



The importance of curriculum during times of disruption

Australian Curriculum Studies Association

Dr Jordana Hunter, Education Program Director

Friday 23 June 2023

GRATTAN
Institute

Who we are

Grattan Institute produces high-quality public policy recommendations for Australia's future.

We are:

INDEPENDENT taking the side of the public interest rather than interest groups.

RIGOROUS in obtaining the best evidence from our own data analysis and from published work.

PRACTICAL in identifying what governments should do to improve the lives of all Australians.



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Key challenges facing Australian education

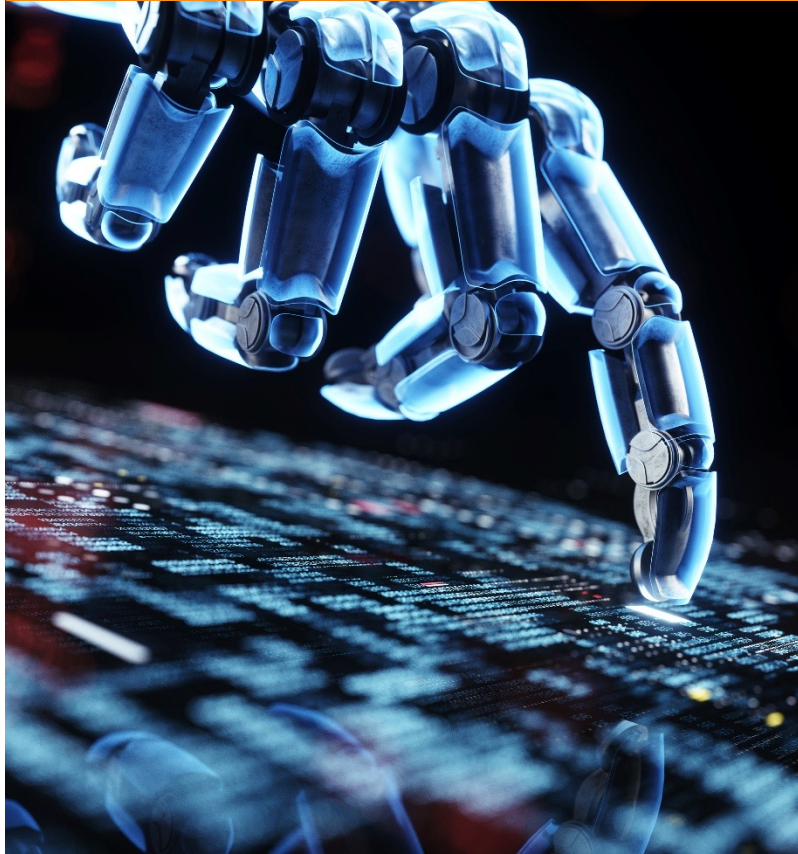
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Schools and teachers are struggling with curriculum planning

3

How Australia can turn this around

What does the future hold?



“ It is true that in order to develop, understand and use advanced technologies, humans are going to need advanced skills, and it is true that these more advanced skills should be one of the ultimate aims of education.

