

Teacher Education Expert Panel

Discussion Paper

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Introduction

Initial Teacher Education (ITE) has been the subject of significant national reform and review. Reforms identified by the [Teacher Education Ministerial Advisory Group \(TEMAG\)](#) in 2014 (TEMAG 2014) have been progressively implemented since 2015 and have led to significant progress in raising standards in the selection and preparation of teachers.

Despite these efforts, the 2022 [Quality Initial Teacher Education \(QITE\) Review](#) identified the need for further reform to attract high-quality diverse candidates, to ensure their preparation is evidence-based and practical and induct them well into the profession. The QITE Review made 17 recommendations and seven findings to build on the significant reforms arising from the TEMAG review. In response, the Australian Government established the [Teacher Education Expert Panel](#) (the Panel) in September 2022 to provide advice on implementing two of these recommendations and key issues raised at the Teacher Workforce Shortage Roundtable. The [Terms of Reference](#) (ToR) includes providing advice on reforms to:

- strengthen ITE programs to deliver confident, effective, classroom ready graduates
- strengthen the link between performance and funding of ITE
- improve the quality of practical experience in teaching
- improve postgraduate ITE for mid-career entrants.

The Panel is focussed on providing advice on these reforms and determining what is required to successfully and consistently deliver these reforms across jurisdictions, such as changes to the authorising environment. The Panel is mindful of the complex regulatory and funding environment in which ITE is situated, with the Australian Government funding ITE, states and territories accrediting ITE programs through Teacher Regulatory Authorities (TRAs), higher education providers delivering more than 350 ITE programs and schools supporting ITE students through practical experience and on entry into the classroom. Improving ITE cannot be addressed by any one jurisdiction alone; successfully implementing any proposed reforms to improve quality in ITE will be a shared responsibility.

To support the successful implementation of the QITE Review recommendations, the Panel has undertaken in-depth work to identify opportunities for reform and will be engaging in targeted consultation to inform its advice. This Discussion Paper sets out the key findings of this work, opportunities and considerations for delivering on these reform areas and discussion questions to inform its advice. The Panel will provide advice on these reform areas to the Education Ministers Meeting through the Australian Government Minister for Education by June 2023.

Reform Area 1: Strengthen ITE programs to deliver effective, classroom ready graduates

The QITE Review (Recommendation 7) found that many ITE graduates are underprepared to teach in several key areas, particularly in the areas of the teaching of reading, cultural responsiveness, supporting diverse learners, classroom management and family/carer engagement. The QITE Review also found that ITE students felt their preparedness to teach in general would be bolstered by a focus on evidence-based teaching strategies.

The *Accreditation of initial teacher education programs in Australia: Standards and Procedures* (Accreditation Standards and Procedures) set out the requirements that an ITE program must meet in order to meet the requirements of the Teacher Standards. However, the Accreditation Standards and Procedures do not require ITE students to learn specific evidenced-based practices except in the area of early reading instruction.

The Panel has been asked to provide advice on amending the Accreditation Standards and Procedures to ensure ITE students are taught sufficient evidence-based practices to meet the *Australian Professional Standards for Teachers* (Teacher Standards) and support them to lead a classroom. To aid the Panel, the Australian Education Research Organisation (AERO) was engaged to identify the evidence-based practices which have the greatest impact on student learning that ITE students should learn and be able to demonstrate to inform amendments to the Accreditation Standards and Procedures. AERO was also supported by Dr Catherine Pearn, Senior Lecturer at the Melbourne Graduate School of Education, in reviewing and synthesising effective practices in numeracy.

Key findings

1.1 Determining which evidence-based teaching practices to prioritise in ITE programs

In considering Reform Area 1, AERO reviewed and synthesised the most rigorous and relevant evidence-based practices in education from meta-analyses, systematic reviews, and literature reviews.

Evidence-based practices in education are those practices supported by research evidence as to their effectiveness. This means they have broad consensus from rigorously conducted evaluations that they work in many cases across various contexts, for different subgroups of students and in various locations. Additionally, there are evidence-based practices on approaches to teaching subject-specific content, such as reading and numeracy, that can complement generic evidence-based pedagogical approaches.

During its research, AERO rated these sources of information against its '[standards of evidence](#)' of what constitutes rigorous and relevant evidence, focusing on evidence generated in an Australian context where possible and identified practices that have been shown to be effective across a variety of contexts including primary and secondary, across different subjects and for students with additional learning needs. This is to promote the teaching of practices that suit the largest range of learners possible and to support graduate teachers in being classroom ready, whatever that classroom may look like. As such, they form the essential foundations for *all* teachers, regardless of specialisation or age range of students. While the *practices* have been deemed relevant for both primary and secondary contexts, some of the illustrative *examples* of the practices offered may not apply to all contexts.

1.2 Core Content





To support ITE students in meeting the Teacher Standards to lead a classroom, the research identifies four types of core content that are supported by the most rigorous and relevant evidence and should be prioritised in all ITE programs:

1. **The brain and learning:** provides teachers with a foundational understanding of why specific instructional practices work, and how to implement these practices with fidelity.
2. **Effective pedagogical practices:** explicit modelling, scaffolding and formative assessment practices that support student learning because they are responsive to how the brain processes, stores, and retrieves information.
3. **Classroom management:** practices that support fostering environments where students spend the most amount of time on learning.
4. **Enabling factors for learning** (First Nations peoples, their cultures and perspectives; cultural responsiveness; family engagement; and diverse learners): ensures that content is being delivered in ways that are contextually appropriate and responsive to student need.

This content should be considered core content in all ITE programs, noting it does not seek to meet all Graduate Teacher Standards nor attempt to address the subject-specific content or the related knowledge of the curriculum. Rather, it aims to prioritise the knowledge and practices which are essential for all ITE students, regardless of specialisation or stage of learning given their impact on student learning. It remains appropriate for individual providers to use their expertise in teacher education to design appropriate curricula for their ITE program.

Figure 1.1 below outlines the proposed evidence-based practices that should be prioritised as core content in ITE programs. It sets out what teachers should learn and demonstrate and how these practices are an element in meeting the Graduate Teacher Standards.

Figure 1.1. Summary of the proposed core content and alignment with the Graduate Teacher Standards

1	The brain and learning		<ul style="list-style-type: none"> ○ Novice vs expert learners ○ How the brain learns and retains information <ul style="list-style-type: none"> ○ Short- and long-term memory ○ Cognitive load ○ How the brain masters knowledge <ul style="list-style-type: none"> ○ Retrieval and application in familiar and unfamiliar contexts ○ A note on neuromyths <ul style="list-style-type: none"> ○ Misconceptions of brain research 	Teacher Standards: 1.1, 1.2
2	Effective pedagogical practices		<ul style="list-style-type: none"> ○ Most effective pedagogical practice <ul style="list-style-type: none"> ○ Planning and sequencing ○ Explicit modelling and scaffolding ○ Assessment and feedback ○ Effective practices in subject areas <ul style="list-style-type: none"> ○ Literacy: Early reading/phonics ○ Numeracy: Explicit mathematics instruction ○ Explicit teaching of reading and writing in other Key Learning Areas ○ Multi-tiered systems of support (MTSS) <ul style="list-style-type: none"> ○ Increasing frequency and intensity of effective pedagogical practice 	Teacher Standards: 1.5, 1.6 2.1, 2.2, 2.3, 2.5 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 4.1, 4.2 5.1, 5.2, 5.3, 5.4
3	Classroom management		<ul style="list-style-type: none"> ○ Rules and routines <ul style="list-style-type: none"> ○ Establishing rules and routines ○ Teaching rules and routines explicitly ○ Practicing rules and routines ○ Proactive practices <ul style="list-style-type: none"> ○ High expectations ○ Goal setting ○ High-quality and explicit teaching ○ Predictable environment ○ Managing behaviour <ul style="list-style-type: none"> ○ Pre-plan and use calm, consistent, proportional responses ○ Modelling desired behaviour ○ Responding to persistent misbehaviour 	Teacher Standards: 1.2 3.1, 3.5 4.1, 4.2, 4.3, 4.4 1.1, 1.3, 1.4, 1.5, 1.6 2.4 3.7
4	Enabling factors for learning		<ul style="list-style-type: none"> ○ First Nations peoples, their cultures and perspectives <ul style="list-style-type: none"> ○ First Nations histories, cultures and perspectives ○ Cultural responsiveness <ul style="list-style-type: none"> ○ Self-reflection (positionality) ○ Culturally responsive practices ○ Family engagement <ul style="list-style-type: none"> ○ Primary practices ○ Secondary practices ○ Diverse learning needs <ul style="list-style-type: none"> ○ Suitability of effective pedagogical practices for diverse needs 	Teacher Standards: 4.1, 4.4 7.1, 7.3, 7.4

1.2.1 The brain and learning

ITE programs should teach cognitive science content that directly relates to how students learn. Understanding the function of the human brain as it learns and retains information gives teachers a foundational understanding of *why* specific instructional practices work, and *how* to implement the practice with fidelity.

What is the evidence?

Cognitive science principles related to memory and learning such as cognitive load theory are supported by a large number of peer-reviewed, randomised control trials. These principles have significant implications for effective teaching practice. A teacher’s ability to effectively select the most appropriate and impactful instructional method is enhanced by knowledge of how the brain learns and stores information. Research shows that an understanding of these principles to support effective instructional methods has a real effect on rates of learning and retention of information in the classroom.

The following works provide an overview of the extensive evidence base. Further research specific to each component of ‘the brain and learning’ is also cited throughout this section.

Table 1.1: Summary of seminal works

Cognitive Science in the Classroom: Evidence and Practice Review (Perry et al. 2021). A review of 499 studies found that understanding and managing cognitive load can have a positive impact on learning outcomes. Cognitive science principles were significant factors affecting rates of learning and retention of information in the classroom.
The Science of Learning (Deans for Impact 2015). Summarises existing cognitive-science research on how students learn and connects it to practical implications for teaching.
Cognitive Load Theory (CESE (Centre for Education Statistics and Evaluation) 2017). This literature review provides an overview of cognitive load theory, which is a theory of how human brains learn and store knowledge. Grounded in a robust evidence base, cognitive load theory provides support for explicit models of instruction.
Understanding the Brain: Towards a New Learning Science , Organisation for Economic Cooperation and Development (OECD) (OECD 2002). Examines how scientific developments in understanding how the brain works can help educators and educational policy makers develop new and more efficient methods for teaching and developing educational policies and highlights the significance of the distinction between nature and nurture in learning and brain development.
How Learning Happens: Seminal Works in Educational Psychology and What They Mean in Practice (Kirschner and Hendrick 2020). Exploring 28 key works on learning and teaching, chosen from the fields of educational psychology and cognitive psychology, the book offers a roadmap of the most important discoveries in how learning happens.

What should ITE students learn in this domain?

Cognitive science content on how the brain learns is crucial foundational knowledge needed to support teachers to make informed, real-time decisions in applying the most effective teaching practices. The fields of neuroscience and psychology have made rapid advancements in the past two decades, amplifying knowledge about learning processes, brain function and the implications for teaching. For teachers to be able to deploy the most effective practice in response to a learner, they require a strong foundation of *why* those practices are effective in terms of a learner’s brain.

This content has been structured into three key areas that teachers need to know and is sequenced in line with the process of knowledge acquisition and mastery in the learner’s brain, as follows.

1. Novice vs expert learners

Preparing to teach school-aged students is to prepare to teach novice learners, that is, learners who experience information as new. This is an important distinction for teachers to understand and address, as the brain of a ‘novice’ processes information differently from the brain of an ‘expert’, even when they are exposed to the same information. Things that novices see as separate pieces of information, experts see as an organised set of facts (or a schema).

It takes more time for novices to master new information than experts because novices first need to build the mental models of understanding that experts already have. Once those schemas are in place, a student can start to move from understanding what they are learning as isolated facts to seeing how and why those pieces of information connect, and what relationships exist between them (Kirschner and Hendrick 2020). This allows for more efficient, effective, deeper learning of more complex information (Kirschner and Hendrick 2020; Willingham 2021). Understanding how a student’s brain moves from being a novice to an expert when learning new information will support teachers to tailor and target instruction appropriately. For example, a self-directed approach is not an effective or efficient starting point for novices to support the acquisition of new information.

2. How the brain learns and retains information

The human brain has a unique cognitive architecture that includes aspects directly related to the way we learn. Aspects such as working memory, long-term memory and cognitive load perform essential functions in the process of learning and retaining new information (Sweller 2016). Teachers should develop a strong understanding of the cognitive process of learning including *how* the human brain moves information into long-term memory, potential barriers to the acquisition of knowledge and how to teach to optimise this process.

Research in cognitive science shows that learning involves processing new information through working memory and moving it to long-term memory where it can later be retrieved and used. Working memory has limits and can only process information while it is being thought about and focused on. The volume of new information and retrieval of existing information while making sense of a new concept or idea can overload working memory known as ‘cognitive overload’, and risk being misunderstood or forgotten (Chen et al. 2018).

Teachers should know that a lack of explicit instruction can lead to cognitive overload. When minimal guidance is provided and students are completing new tasks or identifying new learning by themselves, without prior instruction or scaffolding from their teacher, their attention is focused on the process and goal of completing the task, rather than thinking about the new learning and moving it to long-term memory (CESE 2017).

Complex instruction can also lead to cognitive overload. Students do not learn efficiently if they are presented with additional information that is not directly relevant to their learning (CESE 2017). A high cognitive load is also placed on students’ working memory when they must process two or more new pieces of information at once (Chen et al. 2018).

Recognising the limits of the human brain in learning new information helps teachers to structure learning tasks so that students can most efficiently connect new information with prior knowledge to develop understanding and skills. For example, the limits of working memory explain why breaking down and sequencing limited amounts of new information will support effective learning (Rosenshine 2012).

3. How the brain masters knowledge

An essential component of effective learning is for students to move beyond information retention and be able to apply knowledge to increasingly complex and unfamiliar contexts. Teachers should understand the process that occurs in a student’s brain as they progress towards mastery and know

how to adjust their practice to support this process. When students initially attain a level of expertise in the background knowledge of a subject, they can practise and extend their learning effectively through independent problem-solving (Sweller 2021). Once they have mastered a set of knowledge and built a mental model that connects relevant information, they are then able to apply their knowledge and skills to solve unfamiliar problems (Sweller 2016, 2021). For example, evidence shows that learning through worked examples is initially more effective, but as a student's familiarity with the knowledge of a subject increases, then they learn more effectively through more challenging problem-solving (Sweller 2021).

A note on neuromyths

The relationship between brain research and education has led to the development of neuromyths (Geake 2009; Sousa 2011). The OECD (2002) defined these neuromyths as “misconceptions generated by a misunderstanding, a misreading or a misquoting of facts scientifically established (by brain research) to make a case for use of brain research in education and other contexts” (p. 69). The prevalence of neuromyths around (a) left vs. right brain people, (b) the 10 per cent of the use of our brain, (c) visual, auditory, and kinaesthetic (VAK) learning styles, and (d) multiple intelligences have led to widespread misunderstanding of how the human brain learns, resulting in ineffective instruction (Howard-Jones 2014).

The evidence against neuromyths is robust. For example, research in neuroimaging shows that both hemispheres of the brain are responsible for most processes and are constantly working together, even though they differ in their functions (Ansari 2008), countering myths such as left vs. right brain people, VAK or multiple intelligences (Geake 2008).

It is important to note that most neuromyths have been formed because of oversimplifications, misinterpretations or flawed interpretations (Pasquinelli 2012; Howard-Jones 2014) of valid scientific findings (Dekker et al. 2012).

ITE programs should explore and address these misconceptions head-on to correct the dialogue between neuroscience and education so that these myths are not perpetuated. Instructional choices based on these myths at best have no impact on student learning and at worst, can be detrimental to student progress.

What should graduate teachers be able to demonstrate?

1. Knowledge of what it means to be a ‘novice’ learner in comparison to an ‘expert’. Knowledge of and skill in the related implications for practice.
2. Knowledge of the most efficient and effective process of knowledge acquisition in the brain, including the function of memory and the concept of cognitive overload.
3. Knowledge of the process that occurs in a novice brain during progression towards mastery. Knowledge of and skill in the need to adjust practice in response.

Graduate Teacher Standards

This content supports the Graduate descriptors for Professional Knowledge: Standard 1: Know students and how they learn (1.1 and 1.2).

1.2.2 Effective pedagogical practices

Explicit modelling, scaffolding and formative assessment practices that support student mastery have the highest impact on improvement in student learning outcomes. These practices effectively and efficiently support student learning because they are responsive to how the brain processes, stores, and retrieves information.

What is the evidence?

The effective pedagogical practices presented have been proven to work and are supported by research in cognitive science, as well as research on the most effective classroom practices of master teachers. There is a high level of consistency across different academic fields on effective pedagogical practices, further strengthening confidence in the validity of these practices. These practices draw on the work of Rosenshine (2012), who presents 10 research-based principles of instruction that have been shown to most effectively address how a student’s brain learns. Rosenshine presents findings from three distinct and divergent bodies of research: (a) research on cognitive processing, (b) research on teacher effects, that is, studies of teachers whose classes made the highest achievement gain compared to other classes, and (c) intervention studies in which students were taught cognitive strategies they could apply to their learning. His findings point to a set of common instructional practices that delivered the highest impact on improving student outcomes. AERO has synthesised evidence to detail the practices that have been proven to make a difference, the summary of which is outlined below.

Table 1.2: Summary of evidence syntheses

Practice	Evidence	Studies conducted across various locations suggest that it:
Mastery Learning	AERO conducted a review of 81 studies.	<ul style="list-style-type: none"> • has a positive impact on achievement in mathematics, sciences, social studies, and English and foreign languages • works for primary and secondary students • is effective particularly for lower achieving students, with higher achieving students also benefitting.
Formative Assessment	AERO conducted a review of 138 studies.	<ul style="list-style-type: none"> • has a positive impact on student achievement in mathematics, reading, writing, social science, and foreign languages • works for primary and secondary students • benefits students with and without additional learning needs.
Explicit Instruction	AERO conducted a review of more than 328 studies.	<ul style="list-style-type: none"> • has a positive impact on student achievement in mathematics, reading, spelling, problem-solving and science • works for primary and secondary students • benefits students with and without additional learning needs.

