



Submission to the Productivity Commission's Interim Report on Building a Skilled and Adaptable Workforce

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The CIS has published the following reports that are of some relevance to the areas covered in this inquiry:

- Jha, T. (July 2024). *Learning Lessons: The future of small-group tutoring* (Analysis Paper 73). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/learning-lessons-the-future-of-small-group-tutoring/>
- Carter, J. (May 2024). *Sharpening teacher tools: Creating an evidence-based standard for quality instructional materials* (Analysis Paper 69). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/sharpening-teacher-tools-creating-an-evidence-based-standard-for-quality-instructional-materials/>
- Sweller, J. (March 2024). *Mind over matter: The philosophical arguments around AI, natural intelligence and memory* (Occasional Paper 200). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/mind-over-matter-the-philosophical-arguments-around-ai-natural-intelligence-and-memory/>
- Jha, T. (February 2024). *Implementing the science of learning: Teacher experiences* (Research Report 47). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/implementing-the-science-of-learning-teacher-experiences/>
- Jha, T. (February 2024). *What is the science of learning?* (CIS Analysis Paper 63). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/what-is-the-science-of-learning/>

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Achieving written curriculum quality is a necessary step for long-term success

Research endorses a knowledge-rich curriculum

The term ‘curriculum’ can refer to written standards of what students are to learn, or — particularly in the USA — refer to packages of teaching and learning resources which enact the written standards. The term ‘standards’ is not typically used on its own to refer to curriculum in Australia, so this submission will refer to ‘written’ and ‘enacted’ curriculum, respectively.

Research from Australian education consultancy Learning First in conjunction with Johns Hopkins Institute for Education Policy notes American research showing that curriculum — in this case, systematic programs implemented in schools to enable students to meet the standards, such as textbooks — can have a strong impact on student achievement, with effects equivalent to significant percentile point gains in achievement in various subjects. Relative to other measures to increase student achievement, it is also cost-effective.¹

While unpacking exactly what it is about these instructional materials that makes them high impact is a fraught exercise, there is a separate strand of research about what should be stipulated in curriculum frameworks. The Australian Education Research Organisation makes the following case for curriculums emphasising knowledge over skills:²

A knowledge-rich curriculum is a powerful lever to support excellence and equity in schooling by setting high expectations and making explicit the shared knowledge all students should be supported to access (Counsell, 2023; Hirsch, 2016; Wiliam, 2013). It is a common feature of high-performing and equitable education systems around the world, based on their performance in Programme for International Student Assessment (PISA) tests (Chiefs for Change, 2017; Common Core, 2009; Organisation for Economic Co-operation and Development [OECD], 2023).

Separately, cognitive science research about prior knowledge and long-term memory in facilitating further learning — where knowledge acts as ‘mental Velcro’³ — lends itself to the idea that building student knowledge effectively, over time, is a key goal for educators.⁴

In the Australian case, moves towards high quality instructional materials — and ways to quality assure these for schools and teachers — are worthwhile in theory, but only insofar as these materials rely on an understanding of curriculum quality that is based in long-term coherence.

There is a further problem. Because enacted curriculum — curriculum resources, whether developed by commercial or non-profit third parties, by school systems, or by teachers in schools — must align with the written curriculum, the capacity of any national bank of enacted curriculum resources to

¹ Steiner, D., Magee, J., & Jensen, B. (2018). *What we teach matters: How quality curriculum improves student outcomes*. Learning First & Johns Hopkins Institute for Education Policy. <https://learningfirst.com/wp-content/uploads/2020/07/1.-What-we-teach-matters.pdf>

² Australian Education Research Organisation. (2024). *A knowledge-rich approach to curriculum design*. <https://www.edresearch.edu.au/research/research-reports/knowledge-rich-approach-curriculum-design>

³ Wexler, N. (2020, Summer). Building knowledge: What an elementary curriculum should do. *American Educator*. Retrieved from <https://www.aft.org/ae/summer2020/wexler>

⁴ Jha, T. (2024). *What is the science of learning?* (CIS Analysis Paper 63). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/what-is-the-science-of-learning/>

meaningfully improve educational performance rests on the quality of the written curriculum — and at a particular point in time.