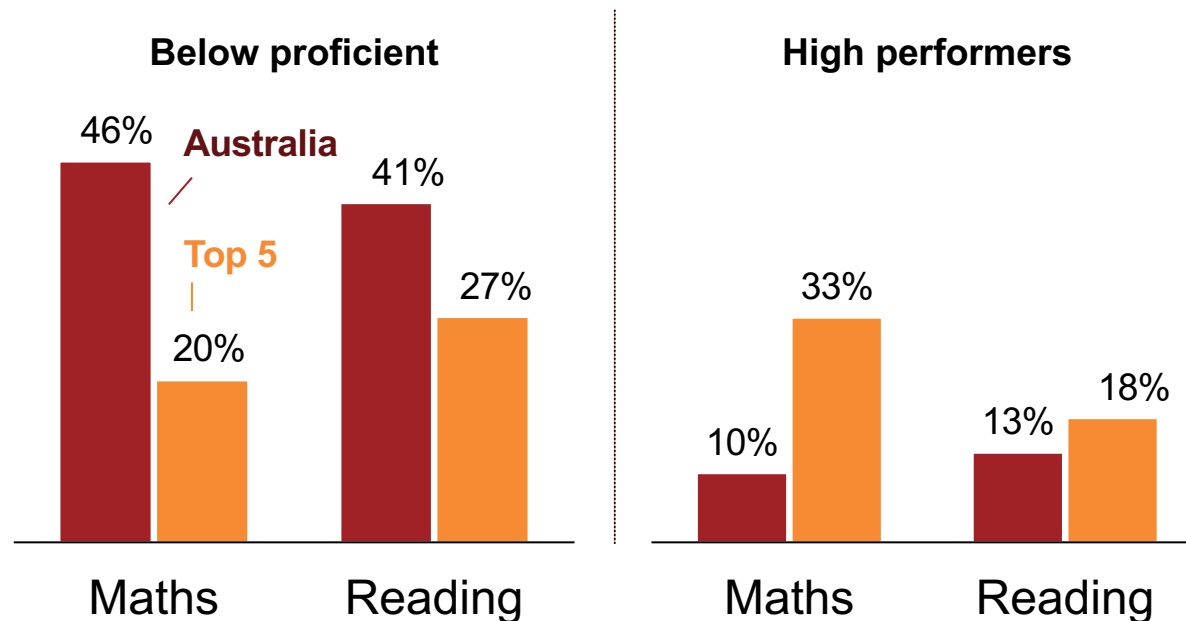
But this does not mean that we can forget about the more fundamental skills, because they are what allow us to develop the more advanced skills. ”

— Daisy Christodolou, author of *Teachers vs Tech? The case for an ed tech revolution* and Director of Education at No More Marking

Will our students be ready? The equity and excellence challenge we face

What PISA tells us

Percentage in each proficiency band, by subject, Australia & 'Top 5'



Notes: Top five countries/economies for Maths includes B-S-J-Z (Beijing, Shanghai, Jiangsu and Zhejiang, Singapore, Macao (China), Hong Kong and Taiwan). Top five for Reading includes B-S-J-Z, Singapore, Macao, Hong Kong (China), Estonia. Below proficient includes Levels 1 and 2. High performers includes Levels 5 and 6.

Source: OECD PISA (2018); Thomson, De Bortoli, Underwood and Schmid (Australian Council for Educational Research) (2019), PISA 2018: Reporting Australia's Results. Volume I Student Performance.

What NAPLAN tells us

The achievement gap between advantaged and disadvantaged students

more than doubles between Years 3 and 9.

By Year 9, disadvantaged students are

4 years behind in Reading and Numeracy.

Notes: Level of advantage/disadvantage defined here using highest level of parental education.

Source: Grattan analysis of 2022 NAPLAN data.

The teacher workload crisis

92%
of teachers say they always or 'frequently' do not have enough time to prepare for effective teaching

86%
of teachers say they do not get enough time for high-quality lesson planning

53%
of teachers report spending a great deal of time reinventing the wheel

*Notes: Sample sizes 5,000; 4,968; and 4,686 teachers respectively
Source: 2021 Grattan survey on teachers' time*

Our 2022
report for
policy-makers



Our 2022 guide
for school
leaders

Why high-quality curriculum materials matter – especially for disadvantaged students

Carefully sequenced, knowledge-rich instruction is essential for students to build rich schema of connected facts and concepts. It improves reading comprehension and enables students to tackle novel and complex problems.

What cognitive science tells us

Knowledge is not only cumulative, it grows exponentially. Those with a rich base of factual knowledge find it easier to learn more—the rich get richer.

Daniel Willingham
“How knowledge helps” *American Educator* 30(1) 2006 (p. 30)



Novice
Limited schema

Developing

Expert
Students draw on vast, interconnected schema to engage successfully with complex questions

Knowledge matters

Knowledge must be explicitly taught knowledge: knowledge is essential to students' success as they encounter increasingly sophisticated concepts and texts.

Background knowledge predicts reading success



A small-scale 1988 study looked at the impact of prior knowledge on primary school students' reading comprehension.

Each student was asked to comprehend a text about half an innings of a baseball game, such as:

“Churniak swings and hits a slow bouncing ball toward the shortstop. Haley comes in, fields it, and throws to first, but too late.”