Evidence-based pedagogical practices can be used along a sliding scale of tiered support that increases in intensity to meet the individual needs of learners and support them on their journey towards mastery. The evidence points to the use of a multi-tiered system of support (MTSS) framework to do this. MTSS uses a combination of evidence-based teaching practices, data-based decision making and ongoing progress monitoring to provide targeted support to students who are struggling with general whole class instruction. The evidence shows that when instruction is high-quality, the use of this framework is highly effective. Furthermore, meta-analyses have found that when general whole class instruction is based on the evidence-based effective practices outlined above, an average of 80 per cent of students were able to meet intended learning progress goals with the remaining 20 per cent benefiting from effective targeted and timely small group interventions, and only 6 per cent of these students needed more intensive and individualised intervention (Burns and Symington 2002; Burns et al. 2005).

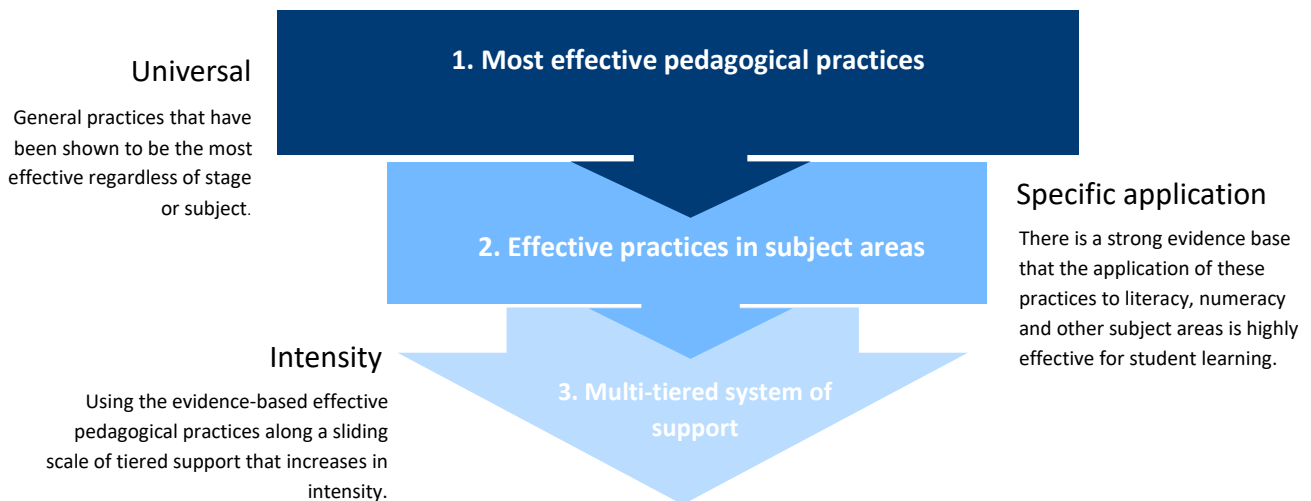
What should ITE students learn in this practice?

ITE students should learn the most effective classroom practices and strategies for student learning and knowledge acquisition. These practices are responsive to cognitive science that details how a student’s brain learns. The effective pedagogical practices defined in this paper are inclusive only of practices that directly relate to the learning, retention, and application of curriculum content. It does

not seek to describe broader influences, content knowledge, family and community engagement practices or other enabling factors that foster engaged learning environments.

Effective pedagogical practices comprise three key areas that teachers need to know: most effective practices; effective practices in subject areas; and MTSS, as outlined in Figure 1.2 below.

Figure 1.2: Effective pedagogical practices: key aspects



1. Most effective pedagogical practices

Planning and sequencing

Practices that support the coherent and deliberate planning and sequencing of tasks and lessons have been shown to positively impact student learning. Starting with the curriculum or syllabus, teachers should understand the common progression of learning in the subject area and note in advance the critical knowledge needed for students to progress with a plan to check understanding at these points (Schildkamp et al. 2020). Lessons and tasks should be driven by curriculum-aligned learning objectives which are responsive to student needs (Ellis and Worthington 1994; Guskey 2010). The design of these learning objectives should be paired with a clear description of how students will show evidence of mastery (Bloom 1968; Schildkamp 2019).

When ITE students are learning to plan a sequence of lessons, emphasis should be given to the incorporation of spacing and retrieval practice (Carpenter et al. 2012) with reference to why this practice works effectively in relation to a learner’s memory and brain. For example, spacing a particular concept or skill across two or more lessons (Cepeda et al. 2006, 2008), using routines that embed retrieval, such as question prompts (Adesope et al. 2017), and allowing multiple opportunities across a unit of work help students to retrieve past learning and consolidate it in long-term memory (Carpenter et al. 2012).

The evidence strongly supports the sequencing of tasks that build upon each other and meet students where they are in their learning, i.e. neither too easy nor too challenging (Bloom 1968; Panadero and Jonsson 2013; Sweller et al. 1998). Students learn best when teachers clearly explain how each task is related and builds on previously learnt objectives, helping them to understand the progression of skills needed to attain mastery.

Explicit modelling and scaffolding

Explicit teaching, modelling, and scaffolding practices are highly effective across a variety of contexts. Practices include breaking down what students need to learn into smaller learning outcomes and modelling each step so that students can see what is expected of them. Doing this

reduces the mental effort required of students, allowing them to process new information more effectively. ITE programs should emphasise that these practices are the foundation for effective teaching and are highly responsive to how a student's brain learns and retains information.

Teaching should begin with a clear explanation of what students are expected to learn, including its purpose and relevance, and understand each objective's success criteria before presenting any new material (Black and Wiliam 1998a, 1998b). When presenting new material, learning should be chunked into small, manageable tasks with well-defined goals (Black and Wiliam 1998a; Hughes et al. 2017). Additionally, all information required to complete these chunked tasks should be presented in one place and at one time, excluding information not directly related to the task (Sweller et al. 1998). Research shows that by doing this, students can manage the memory overload of learning something new without struggling to 'hold' information in their heads that pertain to instructions rather than content.

New skills and content must be explicitly modelled through 'worked examples' that clearly and concisely demonstrate how to complete the task. Modelling should show each discrete step required to complete a task, undertake a procedure, or solve a problem (Kirschner et al. 2006). This worked example then provides a foundation for the gradual introduction of other examples that introduce different elements of the task, one new point at a time. Scaffolding should then be progressively removed as students become more proficient, and worked examples are replaced with independent problem-solving and ample opportunities to practice (Martin and Evans 2018; Sweller et al. 1998). Research supports the use of spaced practice by using appropriately challenging structured recall activities to further assist students in retaining new skills and knowledge (Adesope et al. 2017; Agarwal 2019; Kang 2016; Roediger and Butler 2011).

ITE students should learn to continuously check for understanding and mastery so that they can meet students where they are with the learning. For example, re-teaching tasks to students who have not met learning objectives or providing enrichment opportunities for students to reach mastery early (Guskey 2010). ITE programs should incorporate explicit modelling and scaffolding paired with assessment and feedback practices detailed in the following section.

Assessment and feedback

Formative and summative assessment and teacher feedback are commonly used terms in the teaching profession and throughout ITE. However, the evidence shows that some practices are more effective than others when undertaking assessment and delivering feedback. Formative assessment practices are those which gather and interpret information about student learning as learning is taking place. Formative assessment allows teachers to monitor student learning and to adapt their teaching to meet student learning needs. Summative assessment practices provide necessary checkpoints when assessing students against a standard or benchmark to gain an understanding of the level of mastery attained.

Identifying where a student is in their learning by assessing what they know, or think they know, before starting a new unit of work supports teachers in pitching the introductory lessons at an appropriate level. For example, setting an informal pre-quiz to gain insight into possible misconceptions and existing knowledge is an effective way to plan for instruction and efficiently target learning (Heitink et al. 2016). When explicitly teaching students new skills or concepts, formative assessment should be occurring after each discrete task. It is important to emphasise that these assessments need not be time intensive or formal but are focused on showing what students have or have not learned so that corrections can be made before progressing to the next skill or task (Black and Wiliam 1998a; Bloom 1968).

Effective questioning is a core part of effective formative assessment. For example, the use of simple, low-key assessments such as exit slips, quick quizzes or targeted oral questioning (beginning with 'why', 'why-not', 'how', 'what if', 'how does X compare to Y' and 'what is the evidence for X') that prompt students to articulate their reasoning should help identify common student

misconceptions, check for retention of learning and assist in planning future instruction (Heitink et al. 2016; Martin and Evans 2018).

An important use of the information gathered through formative assessment is a teacher's ability to reflect and refine their practice in response to student data. Consideration and critical self-reflection of how instruction may contribute to misconceptions or identify patterns in what students are not learning leads to more effective and efficient teaching practice (Heitink et al. 2016).

While assessment is used to check for student understanding, it is essential that students are provided with timely feedback following any formative assessment task to help them correct misconceptions or improve. Feedback is one of the most powerful tools to support student learning. Feedback enables students to understand where they are at in their learning and then progress that learning by providing steps to move forward. Research strongly supports the use of immediate, timely and specific feedback that is honest, constructive, and clear to improve student learning (Archer and Hughes 2011; Roediger and Butler 2011; Son and Simon 2012; Wisniewski et al. 2020).

This feedback should be tailored and detailed enough that students can take actionable steps to improve. Where possible in both formative and summative assessments, teachers should use developmental rubrics with criteria tailored to the specific task and/or work samples so that students understand what is expected. These resources have been shown to help students become better at self-assessment (Lane et al. 2019).

2. Effective practices in subject areas

While the Australian Curriculum provides the detail of what should be taught in each content area, a foundational understanding of the explicit, systematic, and structured teaching methods above supports teachers to apply these practices to specific curriculum content. Alongside the practices listed above it is also essential that all ITE students (irrespective of stage of learning or subject area) have a foundational understanding of literacy and numeracy teaching strategies and their application.

Literacy

Specific attention should be given to reading and writing instruction as literacy is fundamental to success in all subjects and at all stages. A rigorous body of evidence identifies the key elements of [high-quality reading instruction](#), which should be included in all ITE programs. It outlines that explicit and systematic teaching addresses the five key elements: phonemic awareness, phonics, fluency, vocabulary, and comprehension. This is in line with Schedule 1 of the Accreditation Standards and Procedures 4.2 that all primary undergraduate and primary graduate entry programs include content for English/literacy - discipline-specific curriculum and pedagogical studies (Australian Institute for Teaching and School Leadership (AITSL) 2015). Providers should deliver content that adequately prepares ITE students to effectively and explicitly teach the content outlined by the existing Accreditation Standards and Procedures.

All ITE students, primary and secondary, should be taught and understand how to explicitly teach reading and writing, not only through the English curriculum but across all subjects. The explicit teaching of reading and writing tailored to specific content and discipline can improve students' understanding and engagement with the material, as well as their overall academic performance. Explicit writing and comprehension instruction across KLAs has been shown to effectively enhance both literacy and subject specific learning outcomes (Graham et al. 2020; Graham and Hebert 2011).

Numeracy

Like literacy, numeracy is fundamental to a student's ability to learn at school and engage in society. Numeracy encompasses the knowledge, skills, behaviours and dispositions students need to use mathematics effectively to meet the general demands of their life at home, in paid work, and for participation in community and civic life (AAMT 1998). In ITE programs, numeracy should be highlighted as a fundamental component of learning, discourse and critique across all areas of the

curriculum and as the responsibility of all teachers regardless of level or subject. As appropriate to their learning area, ITE students should recognise and use in context, a combination of underpinning mathematical concepts and skills (numerical, spatial, graphical, statistical and algebraic); mathematical thinking and strategies; general thinking skills; and grounded appreciation of context (AAMT 1998; ACARA 2018; Geiger et al 2015; Goos et al 2014; Tout 2020).

To ensure that ITE students understand and identify the numeracy demands of their subjects, ITE students must develop a conceptual understanding of the six strands of mathematics: number, algebra, geometry, measurement, statistics and probability and the four proficiencies: understanding, fluency, problem solving and reasoning (ACARA 2022). As appropriate to their learning area, emphasis should be placed on the use of the big ideas of mathematics e.g. trusting the count, place value, moving from additive to multiplicative thinking, partitioning and proportional thinking (Siemon 2022) and recognising common misconceptions and misunderstandings. ITE numeracy programs should encourage ITE students to focus on the importance of explicit modelling and teaching, scaffolding of tasks, and assisting students to move from modelling processes and procedures using concrete materials, to using and interpreting pictures, drawings and 2D representations and then finally using abstract symbols with fluency and understanding (Geiger 2018; Goos et al 2019; Flores et al 2014). Explicit instruction in the development and interpretation of formative assessment, along with the order, spacing and amount of time spent on topics should be provided to ensure that all ITE students can apply their mathematics knowledge, skills and understanding in numeracy contexts across all levels and subjects.

Multi-tiered systems of support

Teachers need to know how to provide early and proactive support for students to improve their academic performance and prevent the formation of a performance gap. The evidence shows that the way to do this effectively is by using a MTSS approach.

This approach has three 'levels' of support, which provide additional instruction in smaller, more targeted settings depending on the student's need. The first tier, Tier 1, is typically general classroom instruction, while Tiers 2 and 3 involve more targeted interventions and higher-intensity support for students who are struggling.

Tier 1 refers to the instruction that the whole class receives. If students have already mastered foundational literacy and numeracy skills, most, not all, will respond well to evidence-based Tier-1 instruction in all subjects. This instruction consists of the effective pedagogical practices detailed above. In an MTSS model, all students are screened to determine their capability in reading, writing and mathematics. The resulting data is used to inform whether students require intervention.

Tier 2 intervention involves intensifying support for the skills a student needs support in. using evidence-based instructional practices and empirically validated interventions in a small group setting. Students who do not respond to Tier 2 intervention will require Tier 3 intervention, which intensifies support further by increasing frequency or lowering the ratio of students to staff in small-group instruction (1:1 instruction also being an option). Tier 3 intervention should be delivered by a staff member trained in relevant evidence-based practices.

ITE students should be taught and have the opportunity to practice implementing a multi-tiered framework during ITE programs. This should not be taught as a standalone approach but as a coherent integration with quality instruction, recognising and emphasising that Tier 1 is the most important tier of support as it plays the greatest role in students' success at school and preventing learning gaps (Berkeley et al. 2009, 2020).

What should graduate teachers demonstrate?

1. Knowledge of and skill in planning and sequencing content and tasks so that they become increasingly challenging and incorporate spacing and retrieval practice.

2. Knowledge of and skill in explicit teaching, modelling and scaffolding practices that support how a student's brain learns.
3. An ability to effectively select a range of evidence-based assessment practices to evaluate progress, adjust instruction, provide targeted feedback, and support learning.
4. Appropriate subject matter expertise in the effective teaching of literacy, including the explicit teaching of phonics in early reading and the explicit teaching of reading and writing in subjects other than English.
5. Appropriate subject matter expertise in the effective teaching of numeracy including the explicit teaching of mathematics and building of fluency, understanding, problem solving and reasoning through structured spacing and retrieval practices.
6. Knowledge of theory and use of a MTSS framework, the direct relationship to evidence-based teaching practices and skill in how to practically implement in the classroom.

Graduate Teacher Standards

This content supports multiple Graduate descriptors within the Professional Knowledge (1.5 and 1.6; 2.1, 2.2, 2.3, 2.5) and Professional Practice (3.1-3.6 inclusive; 4.1 and 4.2; 5.1-5.4 inclusive) domains.

1.2.3 Classroom Management

Effective classroom management involves establishing routines to actively engage students in their learning, consistently applying rules and explicitly modelling appropriate behaviour so students know what is expected of them and establishing high expectations for student learning.

Understanding these practices allows for there to be an emphasis on fostering environments where students spend the most amount of time on learning.

What is the evidence?

Evidence shows that the presented classroom management practices are highly effective at maximising students' on-task learning time by minimising disruptive behaviour and disengagement. While these practices have been deemed relevant for both primary and secondary contexts, some of the illustrative examples of the practices offered may not apply to all contexts. Higher education providers delivering ITE should use their subject matter expertise to appropriately contextualise these practices to meet the needs of their ITE student cohorts. Similarly, reasonable adjustments must be made where necessary to ensure full access and participation for students with disability.

An annotated overview of the underpinning research evidence can be found in AERO's Focused Classrooms Practice Guide (AERO 2021). This overview is further supported by the findings in the following:

- 2020 literature review from The Centre for Education Statistics and Evaluation, NSW Department of Education, 'Classroom management - creating and maintaining positive learning environments' (CESE 2020)
- 2019 evidence review from the Education Endowment Foundation, 'Improving Behaviour in Schools' (Moore et al. 2019)
- 2018 systematic review from the Campbell Collaboration 'School-based interventions for reducing disciplinary school exclusion' (Valdebenito et al. 2018).

What should ITE students learn?

Classroom management content should provide ITE students with a foundational knowledge and understanding of successful preventative and responsive classroom management practices. ITE students should develop an understanding of, and opportunity to practice, establishing rules and routines, implementing proactive practices such as having high expectations and implementing responsive behaviour management.

This content has been structured into three key areas that teachers need to know (rules and routines, proactive practices, and managing behaviour), as outlined below.

1. Rules and routines

Establishing rules and routines in the classroom has been shown to be an effective practice in maximising student learning and minimising disruptive behaviours. Creating rules promotes a sense of structure and predictability for students, which leads to a safe and supportive environment, focused on learning (Alter and Haydon 2017). The evidence shows that use of routines or cues reduces wasted learning time by creating habits of learning that encourage students to respond quickly to instructions (Simonsen et al. 2008).

ITE students should learn the importance of developing and reinforcing clear and well-defined rules and routines and ITE students should understand that these rules and routines need to be explicitly taught to students to be effective (Chaffee et al. 2017). Furthermore, ITE content should include practical examples of rules and routines that are shown by the research to be effective and how to use them in a lesson. This could include what can be used at the beginning and end of lessons (e.g., 'do-nows' and lesson reflections), for different types of learning activities (e.g., protocols for small group discussions) and for transitions (e.g., moving quickly from one activity to the next). Higher education providers should consider when and how ITE students can practice developing and using rules and routines in a professional experience setting so that they are best supported to transition to the classroom.

