements of information fluency, from the Information Fluency Framework (NSW Department of Education, 2021)

NSW Department of Education staff and teachers from community language schools can also access the Henry Parkes Equity Resource Centre, which offers over 45,000 contemporary equity resources and kits.

Conclusion

Including diverse and representative texts in school libraries and classrooms is part of a larger educational shift to ensure 'all students can access and fully participate in learning, alongside their similar-aged peers, supported by reasonable adjustments and teaching strategies tailored to meet their individual needs' (NSW Department of Education, 2022b). While responsibility to enact this shift falls broadly across governments, schools, curriculums, public institutions and communities, it is also the responsibility of every teacher and teacher librarian to ensure that diversity is acknowledged, representation is visible, and inclusion is practised in their classrooms and school libraries. To achieve this, thoughtfully chosen texts can be powerful tools – the mirrors, windows, and sliding doors (Bishop, 1990) that expose students to other lives, cultures and possible selves.

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Artist's impression of the Children's Art Library at the Art Gallery of New South Wales. (Produced by Mogamma for Tonkin Zulaikha Greer Architects © Mogamma.)

The Children's Art Library at the Art Gallery of New South Wales

Robyn Louey
Librarian, Capon Research Library,
Art Gallery of New South Wales

Robyn Louey reports on the establishment of the new Children's Art Library at the Art Gallery of New South Wales.

The first in Australia, the new Children's Art Library at the Art Gallery of New South Wales is designed to inspire an interest in art, creativity and reading in children. The library will be part of the new suite of art education and scholarship facilities in the Gallery's relocated Edmund and Joanna Capon Research Library and National Art Archive. The collection of fiction and non-fiction publications on art and artists will provide a solid foundation in art education for children and complements the Gallery's existing educational offerings, which include information sessions for teachers and high school students regarding resources and use of the Research Library for academic study.

Beginnings

The [Sydney Modern Project](), due to open in December 2022, is a major expansion of the Art Gallery of New South Wales. The project provided an opportunity to reappraise the usage of spaces within the existing building, including the relocation of the research library and archive to lower level 3.

Prior to the project, gallery collections provided primarily for adult researchers; however, library staff saw a need for resources to cater for young children when parents and carers wandered into our reading room. The library's subsequent suggestion for a dedicated children's art library in the new space was enthusiastically embraced and approved by the Gallery executive team and board of Trustees.

Two important goals for the children's library are to provide art education for younger children and to broaden the Gallery's appeal to families. At the time of writing, the finishing touches are being made to the new architecturally designed library spaces – the Children's Art Library, library reading room, archive material access room, public lounge areas, exhibition display spaces and library office.

The Children's Art Library includes cube-like book towers for climbing and book display, a wall of custom-made benches, child-sized tables and chairs and its own information desk. Access to an outdoor garden and proposed children's playground flow from the indoor spaces.

One significant donation provided the necessary financial support to proceed with the design and build of the Children's Art Library, while other donations have funded our children's book acquisitions. We are deeply grateful to all our donors for their kind generosity.

Background

The research library of the Gallery has been open to the public since 1972 and has been in existence since the establishment of the Art Gallery of New South Wales in the 1870s. The library provides reference services for Gallery staff and volunteer guides, arts professionals, artists, art historians, media, academic staff and students, teachers, school students, and the general public.

> **The first in Australia, the new Children's Art Library at the Art Gallery of New South Wales is designed to inspire an interest in art, creativity and reading in children.**

Our research library and archive have one of the most outstanding collections of fine art publications, rare books and manuscripts in Australia. We are a non-lending library, so all material is used onsite, including our children's library publications.

The new Children's Art Library will be one of only very few in the world. Other children's art libraries are located within the [Metropolitan Museum of Art]() (2021) in New York, the Dundee Contemporary Art Centre in Scotland and the Islamic Art Museum in Kuala Lumpur, Malaysia.