The study found that **knowledge of baseball—not reading ability**—was most closely linked to how well students understood the text.

Students benefit when knowledge is carefully sequenced over time

A 2023 US longitudinal study of 2,000 students looked at the impact on students' reading scores if they received a knowledge-rich curriculum for at least four years, beginning in Kindergarten.

It found that Grade 3 **students who attended a school with a knowledge-rich curriculum performed significantly better on reading comprehension tests.**

The effect was equivalent to moving a student from the 50th to the 66th percentile.

But high-quality curriculum planning takes a very long time

The mandated curriculum is very broad

It leaves a huge amount of work for teachers to do to 'fill in the gaps' and bring the curriculum to life in the classroom.

High-quality classroom curriculum materials are:

- **aligned** to the mandated curriculum
- **knowledge-rich** and develop skills **sequentially** across year levels
- based on **evidence** on the most effective teaching methods
- **comprehensive**, encompassing everything a teacher needs for the classroom
- inclusive of formative and summative **assessments**
- **easy to use** in the classroom, including scaffolds and extensions to support differentiation.

Curriculum planning is complex and takes a lot of time

It takes a teacher...

**500
hours**

...to develop a year's worth of curriculum materials for one subject (e.g. Year 4 English, Year 9 Science).¹

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Key challenges facing Australian education

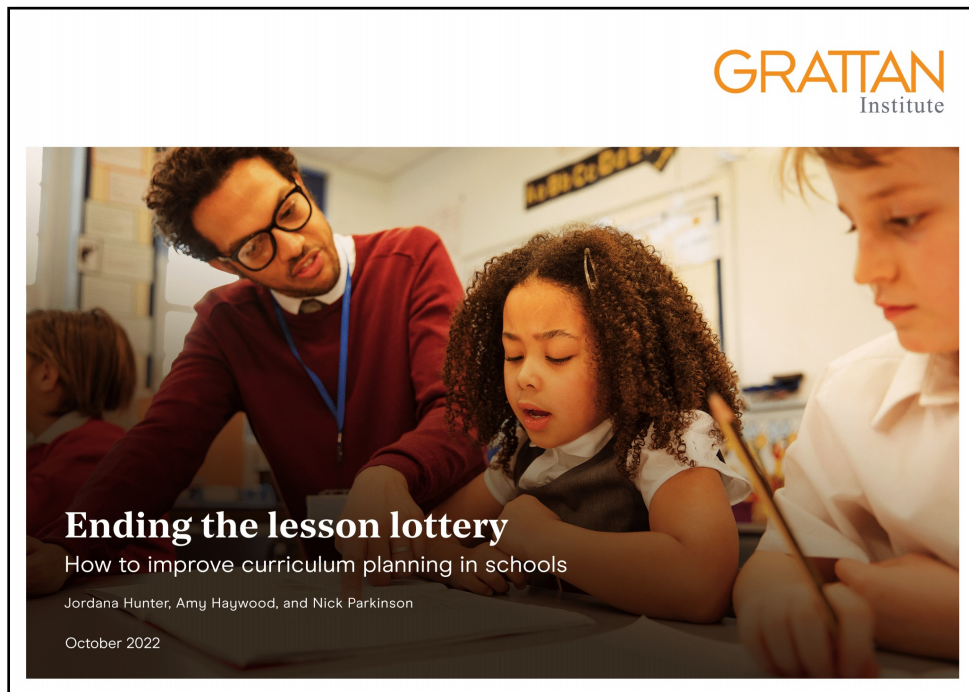
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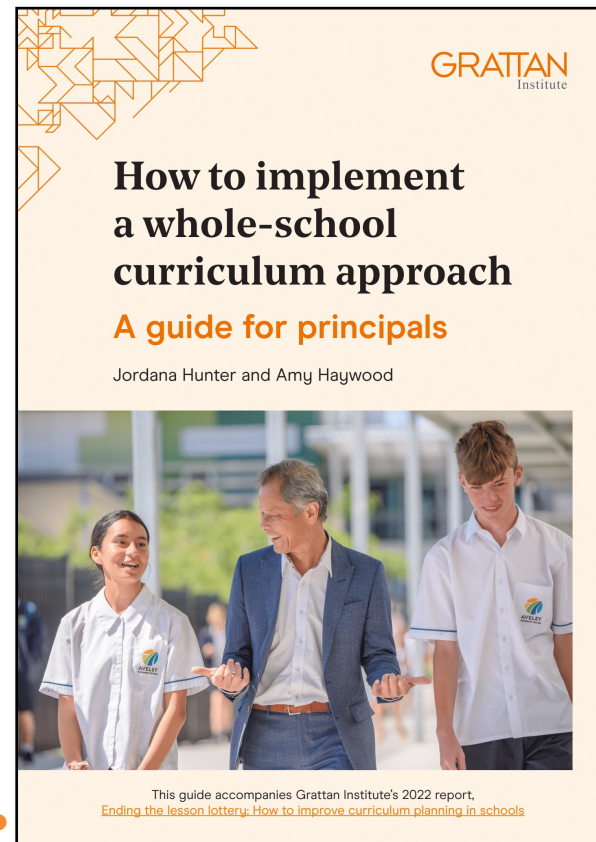
How Australia can turn this around