But curriculum approaches across Australia are diverse

Learning First analysis of the Science curriculum across various countries — including an analysis of the Australian Curriculum, Victorian Curriculum and the NSW Syllabus — drew the following conclusions about the current Australian Curriculum:⁵

- It contains about half the science content of the average of other curriculums;
- It lacks breadth of learning: it covers 44 science topics compared to an average of 74 topics in other systems; and
- It lacks depth of learning: just five science topics are covered in depth compared to an average of 22 topics covered in depth in other systems.

This report also found the Australian science curriculum 7-10 contained 59% less than the international benchmarked average, but the (old) NSW Syllabus 18% less and the (old) Victorian curriculum 65% less. If the written curriculum represents what students should be taught — and even this is subject to complaints that it is ‘overcrowded’ — then Australian students are simply not given the same opportunities to excel as students in other countries.

Some Australian governments have conducted curriculum reform to move curricula in a more knowledge-rich, evidence-based direction. The new NSW Syllabus, launched in mid-2024, was promoted by NSW Education Standards Authority chief Paul Martin as “sequenced, coherent, knowledge-rich, and infer a more explicit teaching practice”.⁶ Upon releasing the Victorian Curriculum 2.0 in June 2024, the Victorian Government stated it would deliver for “the next generation of students from Prep to Year 10 a knowledge-rich curriculum that will make them active, informed citizens prepared to navigate a diverse and changing world”.⁷

On the other hand, the South Australian approach has been driven not by international experiences of success or lack thereof, but by perceptions of student and employer demand. Professor Martin Westwell, head of South Australia’s Department of Education, told a parliamentary committee about the development of the South Australian Curriculum in June 2024, saying “we did a process where we started talking with our students, asking them about their aspirations for the future. We talked to parents and leaders around what we should be striving for in public education. We talked to employers, importantly, as well, around what they were seeing they were going to need in the future”.⁸

The Australian Curriculum, then, has been shown in at least one area (science) to be deficient against international standards, but also that it allows subnational jurisdictions to ‘adopt and adapt’ in ways

⁵ Jensen, B., Ross, M., Collett, M., Murnane, N., & Pearson, E. (2023). *The Australian curriculum benchmarked against the best: Fixing the hole in Australian education*. Learning First. <https://learningfirst.com/wp-content/uploads/2023/11/FULL-REPORT-COMBINED.pdf>

⁶ New South Wales Government. (2024, July 24). *Landmark new primary school curriculum to drive better education outcomes* [Media release]. Retrieved from <https://www.nsw.gov.au/media-releases/landmark-new-primary-school-curriculum-to-drive-better-education-outcomes>

⁷ Premier of Victoria. (2024, June 21). *A leading curriculum for the Education State* [Media release]. Victorian Government. Retrieved from <https://www.premier.vic.gov.au/sites/default/files/2024-06/240621-A-Leading-Curriculum-For-The-Education-State.pdf>

⁸ Parliament of South Australia. (2024, June 26). Estimates Committee A [Hansard transcript]. *Daily Hansard*. Retrieved from <https://hansardsearch.parliament.sa.gov.au/daily/eca/2024-06-26/2>

that are drastically different from one another. Attempts to layer quality assurance of a national bank of resources, as the Interim Report recommends (Recommendation 1.1) are well-intentioned, but will likely fail to achieve the desired impact.

Recommendations

The Australian Curriculum undergoes regular cycles of review, but the process is often fraught with a variety of stakeholders advancing different concerns. Despite the evidence, stakeholders and systems have diverse views about the purpose, form and function of a curriculum. The proposed Teaching and Learning Commission could provide the necessary alignment within the government agencies to guide the next review process to achieve evidence-informed consensus.⁹

The process should align with these four key features of a knowledge-rich curriculum as noted by AERO¹⁰ and included in the Interim Report.

1. Selective — Content is chosen purposefully for each subject, in alignment with a vision of education;
2. Coherent — The curriculum ensures content is interconnected across topics, subjects, and stages;
3. Carefully sequenced — The curriculum is designed to develop deep and broad knowledge over time by building on prior content and gradually increasing complexity, and
4. Specific and clear — The curriculum explicitly outlines what students are expected to know, understand and be able to do for subjects and topics across all stages.

Recommendation 1: Undertake a comprehensive benchmarking exercise of the current Australian Curriculum and its subnational variants that contextualises them against contemporary evidence about effective curriculum and compares with high-performing systems. This work should then inform the next review of the Australian Curriculum.