Collection development

The Children's Art Library's intended audience is children from 0-12 years of age. We have started with a low-fi approach to collection development, which will be subject to change based on usage and demand. This approach has concentrated on the acquisition of print fiction and non-fiction art publications that include a range of children's modern and classic literature, art-related storybooks, fine art and art history books, books on individual artists, and instructional art and craft books.

A selection of books in the Children's Art Library

We have acquired many beautifully illustrated storybooks and picture books for various ages and reading abilities. Books where the main story is about art, artworks, art museums or being creative are identified with a pink sticker as an 'Art storybook'. This label aligns with our broader aim to encourage the 'reading for pleasure' principle as discussed by [Smith]() (2022), where reading is willingly done for its own sake. Smith considers reading for pleasure to be 'highly significant to a student's educational growth' (p 15) and we especially hope that the set of 'pink' books will foster an active interest in reading from an early age and provide art education.

Three of our collections incorporate the principles of the Gallery's diversity and inclusion policies: Junior First Nations, Junior Accessibility (fiction and non-fiction books about people with disabilities, and books designed to aid accessibility for children with disabilities, for example, Braille), and Junior LOTE (Languages Other Than English).

The LOTE collection is a vibrant collection of storybooks in over 17 Asian, European and Pacific languages and we will continue to add more books in more languages. Users can search in their preferred language script on the OPAC. An important goal of the library is to attract more families of culturally and linguistically diverse backgrounds to visit and enjoy our resources.

Cataloguing the collection

For each of the eight collections in the new children's library, there was much discussion and planning when determining the parameters and factoring for future growth. To ensure consistency, we established in-house cataloguing rules. Use of the Library of Congress (LC) subdivisions of 'Juvenile literature' and 'Juvenile fiction' are applied to all children's material, and each collection is described as either 'Preschool' or 'Junior' to distinguish children's items from our research library collections.

We created a list of in-house Library of Congress **Index terms uncontrolled** headings (USMarc tag 653) to describe the content type for library staff retrieval and for reporting and collection development. For example, Preschool concept, Make and create, Junior solo artist, Rainbow plus, Junior accessibility non-fiction. We also use relevant LC **655 Genre/Form** headings for improved search retrieval and reporting; for example, Wordless picture books.

Examples of storybooks about art and artists

Browsing the collections

Children have limited abilities to search productively using an online library catalogue and most will not ask for help when they can't find what they are looking for (Farmer, 2021). Therefore, the collections within the children's library have colour coded stickers with a call number label, and each collection will be kept together on the shelf for easy browsing by children and their parents or carers. LOTE books have white stickers and are labelled and will be displayed by language, such as J LOTE/ARABIC/TAHI.

A much-simplified version of the Dewey Decimal system has been applied to non-fiction books. For instance, books about individual artists are located at J 709.2, followed by the first four letters of the artist's surname; books on making and creating art and craft are found at J 372.5.

Wordless picture books are of great value in our collection, engaging children's imaginations rather than relying on text. They can also encourage adults from non-English speaking backgrounds 'to connect with their children through 'reading' these books in their own language' (Kaplan, 2021, p 110).

> **Three of our collections incorporate the principles of the Gallery's diversity and inclusion policies: Junior First Nations, Junior Accessibility, and Junior LOTE.**

Library system upgrade

This year, the research library upgraded its library management system to the web-based version (Spydus v10.9). This version has many benefits, including our ability to customise the online public access catalogue (OPAC), fuzzy logic searching, display of book covers, and the ability to search and display non-Roman languages in original script, for example, Chinese. These features will increase the exposure and accessibility of our children's publications to their intended audience.

Programming and community

There are exciting programming and event possibilities forecast for our children's art library in 2023. One definite event will be a regular Storytime featuring books in our collection. We also hope to organise programs with artists using the Gallery's art collection as inspiration for activities, curating displays and creating artworks with our young audience.