Improving curriculum planning should be a national priority



Our October 2022 guide for policy-makers

Our March 2023 guide for school leaders



Improving curriculum planning should be a national priority

Objectives of our research

- Understand benefits of high-quality curriculum planning and materials
- Shed light on exemplary practice happening across the country
- Recommend actions for governments

Our research was *not about...*

- Reforming the Australian Curriculum
- Mandating curriculum materials

Research methods



Literature review



Survey of 2,243 teachers and school leaders



Consultations



Illustrative costing



School case studies



Most teachers are struggling with a near-impossible task

85% of teachers **do not have access to a shared bank** of high-quality curriculum materials for all their classes

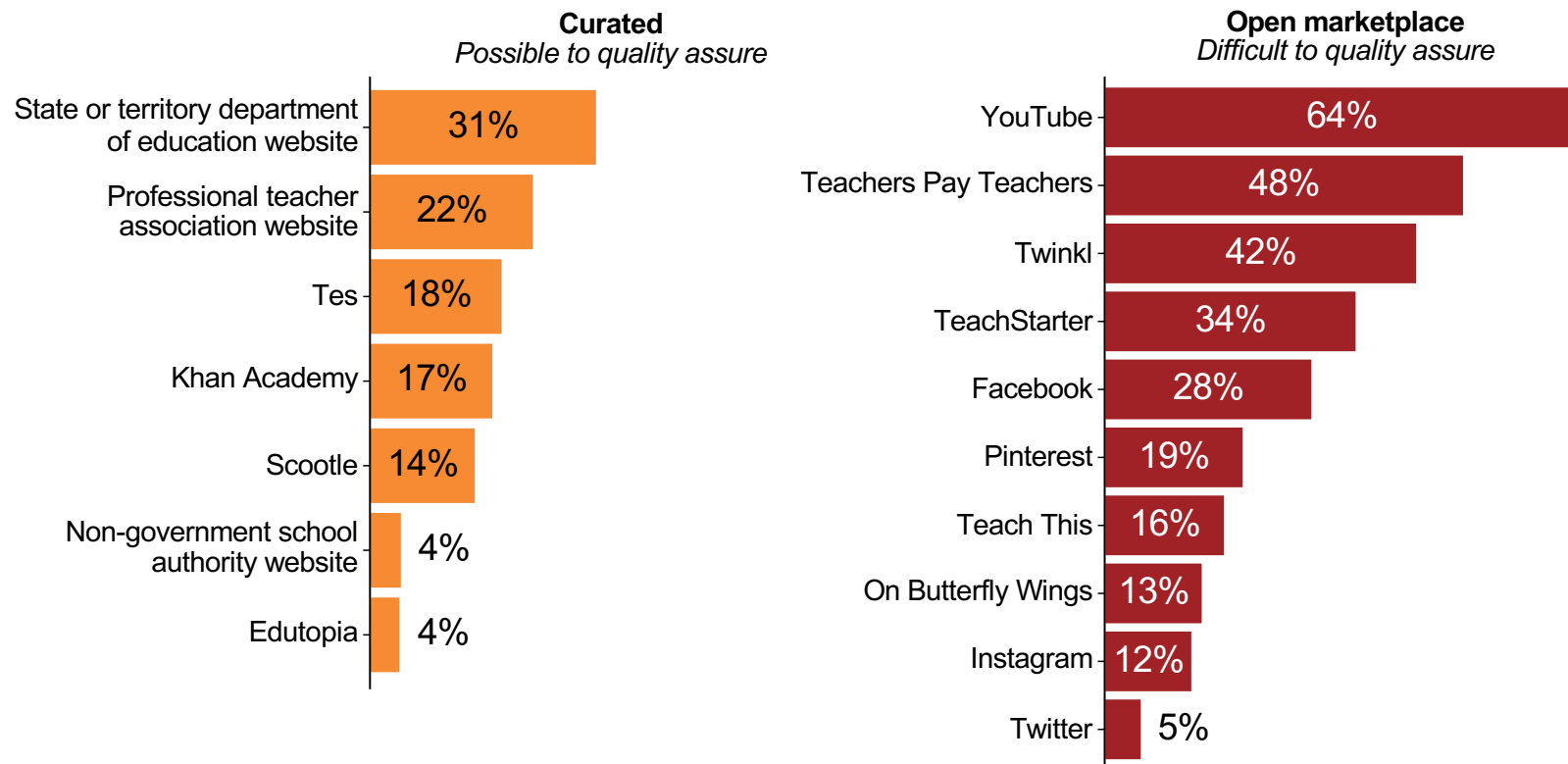
11% of teachers in **disadvantaged schools** say they have a bank of high-quality curriculum materials for all their classes: **half the proportion** of teachers in advantage schools who report this

