

October 2022

Productivity Commission Review of the National School Reform Agreement

To Whom It May Concern,

Thank you for accepting this submission on the Productivity Commission's (PC) interim report on the Review of the National School Reform Agreement (NSRA).

Ochre Education's submission comprises:

- **Section 1:** About Ochre Education
- **Section 2:** Comments on the proposed focus of the next agreement.
- **Section 3:** Recommendation to include the development of an opt-in national bank of evidence-based, curriculum-linked teaching materials created by highly effective teachers as a future priority for intergovernmental collaboration. This would require investment of around \$22M.
 - *Why a comprehensive national bank of high-quality evidence-based curriculum-linked teaching materials is needed: supporting student progress, making more time for great teaching*
 - *How such a resource bank should be designed and implemented*
 - *Benefits of a co-ordinated, national approach*
 - *Supporting such a change through wider reforms*
- **Section 4:** How such a national resource bank could enable governments' to also realise the original objectives of the Online Formative Assessment Initiative.

We would be happy to discuss any aspect of our submission with you further, should you have any questions.

Kind regards

Reid Smith and Caroline Reed
Co-CEOs
Ochre Education

1. About Ochre Education

Ochre Education was established in 2021 as an innovative not-for-profit organisation, to improve student outcomes and close the disadvantage gap by supporting teachers to teach, and to enabling all students to access, a high-quality curriculum everywhere.

We achieve this by working with a community of teachers to develop and support the use of an expertly-sequenced curriculum, alongside a comprehensive bank of free, quality-assured, curriculum-linked teaching resources, to be adapted and used by any teacher anywhere.

The skills and experience of our two founders enabled us to see the demand for, and the potential of an evidence-based, practical library of curriculum tools for teachers. Caroline Reed had worked in the UK and in State government on education policy and delivery. Reid Smith was an experienced school leader and curriculum specialist in regional Victoria.

We are inspired by the UK's hugely impactful Oak National Academy, which was launched as an online resource for teachers during the initial COVID school closures, and has since developed 44,000 resources with the support of 550 teachers, and had over 147 million lessons downloaded in its online classroom. Oak has recently been launched as a Government arm's length body.

Ochre was established in Australia to work in partnership to improve Australian education – perhaps dramatically – and address inequality in our schools. We believe that all children have the right to a quality education, and we are here to support great teaching, everywhere.

We have partnered with the Australian Education Research Organisation (AERO) and schooling systems to work with over 60 expert teachers to develop a bank of over 360 rigorous and reliable lessons with nearly 2,000 free fully-sequenced curriculum resources – including videos, presentations, worksheets and quizzes – produced and quality-assured by teachers, for teachers.