Staff of the Children's Art Library have established contact with various community organisations that have expressed a real interest in collaborating with the new library and providing their services to children. We also have a wealth of talent within the Gallery for collaborative events, with the Learning and Participation Department and the Art Gallery Society's children's programs coordinator keen to be involved. Currently, art-oriented creative and educational activities and storytelling events are in development.

The Children's Art Library is an exciting initiative for the research library and for the Gallery and will provide an educational and inspiring space for children to engage with art, knowledge and reading. We hope to see many children and families visit our new quarters on lower level 3 of the Art Gallery of New South Wales, opening on Tuesday 6 December 2022. Further details will be available on the Gallery's website.

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SPaRK

Shared Practice and Research Kit

Migration: An intercultural experience to be shared

(Stage 3 and Stage 4)

Dr Cathy Sly
Researcher and writer

In this Shared Practice and Resource Kit (SPaRK), Dr Cathy Sly highlights how three multimodal texts can be used with Stage 3 and 4 students to foster positive understanding of the migrant experience.

The general capability of Intercultural understanding in the Australian Curriculum 'encourages students to make connections between their own worlds and the worlds of others, to build on shared interests and commonalities, and to negotiate or mediate difference'. This Shared Practice and Resource Kit (SPaRK) focuses on three multimodal texts that can be used independently or together to foster a positive understanding of migration. These publications have relevance both for new arrivals to Australia and their hosts.

Resource overview

The selected resources include an enchanting picture book titled *The Suitcase* by Chris Naylor-Ballesteros and Axel Scheffler, a thought-provoking wordless picture book titled *Migrants* by Issa Watanabe, and *Migrations*, a collection of postcards created by children's book illustrators from around the world and submitted for an exhibition curated by the International Centre for the Picture Book in Society and held in Bratislava in 2017.

Through a combination of words and images in traditional picture book format, *The Suitcase* relates the tale of an unidentifiable, gender nonspecific, animal-like character journeying laboriously with a large suitcase. Along the way, the strange animal encounters a chicken, a rabbit and a fox, who interrogate the traveller about the suitcase's contents. The animals are sceptical about the alleged contents, and when the traveller falls into an exhausted sleep, the inquisitive chicken, rabbit and fox break into the suitcase. Their feelings of guilt following their invasion of the traveller's privacy prompt an unexpected outcome.

Migrants is also a picture book, but is wordless and readers need to explore the pictures closely and make inferences about the story from visual symbols. Its 'silence' and dark backgrounds create a sombre mood as a band of various animal characters make their way towards an unknown destination.

Artworks in postcard format provide the contents of *Migrations*. Symbolic images are sometimes supported by poems, quotations or epigrammatic comments. These postcards operate to capture and convey the essence of migration.

Each of these texts focuses on sensitive issues relating to migration and migrants. Such resources prompt readers to think more deeply about what it is like to move from one's homeland to a new place of residence. By keying into the affective nature of visual images, the illustrators evoke feelings of loss, trepidation, fear of the unknown, apprehension and uncertainty. Along with physical belongings, migrants often carry the 'psychological baggage' of traumatic experiences that have caused them to leave their homeland.

Activities suggested here are aimed at Stage 3 and Stage 4 students and linked to English outcomes but are also pertinent to other areas of the curriculum. Teachers may adapt the material and ideas presented here to suit specific subject outcomes and different age/abilities groups.

Educational significance
These predominantly visual texts provide a wealth of educational value, including cultivating visual literacy and fostering an understanding and appreciation of the complex physical and emotional journeys experienced by migrants. Various multimodal strategies are employed by the creators of the texts to engage readers, evoke feelings of empathy towards others and cultivate a better understanding of the complexities involved in migration.

Suggestions for using this resource
There are many possibilities for using one or more of these resources. The activities that follow offer ideas for learning and teaching, along with additional creative pursuits linked to each text.

The focus texts afford a good deal of flexibility. Syllabus links provided are suggestions of how the texts can be used to support English outcomes; however, these can be altered and adapted to suit other areas of the curriculum, such as history, geography and creative arts.