2. Proactive practices

Proactive practices can reduce the likelihood of misbehaviour before it occurs. By setting clear and high expectations, building positive relationships, and providing structured and engaging lessons, teachers can create a classroom environment that is less conducive to misbehaviour. The effectiveness of proactive and preventative classroom management measures is strongly supported by the evidence and as such should be prioritised in ITE core content (Alter and Haydon 2017).

When students are held to a high standard, they are more likely to meet or exceed those standards. Having high expectations motivates students to learn, take responsibility for their actions and understand the consequences of their behaviour. The evidence shows that setting ambitious and achievable goals in collaboration with students, followed by a strong emphasis that these goals can be realised, is an effective, proactive approach to classroom management (Rubie-Davies et al. 2014).

High-quality instruction and active student engagement have also been shown to promote effective learning and positive behaviour. The evidence supports practices that provide frequent opportunities for students to actively engage through practices such as questioning (Simonsen et al. 2008), clear and explicit instruction so that students know where they are at in their learning and what they need to learn (Rubie-Davies et al. 2014), and reducing cognitive load by presenting students with only one task or direction at a time (Pashler 1994). The evidence also supports engaging students through the provision of specific, positive feedback that acknowledges student effort and its contribution to learning progress (Rubie-Davies et al. 2014).

Finally, the research points to providing a consistent and predictable physical environment to complement other proactive approaches to classroom management. Where possible, teachers should consider the arrangement of the classroom and consistent use of space/location to maximise on-task behaviour and support routines. For example, consider configurations or spaces that promote the type of task like rows or horseshoes for explicit instruction or clusters for group or practical work (Pashler et al. 2013; Wannarak and Ruhl 2008). Objects within the regular classroom setting should consistently appear in the same place, reducing cognitive load and supporting a consistent and predictable environment focused on learning (Summerfield and Egner 2009).

3. Managing behaviour

Managing behaviour is challenging for early career teachers and it is essential that ITE programs extend beyond theoretical assessment of these skills and support ITE students to act and reflect on their practices in a safe and supported environment.

Effective practices for managing behaviour require calm, consistent, expected, and proportional use and should be on a sliding scale that increases in intensity. In the first instance, teachers should learn to model the behaviours expected of students. For example using a calm tone, active listening, respectful interactions and being organised and on time shows students the expectation and gives them concrete examples of the behaviours they should replicate (Alter and Haydon 2017).

The evidence supports the practice of pre-planning and rehearsing responses to behaviours to help teachers to be more consistent and implement responses on the spot to reinforce high expectations for learners (Alter and Haydon 2017). The responses shown to be highly effective are those that are positive and proactive. Teachers should learn to use early intervention using simple prompts or 'pre-corrections' and referring to those prompts throughout a lesson for example Q "When we get to the library, what are the three things we need to remember to be responsible?"; A: "Walk on the left, be responsible for your books and surroundings, and talk in a quiet voice." (Ennis et al. 2017).

Response to more intense behaviours should be addressed by giving verbal feedback that draws attention to expected behaviours, rather than focusing on undesired behaviours, for example on-the-spot praise or specific and actionable verbal feedback, have been shown to be highly effective (Simonsen et al. 2008). A key and recurring theme in the research is the essentiality of consistent, predictable, and proportional responses so that students know the expectations but also feel safe in the knowledge that if their behaviour does not meet expectations, the response will be measured.

Consideration of whole-school behaviour frameworks

ITE content related to classroom management should consider common whole-school frameworks and models that ITE students may encounter in schools. The practices outlined above lift and prioritise what the evidence shows works during an individual teacher's classroom practice, but it is important for higher education providers to acknowledge broader school processes and frameworks. Understanding the place these evidence-based practices have in a broader framework will support ITE students in being classroom and school ready.

What should graduate teachers demonstrate?

1. Knowledge of and skill in the application of rules and routines in establishing a structured, safe and positive classroom environment (i.e., entry and exit routines, explicit teaching and reinforcement of rules, protocols for common activities).
2. Knowledge of and skill in implementation of proactive practices in preventing misbehaviour and/or disengagement, including the role of high-quality instruction as a proactive practice.
3. An ability to practice and apply proactive practices, including setting high expectations, building positive relationships, providing structure and setting ambitious, achievable and personalised goals.
4. An ability to practice and apply techniques that positively and effectively manage behaviour in classroom contexts, including the use of calm, consistent and proportional responses, behaviour modelling and feedback that gives attention to the desired behaviour rather than the undesired behaviour.

Graduate Teacher Standards

This content supports the Graduate Teacher Standards on Professional Knowledge (1.2) and Professional Practice (3.1 and 3.5; 4.1-4.4 inclusive).

1.2.4 Enabling factors for learning

The enabling factors presented here are those that need particular attention to best support graduates to be classroom ready: First Nations peoples, their cultures and perspectives, culturally responsive teaching, family engagement for learning and diverse learning needs.

1. First Nations peoples, their cultures and perspectives

What is the evidence?

A synthesis of key themes and recommendations proposed through seminal reviews and reports was undertaken by AERO to centre First Nations voices, and lift and prioritise well-considered, practical, and realistic suggestions (Education Ministers 2019; AITSL 2022b; Moreton-Robinson et al. 2012; Rhea et al. 2012; QITE Review). All seminal works selected contained extensive consultation work with First Nations people across Australia. AERO presented the key themes to its First Nations Expert Reference Group (FNERG) for feedback and prioritisation. With reference to the development of ITE content related to local context, appropriate and authentic subject matter expertise should be sought by ITE providers and developed in collaboration with local First Nations groups.

What do ITE students need to learn?

ITE content as it relates to First Nations peoples, their cultures and perspectives should highlight the importance of critical self-reflection, intercultural development and understanding of First Nations culture and perspective in order to develop responsiveness (Anderson and Rhea 2018; AITSL 2022a). ITE students should learn about their own potential cultural biases and assumptions which can affect instructional practices, behaviours and attitudes in ways that may adversely impact First Nations students.

Content relating to First Nations histories, cultures and perspectives should be explicitly taught in ITE programs, emphasising the diversity of these nations. This is not only so that First Nations students can see themselves and their culture reflected in the classroom content but allows all students to engage in reconciliation respect and recognition of the world's oldest continuous living culture. The cross-curriculum priority *Aboriginal and Torres Strait Islander Histories and Cultures* in the Australian Curriculum presents a content framework which includes elaborations for integration in learning areas. The content in the Australian Curriculum paired with AITSL's [assessment criteria for Graduate Teacher Standards 1.4 and 2.4](#) provides a good starting point for higher education providers and includes content such as:

- diversity within and across First Nations (culture, perspective, language, history and impact of colonisation)
- engaging with communities and families, and
- cultural safety.

There are examples of established cultural development frameworks being used in the Australian context which aim to provide a basis for building cultural capability and responsiveness. These First Nations cultural development frameworks could be drawn on to inform the teaching of this content in ITE programs. Examples of established frameworks in the Australian education context include but are not limited to:

- [AITSL Intercultural Development toolkit](#) (AITSL 2022b)
- [Department of Education Western Australia's Aboriginal Cultural Standards framework](#)
- [Department of Education Queensland's Aboriginal and Torres Strait Islander Cultural Capability Framework](#)

2. Culturally responsive teaching

What is the evidence?

There is limited research-based evidence regarding what constitutes ‘culturally responsive pedagogy’ and the potential impact on student outcomes. ITE providers should seek subject matter experts when crafting this content.

What do ITE students need to learn?

Teachers should understand self-reflection and reflexivity to be an ever-evolving career practice, acknowledging that this is the foundation of intercultural development. ITE programs should emphasise the importance of building knowledge of the cultural diversity within classrooms and communities to understand and value the perspectives and worldviews of diverse groups.

ITE programs should address how biases and assumptions can affect practices, behaviours and attitudes in ways that adversely impact specific groups. ITE students should build an understanding of positionality through engagement in critical self-inquiry with a focus on how their views impact their approach in the classroom (Anderson et al. 2021). This self-reflection will support ITE students in engaging with culturally diverse students and their families. Engagement with the [AITSL Intercultural Development toolkit](#) could provide a consistent framework for higher education providers (AITSL 2022b).

ITE programs should also provide opportunities to practice cultural responsiveness through assessments and professional experience to develop the ability to be responsive to the knowledge, skills, and cultural identities of other groups, acknowledging that this is a lifelong process requiring active attention to be sustained.

3. Family engagement for learning

What is the evidence?

AERO has produced practice guides on family engagement for learning that are tailored to different contexts. A rapid literature review was followed by consultation with accomplished practitioners from across Early Childhood Education and Care (ECEC), primary school and secondary school sectors, including organisations such as the Australian Children's Education and Care Quality Authority, AITSL, the Australian Research Alliance for Children and Youth, three peak bodies (the Australian Council of State School organisations, the Australian Parents Council, and Catholic School Parents Australia) and various state and territory jurisdictions. These [guides](#) have been designed to be clear, concise, relevant to a range of ECEC and school contexts, and relevant to practitioners with different roles. They have been designed to be a starting point and provide a good basis for ITE program content.

What do ITE students need to learn?

There is a great deal of evidence that families play a critical role in their child's learning. Family engagement is important throughout all stages of schooling, but strategies may look different at different stages. ITE programs should include the evidence-based practices suited to their course cohort and focus on building an understanding of ways school teachers and leaders can engage with families to bring about improvements in students' learning outcomes.

Research evidence shows the approaches detailed in AERO's [primary school](#) and [secondary school](#) practice guides for engaging with families can have a measurable positive effect on student learning outcomes. ITE programs should prioritise the following primary and secondary school practices:

- recognising and supporting family engagement in learning at home
- supporting two-way, positive communication and providing light touch updates about learning
- collaboratively planning and problem-solving with families, and
- promoting a literacy-rich environment at home (particularly for ECEC and primary school contexts).

4. Diverse learning needs

What is the evidence?

Careful and deliberate consideration has been given to the foundational core content presented above as it relates to diverse learners, including students with a disability and students from disadvantaged backgrounds. [AITSL](#) and the [Australian Curriculum, Assessment and Reporting Authority](#) provide guidance and resources for teaching students with a disability in line with these requirements, acknowledging that high-quality general instruction meets the needs of the vast majority of students with additional needs. An evidence synthesis from the Education Endowment Foundation drawing from systematic reviews of literature states that there is a strong evidence base for the use of effective pedagogical practices with students with additional needs. It also strongly supports the use of targeted intervention such as MTSS frameworks presented above (Cullen et al. 2020).

What do ITE students need to learn?

An acceptance of diversity among students in mainstream schools is a legal entitlement (Commonwealth *Disability Discrimination Act 1992*) and a core pillar of educational policy (Disability Standards for Education 2005) underpinned by international agreements (e.g. the United Nations Convention on Children's Rights, 1989). The evidence based pedagogical practices presented above have been shown to meet the needs of the vast majority students most effectively, including those with additional needs. It is designed to support ITE students in taking their first steps towards becoming expert practitioners in the future.

Graduate Teacher Standards

This content supports the Graduate Teacher Standards on Professional Practice (*4.1 and 4.4*) and Professional Engagement (*7.1, 7.3 and 7.4 inclusive*).

Discussion

The Panel has identified the following opportunities and considerations to ensure ITE graduates are taught sufficient evidence-based practices to meet the Teacher Standards.

1.3 Opportunities

1.3.1 Amend the Accreditation Standards and Procedures to ensure all ITE students learn and can use the identified practices

The practices could be included under Program Standard 1 to support the Teacher Standards or could be included under Program Standard 4 as part of the content requirements for ITE programs. The Panel is interested in understanding which Program Standard should be amended and the level of specificity required to ensure higher education providers consistently prioritise these practices in their programs.

1.3.2 Including evidence-based practices as part of Teaching Performance Assessments

Beyond including the evidence-based practices into ITE, ITE students also need to be given the opportunity to apply and practice these skills. A Teaching Performance Assessment (TPA) is a tool used to assess the practical skills and knowledge of ITE students. There is an opportunity to require TPAs assess if ITE students can demonstrate knowledge and application of these practices, encouraging the integration and implementation of core content into ITE programs and for ITE students to practice these skills in their practical experience.

1.4 Considerations

1.4.1 Authorising environment

Amending the Accreditation Standards and Procedures to ensure the core content is prioritised in ITE programs is a substantive ITE reform. The Panel is keen to ensure this core content is consistently prioritised in ITE programs, but there are currently limited mechanisms to ensure consistent application of the Accreditation Standards and Procedures across jurisdictions.

The QITE Review found that there is no transparent national moderation process to give confidence that all TRAs are assessing ITE programs against the Accreditation Standards and Procedures in the same way. AITSL stated in its submission to the QITE Review that ‘the revision or amendment of the Accreditation Standards and Procedures cannot overcome the structural differences that result from eight different interpretations of the accreditation standards.’

Previous ITE reviews have proposed different mechanisms to improve national consistency of accreditation decisions. TEMAG proposed an overhauled national accreditation process for ITE programs administered by a national regulator. A 2014 report commissioned for TEMAG, *Best Practice Teacher Education Programs and Australia’s Own Programs*, notes that most professions, apart from teaching, delegated the accreditation function to specially created national accreditation bodies. For example, the Australian Health Practitioner Regulation Agency was established in 2008 as a single National Registration and Accreditation Scheme for registered health practitioners. A national accreditation body would be a major long-term reform given the legislative complexity of establishing a national regulatory body, as all TRAs have been established through legislation in their respective jurisdictions.

The QITE Review proposed that a level of national moderation or oversight would be beneficial to ensure consistency of accreditation decisions. For example, it recommended strengthening the TPAs by setting up a board with authority to undertake national standard-setting, moderation and comparability of TPAs. Similarly, AITSL proposed a ‘National Quality Assurance of ITE Oversight Body’ in its submission to the QITE Review, to oversee, develop and present information about the quality and consistency of teacher training. It would not have any regulatory or legislative power but could make recommendations to TRAs and Educations Ministers and provide public information that supports quality assurance including in specific targeted areas. This would support improved national consistency of accreditation decisions without the need for legislative change.

The Panel is interested in understanding the extent to which the authorising environment for ITE needs to change to ensure the consistent application of the Accreditation Standards and Procedures and consistent prioritisation of the core content into ITE programs.



Discussion questions

- **Evidence-based teaching practices:** Are there other evidence-based practices which should be prioritised in ITE programs?
- **Amending Accreditation Standards and Procedures:** How should the Accreditation Standards and Procedures best be amended to ensure all ITE students learn and can confidently use these practices? Should the Accreditation Standards and Procedures be amended to require TPAs to assess these practices?
- **Curriculum specific content:** What steps should be taken to ensure curriculum-specific ITE content embeds the evidence-based practices?
- **Ensuring consistent, robust delivery of evidence-based teaching practices:** What changes to the authorising environment are required to ensure consistent application of the Accreditation Standards and Procedures and implementation of core content in ITE programs?

In your responses, please provide supporting evidence.

Reform Area 2: Strengthen the link between performance and funding of initial teacher education

Entering the teaching profession requires completion of an accredited ITE program. An accredited ITE program has met defined standards of quality – these standards are set out in the Accreditation Standards and Procedures (AITSL 2022a). Currently, the Accreditation Standards and Procedures represent the primary mechanism for defining the minimum quality of ITE and for determining that ITE students meet the Teacher Standards at the graduate career stage. This type of regulation is particularly important because the consumers of ITE - ITE students – currently lack the information to choose their ITE program based on its quality (Productivity Commission 2022).

The QITE Review recommended the development of a quality measure for ITE programs to encourage quality improvements, including through the allocation of higher education funding (Recommendation 15 of the QITE Review Report). The QITE review proposed the quality measure should comprise a set of performance measures. This recommendation recognised that while the Accreditation Standards and Procedures play an important role in strengthening the quality of ITE through a defined minimum standard, they do not sufficiently recognise and reward ITE providers with a culture of continuous improvement.

The Panel has been asked to provide advice on whether and how funding of higher education providers should be based on quality and other factors. The Panel’s advice is set in the context of the review of the Australian Universities Accord, which is considering a range of issues such as accessibility, affordability, quality and sustainability to provide a long-term plan for higher education in Australia. The Panel has also considered Recommendation 15 of the QITE Review in the context of the national shortage of teachers and a reported softening interest in studying ITE in recent years.¹

There are two parts to Reform Area 2, establishing performance measures for ITE and linking this to funding. An overview of each is set out below.

Part I – Establishing performance measures for ITE

In developing performance measures for ITE, the Panel considered data available for all higher education providers to report on the performance of ITE programs, acknowledging that transparency is required to have full confidence in the quality of an ITE program.

To aid the Panel in identifying appropriate performance measures, the Panel engaged the Australian Catholic University Institute of Learning Sciences and Teacher Education to assess how the performance of ITE programs could be consistently measured across higher education providers.

¹ For example, the Australian Catholic University has reported a 39 per cent reduction in education enrolments at the Ballarat campus since 2020, a 23 per cent reduction at Sydney and a 20 per cent drop at the Brisbane campus: [Australian Catholic University to cut 110 jobs \(smh.com.au\)](https://www.smh.com.au/national/education/australian-catholic-university-to-cut-110-jobs-20230301).

Key findings

2.1 The purpose of measuring performance

ITE accreditation in Australia comprises two stages. Stage 1 (initial) Accreditation assesses ITE programs against the ITE Program Standards and as part of this, providers must identify their intended program outcomes in a Plan for Demonstrating Impact. The Plan must include mandatory evidence on ITE student performance and graduate outcomes, but otherwise providers are free to choose the outcomes and evidence to conduct their own evaluation. In Stage 2 Accreditation (which occurs up to every five years), providers present their analysis and interpretation of the evidence they collected under their Plan (not publicly available).

Although the Plan can be productive in requiring providers to evaluate their ITE programs, the ability for each higher education provider to select their own outcome measures limits the transparency and utility of these evaluations. The lack of consistency across Plans makes it difficult to provide a holistic assessment of performance across higher education providers.

While ITE accreditation creates an enforceable set of minimum standards, it does not sufficiently incentivise providers to improve beyond this. One way to inspire performance is through the creation and implementation of standardised performance measures which are reported on transparently, that can recognise and reward performance above and beyond the minimum standards. It can also create a culture of continuous improvement, supplementing the less frequent accreditation processes.