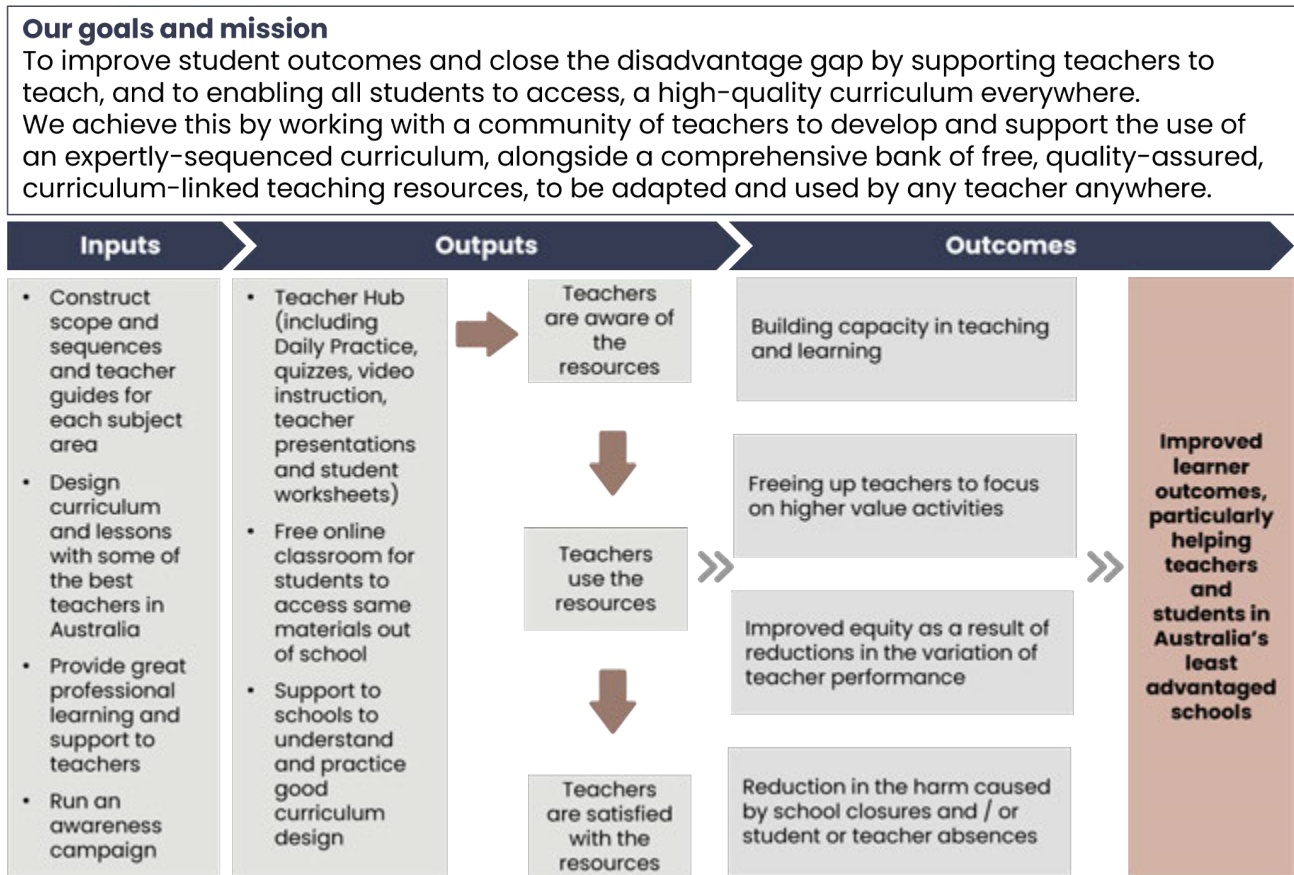
Through this we are:

- Sharing the brilliance of expert teachers across the country;
- Providing high-quality, optional, evidence-based lessons designed to be easily adaptable through teachers' professional judgement to meet varied learning needs and contexts;
- Making lesson materials accessible and easy to find, reducing inefficient planning by freeing up teachers to focus on the needs of students in their classes, rather than searching for and verifying resources;
- Providing inspiration for teachers to plan and think about their own curriculum and lesson planning, including better supporting teachers through curriculum changes; and
- Supporting teacher professional development through the creation of our materials, and through their use as practical exemplars of best practices approaches.

We have had over 20,000 teachers accessing our resources within our first 6 months of operation. In a recent sample, 90 per cent of our users would rate our resources as high-quality, and most would highly recommend us to a colleague.

We've big plans to grow our support in the years ahead. We have ambitious goals to develop a comprehensive bank of resources across all subjects and year levels in the next two years, working with hundreds of expert teachers across the country and across schooling sectors.

Ochre Education: Theory of Change



2. Comments on the proposed focus of the next agreement

Addressing the significant and persistent lack of equity in student outcomes

Ochre has been established to address what the evidence suggests is the most significant issue impacting Australian education, identified in the Commission's interim report: a significant and persistent lack of equity in student outcomes.

Through our work, our Theory of Change enables us to take direct and meaningful action to contribute to address a number of key drivers of this issue, identified by the interim report:

- high workloads for teachers and school leaders;
- limited opportunities to develop and share best practice;
- insufficient support for early career teachers, and those working in 'harder-to-staff' schools;
- teacher attraction and retention challenges, particularly in some places and subjects.

Being able to address these drivers, and shift teacher effectiveness by even a small margin would improve equity in student outcomes in the short-term. In the medium-term, it would also drive social equity and economic productivity - as the report points out - through contributing significantly to increasing long term average classroom lifetime earnings by several hundreds of thousands of dollars each year.

It is clear that effectively addressing each of these drivers must be an ongoing long-term priority, which will require significant effort to work towards across all Australian schools. Whilst this

important work progresses, we see that there is an opportunity to put in place significant, immediate and practical support to teachers and schools, to start to drive real and timely improvements on the ground.