Improving enacted curriculum resources is important but must be carefully implemented

Current approaches to enacted curriculum leave gaps

As the interim report notes, school-based development of enacted curriculum resources has significant workload impacts on teachers. Less observed is that the current practice of devolving enacted curriculum responsibility to the school and classroom teacher level is also a source of educational inequity. The Victorian Curriculum and Assessment Authority (VCAA) has noted the school-based model “has not always been accompanied by a sufficient level of advice and support to schools to enable the development of system-wide high-quality teaching and learning programs.”¹¹

⁹ Duffy, C. (2025, September 9). Could a new federal education super commission be the answer to addressing public school drop-out rates? *ABC News*. Retrieved from <https://www.abc.net.au/news/2025-09-09/teaching-and-learning-commission-education-minister-analysis/105751824>

¹⁰ Australian Education Research Organisation. (2024). *A knowledge-rich approach to curriculum design*. <https://www.edresearch.edu.au/research/research-reports/knowledge-rich-approach-curriculum-design>

¹¹ Victorian Curriculum and Assessment Authority (VCAA), Victorian Curriculum F-10: Revised curriculum planning and reporting guidelines. Available from: <https://www.vcaa.vic.edu.au/Documents/viccurric/RevisedF-10CurriculumPlanningReportingGuidelines.pdf> p. 9

The decisions by various systems to commission or fund the development of lesson resources is welcome, and its potential contribution to reducing teacher workload and promoting teacher wellbeing should not be underestimated. But not all resources of this type are created equal. The Victorian Lesson Plans, for instance, are developed without a scope and sequence.¹² While they may be a welcome alternative to an assembled curriculum of activities from Twinkl and Teachers Pay Teachers, they do not necessarily represent an evidence-based approach to curriculum.

On the other hand, non-profit organisation Ochre's 4,000 resources — accessed by 84% of Australian schools — are developed in the context of curriculum mapping. Individual lesson resources sit in the context of unit plans and scopes and sequences, and are structured to support teachers implementing evidence-based practices.¹³

Resourcing aside, equal policy attention must be paid to the implementation of pre-made resources — how are they implemented in practice, and how can staff do the necessary intellectual preparation to teach the lesson in a way that results in the best possible student achievement? This is a highly contextual exercise and best left to schools and teaching teams, but it means the role of good systems must be to provide what is necessary to enable teachers to spend their time on intellectual preparation — not curriculum writing, or, more accurately, activity assembly.

Recommendations

Noting the Productivity Commission's preference for a national bank of resources that is open to all schools and sectors, this function would best be undertaken by the Australian Education Research Organisation or, if an independent option is desired, Ochre Education. Ochre education was modelled on Oak National Academy in the UK, founded as a pandemic-era lesson-sharing resource, and eventually became an 'independent public body' — a move that poses risks for its independence in the eyes of end users.¹⁴

At present, the Australian market for systematic, enacted curriculum programs lacks sufficient breadth and depth. In this context, the immediate policy priority should be ensuring that high-quality, knowledge-rich written curriculum is in place, and that resources are available to reduce teacher workload and improve coherence.

Quality assurance of whole-class curriculum resources may ultimately be desirable, but for such a function to be credible and useful, several preconditions would need to be met. These include:

- A more coherent and knowledge-rich written curriculum across jurisdictions, so enacted curriculum resources can be benchmarked against a stable and agreed reference point;
- A deeper market of whole-class curriculum programs, allowing for meaningful comparison between options; and
- Agreed evaluation criteria that reflect evidence from cognitive science and international benchmarks, rather than subjective or locally variable standards.

¹² Personal communication

¹³ Ochre Education. (2025). *Ochre impact report*. Retrieved from <https://ochre.org.au/blog/new-release---ochre-impact-report>

¹⁴ Belger, T. (2022, July 18). Curriculum body plans risk sector 'collapse', DfE warned. *Schools Week*. Retrieved from <https://schoolsweek.co.uk/oak-curriculum-body-dfe-publishers-warning/>

In the absence of these foundations, early attempts at national QA risk producing limited impact and consuming policy effort without giving schools genuinely better guidance. However, laying these foundations now would enable a QA body in the medium term to operate effectively.