In this approach, performance measures fulfil an important and complementary role to accreditation, as summarised in Table 2.1.

Table 2.1: Initial accreditation and performance measures are complimentary parts of the spectrum of quality assurance

	Initial accreditation	Performance measures
Role in assuring quality	Sets minimum quality standards – ‘must have’ elements of quality	Sets measures that are important elements of quality that can be targeted for improvement.
Characteristics	More likely to be: <ul style="list-style-type: none"> • Yes/no decisions - whether program standards are met • Quality judgements • Assesses inputs and processes 	More likely to be: <ul style="list-style-type: none"> • Scaled – can create dispersion across providers • Quantitative measures • Assesses outputs - that cannot be subject to regulation
Examples	<ul style="list-style-type: none"> • Coverage of core content and discipline-specific pedagogy • TPAs • Practical experience design and duration 	<ul style="list-style-type: none"> • Proportion of enrolments from diverse high quality candidates • Attrition rates • Graduate preparedness to teach • Employment outcomes
Where currently assessed	Stage 1 (initial) Accreditation; revisited at Stage 2 (within 5 years)	Stage 1 (initial) Accreditation, where measures are defined; Stage 2 (within 5 years), where performance against measures is reviewed

The Panel proposes that measuring performance be used to recognise high-quality ITE programs and identify areas for targeted improvement, by defining, measuring and reporting on the quality of ITE across higher education providers. This would include:

- providing a nationally consistent and transparent measure of the outcomes from ITE across higher education providers
- enabling performance-based assessments of ITE programs to recognise high performing providers
- informing where ITE programs can improve against these outcomes to drive continuous improvement in program quality
- making this performance measure publicly available to increase accountability and inform student choice.

2.2 Indicators for measuring performance

The Panel proposes that performance should be measured across four categories. The four categories are:

1. Selection: This category focuses on entry and participation of diverse and high-quality candidates in ITE (i.e. First Nations, regional and remote locations, and low socio-economic backgrounds, high ATAR students, STEM students).
2. Retention: This category focuses on the proportion of students who leave their course.
3. Classroom readiness: This category focuses on students' perceived preparedness for entering the teaching profession and their satisfaction with the quality of their course.
4. Transition: This category focuses on the employment outcomes of recent graduates and early career teachers.

These four categories were selected by the Panel because they reflect key elements of ITE quality, and together, capture a holistic assessment of performance. The four categories also align with the prior reviews into ITE and the structure of the Accreditation Standards and Procedures. For example, the QITE Review described effective ITE as selecting the right ITE candidates, ensuring ITE programs equip students to be classroom ready, and providing support as individuals transition from an ITE graduate to a classroom teacher. Similarly, Standard 6 of the Accreditation Standards and Procedures requires higher education providers to develop a Plan For Demonstrating Impact. This includes showing evidence on ITE student performance within a program and graduate outcomes following completion of a program (AITSL 2022a). These sequential aspects of quality are represented by the four categories of selection, retention, classroom readiness and transition.

Performance on each category would be measured using a set of indicators. The indicators were identified by a review of international literature and the availability of reliable and relevant data. Indicators with international precedent and reliable relationships to quality were chosen. The selection of indicators was also constrained by data availability – the indicators proposed rely on data that is readily available (or soon to be available) and reliable. These indicators could evolve over time as better data becomes available.

The indicators were selected on the basis of:

- relevance to the Australian context
- cost effectiveness, drawing on available, relevant and accurate data
- informing improvement, recognising and rewarding progress and not penalising providers for factors beyond their control
- providing a common set of indicators for reporting program quality
- applicability across programs, contexts and cohorts, and
- excluding requirements that would be more appropriate in accreditation.

It is not preferred by the Panel to aggregate the indicators into a single performance measure. This would obscure the importance of each individual indicator and also require difficult and subjective judgements around how each indicator should be weighted relative to the others. Multiple indicators have been proposed in order to provide a balanced view of ITE program quality.

The Panel has taken care to ensure these performance measures minimise perverse incentives. For example, in isolation, the Retention category could incentivise providers to retain students who may not be suitable for teaching. However, by assessing performance across these categories together, increasing retention of those not suitable for teaching would likely reduce provider's performance in the Classroom Readiness and Transition categories. As the categories complement each other and reflect a holistic assessment of quality, the performance measures should encourage higher education providers to focus on improving the quality of their programs.

2.2.1 Category 1: Selection

Selection refers to the basis of admission for selecting who is given entry to teacher education. This category measures the participation of diverse high achieving cohorts in areas of workforce need. Both in Australia and internationally, a key focus of selection has been to increase participation of students from diverse backgrounds that have been historically disadvantaged and underrepresented in ITE and higher education more broadly. For example, the importance of ensuring equity of participation in selection is outlined in the Australian Higher Education Standards Framework ('HES Framework' 2021), which stipulates that higher education providers are required to give "specific consideration... to the recruitment and admission" of recognised equity cohorts (HES Framework 2021, Part A, S.2.2).

The selection of high-quality candidates is also an important component of ITE, where high-performing education systems screen ITE students against criteria they believe will make the best teachers, including academic capability, literacy and numeracy skills, and personal characteristics (TEMAG 2014). ITE also plays a critical role in supplying teachers across geographical locations and subject specialisations.

Indicators

The proposed indicators for this category are:

- Participation of First Nations Students: The proportion of First Nations students enrolled in ITE.
- Participation of regional and remote students: The proportion of regional and remote students in ITE.
- Participation of low socio-economic status students: The proportion of low socio-economic status students in ITE.
- Participation of high achieving students: The proportion of school leavers with an Australian Tertiary Admission Rank (ATAR) above 80 in ITE.
- Participation of STEM students: The proportion of secondary STEM students in ITE.

The first three indicators measure the extent to which higher education providers are enrolling diverse cohorts. This aligns with the focus of selection criteria and strategies in Australia and other countries to improve equity of participation for these cohorts.

The fourth indicator recognises the importance of attracting high-quality candidates. While there is no universal measure available for all ITE students to measure the selection of high-quality candidates into ITE, ATAR can be a good proxy for the quality of ITE candidates where it is used as the basis of admission. For example, the QITE Review noted that high-performing school leavers are usually considered to be those with an ATAR above 80 (Department of Education, Skills, and Employment 2022). The selection of high-quality candidates will also be partially assessed by the other categories, where improved selection will flow through into improved retention, classroom readiness and transition into the workforce. The QITE Review reported a strong positive relationship

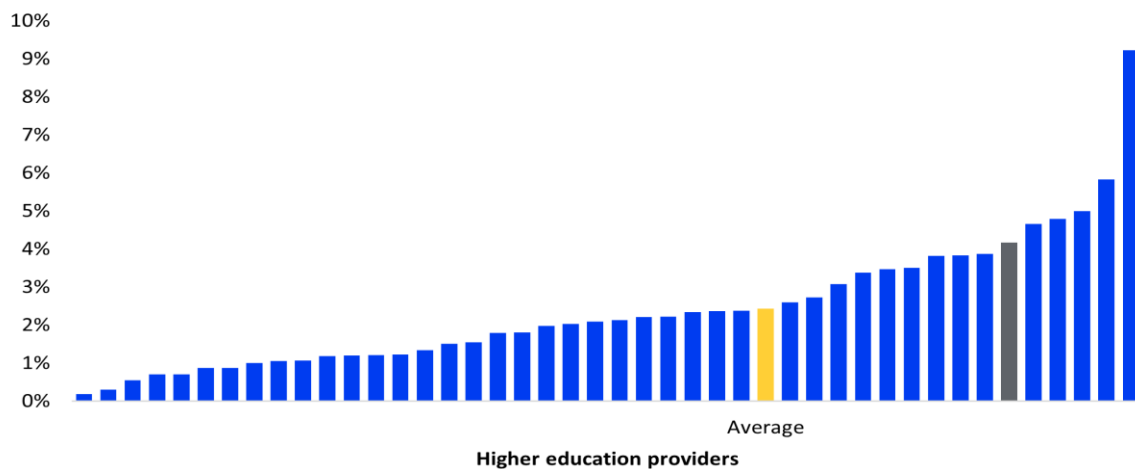
between a student’s ATAR score and retention in ITE. Similarly, analysis of the Graduate Outcomes Survey (2019 to 2021) by the Australian Government Department of Education shows ITE students with a higher ATAR score are more likely to be employed as a teacher after graduation. This indicator could be published alongside the basis of admission for an ITE program to show the relative proportion of the school leaver cohort.

The fifth indicator recognises the critical role ITE plays in meeting the demand requirements of Australia’s schooling systems and the high rate of out of field teaching in secondary STEM subject areas.

The below figures show the data across higher education providers for a number of these proposed indicators. The data shows:

- The proportion of First Nations students enrolled in ITE programs in 2020 varies from a low of zero to a high of nine per cent across higher education providers (Figure 2.1).
- The proportion of regional and remote students enrolled in ITE programs in 2020 varies between a low of one per cent and a high of 98 per cent across higher education providers (Figure 2.2).
- The proportion of low socio-economic status students enrolled in ITE programs in 2020 varies between a low of six per cent and a high of 42 per cent across higher education providers (Figure 2.3).
- The proportion of commencing domestic undergraduate ITE students admitted on the basis of secondary education with an ATAR over 80 in 2020 varied between a low of zero per cent and a high of 63 per cent across higher education providers (Figure 2.4).

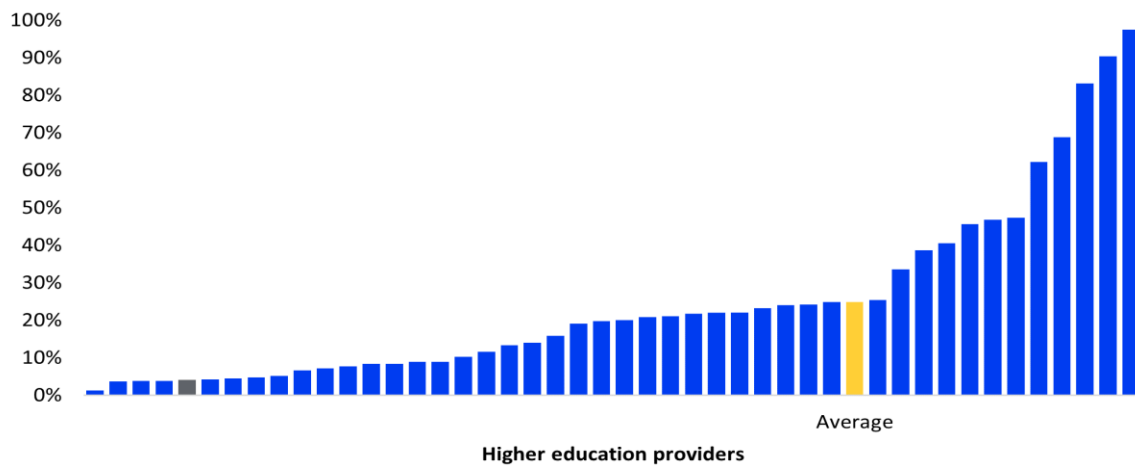
Figure 2.1: Proportion of First Nations enrolments in ITE in 2020, by higher education provider



Source: Higher Education Statistics Collection, Department of Education, 2020, www.education.gov.au

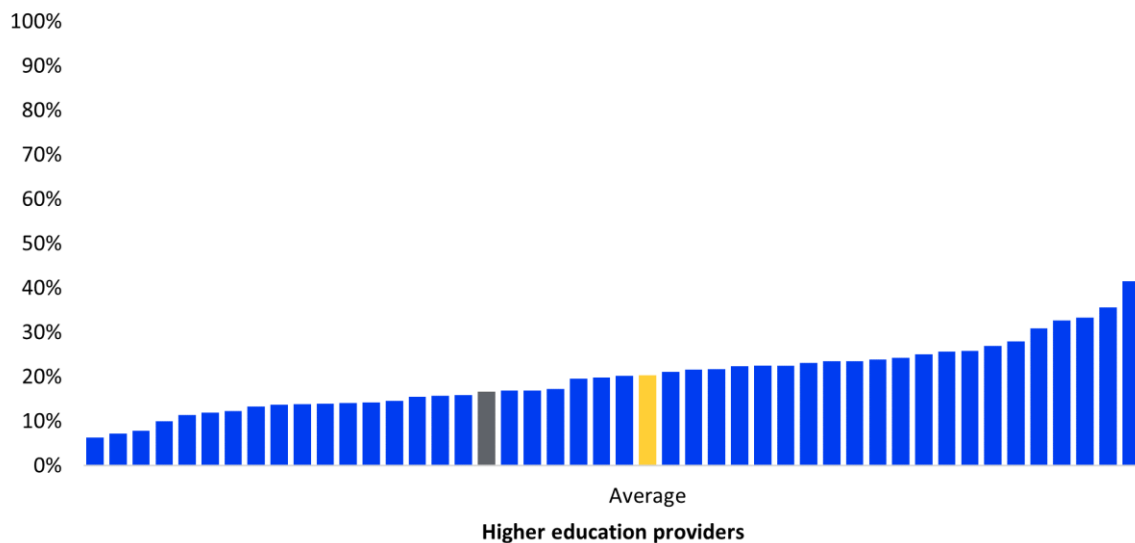
Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled.
2. Higher education providers had no First Nations students enrolled in 2020. These providers are not shown in the figure.

Figure 2.2: Proportion of regional and remote enrolments in ITE in 2020, by higher education provider



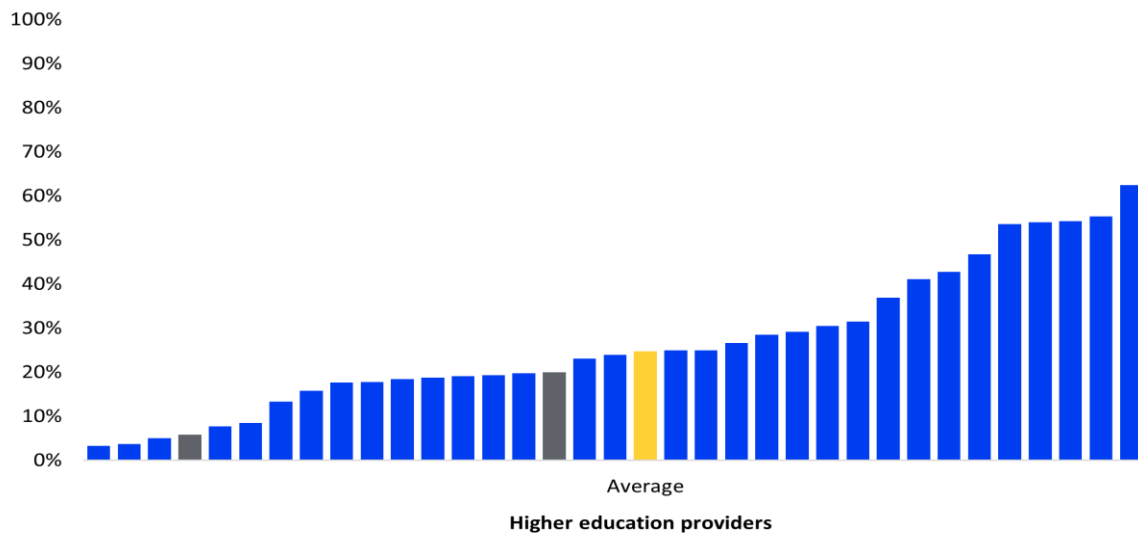
Source: Higher Education Statistics Collection, Department of Education, 2020, www.education.gov.au
 Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled.
 2. Regional and remote classification is based on the location of the student’s first home address in the Higher Education Statistics Collection, which is a student’s address before commencing study. A student’s first home postcode is mapped to a Remoteness Area classification under the Australian Bureau of Statistics’ 2016 Australian Statistical Geography Standard (ASGS) classification of regions.

Figure 2.3: Proportion of low socio-economic status (SES) student enrolments in ITE in 2020, by higher education provider



Source: Higher Education Statistics Collection, Department of Education, 2020, www.education.gov.au
 Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled.
 2. The SES classification is based on the location of a student’s first home address in the Higher Education Statistics Collection, which is a student’s address before commencing study. SES status was determined using the Australian Bureau of Statistics’ Socio-Economic Indexes for Areas (SEIFA) 2016 – The Index of Education and Occupation; students are considered low SES if they live in a SA1 (Statistical Area) in the bottom 25 per cent of the SEIFA for 15-64 year olds.

Figure 2.4: Proportion of all commencing domestic undergraduate ITE students admitted on the basis of secondary education with an ATAR over 80, 2020, by higher education provider



students are more likely to work as a teacher in these locations, where teacher shortages are considered to be more prevalent.

Similarly, the QITE Review reported that teacher shortages are also considered to be more prevalent in particular subject areas such as science, maths and design and technologies. Measuring the participation of STEM students recognises the high rate of out of field teaching in these areas. Results from the ATWD 2018 Teacher Survey show that teachers who delivered Mathematics and Design and Technology classes were teaching out-of-field 40 per cent or more of the time. Research shows that student learning improves academically when they take a class that is taught by a teacher with the requisite qualifications to teach the class (Van Overschelde 2022).

These indicators recognise the success of policies and efforts of higher education providers to attract diverse high-quality candidates in areas of workforce need. This could include policies to:

- increase representation through access opportunities (e.g. foundation and short courses) pathways and incentives into ITE to attract diverse high-quality students (O’Sullivan et al. 2019; QITE Recommendation 11).
- use “transparent selection for entry to teaching” to increase equity of participation (QITE Recommendation 2: p. xii).

2.2.2 Category 2: Retention

Retention refers to retaining students over the duration of the program from entry to graduation. This indicator focuses on retention at the first and sixth year and includes all students. This category measures the extent to which enrolled ITE students graduate from their program. In the Australian higher education policy landscape, the HES Framework (2021) stipulates that higher education providers are required to regularly review “analyses of progression rates, attrition rates, completion times” of ITE candidates (HES Framework, 2021, Part A, 5.3.4).