Driving practical improvements through a focus on classroom implementation, maximising the value of expert teachers and fostering the sharing of best practice

We strongly support the Commission's recommendation to move towards focussing directly on driving practical improvements through a much more detailed focus on what is occurring in the classroom, to lift student outcomes and improve equity.

However, in addressing *how* teaching takes place, the Interim Report misses an equally important opportunity to also focus on *what* is taught and assessed. To drive the improved outcomes and equity that is sought, the focus on the *how* must be supplemented by an equally important and interlinked focus on the *what*: ensuring that all students have access to a high-quality curriculum - supported by evidence-based teaching practices - as a vital lever to narrowing attainment gaps. A long-standing body of evidence suggests that this issue should be given much more prominence in the Commission's consideration of effective intergovernmental collaboration.

This focus on classroom practice should also include a concerted effort to support initiatives intended to facilitate the sharing of teacher best practice across education systems. This includes bringing together and sharing existing collective expertise: that is, deep subject knowledge, as well as a deep understanding of how students learn. Much more needs to be done to support such sharing. Due to the significant efforts of many teachers across the country, such initiatives are managing to grow in reach and impact; but there currently remains insufficient support to sustain and scale such mechanisms across the 300,000+ teachers in Australian schools.

Driving innovation in educational delivery to improve the resilience of our schooling systems

Through its focus on delivering a platform to support students learning remotely, our work is also addressing an underlying structural weakness of the education sector, highlighted through the COVID pandemic. This identified an opportunity to increase preparedness across all Australian schooling systems to most effectively adapt to changing contexts and needs at the system level, particularly through building capacity for innovation – supported by data and evidence.

3. Recommendation to include the development of a national bank of evidence-based, curriculum-linked teaching materials created by highly effective teachers as a future priority for intergovernmental collaboration.

The Commission's interim report identifies future priorities for intergovernmental collaboration to seek to address the issues outlined above. These include a focus on initiatives to: support teachers during the critical first three to five years of their careers; reduce teacher workload and encourage highly effective teachers and maximise their value.

The development of a national bank of evidence-based instructional resources created by highly effective teachers is an initiative which does not currently form part of the Commission's interim report. This should be considered, and driven as a significant national initiative. As the Grattan Institute's recent report, *Ending the lesson lottery: How to improve curriculum planning in schools*¹ set out, If executed with quality and integrity, such a project has substantial potential to contribute dramatically to supporting each of the areas of focus listed above.

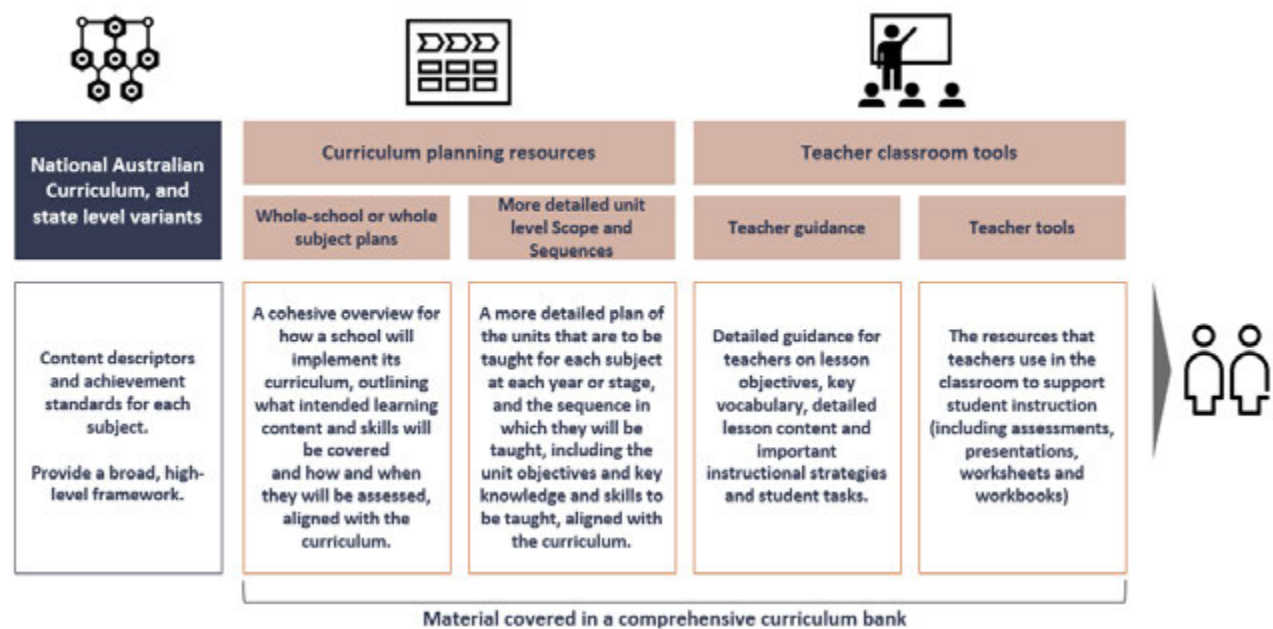
¹ Grattan Institute, [Ending the lesson lottery: How to improve curriculum planning in schools](#) (2022)