Syllabus links
NSW English K-10 syllabus
Stage 3
A student:
- uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies EN3-3A
- uses knowledge of sentence structure, grammar, punctuation and vocabulary to respond to and compose clear and cohesive texts in different media and technologies EN3-6B
- thinks imaginatively, creatively, interpretively and critically about information and ideas and identifies connections between texts when responding to and composing texts EN3-7C.

Stage 4
A student:
- effectively uses a widening range of processes, skills, strategies and knowledge for responding to and composing texts in different media and technologies EN4-2A
- thinks imaginatively, creatively, interpretively and critically about information, ideas and arguments to respond to and compose texts EN4-5C
- identifies and explains connections between and among texts EN4-6C
- demonstrates understanding of how texts can express aspects of their broadening world and their relationships within it EN4-7D.

Teaching activities
General tasks
- Explicitly teach the meaning of the words 'migrate', 'migration' and 'migrant'. The Macquarie Dictionary online defines 'migrate' as:
  ○ to go from one country, region, or place of abode to settle in another.
  ○ to pass periodically from one region to another, as do certain birds, fishes, and other animals. (Macquarie Dictionary)
- Related vocabulary such as 'immigration', 'refugee', 'asylum seeker', 'expatriate', and so on could also be introduced at this stage.
- Using audio-visual resources such as Migration video for primary school (YouTube, 5:44 minutes) and/or Home Planet - Human Migration (YouTube, 2:18 minutes) can help students to better understand reasons for and the process of migration.

Ideas for class discussion and note making:
- Discuss and list or create a chart on reasons why people migrate.
- Using the list of reasons for migration, ask students to provide words for the emotions (both positive and negative) that might be experienced by migrants as they journey to another place.
- Ask students if they have experienced moving (one home to another, state to state, country to country). Sensitively encourage them to share some of their experiences.
- The three resources suggested for study here have a predominance of animal characters. Why do you think authors/illustrators often use animals to convey stories?

Text specific tasks
The Suitcase by Chris Naylor-Ballesteros and Axel Scheffler (Noisy Crow, 2019)
While having the appearance of a simple picture book for young readers, some well-considered questions make *The Suitcase* a valuable springboard for deeper discussion on the notion of migration. It is a great text to read aloud. With a different coloured font used for the voice of each of the different characters and narrator, the written text lends itself to different vocal delivery by one or more readers. Students can be encouraged to enact the voice and tone of each of the characters in a read-aloud delivery of the narrative or dramatic reenactment of the story.

The images also play an important part in conveying the text and subtext of the narrative. Questions to get students thinking more deeply about *The Suitcase* can include:
- The chicken, rabbit and fox are recognisable as particular animals, but the traveller is not recognisable as a particular animal. Why do you think the illustrator has made the choice to present the traveller in this way?
- Words spoken by each character (and the narrator) are presented in coloured font. Why has this choice been made and how does it add to the story?
- Consider the colours of the animals, similarities and differences, and offer some theories about the choice of colour and how it adds to the story. (Hints: warm versus cool colours or analogous versus complementary colours).
- What makes the chicken, rabbit and fox sceptical about what the traveller claims is in the suitcase? Is it reasonable for them to be suspicious? Why?
- Is it understandable that the animals should want to break into the traveller's suitcase?
- Should a person's privacy always be respected? Why/why not?
- Backgrounds are minimal and unframed. How might the reader interpret these design choices?
- Using any clues you can find in the text, suggest why you think this particular traveller is migrating?
- What are your thoughts about what the animals do for the traveller?
- Using writing and simple illustrations, create the next four pages of this story.
- What are your feelings about the characters in this tale? Why?

Migrants by Issa Watanabe (Gecko Press, 2020)
A beautiful wordless or 'silent' picture book, *Migrants* by Issa Watanabe invites students to hone their visual literacy skills and co-author the narrative by negotiating its pictorial storytelling. It follows a band of animals of various species on a long and uncertain journey as they migrate from one place to another.