Indicators

The proposed performance indicators for this category are:

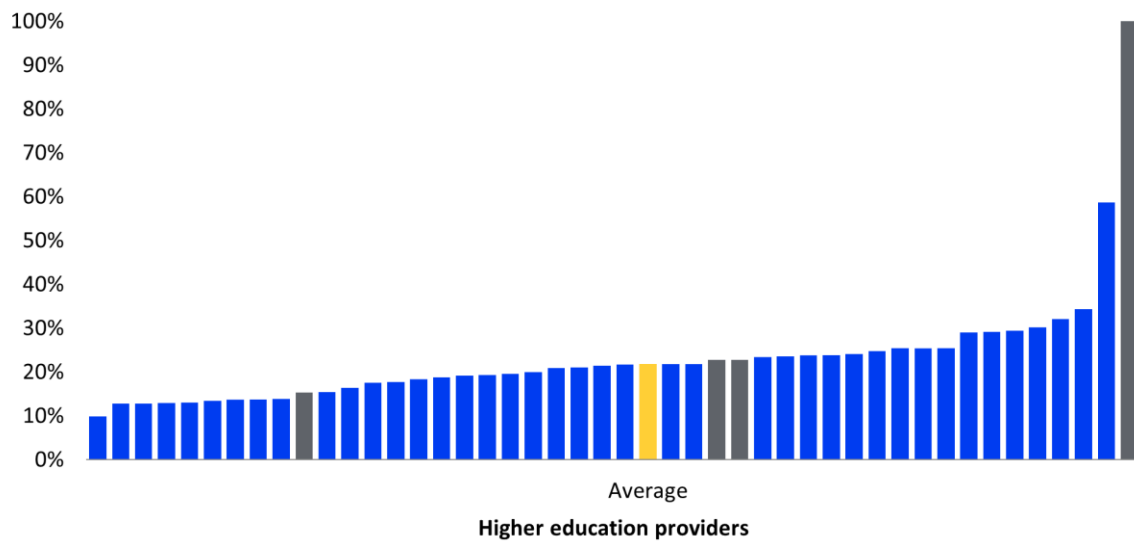
- First-year attrition rate: the proportion of students leaving ITE in their first year.
- Six-year dropout rate: the proportion of commencing students leaving the ITE program within six years.

These indicators measure the extent to which students leave their ITE program shortly after commencement and the proportion of students who dropout from ITE. First-year attrition is a reflection of the selection of suitable ITE students, and the support provided in their first year. The six-year dropout rate captures the proportion of commencing students who have separated from their program within six years, while also accounting for part-time students who may still be enrolled in their program after six years. These indicators reflect the outcome of a student’s pathway through their program.

The below figures show the data across higher education providers for these proposed indicators. The data shows:

- The first-year attrition rate of ITE students commencing in 2019 varies between a low of ten per cent and a high of 59 per cent across higher education providers (excluding one higher education provider with a small number of observations) (Figure 2.5).
- The six-year dropout rate of ITE students commencing in 2015 varies between a low of 14 per cent and a high of 58 per cent across higher education providers (Figure 2.6).

Figure 2.5: First-year attrition rate of ITE students commencing in 2019, by higher education provider



Why is retention important?

Measuring the proportion of retained students recognises the high proportion of students who commence but do not graduate as a teacher. Six-year ITE completion rates of students commencing an undergraduate ITE program declined by eight percentage points between 2010 and 2015 (from 56 per cent to 48 per cent respectively, rounded estimates). Similarly, six-year ITE completion rates of students commencing a postgraduate ITE program declined by five percentage points over the same period (from 79 per cent to 74 per cent, rounded estimates; see DoE 2022).

The first year of preparation is widely recognised to be a time when candidates assess their suitability for teaching (AITSL 2019 and 2022b) and is the “the most common indicator of high risk to students” (TEQSA 2017, p. 7). A focus on six-year dropout rates provides for an extended period of candidature and indicates the extent to which students are being supported throughout their program (AITSL 2019). Higher education providers play an important role in the retention of students through the design and quality of their programs and supports available to students (Darling-Hammond, 2006; Darling-Hammond et al. 2019). For example, an analysis of student progression through ITE shows how higher education providers’ time at which they conduct their performance assessments affects the likelihood of graduating (Wyatt-Smith et al., 2021). Similarly, other higher education characteristics increase the likelihood of dropout including a higher proportion of external enrolments, a lower proportion of senior academic staff employed, and lower percentage of full-time employed staff (TEQSA 2017).

These performance indicators recognise the success of policies and efforts of higher education providers to retain students from program entry to program completion. This could include policies to:

- identify barriers to success and design targeted improvements for diverse student groups (Dunst 2019; Wyatt-Smith et al. 2022).
- make evidence-informed decisions about known risks of separation (Ng et al. 2018).
- monitor progression through key assessment milestones, especially at the first and sixth year timepoints and including practical experience placements (Hobson et al. 2009).

2.2.3 Category 3: Classroom readiness

Classroom readiness refers to the preparedness of teachers to begin employment in a school or other education setting as a teacher on completion of their ITE program. The preparedness of teachers is achieved through both academic and professional practice (school-based) components.

This category measures student satisfaction with the ITE program and their perceived preparedness for entering the teaching profession. In Australia, a key focus of classroom readiness has been for higher education providers to prepare confident, effective graduates assessed against the Teacher Standards (Program Standard 1.4: AITSL 2022).

Indicators

The proposed performance indicators for this category are:

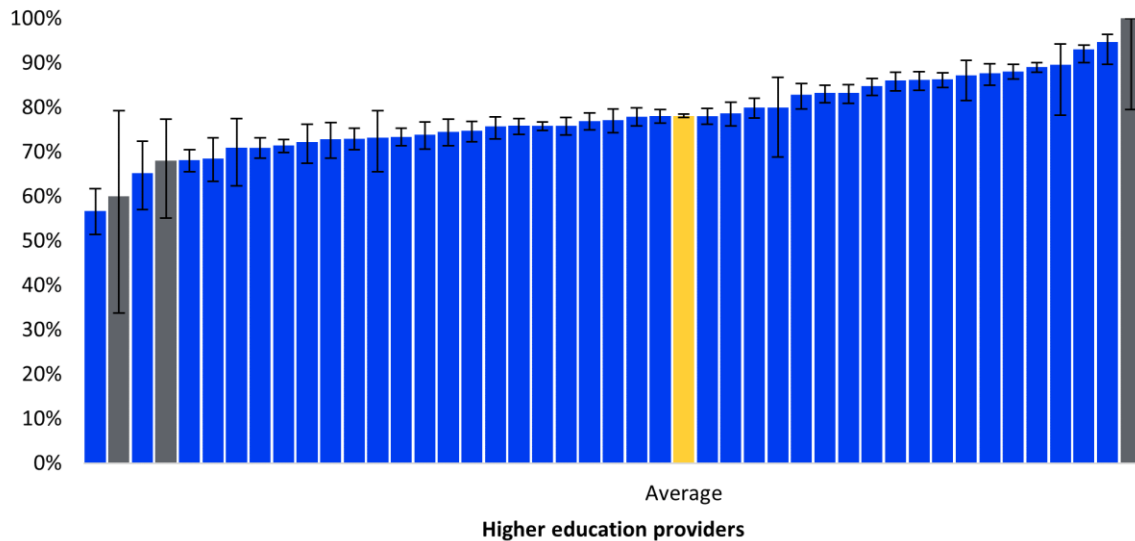
- Student satisfaction with the quality of their course (evidence from Student Satisfaction question – QILT survey data).
- Graduate preparedness for employment (Graduate Outcomes Survey: Preparedness to teach question).

These indicators align with an international focus on the assessment of graduate perceptions of program quality, through graduate or exit surveys (Bastian et al. 2017), and assessment of graduate competence in leading classroom learning. This survey data captures direct ratings of program quality.

The below figures show the data across higher education providers for these proposed indicators. The data shows:

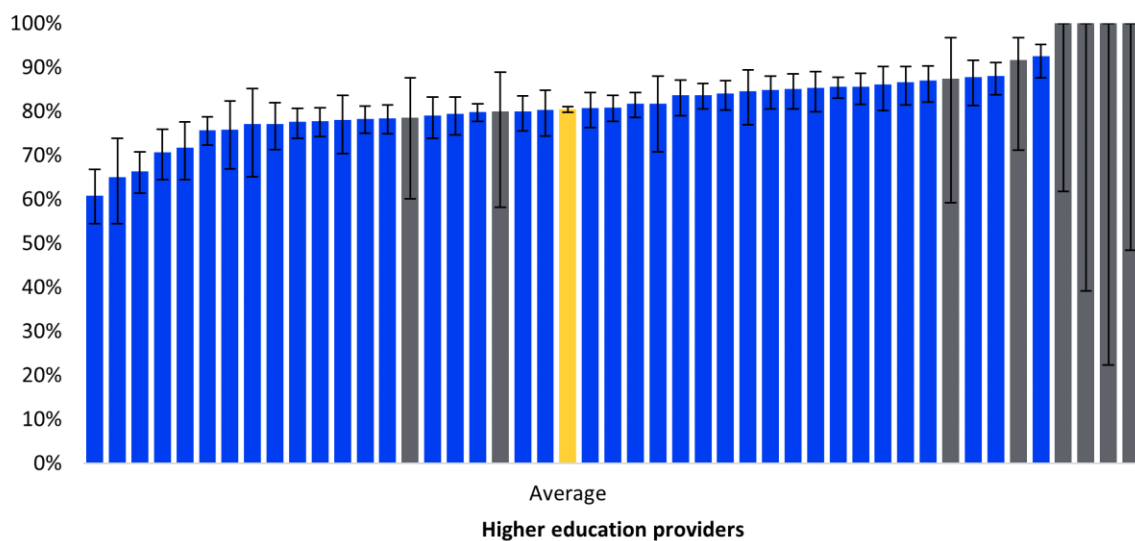
- The proportion of ITE students in 2021 who were satisfied with the quality of teaching in their course. This rating varies between a low of 57 per cent and a high of 95 per cent across higher education providers (excluding one higher education provider with a small number of observations) (Figure 2.7).
- The proportion of Education students in 2021 answering that they felt that their qualification prepared them well for their teaching role varies between a low of 61 per cent and a high of 93 per cent across higher education providers (excluding four higher education providers with small observation numbers) (Figure 2.8).

Figure 2.7: The proportion of ITE students satisfied with the quality of teaching in 2021, by higher education provider



Source: Student Experience Survey (qilt.edu.au), Department of Education, 2021
 Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled. 2. Confidence intervals are calculated using the Agresti-Coull method with finite population corrections. 3. One higher education provider has not been included as there was insufficient data available to calculate a result for 2021.

Figure 2.8: The proportion of Education students who perceived that their university qualification prepared them for teaching in 2021, by higher education provider



Source: Graduate Outcomes Survey (qilt.edu.au), Department of Education, 2021
 Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled. 2. Confidence intervals are calculated using the Agresti-Coull method with finite population corrections.

Why is classroom readiness important?

Classroom readiness reflects international research findings that teachers are the biggest in-school influence on student learning (Burroughs et al. 2019; Hattie 200 and, 2012). The knowledge and skills taught in ITE programs are vital to ensuring all school students have a well-prepared teacher from a teacher's first day in the classroom. Teachers who are well prepared for the classroom are more confident and effective in their teaching (Cochran-Smith et al. 2021; Mayer et al. 2017).

The design and quality of ITE programs has an important influence on graduates' preparedness to teach. Equipping students with the required skills and knowledge for effective teaching supports classroom readiness, including supporting students to use evidence-based practices. The QITE Review noted that many stakeholders, including employers, higher education providers, professional associations and ITE graduates themselves have reported that graduate teachers are considered under prepared in a number of key areas. These areas included the teaching of reading, cultural competency, supporting diverse learners and students with disability, classroom management, family/carer engagement and rural and remote educational contexts.

These indicators recognise the success of policies and efforts of higher education providers to develop classroom ready teachers. This could include policies to:

- co-design ITE programs with school-based teacher educators (Hudson and Hudson, 2013; Young, 2020)
- promote co-teaching by school-based teacher educators and higher education provider-based teacher educators in the interpretation and use of classroom evidence of learning (Burn and Mutton 2015; FTTS, n.d.; Sahlberg 2012)
- strengthen mentoring approaches that are shown to be effective in promoting classroom readiness (Hudson and Hudson 2013; Young 2020).

Additional indicators that were considered for classroom readiness

The Accreditation Standards and Procedures (Standards 6.1 and 6.2) require higher education providers to show as part of their evidence of the impact of their ITE programs, aggregated data on key assessments that demonstrate graduates have met the Australian Professional Standards for Teachers. This is measured through the TPA that all ITE students must pass to graduate (AITSL 2022b), where final-year ITE students provide evidence from their own practice to demonstrate what they want students to learn, how they will facilitate this learning, and how they will know if students have achieved this learning.

The rate at which students pass the TPA could be a good proxy for the quality of an ITE program in producing classroom ready graduates. However, using TPA pass rates is problematic. Firstly, if a student is likely not to pass their TPA, they may choose to graduate with an Education qualification rather than as a Graduate Teacher, thus distorting TPA pass rate data. Secondly, TPAs differ across providers. Although TPAs are initially approved by AITSL's Expert Advisory Group, there is not ongoing moderation which means that pass rates cannot be directly compared across providers (noting some providers collaborate and moderate with other providers as part of a consortium). Finally, including TPA pass rates as a performance indicator could create perverse incentives for providers to 'pass' ITE students, even if they are not classroom ready. This could undermine the primary purpose of the TPA, which is to assess whether ITE graduates are prepared to teach in classrooms.

2.2.4 Category 4: Transition

Transition refers to entry into teaching employment, at the graduate level and in a school context. It includes: casual/relief teachers, part-time, full-time, and ongoing/permanent arrangements. The category measures employment outcomes of recent graduates and early career teachers. In Australia and internationally, a key focus of transition has been to assess the proportion of beginning teachers who are retained in the teaching workforce.

Indicators

The proposed performance indicators for this category are:

- Graduate employment outcomes: Proportion of teaching graduates employed upon graduation.
- Sustainability of employment: Proportion of graduates registered and employed at the end of the second year post graduation.
- Employment in areas of highest workforce need: Proportion of graduates employed in regional and remote and low SES locations and in STEM subjects.

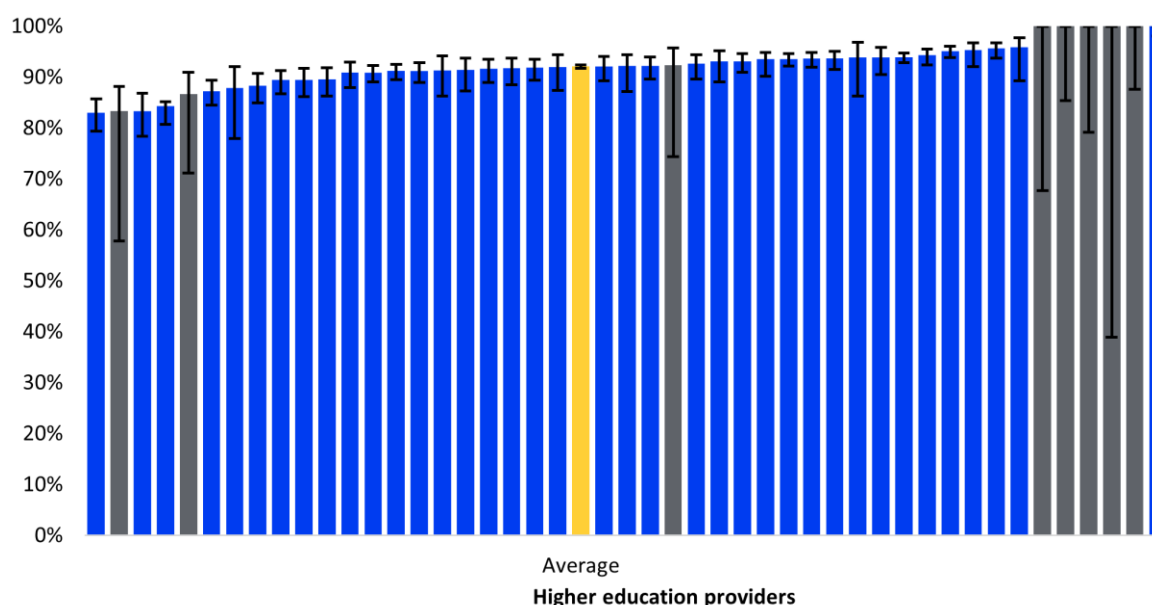
These indicators measure the proportion of ITE graduates who transition successfully into classroom teaching and are in areas of workforce need. Data on longer-term employment outcomes beyond the two year mark will become available as the Australian Teacher Workforce Data (ATWD) collection matures and could be measured in the future. As there will inevitably be missing data associated with the ATWD teacher survey, the data for long-term employment outcomes could be made more robust by including administrative data from employers. Data from the ATWD can also be used to measure employment transitions into areas of workforce need. This indicator could be further refined as teacher supply and demand projections are developed and published from 2024 under the National Teacher Workforce Action Plan.

These indicators align with international approaches to support beginning teachers in the classroom (Carroll et al. 2018; McLennan et al. 2017), by assessing and monitoring transitions into the workforce. For example, the United Kingdom tracks graduate employment outcomes through a Graduate Outcomes Survey 15 months after graduation (Higher Education Statistics Agency 2022 and 2023).

The below figure shows the data across higher education providers for a number of these proposed indicators. The data shows:

- The proportion of Education students employed as teachers four months after graduation in 2020 varies between a low of 83 per cent and a high of 100 per cent across higher education providers (Figure 2.9).

Figure 2.9: Graduate employment outcomes (proportion of Education students employed as teachers four months after graduation) in 2020 by higher education provider



Source: Graduate Outcomes Survey (qilt.edu.au), Department of Education, 2020

Notes: 1. Dark grey shaded bars indicate a data limitation- higher education providers with less than 26 domestic ITE students enrolled.
2. Confidence intervals are calculated using the Agresti-Coull method with finite population corrections.

Why is transition important?

Transition is an important indicator of program quality in that it reflects the success of preparation provided by higher education providers. It represents a critical juncture in the move from being an ITE student to being a teacher responsible for leading classroom learning. The QITE Review reported that stakeholders would welcome greater involvement by higher education providers in providing supportive transitions from ITE to employment, reporting a sense among some employers that the current system encourages higher education providers to ensure they are able to meet their obligations to students (to maximise their potential enrolment), more than ensuring an appropriate and adequate supply of graduates with the right specialisations.