Why a comprehensive national bank of high-quality evidence-based curriculum-linked teaching materials is needed



1. Quality curriculum and instructional materials are central to student learning success, and the improvement of equity across school systems

At its heart, quality curriculum helps produce classroom teaching that enables students to do and know more. The Australian Curriculum (and its state derivatives) gives teachers incredible flexibility in creating teaching and learning programs. They offer teachers and school leaders a very broad and general framework to guide teaching of the subjects in the curriculum, including the standards at each grade level. This means that the work of delivering or enacting the curriculum on a daily basis is a significant task. Many teachers struggle to find the time, expertise, or resources to create excellent lessons each day.



There are significant gaps in much-needed detailed clarity, guidance and support for teachers in planning and implementing the curriculum in all classrooms. In particular, there is little support for teachers in developing the instructional materials that they use every day in the classroom. This is a significant driver of a lack of consistency and integrity in implementing a quality, ambitious curriculum in all classrooms, and of inequality in Australian classrooms.

In addition, high-quality adaptable and tailored curriculum resources can also be deployed effectively to support targeted small-group interventions for disadvantaged students who require extra help to get back on track, particularly in literacy, and numeracy. Such resources could help to ensure maximum impact from governments’ significant investments in such tutoring programs, and support the substantial teacher workforce that is being put in place to deliver them.

US research in particular has shown the potential for the provision of high-quality instructional classroom materials to have a significant impact on student learning and the improvement of equity across school systems, greater than other initiatives focused on teaching quality (Steiner, 2018). The gain in student achievement is shown in some studies to be as large as the gain from having an experienced rather than a novice teacher.

High-equity and high-performing schooling systems offer such resources; many high-performing schools within Australia do too. However, not all Australian teachers have the same level of access to such guidance and materials. Our 2021 survey of teachers found that just under half of all teachers are teaching in schools with no school-based bank of instructional resources.

This finding aligns with results from the Grattan Institute's recent survey of teachers, which found that about one in three teachers had no access to a comprehensive bank of curriculum materials for any of their subjects, and only 15 per cent have access to a common bank of high-quality curriculum materials for all their classes. It also found that teachers in disadvantaged schools are only half as likely to have access to a common bank as teachers in advantaged schools.²

2. Teachers struggle to find time to create great teaching and learning programs.

Adopting high-quality curricula can also lessen the need for teachers to search for or develop their own instructional materials, freeing up teachers' time to be spent on the many other important aspects of teaching. Currently, time-constrained teachers are spending significant time each week creating resources, often from scratch, and identify that an instructional bank which they could adapt from could save them multiple hours each week. Not only time-consuming, the work of curriculum knowledge and curriculum planning is also complex, and an area in which particularly early career teachers indicate that they want more support.

In addition, the most common resources that teachers currently draw on to plan and deliver lessons are low-quality, with these low-quality tools being used more in disadvantaged schools.

Evidence from the Grattan Institute and the UK's Oak National Academy suggests that such an initiative would contribute to a more sustainable teaching profession, and our own surveys of teachers confirm these results. We found that almost a quarter of all teachers are spending more than 10 hours a week developing and preparing instructional resources; almost 70 per cent are spending more than 5 hours.