49% of teachers are **planning mostly on their own** for their classes

6 hours the time a typical full-time teacher spends a week **just creating and sourcing materials**

Short on time, many teachers go to the internet for curriculum materials of varying quality

Percentage of teachers that report visiting websites frequently (at least once a fortnight)

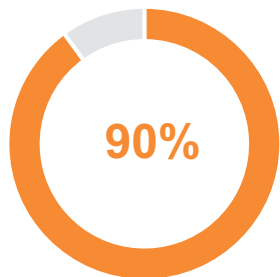


Notes: 1,992 total respondents. Respondents were asked to select any online resource repositories they use regularly (once a fortnight or more, on average) for ideas and/or materials to integrate into their lessons.

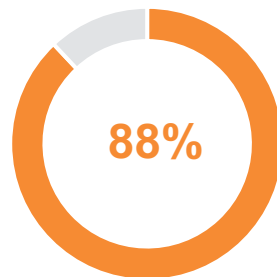
Source: 2022 Grattan survey on curriculum planning and materials.

Teachers say shared, high-quality materials would help them

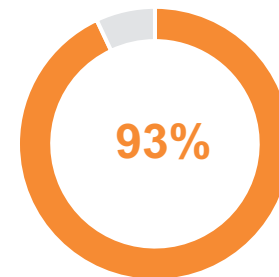
Proportion of teachers who agree or strongly agree



say it would give them more time to focus on improving their **classroom practice**



say it would give teachers more time to evaluate and respond to **individual student learning needs**