Recommendation 2: The Australian Education Research Organisation or Ochre Education are currently best placed to host a national bank of curriculum resources.

Recommendation 3: A national curriculum QA function should be considered as a medium-term goal, contingent on improvements to written curriculum quality, the development of a deeper resource market, and the establishment of robust evidence-based criteria for evaluation. In the interim, effort should focus on strengthening these foundations.

Any new quality assurance body should focus on learning interventions

While the fractured state of the written curriculum and the lack of depth in the market of the enacted curriculum would mean quality assurance of curriculum resources yields minimal return on investment, there is still room for some form of quality assurance that would provide better guidance to teachers and maximise student impact.

The Better and Fairer Schools Agreement (BAFSA) contains 2030 targets to reduce the proportion of students achieving in the bottom NAPLAN band and increase the proportion of students reaching proficiency (the top two NAPLAN bands). Under the National Reform Directions, the BAFSA also includes the introduction of “tiered and targeted, intensive supports in line with evidence-based teaching and a ‘multi-tiered systems of support’ approach”.¹⁵ Roughly a third of students do not meet proficiency in NAPLAN across various domains and year levels, so a large proportion of students may be affected by policy in this area.

Teachers have little guidance in a high stakes area of decision-making

Decision-making around interventions is high stakes. There is a high financial cost in terms of staff time, the opportunity cost of staff time given staffing constraints, and cost incurred if a third-party/commercial intervention is used. There is also an educational opportunity cost to students as they are forced to miss out on some part of learning to attend the intervention. To close learning gaps, such interventions must also enable students to make faster progress than their peers. As CIS research has noted, compared to other countries such as the US, an evidence ecosystem around programs and instructional materials is much less developed, with teachers left to make selections on the basis of little information.¹⁶

When Victoria and NSW attempted to provide learning interventions at scale during and after COVID-19, the respective evaluations found little to no evidence of positive impacts despite significant budget outlays from both states. In a survey conducted by the Australian Council for Education

¹⁵ Australian Government, Department of Education. (2025, January). *Better and fairer schools agreement (2025-2034): Full and fair funding* [Heads of Agreement]. Retrieved from <https://www.education.gov.au/download/18932/heads-agreement-better-and-fairer-schools-agreement-full-and-fair-funding-2025-2034/40882/document/docx>

¹⁶ Jha, T. (2024). *Learning Lessons: The future of small-group tutoring* (Analysis Paper 73). Centre for Independent Studies. Retrieved from <https://www.cis.org.au/publication/learning-lessons-the-future-of-small-group-tutoring/>

Research (ACER) for AERO of secondary teachers, two in five respondents lacked confidence in the approach their school takes to support students in literacy and this increased to almost half (47%) for numeracy.¹⁷

Recommendations

Learning interventions are a better target for a quality assurance body not only because of the high stakes involved, but also because the criteria for effectiveness are much narrower in scope, and can be agreed upon more readily — based on evidence — than broader whole-class curriculum. It is also something where comparatively little resourcing exists to support quality decision-making around intervention.

Taking the guesswork for teachers out of intervention could be done in various ways. A basic model is the Education Endowment Foundation's Cost/Evidence/Impact framework,¹⁸ but the USA's National Center on Intensive Intervention's tools and charts could also be used.¹⁹ As is the case for the EEF or the NCII, a specialised team is required to do the analytical and evaluative work that underpins the framework. AERO's existing research base on secondary literacy and numeracy interventions could be built on to provide more metrics of comparison.²⁰ Packages and approaches that are already being used, or that are shown to be promising based on a desktop review should also be subject to real-world trials and evaluations to generate further data to include in evaluations. Overseas materials with a solid research base should be considered in this process to reduce the lead time.

Recommendation 4: Any quality assurance body should focus on teacher decision-making around learning interventions, with clear criteria based on evidence and research, but also real-world implementation feasibility.

Recommendation 5: A quality assurance body should be part of any future Teaching and Learning Commission, and this new TLC should also monitor progress towards BAFSA targets and reform directions.

EdTech and AI adoption needs a purpose-before-platform approach

Educational technology adoption requires a purpose-before-platform approach, where instructional objectives and evidence-based practices guide tool selection, not technological innovation for its own sake. Without a consistent understanding of what effective teaching is, a 'what before why' approach will lead to more pendulum swings as has happened in the past with ICT curricula and bring-your-own-device (BYOD) policies.