Oak research shows that it has reduced the amount of time the majority of teachers' spend planning and resourcing lessons. Oak improved the workload for 42 per cent of its users, on average by 3 hours per week. Spending less time on lesson planning enabled them to shift their focus, for example on supporting vulnerable students.³

3. Disadvantaged and rural and remote students and schools experience particular challenges

As the Grattan Institute Report points out, disadvantaged schools tend to have the highest rates of beginning teachers, out-of-field teachers, and teacher turnover. In particular, many schools in regional and remote areas find it difficult to attract teachers. This teacher shortage is particularly acute in hard-to-staff areas such as mathematics and science. Whilst initiatives focused on addressing this longstanding issue are critically important, they should be delivered alongside shorter-term strategies which can offer immediate impact.

² Grattan Institute, [Ending the lesson lottery: How to improve curriculum planning in schools](#) (2022)

³ Oak National Academy, ['Workload and curriculum: what have teachers told us?'](#) (2022)

4. Teachers learn best from observing other teachers – such a bank could help

One of the most efficient and effective ways of improving teacher practice is through observation of expert teaching (Burgess et al., 2021). Teachers are just like students – they learn by seeing clear examples. In-person observation is critical, but could be supplemented by videos of lessons featuring expert instruction, a method which is currently rarely used.

How such a resource bank should be designed and implemented

The experience of Oak National Academy in the UK over the last three years has demonstrated that the provision of a comprehensive bank of high-quality curriculum-aligned resources can support teachers to reduce their workload and wellbeing, increase their confidence and competence in curriculum planning and delivery, and support student progress, with teachers and students in more disadvantaged areas using Oak's resources more.

Oak's experience has demonstrated that the following are critical features in considering the creation of such a resource, funded by governments:

- **Entirely optional;**
- **Totally adaptable and customisable**, as teachers know their individual classes and students best;
- **High-quality**
 - Developed by expert teachers
 - Curriculum aligned, and knowledge-rich
 - Comprehensive, coherent, sequenced
 - Apply evidence-based teaching strategies
 - Robustly quality-assured and road-tested and easy to find and use
- **Completely free**, so resources can be accessed by any teacher, anywhere, whenever they need them.

Each of these features are present in Ochre resources, which are also aligned with each of the key features of high-quality curriculum materials called out in the recent Grattan Institute Report⁴.

The provision of such resources must not mean inhibiting school choice, or teacher judgement. Rather, the provision of completely optional, adaptable instructional materials should provide teachers with a high-quality foundational starting point, to customise using their professional judgement to cater to students' varied learning needs and contexts. Such a resource should also enable teachers to focus more capacity and expertise on the critical work to implement such materials to best suit the needs of their individual classrooms, including assistance for individual students who need more support.

A teacher's greatest resource is another expert teacher

The final feature that would contribute to the effectiveness of such a resource bank, is that it is:

- **An independent trusted resource, developed and tested by expert teachers** across the country, who understand the real demands of the classroom on the ground.

The Commission's interim report correctly identifies that Australian, State and Territory Governments should work together in the next agreement to support its draft recommendation 5.3, which advocates 'encouraging highly effective teachers and maximising their value.'

⁴ Grattan Institute, [Ending the lesson lottery: How to improve curriculum planning in schools](#) (2022)

One of the key ways in which this could be achieved is to support expert practicing teachers to share their practice through the development of shared curriculum resources.

Our work seeks to share teacher expertise with high consistency, rigour, a strong evidence-base and high levels of quality assurance. Ochre resources are developed by teachers, for teachers, and quality assured by practicing subject specialists. Our lesson creation process identifies expert teachers with deep expertise in content and in effective evidence-based instruction.

By creating resources, Ochre's work also includes the development of communities of practice across schools, geographies and sectors. Teachers work together – in a collegiate and action-oriented model – to develop high-quality materials. Evidence suggests that this approach to professional learning is highly likely to be most effective in developing teacher expertise.

Benefits of a co-ordinated, national approach

The development of such a resource bank could be identified as a key new National Policy Initiative within the new agreement. This work could be initiated quickly, to provide immediate support to schools and teachers, and assist with the ambition set out in the Commission's interim report to see improvement in student outcomes within the next five years. Governments have the ability to make such a project happen with impact. It could be delivered within the next two to three years (with ongoing curation and maintenance). It is one of the most cost-effective means of improving teaching quality: the cost of the whole initiative would be equivalent to the average funding of a government secondary school for around two years (around \$22M)⁵.