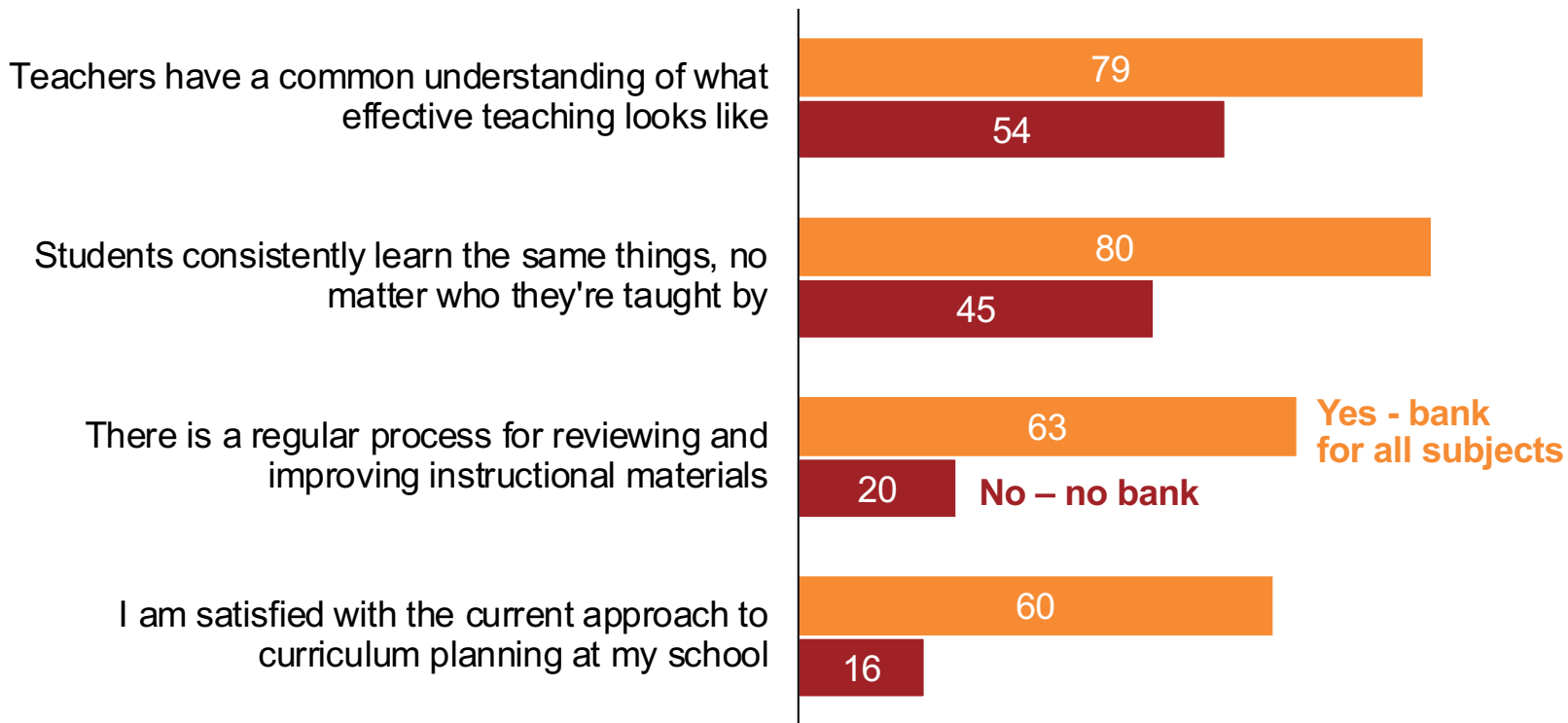
feel that **beginning teachers** should be provided with shared high-quality instructional materials to use in their classes

Notes: Total sample size ranged from 1,597 to 1,606 teachers as not every teacher answered each question. Respondents were asked 'Please indicate the extent to which you agree or disagree with each statement'. 'It' refers to 'using shared, high-quality instructional materials'.

Source: 2022 Grattan survey on curriculum planning and materials.

Shared materials mean more consistent, high-quality teaching and greater teacher satisfaction