¹⁷ Weldon, P. R., Heard, J., Thompson, J., & Stephenson, T. (2023). Implementing effective tiered interventions in secondary schools: Survey of school and support staff. Australian Education Research Organisation (AERO). <https://www.edresearch.edu.au/resources/implementing-effective-tiered-interventions-secondary-schools-survey-school-and-support-staff>

¹⁸ Evidence for Learning. (n.d.). *Teaching and learning toolkit*. Retrieved September 6, 2025, from <https://evidenceforlearning.org.au/education-evidence/teaching-learning-toolkit>

¹⁹ National Center on Intensive Intervention. (2021). *Academic Intervention Tools Chart*. Retrieved from <https://charts.intensiveintervention.org/aintervention>

²⁰ Australian Education Research Organisation. (n.d.). *Tiered interventions*. Retrieved September 11, 2025, from <https://www.edresearch.edu.au/topics/tiered-interventions>

Productive teacher uses of AI are limited

The Interim Report stated different systems are in the process of developing AI tools to assist with lesson planning. While it is possible that custom-made tools will be more effective, AI tools can only function in ways that aggregate existing ways of thinking about lesson planning, namely, with a focus on diverse activities and discovery learning.

Appendix A contains a prompt from this author, and lesson plan produced by Anthropic's Claude Sonnet 4, analysed through the science of learning principles endorsed by the Strong Beginnings report into initial teacher education, AERO and similar models adopted by systems, such as the Victorian Teaching and Learning Model 2.0.²¹

When asked to analyse how compatible the created lesson was with the VTLM 2.0, Claude estimated the overall compatibility to be 75-80%, with more work needed to make the lesson more explicit instruction focused. But its analysis is deeply flawed, such as the link between the VTLM 2.0's 'Retention and Recall' and the lesson's 'exit ticket' — which is not an example of retrieval practice.

A significant amount of teacher knowledge and skill with implementing evidence-based, science of learning-aligned pedagogies before AI becomes a useful tool to assist in this area, and even then, using AI well is a skill in and of itself. Given the current variable level of industry knowledge in the science of learning, there is no reason to think AI usage would improve the quality of curriculum resources.

On the other hand, custom-built AI could be useful if these models are trained on materials such as policy documents and handbooks used by schools for various processes such as planning excursions or making educational referrals. These procedures are updated often and can be quite complex. This may be a narrow use case for a custom-built AI tool, but should be part of an integrated approach to reducing administrative burden — not created for their own sake.

Student uses of AI are highly risky

The Interim Report includes Figure 1.6 which, perhaps unintentionally, communicates the idea that developing an AI tool for student use is the natural conclusion of AI development. Such a view fails to consider the real-world implications of AI and device usage in classrooms and the relative costs and benefits of these.

Research shows that while cognitive offloading — using technology to reduce cognitive load by relying on technology — can have its benefits, there are several risks, particularly for students who are trying to build up new schema, consolidate their memory and convert declarative knowledge (knowing that) to procedural knowledge (knowing how). Without a sound grasp of the science of learning principles, encouraging or directing students to use AI tools to learn is likely to make their academic outcomes worse, not better.²²

There are ways to use AI well to enhance study. A student with a good grasp of the testing effect in cognitive psychology and the benefits of retrieval practice could use an AI platform to generate flash cards for self-quizzing, partially filled exercises and worksheets for practice, or any number of tools.

²¹ Department of Education, Victoria. (n.d.). *VTLM resources*. Arc: Supporting Victorian Teachers. Retrieved September 11, 2025, from <https://arc.educationapps.vic.gov.au/learning/sites/vtlmresources>

²² Oakley, B., Johnston, M., Chen, K.-Z., Jung, E., & Sejnowski, T. (2025). "The Memory Paradox: Why Our Brains Need Knowledge in an Age of AI." In *The Artificial Intelligence Revolution: Challenges and Opportunities* (Springer Nature, forthcoming).

However, there is no reason to believe — given the lack of knowledge among teachers of effective study strategies²³ — that they would be able to guide students to use these tools effectively. Building this knowledge among teachers is a necessary precondition for supporting effective student use.