Such an initiative has clear cross-jurisdictional benefits. It supports the implementation of the Australian Curriculum across all States and Territories, including the latest version of the Curriculum which schools will be required to transition to over the next two years (a transition which has the potential to put additional significant strain on teacher workload, if not fully supported in its implementation). A national resource bank would fill a genuine gap in current support for schools, and delivering it as a national project would maximise scale to deliver more productive outcomes across jurisdictions and schooling systems. This would particularly benefit those smaller systems which may find it challenging to generate such support by themselves at scale and speed, and which could also seek to gain most from the benefits of such an approach.

The longer-term savings associated with teachers' use of materials such as those Ochre is providing as part of their lesson preparation are considerable. Taking a conservative estimate of 40,000 Australian teachers making use of a single lesson resource each week over the course of an academic year (our access has been 20,000 teachers in 6 months to date), we could observe a total time saving of 1.52M hours per year, or an equivalent cost adjustment of \$58 million in Year 1. This would represent a benefit cost ratio of 2.6 on a \$22M investment.

Using the methodology of Hanushek (2011), we can make estimates of the discounted net benefit accruing from a year of teaching by a teacher using Ochre for a fraction of their lessons. Assuming that the Ochre materials lift the quality of the average teacher quality from the 50th to the 53rd percentile, 40,000 teachers using Ochre for one lesson a week could be expected to accrue an effect on student lifetime earning of almost \$142M. This represents a benefit cost ratio of 6.5 on a \$22M investment. Note that the assumption of student gain is based on the recent Oak independent evaluation, which showed an improvement of teacher quality up to the 55th percentile. A conservative estimate has been used above, due to differences in extrapolating Oak data into a non-pandemic situation.

⁵ Comparison based on ACARA MySchool finance data and National Reporting on Schooling data (2021)

Such an initiative must be accompanied by an independent national evaluation, to seek to understand more about the following key research questions:

- How is a curriculum bank impacting on students' progress?
- How much time does it save teachers?
- How has it influenced the extent to which teachers design and deliver higher-quality lessons as part of more structured, cohesive and sequenced curricula?

Supporting such a change

To enable this change to be most effective, the development of a comprehensive resource bank should be accompanied by significant professional learning, support and guidance to teachers on how to most effectively adapt and use the resources. This should occur alongside a continued substantial focus at the whole-school level on strong school leadership with a sustained commitment to building a shared understanding and knowledge base of curriculum, a consistent assessment framework, and an underpinning shared instructional model

4. How such a national resource bank could enable governments' to also realise the original objectives of the Online Formative Assessment Initiative (OFAI).

The Commission's interim report identifies the importance of improved formative assessment practices in enabling teachers to assess a student's knowledge, skills and understanding, identify and support next steps in learning through evidence-based resources, and track progress over time. This is particularly important to address the significant gaps in student achievement against the minimum standards identified in the report, and the need to ensure targeted support for students who are falling behind in their learning.

A high-quality resource bank would in itself help governments to realise the original objectives of the OFAI, by significantly increasing support for teachers to use effective assessment practices. All Ochre's lessons include consistent adaptable formative assessments (in the form of multiple choice quizzes at the lesson and Unit level). Each lesson also embeds Checking for Understanding as the backbone of instruction - as formative (on-going) assessments. As the evidence strongly recommends, teachers are supported to use their professional practice to collect information about students' understanding almost continuously, and make adjustments to their teaching on the basis of their interpretation of that information.

A lesson bank such as that provided by Ochre - as the report points out - also provides support for formative assessment in the form of 'recommended teaching strategies and quality-checked digital resources aligned with the national curriculum', which can be drawn upon to support teachers to provide responsive teaching, once next steps in learning have been identified. Our lesson videos can be used as a support for teachers as instructional tools, particularly if they have a class with students at a wide range of achievement. Enabling students to watch an experienced teacher teach a particular concept and apply their new understandings allows teachers to address a wide range of needs in their classes.

Investing in a national resource bank - with resources aligned with the Australian Curriculum, including the National Learning Progressions - would operationalise the research and development work that has been completed to date on the OFAI. It would ensure that governments are continuing to invest in critical national education infrastructure, whilst leveraging the important local work on assessment completed to date by jurisdictions.