A focus on ITE as a long-term partnership with employers is also well-recognised in several countries (e.g. United Kingdom, New Zealand, and the United States). A critical feature of the partnerships between universities, employers, schools, and communities, is that it extends beyond ITE to support early career teachers in schools (Allen 2013; Gordon 2020; Ronfeldt and McQueen 2017). Higher education providers that gather and use data to evaluate their own programs and develop partnerships to sustain early career learning can ease transition and improve teacher retention (White et al. 2020).

These indicators recognise the success of policies and efforts of higher education providers to support the successful transition of ITE students into the workforce. This could include policies to:

- work collaboratively with schools and other employing authorities to enhance supports for successful transition of beginning teachers into the classroom and through the early years of practice (e.g. induction and mentoring; QITE Review)
- develop partnerships between higher education providers and employers to enhance graduate readiness through explicit connections between theory and practice (Ovenden-Hope et al. 2018).

Additional indicators that were considered for transition

Surveys of principals about their perceptions of graduate teachers is commonly reported on internationally (Mayer et al. 2017), such as in Scotland (Rauschenberger et al. 2017) and the United States (Derrington and Campbell 2018). However, the only nationally available data on employer perceptions of graduate teachers is from the Employer Satisfaction Survey (ESS)—part of the suite of QILT surveys, which directly links the experiences of graduates to the views of their direct supervisors. While this can provide important insights into employer perceptions of teaching graduates, the sample size is too small to provide reliable insights across higher education providers.

2.3 Measuring Performance and Reporting

The Panel has considered how to best measure and report on performance against the above mentioned indicators. Measuring and reporting on higher education performance using these indicators should identify:

1. the trend in higher education providers' performance on the indicators over time, and
2. consistent high performance (where further improvement is unlikely to occur).

The Panel has also considered how to best accommodate the different contexts of higher education providers such as the characteristics of student cohorts and program delivery. In addition, alternative options should be available to report on the performance of higher education providers with small student cohorts where quantitative measures should not be reported.

2.3.1 Measuring performance

The indicators should be used to identify high performing providers/quality ITE programs. Two approaches for measuring performance and analysis of the indicators were considered: (1) relative performance approach, and (2) improvement approach. The improvement approach is preferred by the Panel.

Relative performance approach

The relative performance approach compares higher education providers' performance against their predicted performance using regression techniques, factoring in student and course characteristics known to influence performance on the above mentioned indicators.

Variables included in the regression model could include age, gender, mode of delivery, type of enrolment (full-time, part-time) and degree type. However, its use in higher education performance frameworks has been criticised due to its complexity and opaque nature (Wheelahan 2007). For example, the Australian Learning and Teaching Performance Fund (LTPF; 2005 to 2009) sought to reward institutions "that best demonstrate excellence in learning and teaching" (Nelson 2003, p. 29) and initially used regression analysis of quantitative measures to measure university performance. However, in the final year of the LTPF, funding was allocated based on whether institutions had improved on their metrics from the previous year (Coaldrake and Stedman, 2016). The 'relative performance approach' is not recommended for the reporting and analysis of the performance measures.

Improvement approach

The improvement approach includes benchmarking higher education provider performance against previous long-term performance² at the individual institution level, to examine improvement over time, taking account of individual higher education provider's context. For example, higher education providers offering postgraduate programs only, may perform more strongly on certain indicators compared to those offering a mixture of under- and post-graduate ITE programs. With this approach, the individual higher education provider's contextual information is directly accounted for, as the higher education provider performance is compared to itself, resulting in an accurate and unbiased evidence base for improvement.

The limitations of this approach relate to:

- more challenging to compare the performance of different providers
- showing further improvement of already high-performing higher education providers, and
- demonstrating improvement for higher education providers with a small sample size.

These limitations can be overcome by:

- Setting a threshold at or above the national average for each indicator to recognise higher education providers with consistently high performance, and hence, little room for further improvements.
- Allowing providers to provide a qualitative submission on their performance, as seen in the performance funding models in other countries (e.g. United Kingdom: Vivian D et al. 2019; United States: State of Louisiana Board of Regents 2019) and in previous Australian funding schemes (e.g. the Commonwealth Government's Performance-Based Funding model). The submission allows higher education providers to include relevant contextual details, including student characteristics, strategies, and efforts to improve performance on quality indicators and comments on sample size (specifically for higher education providers with small cohorts).

² Measured as the average performance of the previous four years based on available data, noting that comparisons to averages of previous five years are more commonly applied (<https://www.abs.gov.au/statistics/health/causes-death/provisional-mortality-statistics/jan-2020-dec-2021>, <https://www.aihw.gov.au/getmedia/a69ee08a-857f-412b-b617-a29acb66a475/aihw-phe-287.pdf.aspx?inline=true>).

2.3.2 Assessing performance

Proceeding with the improvement approach requires quantifying improvement. Setting small benchmarks for improving performance should be considered appropriate, with the acknowledgment that the quality measure is an annual assessment of performance, where small incremental annual improvements lead to significant long-term change.

Defining improvement using smaller benchmarks also accounts for the increasing difficulty of demonstrating constant improvement over time: if providers consistently improve, the amount of change required to demonstrate further improvements will continually increase.

It is also important to note that the indicators based on survey results are susceptible to low response rates, and therefore large confidence intervals around their means. Some providers will have smaller ITE student bodies than others, which will result in even larger confidence intervals.

For providers who are already performing above the national average on an indicator, it may be unrealistic to expect them to continue improving. While all providers should always report on all indicators, publishing should reflect that for these providers a deterioration against historical performance is not necessarily a serious issue.

2.3.3 Publishing performance

More accessible information about teaching quality across higher education providers will drive ongoing quality improvements if it is used by prospective ITE students in choosing their provider and ITE program (Productivity Commission 2022). In order to be as impactful as possible, reporting on the performance measures should be well publicised, easily accessible, and presented in an easy-to-understand, standardised format across providers.

The performance of higher education providers should be publicly available. The performance indicators could be published using data in the ATWD, which annually collects and connects ITE data and teacher workforce data from across Australia. The performance indicators could be annually published as part of the ATWD Key Metrics Dashboard to compare performance across higher education providers.

Part II – Linking quality to funding

The Panel has considered potential options for linking performance measures to funding, including financial incentives, to encourage higher education providers to strive for excellence and continuous improvement in ITE. Given the Panel's Terms of Reference, these financial incentives are considered in addition to improving ITE quality through:

- strengthening the minimum quality standard for ITE in accreditation: strengthening the Accreditation Standards and Procedures to ensure ITE graduates are taught sufficient evidence-based practices to meet the Australian Professional Standards for Teachers, and
- reporting on the quality of ITE provision: defining performance measures for ITE and increasing the availability of information on the quality of ITE programs.

The Australian Universities Accord process will also review higher education funding arrangements, including the appropriateness of the Commonwealth and student contribution rates, the alignment of base funding to the latest cost-of-delivery data, and early trends in student enrolments after the implementation of the Job-ready Graduates (JRG) package. In light of this work, the Panel will not be considering the appropriateness of funding and contribution arrangements for ITE programs.

Key findings

2.4 Funding arrangements for higher education

Higher education providers receive Commonwealth Grant Scheme (CGS) funding to deliver higher education courses. Under current arrangements, higher education funding is capped by a provider's 'maximum basic grant amount (MBGA)', except in relation to regional and remote Indigenous students where demand driven funding applies. The MBGA for higher education courses, commonly referred to as 'the funding envelope', offers higher education providers the flexibility to choose which courses to offer to meet student demand (based on pre-determined Commonwealth and Student Contributions) and to set financial parameters for faculties such as Education.

Other than for medical courses, higher education places are not limited: there is no limit on how many students a provider can enrol in Commonwealth support places (CSPs), except for courses in medicine which are designated with the consequence that places are capped. Under the *Higher Education Support Act 2003* (HESA), the Australian Government may designate a course of study to allocate the number of domestic student places. Rather than encouraging growth however, designation sets an upper limit on the number of places each university may offer within the course. Currently only courses in medicine are designated by the Government to limit supply of teaching to manage the availability of clinical placements, internships, and salaried junior positions in the face of a significant number of applicants each year.

Within the Higher Education funding arrangements, there are specific mechanisms which aim to support provider performance improvement and delivery of reform, including the Performance Based Funding (PBF) model, the National Priorities and Industry Linkage Fund (NPILF) and University Mission-based compact agreements (Table 1). These performance mechanisms apply to institutions, rather than to specific faculties or disciplines such as ITE.

Higher education quality mechanisms:

Performance Based Funding (PBF) model

The PBF model announced by the former Minister for Education in October 2019 proposed to make an amount of universities' growth in CGS funding contingent on performance to be assessed through four quantitative measures: graduate employment outcomes, student success, student experience and equity participation. The PBF model is intended to ensure universities focus sufficient attention on the quality of their teaching and student support to achieve the best possible graduate outcomes. The PBF was partially implemented in 2020, however all funding contingent on performance was provided in full as part of the Higher Education Relief Package provided in response to COVID-19. From 2021 to 2023 PBF has been effectively inoperative due to the Higher Education Continuity Guarantee. Future Performance Based Funding arrangements scheme will be considered with reference to the Australian Universities Accord process, with the Accord's Final Report, due in December 2023.

National Priorities and Industry Linkage Fund (NPILF)

The NPILF, introduced under the 2021 Job Ready Graduates (JRG) package, will allocate block grants to universities to support enhanced engagement with universities and industry to produce job-ready graduates. It is currently in its pilot stage (2022-24). From 2021-24, Table A higher education providers will receive an NPILF grant amount which corresponds to the number of CSPs they are allocated each year, based on the last year of verifiable data. The funding amounts will be indexed by CPI in line with broader Higher Education Support Act 2003 (HESA) provisions. At the end of the pilot, providers will be assessed, and funding will be allocated based on their performance of delivering the six measures from the pilot.

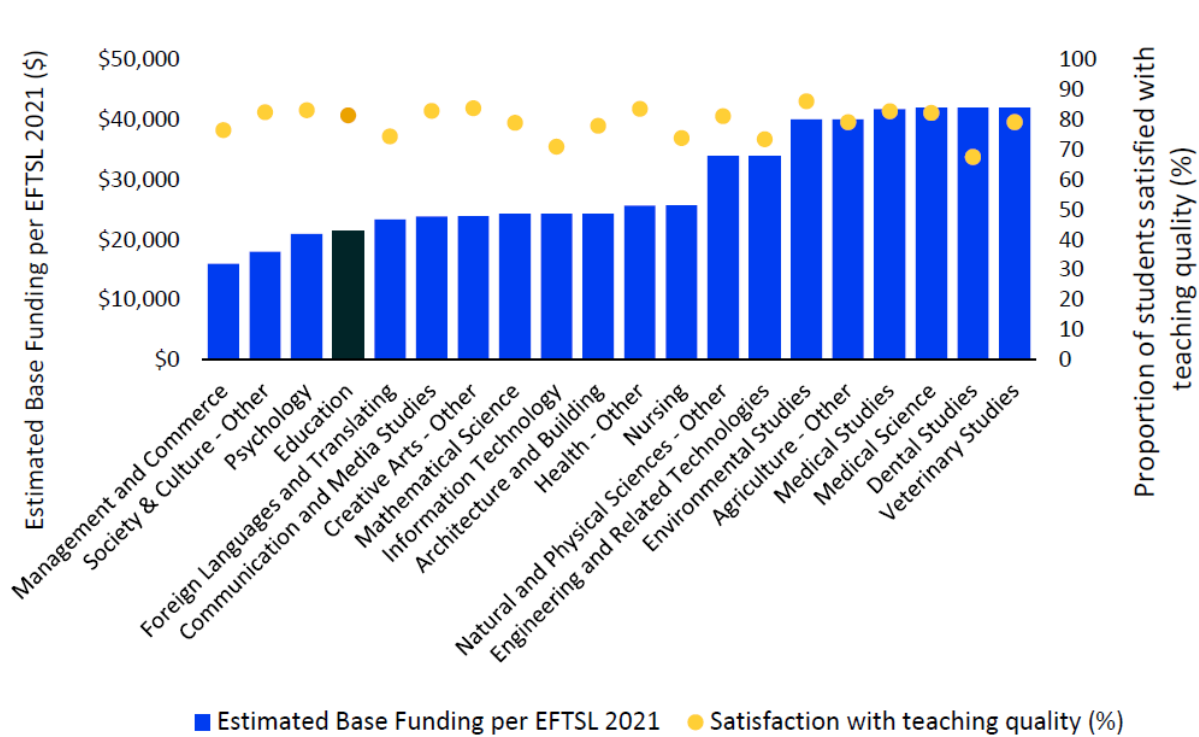
University Mission-based compact agreements

Entering into a compact is one of the quality and accountability requirements which higher education providers must meet under HESA as a condition of receiving a grant. The purpose of compacts is to provide a strategic framework for the relationship between the Commonwealth and each higher education provider. It sets out how each provider's mission aligns with the Commonwealth's goals for higher education, innovation, teaching and learning, research and research training and equity.

ITE accounts for a significant share of CGS funding, with Education places making up 12 per cent of funding or approximately \$800 million per annum. Base funding for Education courses (Commonwealth and student contributions) has remained relatively stable over time, though declined under JRG due to the significant reduction in student contributions (from \$18,430 in 2020 to \$17,354 in 2021 in 2022 dollars). The JRG reforms were designed to encourage more students to study in areas of national priority such as teaching, but could also reduce the financial incentive for and capacity of higher education providers to invest in improving the quality and quantity of ITE students. For example, there may be less incentive to enrol students in areas with higher teaching costs such as secondary STEM subjects.

While funding provided to higher education providers for Education courses is relatively low compared to other fields of study, Education performs relatively well overall against available measures. For example, Education students are more likely to report being satisfied with the quality of teaching compared to the average across fields of study (Figure 2.10). However, this masks considerable differences in performance between higher education providers against the proposed performance measures (see Part 1 – Establishing a quality measure for ITE). It is important to ensure all higher education providers achieve high performance appropriate to the level of public investment they receive.

Figure 2.10: All universities' domestic Bachelor base funding per equivalent full-time student load (EFTSL) and percentage of students satisfied with teaching quality, by field of education, 2021



Sources: Funding Data- Department of Education; Satisfaction data- Student Experience Survey, Department of Education
 Notes: 1. The base funding per EFTSL is calculated as the sum of the Commonwealth Contribution amount and the maximum Student Contribution amount. 2. 2021 estimates of base funding per EFTSL were calculated by applying the Consumer Price Index to 2020 based funding per ESTSL figures. 3. Percentage of students satisfied with teaching quality figures are for domestic bachelor students.

2.5 Incentives to improve quality

Incentives to invest in teaching quality are muted by the particular characteristics of the Higher Education sector (Productivity Commission 2022):

- While students can choose where they study (based on a potential range of factors such as available programs, location and institutional reputation) students currently cannot know in advance what they are going to learn nor have access to information on quality. This means prospective students are unlikely (in the absence of transparent information) to choose their institution based on teaching quality and provides limited incentive for higher education providers to focus on quality.
- Fixed or capped fees for domestic undergraduate degrees can limit incentives for providers to compete on quality as there is no premium for doing so.
- Research is more easily rewarded than teaching as it involves outputs whose quality and quantity are more readily measurable. International rankings play an important role in attracting students and are heavily weighted towards research outputs.
- Teaching-focused roles are more likely to be casual, which can limit quality improvements in teaching by reducing skill accumulation in teaching staff.

Under current arrangements, the government is unable to allocate places to higher education providers in relation to a specific higher education course such as ITE, as Commonwealth funding is part of higher education providers' overall funding envelope and is not allocated to ITE programs directly. Without designating ITE programs, there is no provision to reduce ITE places to higher education providers who perform poorly on the performance measures.

Designating courses also effectively caps the number of places and limits the supply of graduates from that course, including ITE which would cap the supply of teachers and cannot respond to

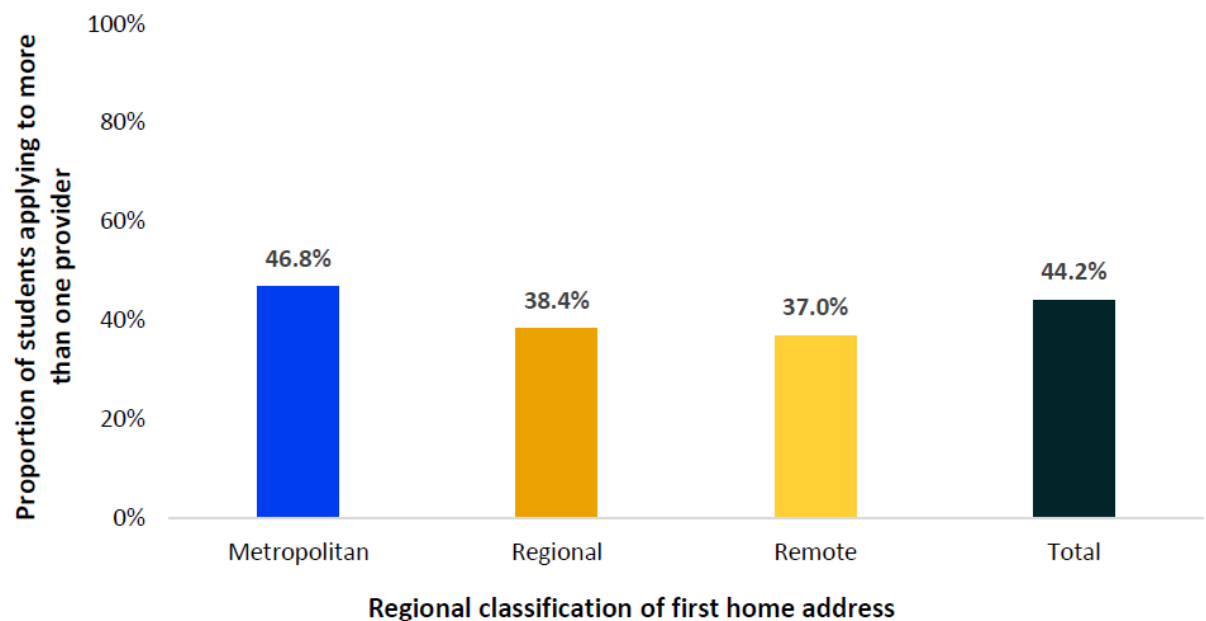
demand. In addition, reallocating places from lower performing to higher performing providers may not align with student preferences, leading to unfilled places and in the case of ITE programs, further reduce teacher supply. Most students only apply to study ITE at one higher education provider, particularly students located in regional and remote areas (Figure 2.11).