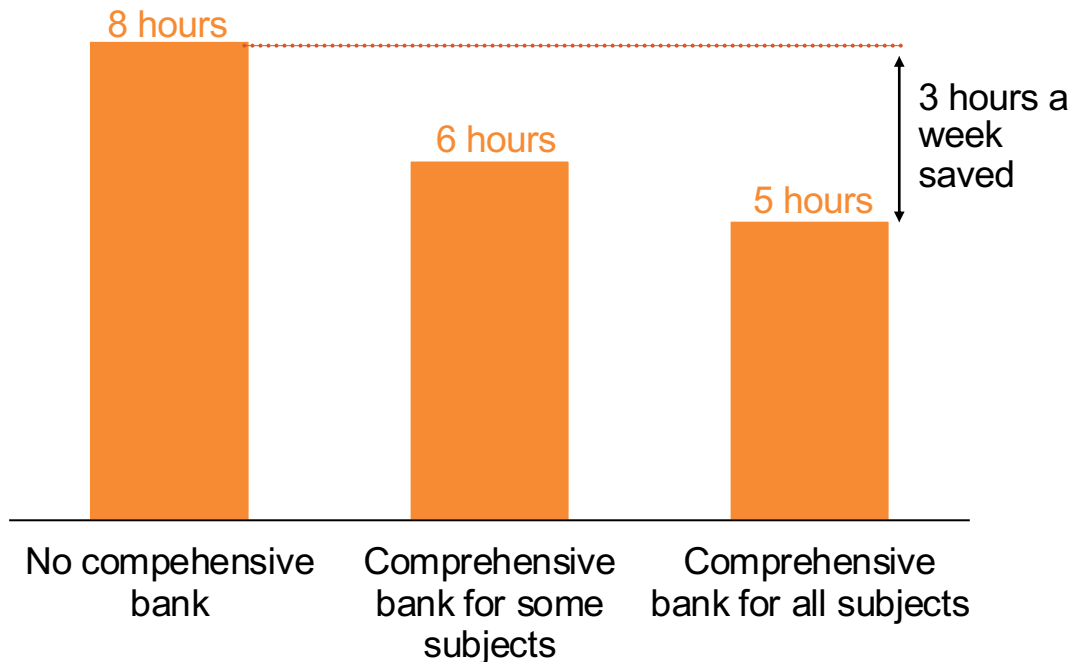
Percentage of respondents who agreed or strongly agreed with each statement, by whether they have a comprehensive bank



Notes: Question wording has been shortened. All differences are statistically significant to the $p = 0.05$ level using a Pearson's chi-squared test.
Source: 2022 Grattan Institute curriculum survey.

The workload benefits are real – access to materials saves teachers up to 3 hours a week

Hours per week spent by the median full-time teacher sourcing and creating instructional materials, by access to a bank of materials



Australian teachers would save

**20 million
hours a year**

with access to a comprehensive
bank of high-quality curriculum
materials.

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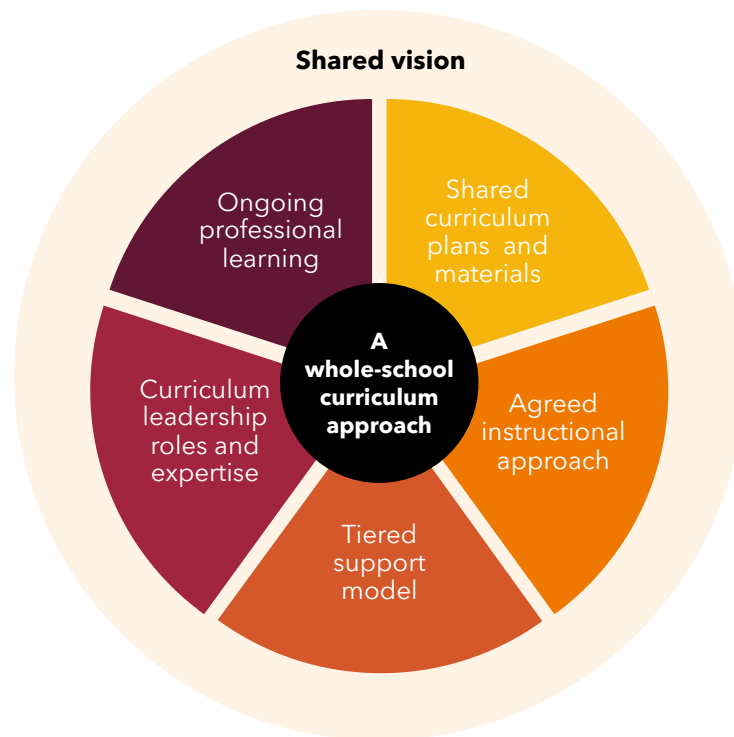
A high quality, whole-school approach to curriculum planning is best

A whole-school approach is best

It includes:

- A shared vision of what to teach and how to teach it
- Careful sequencing of learning across each school year
- Development and use of shared curriculum materials across each class

Shared materials are only part of a whole-school approach



A new partnership is needed to embed a whole-school approach to curriculum planning and implementation