Recommendations

Recommendation 6: Systems should keep instructional objectives front and centre in the development of AI policies, which would likely result in tight restrictions on student use and largely administrative applications for teacher use.

Recommendation 7: AI approaches should not be nationally coordinated at this early stage of the technology's use and development. Diverse approaches taken by different systems enable comparison and evaluation and the emergence of a new evidence base.

²³ Jha, T. (2025). *Knowledge is power: What teachers know about the science of learning*. (The Centre for Independent Studies, forthcoming.)

Appendix A: Lesson plan generated by Anthropic’s Claude 4.0 Sonnet

Prompt 1: Plan a lesson for an Australian Year 8 class that introduces them to the medieval feudal system. Ensure the lesson plan includes evidence-based practices to promote student learning. After each part of the lesson, provide a short explanation about your reasoning for including it.

Lesson Plan	Explanation	Analysis
Year 8 Medieval Feudal System Lesson Plan Subject: History Year Level: 8 Duration: 60 minutes Topic: The Medieval Feudal System in Europe (c. 800-1500 CE) Learning Objectives By the end of this lesson, students will be able to: • Define feudalism and identify its key characteristics • Explain the hierarchical structure of feudal society • Analyze the relationships and obligations between different social classes • Evaluate the advantages and disadvantages of the feudal system for different groups Australian Curriculum Links • ACHHS153: Use historical terms and concepts appropriately • ACHHS154: Select, use and cite a range of relevant sources as evidence • ACHHS155: Identify and analyze different historical interpretations Resources Required • Interactive whiteboard/projector • Feudal hierarchy pyramid handout • Role-play scenario cards • Video: "Life in Medieval Times" (5 minutes) • Primary source excerpts (translated medieval documents) • Sticky notes for exit tickets		The curriculum links are a hallucination.
1. Hook Activity (10 minutes) Activity: "Medieval Status Scramble" • Students receive cards with medieval occupations (king, knight, serf, lord, merchant, priest)	1. Hook Activity - "Medieval Status Scramble" Reasoning: This activates students' prior knowledge and creates cognitive dissonance when groups disagree about social hierarchies. Research shows that beginning lessons with what students think they know, then challenging those assumptions, leads to deeper	It would be quite normal for students to have never heard words like ‘serf’ or ‘merchant’ — these are not general (Tier 1) vocabulary words, and these concepts are not introduced previously in the AC. Where is their ‘prior knowledge’ coming from?

- Working in small groups, they arrange these in order of importance/power - Groups share their arrangements and justify their choices - Teacher records different arrangements on the board Teaching Strategy: Activate prior knowledge and create cognitive conflict when groups disagree	learning. The activity also taps into students' natural curiosity about social status and power.	The research does not show that 'challenging assumptions' leads to 'deeper learning'. Students learn what they think about, so if they spend time practicing a misconception, they will remember the misconception rather than the truth. There is no evidence students have a 'natural curiosity' about social status and power.
2. Building Background Knowledge (15 minutes) Direct Instruction: Context Setting - Brief overview of post-Roman Europe (chaos, invasions, need for protection) - Introduce key vocabulary: feudalism, vassal, fief, homage, chivalry - Show 5-minute video on medieval life - Use think-pair-share: "Why might people agree to give up land or freedom for protection?" Visual Learning Support: - Timeline showing feudalism's emergence (800-1000 CE) - Map showing feudal territories in Europe	2. Building Background Knowledge - Context Setting Reasoning: This follows the principle of "teaching in the zone of proximal development" by bridging what students know (basic medieval concepts from popular culture) to new academic knowledge. The think-pair-share strategy is backed by extensive research showing that student discussion improves comprehension and retention. The visual timeline and map support different learning styles and help students situate new information geographically and chronologically.	This is referred to as 'building background knowledge' — background knowledge, by definition, predates the lesson. 15 minutes of explicit instruction, of which 5 minutes is watching a video, means 10 minutes out of 60 is actually telling students what they need to know. There is no formative assessment beyond the think-pair share.
3. Core Learning: The Feudal Pyramid (20 minutes) Activity: Interactive Pyramid Construction Phase 1: Guided Discovery (10 minutes) - Reveal feudal hierarchy pyramid level by level - At each level, discuss: Who are they? What do they own? What are their obligations? - Students take structured notes using graphic organizer Hierarchy Levels: King - Owns all land, grants fiefs to nobles, expects military service Lords/Nobles - Hold large fiefs, provide knights to king, govern territories Knights/Vassals - Hold smaller fiefs, serve 40 days military service, follow chivalric code	3. Core Learning - Interactive Pyramid Construction Reasoning: This uses the "gradual release of responsibility" model, moving from guided instruction to independent practice. Breaking down the complex feudal system level by level prevents cognitive overload. The graphic organizer supports working memory, while the relationship mapping activity helps students understand the reciprocal nature of feudal obligations - moving beyond simple hierarchical thinking to systems thinking.	This claims to use a GRR model but that's not guided discovery and not possible in 10 minutes, and the second task — which is supposed to be done independently by students — involves complex knowledge they can't be expected to deduce from what they have been taught. The graphic organiser is a helpful tool but it is being used incorrectly here — it's a good consolidation task but not necessarily a good task for initial teaching. "Systems thinking" is a meaningless term here.