Whether the characters are personified animals (anthropomorphs), or humans represented as animals (zoomorphs) is open to question and raises different discourses for a reader's interpretation of the narrative.

The following questions offer ideas to engage readers and to elicit responses about how this text offers many different ideas, thoughts and feelings through its visual telling.
- Briefly explain what you think the story is about.
- Why do you think the author/illustrator has included such different animals for this band of travellers?
- What does the choice of a predominantly black background suggest?
- Where might these travellers be coming from and where are they going? Use elements from the images to support your response.
- Select one double-page spread and explain what the characters' facial expressions and bodily gestures in this scene suggest to you. How does the scene make you feel? Why?
- What do you think is being portrayed by the skeleton character and the bird (an Ibis)? Are they important to the story or not? Why?
- In what ways does the colour palette selected for this tale add to your understanding of the meaning of the story?
- Working with a partner or in a small group, select a character each from the text and (in the style of a play script) write a conversation you might have with each other in one of the scenes during the journey.

Migrations (Otter-Barry Books, 2019)

Compiled by the International Centre for the Picture Book in Society, this publication is a collection of postcards, created by illustrators from around the world, addressing the theme 'migrations'. An introduction that outlines the purpose of the postcards is followed by sections titled Departures, Long Journeys, Arrivals and Hopes for the future. In some cases, the artist's image is supported by a personal written message, an extract from a poem, or a relevant quotation. It is the kind of book that elicits contemplation on the theme and the vast array of symbolic images used to make meaning within the confined context of a postcard.

Teachers may need to explain the nature of postcards to students of the digital age. Postcards could be described as hard copy, brief communications sent to friends and family in the pre-digital era, somewhat similar to the way SMS, memes or social media messages are used today.

Classes using this text can be encouraged to expand their ideas about its content through discussion of the following questions.

Pages 78 and 79 from *Migrations* showing the front and back of a postcard by Marcelo Pimentel from Brazil

- Why do you think the postcard style/format was chosen by the International Centre for the Picture Book in Society for this project?
- Birds of different species (or imaginative birds) feature prominently in many of the artworks. Why do you think this is the case? Create a list of aspects of migration that are symbolised by birds.
- Various materials are used in the creation of these artworks. Can you identify any of the artistic mediums?
- Select your favourite postcard and write a paragraph about why you like this the most.
- Using a world map, plot the countries the artists in this collection come from.
- This book is endorsed by Amnesty International. What is Amnesty International? Why would it recommend this book?

Experimenting

The following suggestions provide ideas to extend activities relating to this study. Teachers can choose those appropriate for their class or adapt activities as required.

- Imagine you are a traveller like the character in *The Suitcase*. Create a list (with illustrations if you wish) of the items you would have in your suitcase and write a brief note on each of your choices explaining why they would be important to you.
- Like the traveller in *The Suitcase*, people coming into Australia often have their baggage checked by customs officers at airports or seaports. Research information on the role of customs officers and why they check peoples' personal luggage. Write a persuasive piece about why the fox, chicken and rabbit should or should not have checked the traveller's luggage while they were asleep.
- Based on the feelings you have when reading the wordless picture book, *Migrants*, select a piece of music that you feel would operate well as a background to reading/viewing the book. Orally or in writing, identify the musical piece, its composer and rendition, then explain why you think this music is appropriate to accompany the visual narrative.

- Working in a group, select one scene from *Migrants*. Create and perform a dramatic scene in which the characters speak to one another, sharing their feelings, concerns and hopes about their situation.
- Given what you know and have learned about migration, create a postcard like those featured in the *Migrations* book. The artwork can be created using a medium(s) of your choice and the postcard may include a written personal message, poem or quotation. (Students' postcards can be used in a classroom or school library display).
- Research to find out more about Amnesty International. Why do you think the organisation would endorse *Migrations*? See if you can discover any other children's or young adult books recommended by Amnesty International.