CURRICULUM MATERIALS

BUILDING EXPERTISE

REVIEW AND EVALUATION

School system leaders, curriculum associations and teacher professional networks



Ensure all teachers have access to a suite of high-quality, comprehensive curriculum materials



Recognise and build curriculum expertise across the system



Overhaul school reviews and fund rigorous evaluation

School and curriculum leaders



Establish a whole-school approach to curriculum



Invest in curriculum-specific professional learning



Build systems to monitor learning and refine materials

Teachers



Move from individual to shared planning and adaption of existing materials



Engage in curriculum-specific professional development

Prepare for instruction and differentiate for student needs

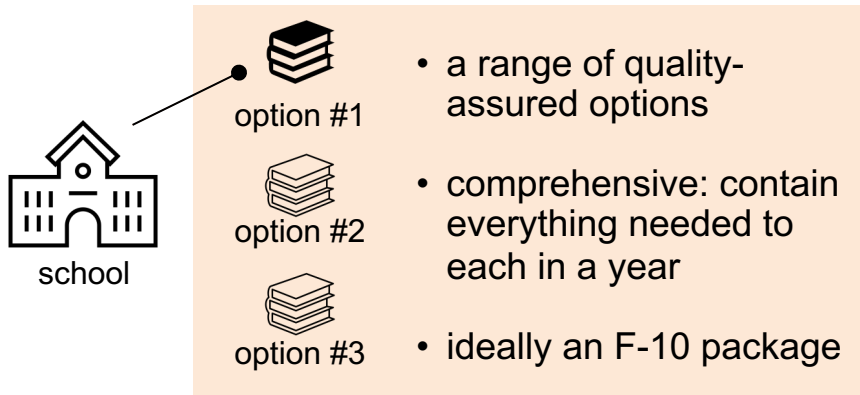


Refine and improve materials and instruction over time

Governments should ensure all schools a range of high-quality, comprehensive curriculum materials and associated professional learning

Governments should:

- Make sure all schools have access to a suite of alternative options for high-quality, comprehensive curriculum materials, to use and adapt if they choose.



- Invest much more in high-quality, professional development focused on curriculum design and delivery.

What constitutes high-quality?

- Contents and standards aligned
- Coherent and knowledge-rich
- Evidence-based
- Comprehensive
- Embedded assessment
- Easy to use

Governments should establish an independent body to run expert teacher-led quality reviews of curriculum materials

Established in 2015, EdReports is an American not-for-profit, that helps teachers and school leaders identify high-quality curriculum materials.



Conducted by accomplished teachers with 17 years experience on average



Reviewers receive 25 hours training and work in teams for 4-6 months to review a set of materials



Reviewers evaluate materials against detailed and evidence-based criteria and then publish results online



2019

EL Education Grades 6-8 Language Arts Curriculum (Second Edition)

PUBLISHER
EL Education

SUBJECT
ELA

REPORT RELEASE
02/11/2021

ALIGNMENT ⓘ

Meets Expectations

GRADES
6-8

REVIEW TOOL VERSION
v1.5

USABILITY ⓘ

Meets Expectations

Curriculum and teaching associations have a key role to play

Curriculum and teaching associations play a lead role in:

- developing subject-specific curriculum expertise
- connecting straight to teachers, leading professional learning and collaboration
- generating high-quality curriculum materials for sharing and use across schools
- delivering aligned professional learning, to support schools to adapt materials
- brokering between government and the teaching profession




How schools can make the change


- 1 Share your vision
- 2 Audit the current 'enacted' classroom curriculum
- 3 Pick a priority area
- 4 Develop/appoint the right curriculum leaders
- 5 Decide how source (or build) high-quality, shared curriculum materials
- 6 Invest in professional development

Webinar


How to implement a whole-school curriculum approach - A conversation with Adam Bright and Brad Nguyen from Docklands Primary School



Amy Haywood
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Brad Nguyen
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Docklands Primary




Adam Bright
Principal
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Webinar


How to implement a whole-school curriculum approach - A conversation with Stephen Pestana and Jarrad Stewart-Olsen from Aveley Secondary College



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Stephen Pestana
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Questions



Thank you

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