4. Peasants/Serfs - Work the land, bound to manor, provide food and labor Phase 2: Relationship Mapping (10 minutes) - Students create arrows showing obligations flowing up (military service, loyalty, labor) - Students create arrows showing benefits flowing down (land grants, protection, housing) - Emphasize reciprocal nature: "This isn't just about power - it's about mutual obligations"		
4. Application Activity: Role-Play Scenarios (10 minutes) Activity: "Medieval Court Decisions" Students work in groups of 4, each taking a role (King, Lord, Knight, Serf) Scenario Examples: - A knight refuses to serve in the king's army - Serfs want to leave the manor to seek better opportunities - A lord demands extra taxes from his peasants during harvest Process: - Each group receives a scenario card - Students argue from their character's perspective - Class votes on most convincing argument - Discuss how feudal law would actually resolve each situation	4. Application Activity - Role-Play Scenarios Reasoning: Role-playing is highly effective for history education because it helps students understand multiple perspectives and the complexity of historical decision-making. This activity moves students from passive reception to active application of knowledge. The debate format encourages critical thinking and helps students understand that historical actors had real motivations and constraints.	Students haven't been taught about feudal law specifically so how would they know how it would resolve these scenarios? The references to "passive reception" and "critical thinking" are also not in line with evidence.
5. Consolidation and Assessment (5 minutes) Exit Ticket Activity: Students complete on sticky notes: One thing I learned: New fact about feudalism One question I have: Something they want to know more about Connection: How is this similar to or different from modern Australia? Quick Formative Assessment: - Thumbs up/down: Do you understand the feudal hierarchy?	5. Exit Tickets Reasoning: These provide immediate formative assessment data while requiring students to synthesize their learning. The three-part structure (learning, questioning, connecting) mirrors research on effective reflection practices. Connecting to modern Australia helps students see history's relevance to their own lives.	None of these are effective formative assessment strategies because the exit ticket format does not allow for the teacher to adjust their teaching in response to what the students are showing them they know. Not only that, only the first question asks students to respond to anything they have been taught about feudalism — the third asks them to make a connection they haven't been taught to make.

Fist to five: How confident do you feel explaining feudal relationships?		Thumbs and fist to five are both student self-assessment strategies — not evidence-based formative assessment strategies.
Differentiation Strategies For Advanced Learners: - Provide additional primary sources to analyze - Ask them to consider regional variations in feudalism - Extension question: "How did feudalism eventually decline?" For Students Needing Support: - Provide partially completed graphic organizers - Use visual cues and color-coding for hierarchy levels - Pair with confident peers during group work For EAL/D Students: - Pre-teach key vocabulary with visual supports - Provide bilingual glossary if available - Use gestures and diagrams to support explanation	Differentiation Strategies Reasoning: These address the reality of mixed-ability classrooms by providing multiple pathways to success. The strategies are based on Universal Design for Learning principles, ensuring access for students with different learning needs, language backgrounds, and academic confidence levels. This lesson incorporates evidence-based practices including retrieval practice, spaced repetition, interleaving of concepts, and metacognitive strategies while maintaining engagement through variety and student agency.	Primary sources are core disciplinary knowledge in History and can't be an 'extension only' activity. Rather, all students should be provided with the supports and scaffolds needed to make meaning from primary sources.
Assessment Formative Assessment: - Observation during group discussions - Quality of questions asked during instruction - Accuracy of pyramid construction activity - Exit ticket responses Summative Assessment Preparation: This lesson prepares students for upcoming assessment where they will: - Create a detailed diagram of feudal society - Write from the perspective of someone in the feudal system - Compare feudalism to modern democratic systems		These are not evidence-based formative assessment strategies as formative assessment is about getting students to tell you what they know as they are learning for the first time (not practicing) and not after the lesson has finished — exit tickets do not allow for real-time adjustment of teaching practices.
Homework Extension Choice Board Options: - Interview a family member: "What responsibilities do we have to our community today?" - Research one aspect of feudalism (castles, knights, medieval farming) - Create a comic strip showing a day in the life of a medieval serf		These are very loosely linked to the learning objectives and more time is spent thinking about things that have nothing to do with the learning (e.g. creating a comic strip) than engaging in effortful thinking about the material.