Further data indicates that ITE students tend to work in the same locations where they studied. There is a risk with designation that reallocating places, and reducing enrolments at particular universities, could worsen teacher supply in these areas, exacerbating the national shortage of teachers (National Skills Commission 2022). Figure 2.12 shows that 82 per cent of ITE students studying in a metropolitan campus work as a teacher in metropolitan locations, while 84 per cent of regional ITE students work as a teacher in regional areas. Designation and reducing places to particular higher education providers is therefore not considered appropriate given the risks to teacher supply.

However the PBF model, should it become operational again, pending outcomes from the Australian Universities Accord, could provide a funding incentive for poorer performing higher education providers to improve performance, including in ITE. Under the existing PBF model, a proportion of CGS funding for universities is to be determined by performance assessed through four quantitative measures closely aligned to the Panel's proposed performance measures: graduate employment outcomes, student success, student experience and equity participation.

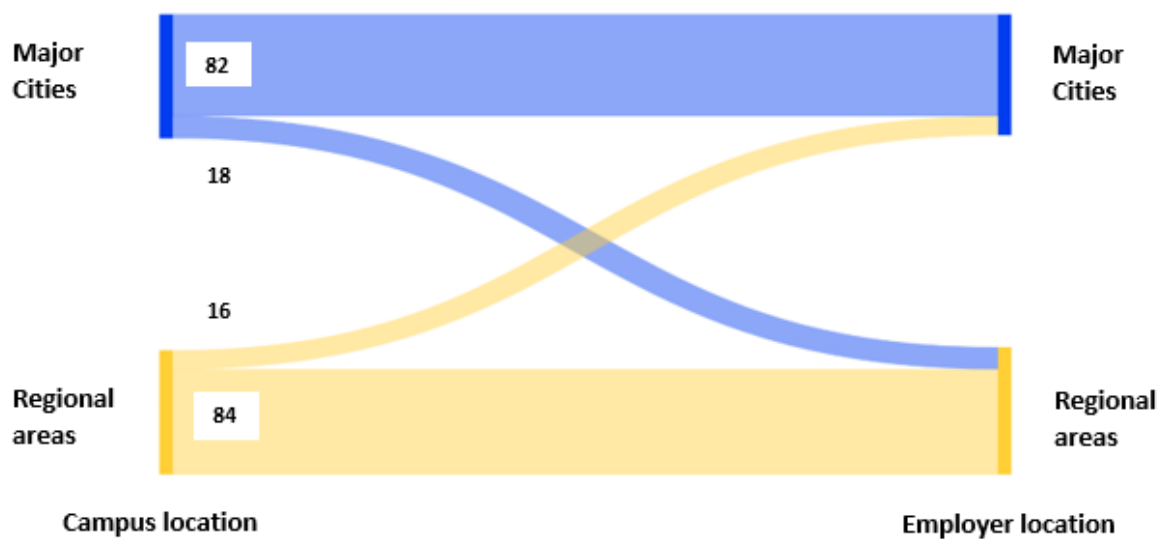
ITE is delivered by 46 higher education providers but only 11 of these enrol the majority of students. As ITE makes up a significant share of overall enrolments for these providers (Figure 2.13), the PBF model could provide a strong incentive to improve their performance in ITE, noting the future operation of the PBF model is contingent on the outcomes of the Australian Universities Accord process.

Figure 2.11: The proportion of ITE applicants (applying through a Tertiary Admission Centre), who applied to more than one provider, by first home address, 2021



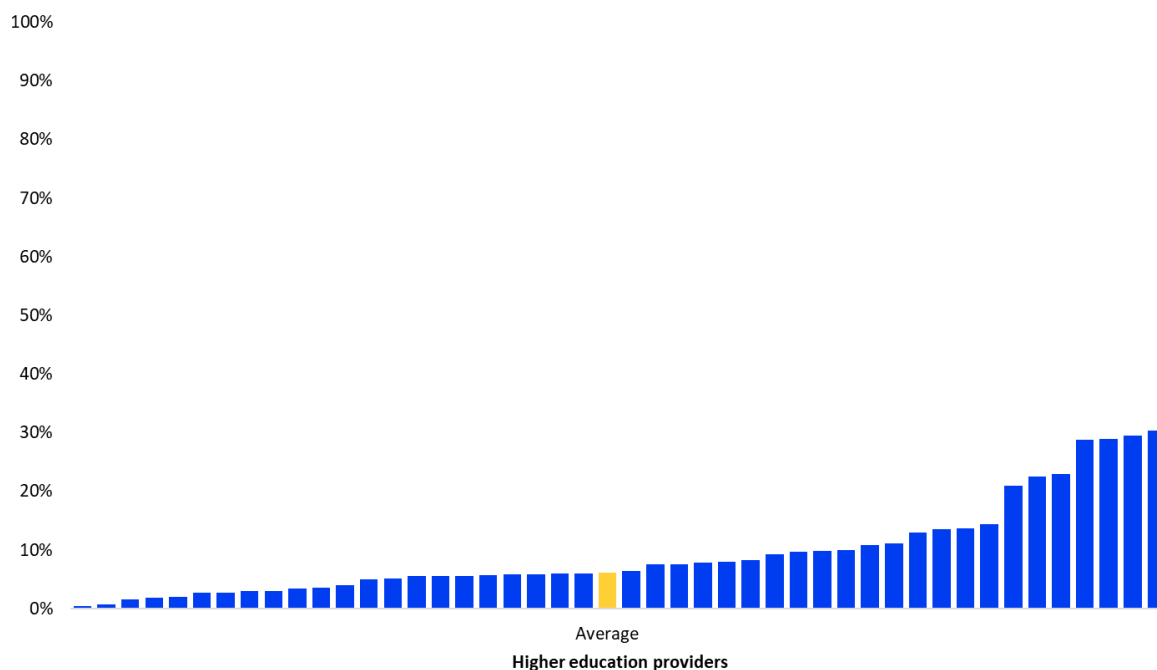
Source: Undergraduate Applications, Offers and Acceptances data collection, Department of Education, 2021, www.education.gov.au.
 Notes: 1. Data refers to applications through Tertiary Admission Centres for domestic undergraduate Commonwealth supported places for Semester 1. 2. Students with an unknown first address region are not shown, but are included in the total.

Figure 2.12: The flow of ITE graduates from campus location (by remoteness classification) to employment location four months after graduation (percentages shown)



Sources: Graduate Outcome Survey, 2016-2019; Higher Education Statistics Collection, Department of Education.
 Notes: 1. Campus location is based on the location where the student undertook the majority of their study. 2. Employer location is based on a graduate's employment location four months after graduating.

Figure 2.13: ITE enrolments as a share of total enrolments in 2020



Source: Higher Education Statistics Collection, Department of Education, 2020

Note: Only higher education providers delivering ITE have been included.

2.6 Funding options

Three options for linking the ITE performance measures to funding have been developed with regard to higher education funding arrangements and consideration of teacher workforce challenges. These options can be additive and seek to:

- encourage higher education providers to strive for excellence in the delivery of ITE programs;
- provide more accountability for spending public money on ITE programs;
- support the supply of new teachers entering the profession; and
- complement current higher education funding arrangements.

2.6.1 Option A: Public transparency and accountability, supported by compact agreements

Publicly reporting the performance measures would increase government accountability at a national and state and territory level over ITE programs, encourage providers to improve the quality of their ITE programs, and provide standardised information that prospective students could use to inform their choice of higher education provider.

For higher education providers, the performance measures could facilitate improvements in program quality through three routes. First, the potential reputational effects could motivate improvements. Higher education providers count gain prestige, status, and even students by performing well – on the other hand, poor performance may damage a university’s reputation. If used and accepted widely, the performance measures could become as influential as other comparative metrics (e.g. international rankings of universities).

Second, any areas for improvement identified through the performance measures would be an area of focus with higher education providers. These areas for improvement could be included in the mission-based compacts that each higher education provider must enter into with the Commonwealth, to ensure alignment between each provider’s mission and the Commonwealth’s

focus on high-quality ITE. This could include higher education providers detailing plans to improve performance. The actions implemented in these plans could be specifically addressed in providers' qualitative submissions on their performance.

Transparency of the performance measures would also represent a valuable and timely source of data, to inform higher education providers' quality improvements. Higher education providers would be able to see where they are performing well, and which aspects they can improve on.

For prospective students, having easy access to performance measures could influence their choice of higher education provider. Making the performance measures publicly available would help to reduce the information asymmetry between higher education providers (who know the educational experience of their programs) and incoming students (who do not). This would inform student choice and motivate higher education providers to improve the quality of their programs to attract students. Higher education providers could also influence student choice by using the performance measures as an opportunity to demonstrate their competitive advantage. If a provider performs well on certain indicators, these could be communicated to prospective students as a positive point of differentiation (e.g. if one university specialised in a particular demographic, then it could seem more attractive to that cohort of people).

For example, the UK introduced the Teaching Excellence Framework (TEF) to better inform students' choices about where and what to study and recognise and reward excellent teaching (among other objectives) (Gunn 2018). The TEF began development in 2015, and underwent a series of policy development stages, technical consultations, and co-development with the higher education sector. The TEF consists of three components (teaching quality, learning environment, and student outcomes), and results in each provider receiving a Bronze, Silver, or Gold rating.

There is evidence that the TEF has increased the perceived importance of teaching among university leaders (Gunn 2018). There is also evidence that TEF influences prospective students' behaviour. A survey of 9,000 students found half would have reconsidered or not applied to their university if they had known it would be rated Bronze (Trendence UK 2017).

2.6.2 Option B: Transition funding to support performance improvement

A transition fund could support higher education providers to improve performance and assist with any costs associated with revising program design and delivery to incorporate core content and meet revised accreditation standards. Transition funding could help lift the quality of ITE programs delivered nationally by ensuring all providers are supported to improve their performance.

This transition funding would be open to all higher education providers and ring-fenced to ITE programs. Higher education providers could apply for this funding by submitting a performance improvement plan on how they would implement the accreditation changes and improve quality. Funding could be made available over a set period of time and be used to support initiatives to enhance the quality of ITE program delivery, including:

- developing resources to incorporate core content into program design, including partnerships with other providers
- encouraging collaboration between universities and employers to improve quality
- professional development of staff
- assisting with program delivery such as additional lecturers or administrative support
- improving support for students, including coordinating practical experience, and
- building the evidence base on effective ITE practices e.g., longitudinal research.

The impact of the transition funding on ITE program delivery could be measured through the annual assessment of higher education providers against the performance measures. For example, Germany implemented the 'Pact for Quality in Teaching' initiative for their higher education sector from 2011 to 2020 (for all courses including ITE). Around €2 billion (approx. AUD\$3 billion) was

provided to universities to improve staffing, support the qualification of staff, and develop high-quality teaching across courses (German Federal Ministry of Education and Research 2022). Universities were given discretion about how they spent that money. For example, some universities chose to improve student-to-staff ratios in overcrowded courses, while others focused on developing new elite programs (Grove 2017).

The Pact for Quality in Teaching was evaluated over its entire program length (Schmidt et al. 2020). University stakeholders rated the program positively. This funding made the importance of teaching much more salient and helped inspire cultural and institutional change at universities. Importantly, the projects funded by the program also appeared to be sustainable after the end of program funding (Schmidt et al. 2020).

2.6.3 Option C: Excellence pool for higher quality ITE programs

A longer-term option to encourage quality improvements could be to reward high performing ITE programs providers with additional funding to invest in further initiatives to improve quality and incentivise them to grow their ITE enrolments. This would enable these providers to accommodate additional students, potentially shifting the share of student enrolments from lower to higher performing providers. As the experience of the UK TEF indicates, publicly transparent performance measures may shift student preferences towards these higher quality programs.

Any additional funding allocated through the excellence pool would need to be formalised through each provider's funding agreements, with each institution also required to demonstrate that the reward funding is used by its Education Faculty, with no off-setting cuts made to its overall budget.

Discussion

The Panel has identified the following opportunities and considerations linking the performance measures to funding.

2.7 Opportunities

2.7.1 Driving quality through improved transparency and accountability

The Panel believes the identified performance measures would provide clear expectations of the outcomes from ITE and encourage a focus on quality through transparent reporting across higher education providers. The performance measures could be published using the ATWD as the national dataset on the teacher workforce, without placing additional reporting burden on higher education providers. Including any identified areas of improvement in the mission based compact agreements would reinforce these expectations.

The performance measures could also be used to support evidence requirements in the Accreditation Standards and Procedures, where Standard 6 requires providers to develop a Plan For Demonstrating Impact and to present evidence of impact against this plan. The Plan describes the specific evidence about a program that will be collected, analysed, and reported to demonstrate the impact of a program, and to answer questions relevant to improving the program. The performance measures could be used as the core set of metrics in the Plan for Demonstrating Impact to reduce reporting requirements for higher education providers.

2.7.2 Incentivising performance through financial incentives

The Panel has been asked to provide advice on whether and how to link performance measures to funding. The evidence from international initiatives to promote teaching quality in the higher education sector indicates that both greater transparency on the quality of ITE programs and financial incentives can promote improved quality in ITE. The Panel is interested in understanding if

financial incentives are an effective way of improving quality and which funding option outlined would encourage the greatest quality improvements.

2.8 Considerations

2.8.1 Flexibility of funding

The funding envelope for higher education gives flexibility to accommodate additional student demand for ITE. The Panel is interested in understanding whether additional funding is necessary to reward higher performing providers, if they can already accommodate any additional student demand within their existing funding envelope.



Discussion questions

- **ITE performance measures:** Are there additional indicators that should be considered? To what extent should the performance measures form the core part of the evidence requirements in provider's Plans For Demonstrating Impact required in the Accreditation Standards and Procedures?
- **Public reporting:** Should the Australian Teacher Workforce Data collection be the basis for reporting and publicising the performance measures? Are there other approaches for reporting the performance measures?
- **Public transparency:** If made publicly available, are these performance measures sufficient to drive quality improvement in ITE?
- **Transition funding to support performance improvement:** How could transition funding be used to set higher education providers on a path to improving the quality of their programs?
- **Excellence pool for higher quality programs:** How could a system of reward funding be best designed to support high performing ITE programs and encourage them to increase their enrolments? Are there any risks to such an approach and if so, how should they be addressed?

In your responses, please provide supporting evidence.

Reform Area 3: Improving the quality of practical experience in teaching

Integrating theory and practice in ITE is important to contextualise learning and enabling ITE students to practise and refine skills. Practical experience placements enable ITE students to apply and develop their skills while they prepare themselves for the classroom.

Practical experience has been a focus of several reviews and actions, including the TEMAG review (2014) and more recently the QITE review. These have highlighted the importance of high-quality practical experience but acknowledged the complexity and resource-intensive nature of its delivery. Practical experience design and delivery varies significantly across jurisdictions, higher education providers and schools. This leads to a spectrum of ITE student experiences across hundreds of ITE programs.

The Panel has been asked to provide advice to Government on how to improve the quality of the practical experience in teaching. The Panel engaged dandolopartners to help understand the challenges and opportunities to produce consistent, high-quality delivery of placements across ITE programs. Case study examples have been included to demonstrate the breadth of approaches used across Australia. It is important to acknowledge that the evidence base on practical experience is limited and does not provide a singular view of how high-quality practical experience should be delivered across different contexts. Case study examples have been included to demonstrate the breadth of approaches used across Australia. The identified challenges and opportunities were informed by a review of existing literature and initial stakeholder consultation with higher education providers, education departments, TRAs and peak sector organisations.

Key findings

3.1 Current arrangements for delivering practical experience

Higher education providers delivering ITE must ensure that practical experience placements meet the minimum accreditation requirements in the Accreditation Standards and Procedures. The application of these standards is assessed by the relevant TRA in each jurisdiction. The standards include placements must be:

- at least 80 days for undergraduate and 60 days for postgraduate programs
- supervised and assessed, and
- undertaken over a substantial and sustained period.

The Australian Government provides funding for practical experience to higher education providers, which includes payments for teacher mentors. Previously, this funding was 'ring-fenced'. In addition, the Australian Government has historically provided broader funding to States and Territories through National Partnership Agreements to support greater collaboration between higher education providers and schools – a key action arising from the TEMAG review. Funding continues to be included in the Australian Government's contribution for Education courses but is no longer specified in CGS funding agreements.

3.2 Characteristics of high-quality practical experience placements

There is no clear evidence that a single model of practical experience will deliver consistent, high-quality placements across all contexts. However, national and international exemplars reveal that there are several consistent characteristics of high-quality placements.

3.2.1 Integrating theory and practice

Research into high quality ITE programs identifies the integration of theory and practice across the program as a key feature enabling graduate teachers to effectively tap into their knowledge when teaching (Darling-Hammond et al. 2019). A study by the New York City (NYC) Teacher Pathways Project in 2009 reported that graduate teacher effectiveness was predicted by the level of alignment and integration across ITE program coursework and practical experiences (Boyd et al 2009).

This highlights the importance of co-development of the curriculum so that educators/mentors working with ITE students during practical experience placements are aware of what is being learned in their course. Activities prior to, during and after placement that are central to preparing ITE students for the classroom as beginning teachers include: providing a conceptual understanding of the practice to be undertaken and skill level required before placement; having peer and other forms of support during their placement, and giving students the opportunity to share, reflect and critically appraise their experience after their placement (Billet 2009).

Looking beyond ITE, the link between theory and practice is embedded in the structure of medical education, which draws on the principles of adult learning theory by pairing knowledge with practice to facilitate meaningful learning (Wijnen-Meijer et al. 2020). Medical students receive early experience in clinical problem solving, while clinical practice is interspersed with continued science learning throughout the program to contextualise theory and practice. Over time, medical programs progressively increase clinical practice and decrease classroom learning to build medical students' skills and maximise opportunities for improvement.