References and further reading

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Writer biographies

Dr Pasi Sahlberg

Dr Pasi Sahlberg is a Professor of Education at Southern Cross University. He has worked as a schoolteacher, teacher-educator and policymaker in Finland. His recent books include *Let the Children Play: How more play will save our schools and help children thrive* (2019, with William Doyle) and *In Teachers we Trust: The Finnish way to world-class schools* (2021, with Tim Walker). Pasi lives in Lennox Head, NSW, with his wife and two sons.

Dr Katherin Cartwright

Dr Katherin Cartwright is a passionate mathematics educator and sessional lecturer and tutor at The University of Sydney. Her PhD focused on teachers' understanding of mathematical fluency. As a primary school teacher Katherin worked for the NSW Department of Education for 20 years and was the State Mathematics Advisor K-6. She is a school mentor for the Primary STEM Academy. Currently she is engaged in a research project focusing on embodied learning in mathematics and science in the early years.

Dr Rosalind Walsh

Dr Rosalind Walsh is currently the Educational Lead of the department's High Performing Students Program, working on equity initiatives for selective high schools. She was the manager of the Gifted Education Research, Resource and Information Centre (GERRIC) at UNSW for 10 years. In 2015, Rosalind completed a PhD examining gifted children's responses to higher order questioning at Macquarie University and was awarded the Vice Chancellor's Award for Research Excellence. Rosalind has taught English, EAL/D, drama and extension mathematics for primary school students.

June Wall

June Wall is the Professional Development Coordinator at the NSW Department of Education and was previously the Library Coordinator and an Adjunct Lecturer, School of Information Studies, Charles Sturt University. She has been a teacher and teacher librarian at primary and secondary levels, a lecturer, a professional development and education consultant, head of department, special librarian and computer coordinator in government and non-government sectors for over 35 years. Some trivia: June was one of the first primary teacher librarians to implement a library system in the 1980s - anyone remember Prolib or Librarians Apprentice?

Susan Brawn

Susan is a passionate educator with a background in teaching English in secondary schools. She delights in finding innovative ways to connect children and young people with the amazing collections at the State Library of NSW. Susan spends her days creating digital teaching resources and developing and delivering virtual excursions and onsite activities for students and teachers. In 2021, Susan and her colleague Alicia De Audney created the very successful Young writers club.

Alicia De Audney

Alicia is an Education Officer at the State Library of NSW. She has delivered children's programs in public libraries for over a decade and takes great delight in surprising young people with how outrageously brilliant libraries are. Alicia is passionate about using technology to pass on the joy of learning and empowering young people to express themselves creatively. Alicia created the Young writers club with her colleague Susan Brawn and has followed up with the recently launched Book lovers club.

Writer biographies

Andrea Sturgeon

Andrea is an educator and artist. As part of the learning team at the State Library of NSW, she has connected with learners of all ages and sees enormous value in the amazing collections at the State Library. Andrea established the online Art club and has a loyal enthusiastic following who meet fortnightly. She focuses on demystifying the creative process and highlighting the personal joy to be experienced through artmaking and self-expression.

Rebecca Toltz

Rebecca Toltz is a teacher librarian at Bourke Street Public School. Since graduating from the University of Technology Sydney, Rebecca has worked in NSW public schools for over 15 years. Rebecca is passionate about children's books, reading and education, and can be contacted via Twitter at @toltzable.

Robyn Louey

Robyn Louey is a librarian at the Capon Research Library at the Art Gallery of New South Wales and has over 20 years of experience. In her role, she manages special projects and provides reference services and cataloguing. She is currently working with the library team on the Library Management System (LMS) upgrade, the establishment of the Children's Art Library, and the relocation of the Research Library and archive to its new space.

Dr Cathy Sly

Cathy Sly is an independent researcher and writer. She taught English in NSW Department of Education high schools for many years. After attaining a PhD in Media, Communications and Creative Arts at Deakin University, she has continued to engage in scholarly research in visual literacy and multimodal literature.

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