Prompt 2: How compatible is the lesson you created for me with the VTLM 2.0?

Looking at the lesson I created against the VTLM 2.0 framework, there's strong alignment across all four elements, though some areas could be enhanced to better reflect the model's explicit teaching emphasis.

Strong Alignments with VTLM 2.0

Planning Element

The lesson demonstrates solid planning practices:

- Clear learning objectives linked to Australian Curriculum
- Evidence-based pedagogical choices (cognitive load theory, gradual release)
- Differentiation strategies for diverse learners
- Formative and summative assessment integration

Enabling Learning Element

Several components support this element:

- Hook activity creates engagement and activates prior knowledge
- Vocabulary pre-teaching supports accessibility
- Think-pair-share builds confidence before whole-class discussion
- Differentiation strategies ensure all students can access learning

Supported Application Element

The lesson provides scaffolded practice opportunities:

- Role-play scenarios allow guided application of concepts
- Group work with structured roles provides peer support
- Exit tickets offer low-stakes practice of key concepts
- Homework choice board extends application opportunities

Areas Needing Enhancement for VTLM 2.0 Alignment

Explicit Teaching Element - Requires Strengthening-

The current lesson has some explicit teaching but could be more systematic:

Current approach: Mixed direct instruction with discovery learning

VTLM 2.0 alignment needed: More structured, sequential explicit instruction

Specific improvements needed:

1. **More Systematic Modeling:** The pyramid construction could include explicit "I do, We do, You do" phases rather than guided discovery
2. **Clearer Learning Progressions:** Break down feudal relationships into smaller, sequential steps with explicit teaching of each component
3. **Enhanced Worked Examples:** Provide concrete examples of feudal contracts or obligations before students analyze scenarios
4. **Structured Practice Sequences:** Move from highly guided practice to independent application more systematically

Recommended Modifications for Full VTLM 2.0 Compatibility

Restructured Core Learning Section:

Phase 1 (I Do): Teacher explicitly models how to analyze feudal relationships using one clear example

Phase 2 (We Do): Class works through second example together with teacher guidance

Phase 3 (You Do): Students apply framework to analyze third relationship independently

More Sequential Vocabulary Introduction:

Rather than introducing all terms at once, introduce them systematically as needed within the explicit teaching sequence.

Enhanced Feedback Loops:

Include more frequent checking for understanding throughout explicit teaching phases, not just at the end.

Elements of Learning Alignment

The lesson aligns well with VTLM 2.0's Elements of Learning:

- **Attention, Focus and Regulation:** Hook activity and varied formats maintain engagement
- **Knowledge and Memory:** Graphic organizers and visual supports aid retention

- **Retention and Recall:** Exit tickets and homework provide retrieval practice
- **Mastery and Application:** Role-play scenarios test deeper understanding

Overall Compatibility Assessment

Current compatibility: 75-80%

The lesson demonstrates good evidence-based practices but would need modifications to fully align with VTLM 2.0's emphasis on explicit teaching. The strongest alignment is in Planning and Supported Application, while Explicit Teaching requires the most adjustment to meet the model's systematic, direct instruction approach.

The lesson's constructivist elements (like the discovery-based pyramid activity) would need to be restructured as more explicit, teacher-directed instruction while maintaining the engaging, differentiated approach that supports all learners.