3.2.2 Facilitated by effective provider-school partnerships

An effective, collaborative provider-school partnership bridges the gap between theory and practice to produce high-quality practical experience placement and supports schools to collaborate with providers in facilitating ITE student development (QITE Review). These partnerships are characterised by:

- comprehensive roles and responsibilities for all parties, including school and university staff
- cohesion between current ITE teaching theory and mentor teachers' classroom practice, in some cases delivered through Practice Advisor or Professional Experience Coordinator roles
- feedback loops for communication and collaboration between providers and schools
- mechanisms for tracking ITE students' progress towards the Graduate Teacher Standards, and
- coordination of placements.

Case study: Teaching Schools program, Northern Territory (NT)

Charles Darwin University (CDU) and the NT Department of Education and Training (DET) have developed a Teaching Schools agreement where students can undertake professional experience in designated partnership schools. The model demonstrates the increased efficiency and benefits which result from a well-run partnership agreement, and has been responsible for a 46 per cent increase (from 423 to 923) in ITE student placements between 2020 and 2021 (Charles Darwin University 2021).

These partnerships facilitate:

- a close working relationship between CDU and partnership schools for managing placements
- resources for mentors including guides for planning and assessment of placements and templates for observation/reflection
- an ongoing conversation and mutual support between CDU and NT DET, and
- ongoing professional learning and development for mentor teachers and 'Professional Learning Leader's in schools.

Case study: The NSW Hub School Program, New South Wales

The NSW Hub School program is a system-level framework which comprises of partnerships between 26 higher education providers and 45 schools that are grouped into 20 'Hubs'. The 'Hubs' work together to deliver a networked and mutually beneficial approach to delivering placements across system actors via effective provider-school partnerships. The program includes initiatives targeting:

- mentor teachers – professional learning in mentoring skills
- ITE students – improved supervising models, communities of practice, support sessions, professional learning, resources, immersion in the school community and modified ITE program delivery
- partner schools - funding, sharing resources and professional learning with other schools and communication with other schools and higher education providers
- implementation of the program – in-school Professional Experience Coordinators, dedicated staff, and evaluation programs, scheduling changes to accommodate needs of schools, and
- input into ITE programs – covering practical strategies, identifying gaps in ITE program content.

This model aims to resolve challenges such as:

- difficulty in finding appropriate placements for ITE students
- integration between ITE program content and practical experience
- variance in the quality of placements across schools, and
- the high administration cost and relationship maintenance.

A 2018 NSW Department of Education evaluation of the Hub School program identified benefits for all parties including students, mentor teachers, partner schools and higher education providers.

3.2.3 Well-structured and well-timed

Practical experience placements should be well-structured and well timed, which means:

- **Properly sequenced** – in line with '3.2.1 – Integrating theory and practice', it should incrementally enable ITE students to apply and practice their learning in a way that allows for scaffolded skill development (Le Cornu 2015). For example, ITE students may benefit from being given greater levels of direct guidance for discrete topics during the initial placement, followed by more independent, generalised responsibilities in later placements.
- **Focused on practical skills** – it should focus on more practical skills that must be learned and practiced in a classroom setting, such as behavioural management and teaching diverse learners (Grattan Institute 2017).
- **Well-timed:** Research does not prescribe specific ideal timing, however generally good practice is seen as having ITE students undertake practical experience early, more frequently, at different points in the school year, with the opportunity for placements of longer duration to allow ITE students to better relate theory to practice and understand the responsibilities of teaching. An earlier placement means ITE students can better contextualise their learning and determine whether they are committed to their teacher career (AITSL, 2015). A variety of placement timings exposes ITE students to a broader range of teacher duties (such as term planning, data collection and report writing) (QITE Review). The longer an ITE student is placed in a school, the greater their connection to mentors, school students and the community (TEMAG 2014; QITE Review). However, longer placements can involve a trade-off with diversity of experience.

Case study: University of Notre Dame - Bachelor of Education, Western Australia (WA)

University of Notre Dame Australia offers substantially more than the minimum number of practical experience days. Their Bachelor of Education in WA offers a total of 160 days, doubling the minimum requirements. Practical experience tends to be longer ~10 week blocks. This allows ITE students to better immerse themselves in the school community and experience the full school term cycle. Longer practical experience also allows for greater mentor reflection and feedback, which both enhance ITE students' capacities and enthusiasm to continue teaching.

3.2.4 Delivered in high-quality, collaborative schools with capacity for placements

Schools are more likely to deliver high-quality practical experience and adequate student learning opportunities for ITE students if they have enough capacity to manage logistics of placements, teachers have allotted time to mentor ITE students and have the expertise to develop practice (TEMAG 2014; Ronfeldt 2021). Many jurisdictions and higher education providers have a delivery model which seeks to ensure placements are in high-quality teaching environments, such as the ACT Affiliated School Program and the NSW Hub School Program. It is noted that placements in high-quality, collaborative schools can involve a trade-off with diversity of experience.

Case study: ACT Affiliated Schools Program, Australian Capital Territory

The ACT Affiliated Schools Program is a collaborative partnership between the University of Canberra, 26 selected ACT public schools and the ACT Government. It is built on a research-based, shared vision for innovation focusing on developing quality ITE education. The program is a reciprocal model between providers and schools and incorporates:

- school based ITE student education clinics
- includes academics and teachers working together to provide high quality practical experiences
- university-facilitated professional learning for teachers
- research driven school and system improvement
- school-based research projects to meet school and system needs, and
- teacher and leader scholarships.

This program was designed and developed using the Mutual Affiliation for Sustained Transformation (MAST) model. The MAST model seeks to use lessons learned through studies such as school-university partnerships and work-integrated learning.

3.2.5 Overseen by capable teacher mentors

Skilled teacher mentors are crucial to ensuring high-quality experiences for ITE students (QITE Review). A capable mentor is an experienced teacher, trained in supervision and willing to invest time and thought into the role. Mentor teachers are able to self-critique their professional practice and to assist ITE students to self-reflect. Mentor teachers should understand the Graduate Teacher Standards and effectively judge ITE students' performance against these.

Some higher education providers have Practice Advisor roles, to strengthen the connection between theory and practice, as well as provide support and coaching to both ITE students and teacher mentors.

Case study: La Trobe University - Nexus Practice Advisors and Cohort Model, Victoria (VIC)

The Cohort Professional Experience Model involves placing six or more ITE students at the one site and allocating a University Practice Advisor to support the professional experience. The group of ITE students form a cohort of practice – supporting each other to work through the professional challenges of their placement. This model also creates a cohort of mentors who can share expertise and knowledge across the group, improving the quality of mentoring for all.

Placement assessment data shows that ITE students on placements structured this way are more successful than those on traditional 1:1 placements.

3.3 Key challenges to delivering high-quality practical experience

Despite reform efforts since TEMAG, key challenges persist in delivering consistently high-quality practical experience.

3.3.1 Provider-school partnerships and delivery models that are not fit-for-purpose

Standard 5.1 of the Accreditation Standards and Procedures requires providers to establish formal partnerships between higher education providers and schools to facilitate placements. Some jurisdictions have established system-level partnerships or agreements between State and Territory governments, providers and schools to support the coordination and delivery of practical experience.

However, in other jurisdictions there is a lack of consistency in the scope and specificity of formal partnerships between higher education providers and schools, and the delivery models used to ensure high-quality placements. According to stakeholder consultation, in many jurisdictions this causes coordination processes to be decentralised and reliant on individual providers (or even ITE students themselves). This can result in inconsistent, inefficient, ad-hoc ITE student to school matching process, which may be evidenced by difficulty matching student a with an appropriate school and rushed placement arrangements (TEMAG 2014).

Once an ITE student is placed in a school, the lack of specificity in partnership agreements can result in unclear roles and responsibilities as well as misalignment between the development needs of ITE students and the focus of placements.

Case study: Victorian provider collaborative agreements

The Victorian Department of Education and ITE providers have recently established a revised framework for strategic collaboration to improve ITE student practical experience. They have agreed to benchmark practices and processes that apply to practical experience placements in all Victorian government schools. These practices and processes are designed to make it easier for schools to host placements to increase Victorian Government schools' capacity to support placements. The revised framework includes a Memorandum of Understanding (MOU) between DET and ITE Providers (non-binding). The initiatives outlined in the MOU aim to:

- streamline the processes associated with practical experience (e.g., setting booking windows to support predictability in provider communication with schools, supporting planning, creating standard assessment templates)
- support improvement in the quality of practical experience (e.g., setting roles and responsibilities to provide level of support required for ITE students)
- increase the quantity of placement opportunities across the system
- deliver a more sustainable workforce supply across Victoria (e.g. providing a list of priority subject and geographic areas to align placements with forecast demand), and
- inform school improvement programs and innovation in ITE.

These same parties have also signed an information sharing agreement with the Victorian Institute of Teaching which will enable better use of current ITE data and streamlining of future data collection and sharing across the system to improve the delivery of ITE.

3.3.2 Variable support for high-quality practical experience

Arrangements to support high-quality placements across jurisdictions, higher education providers and school sectors vary considerably. These arrangements are often resource-intensive, particularly where there are no nationally recognised best-practice approaches. For example:

- **System-level partnerships** – Some jurisdictions have no formal partnerships between employers and higher education providers in place. Partnerships that do exist at the jurisdiction or provider level vary in terms of parties (some do not include non-government systems) and specificity (some only set out in principle agreement to deliver high-quality practical experience, whereas others set out specific actions and processes).
- **Delivery models** – Some jurisdictions have comprehensive system-level delivery-models for how they facilitate practical experience. Others may fund programs to meet specific policy objectives (e.g. regional and remote placements, placements that become part of employment-based pathways) or are provider based.
- **Support for mentor teachers** – There is high variation in support and guidance for mentor teachers. Some jurisdictions provide little or no guidance. Other jurisdictional approaches range from high-level policies outlining broad roles and responsibilities to more detailed frameworks to support mentoring activities.

3.3.3 Unclear expectations for structure and timing of placements

The requirements for practical experience placements are set out in the Accreditation Standards and Procedures. This includes clear communication requirements between providers and schools, expected outcomes for ITE students and the minimum number of days ITE students must spend on placement (Le Cornu 2015). However, there is a lack of specificity as to *how* this should be achieved.

While some jurisdictions have put mechanisms in place to clarify expectations for practical experience design and delivery, such as Victoria through their collaborative agreements or NSW through its Professional Experience Hub, these are not universal, leaving providers and schools to navigate these requirements.

3.3.4 Limited teacher mentor capacity and capability

Stakeholder consultation suggested that many teachers do not feel they have the time to mentor ITE students beyond their existing teaching demands. Current processes for selecting mentors are typically ad-hoc and unstructured. Poorly planned selection can lead to high variation in a school's mentor cohort in terms of experience, capability and investment in the role. Mentors may also be unaware of – or lack access to – professional development opportunities that would improve their capability. For example, an evaluation of AITSL's Supervising Preservice Teachers program demonstrated that while the program was effective, many teachers were unaware of its benefits (Ronfeldt 2021). Furthermore, stakeholder consultation suggested that teacher workforce shortages compound the scarcity of teacher mentors.

3.3.5 Acute and specific challenges to delivering high-quality practical experience in regional, rural and remote (RRR) contexts

RRR schools generally have less capacity and capability to host ITE students, because for example they can have a high proportion of early career teachers in these schools (Downes and Roberts 2017). Stakeholder consultation highlighted the unique and significant role RRR schools play in community life means that ITE students need to be not only be 'classroom ready' but 'community ready' to be set up for success (Le Cornu 2015). This is particularly important for practical experience placements in remote First Nations communities, and many ITE students may lack cultural competency (Ure et al. 2017). These placements may also be less attractive for ITE students relocating from metro / interstate origins due to financial and personal challenges, such as transport, accommodation, social isolation and access to essential services.

Case study: Partnering for Remote Education Experience Project (PREEpard), Victorian Department of Education and Monash University

This project's approach to ITE students practical experience placements in remote contexts was underpinned by strong school, community and ITE provider relationships. The project provided high-level recruitment, preparation, resources, support and guidance to ITE students completing their practical experience placements in RRR context. Researchers developed curriculum and professional experience resources for ITE providers to use to prepare ITE students for placements in schools and remote Aboriginal and Torres Strait communities, including:

- A literature review providing background information
- A set of protocols and principles to guide remote placement experience
- An Indigenous Curriculum unit outline for use in ITE programs that focused on Indigenous Studies and Indigenous Education, and
- A capstone module divided into pre-, mid-, and post-practical experience learning, practice and reflection, to guide and strengthen practical experience placements.

3.3.6 Lack of flexibility and support for students with competing commitments and different needs

While many ITE programs offer flexibility for university-based components (e.g. the ability to study part-time or online; ability to undertake intensive subjects at certain times), this is not the case for practical experience. The need to undertake full-time in person placements can present a significant challenge for students with work or family commitments. Similarly, for ITE students with particular learning or physical needs, the rigid nature of placement can present a challenge. This can result in students switching courses or leaving university altogether.

Discussion

The Panel has identified the following opportunities to support consistent, high-quality practical experience across all jurisdictions, providers and schools.

3.4 Opportunities

3.4.1 Develop more comprehensive system level agreements between school sectors and higher education providers

The Panel sees an opportunity for developing more comprehensive system level agreements between school systems (state and territory governments and the non-government sector) and higher education providers. These would provide a framework for arranging practical experience placements within their sectors to improve quality and quantity of available placements and reduce the burden on schools, teachers and higher education providers for arranging and managing these placements. This could be particularly beneficial for regional and remote schools where the administrative burden on schools can be particularly acute. These agreements could outline:

- agreed roles and responsibilities
- standardised reporting and assessment templates, and
- a streamlined process for matching placement supply and demand.

3.4.2 Set a national framework on high-quality practical experience, building on jurisdictional practices

The Panel sees an opportunity to develop national guidelines for high-quality practical experience to support higher education providers and schools to more effectively and efficiently meet requirements for practical experience placements set out in the Accreditation Standards and Procedures. This would build on existing resources to provide specific guidance and support for placing ITE students in schools, including in regional, rural and remote locations. This could include:

- national guidelines on key design features to supplement the accreditation standards, such as timing, structure, sequencing and integration of theory and practice
- nationally consistent templates incorporating these key design features
- checklists for providers and schools to complete collaboratively before putting a practical experience model into practice, including respective roles and responsibilities
- a framework for best-practice supervision and mentorship that includes standards and templates for mentor teachers, and
- standardised reporting and assessment templates.

3.4.3 Encourage centres of excellence, such as hub schools, to build and share expertise

Some jurisdictions have comprehensive system-level approaches for how they deliver practical experience. The Panel sees an opportunity to support adoption of similar delivery models where particular schools specialise in providing or facilitating consistent, high-quality placements for ITE students. These schools can provide a different range of experiences for ITE students, including exposure to diverse learners and regional and remote contexts. These schools in partnership with higher education providers can also support improved quality of practical experience across schools by modelling and sharing evidence on what good placements look like. These schools can also benefit from becoming a centre of excellence in practical experience by developing their teacher pipeline and accessing professional learning.

Supporting these schools in regional, rural and remote areas could also be used to trial approaches to delivering high-quality practical experience in these locations. These models could encapsulate virtual delivery, rapid placements, roaming supervisors and cultural competency support.

3.4.4 Provide targeted support for students with competing commitments, learning needs, and in areas of workforce need

The need to undertake full-time in person placements can present a significant challenge for students with work or family commitments or those with learning or physical needs. This can pose a barrier to higher education providers offering earlier and/or longer placements due to the increasing risk of student attrition. The Panel sees an opportunity to provide targeted support to students with competing commitments or those with learning or physical needs and to students in areas of workforce need to increase the likelihood of completing their ITE program.

3.5 Considerations

3.5.1 Existing partnership arrangements

As shown in the listed case studies, the Panel notes that there are existing partnerships and arrangements in place between providers, schools and other relevant bodies to deliver high-quality practical experience. The Panel is interested in understanding the extent to which these identified opportunities would improve the quality of practical experience without adversely impacting existing arrangements.

3.5.2 Costs

Practical experience can be a relatively expensive component of an ITE program. Higher education providers estimate that the cost of delivering placements has increased over time, due to higher expectations for quality and the costs associated with bespoke matching and coordination processes. The Panel notes that the identified opportunities may require funding but that they could also improve the efficiency of placements.



Discussion questions

- **System level agreements:** Would establishing more comprehensive system level agreements between school sectors/systems and higher education providers address challenges in the school matching process and deliver more effective placements? How could these agreements complement current localised arrangements?
- **Centres of excellence:** Would encouraging centres of excellence, such as hub schools, support high-quality practical experience? What are the impediments to delivering these centres of excellence?
- **National frameworks:** Would higher education providers, schools and teachers benefit from more specific guidance in delivering practical experience? What guidance would be beneficial to address key barriers to high-quality practical experience?
- **Student support during placements:** What support for students would be beneficial to assist in managing their practical experience requirements?
- **Integrating theory and practice:** How can practical experience be better integrated with the academic component of ITE programs to support ITE student learning and preparedness to teach?
- **Role of schools in supporting practical experience:** What incentives can be offered to schools to be more active participants in ITE placements?

In your responses, please provide supporting evidence.

Reform Area 4: Improve postgraduate ITE for mid-career entrants

Increasing the number of mid-career ITE entrants can help to address teacher shortages and improve diversity in the teaching profession. However, mid-career cohorts face different barriers than their school leaver counterparts when it comes to entering ITE programs, transitioning to classroom teaching and remaining in the teaching profession.

The QITE review made several recommendations regarding attracting mid-career cohorts into teaching, including the provision of evidence-based incentives and alternative pathways into teaching. Bespoke programs targeted at mid-career cohorts now exist in most Australian jurisdictions, but most of these programs are still in their infancy with evidence about their effectiveness still emerging.

The Panel has been asked to provide advice to Government on improving postgraduate ITE to attract mid-career entrants. The Panel engaged dandolopartners to assess how programs could be improved to attract mid-career entrants into ITE, building on the range of existing ITE pathway programs targeting mid-career professionals. This involved a review of existing literature on mid-career pathways, and initial stakeholder consultation with higher education providers, education departments, TRAs and peak sector organisations.

Key findings

4.1 Characteristics of mid-career cohorts

Mid-career cohorts have a lot to offer to schools by bringing considerable professional and life experience to teaching. They may have had successful careers in other fields, including in leadership roles and can bring strong skills working with children.

Mid-career cohorts may be motivated to pursue a career in teaching due to altruistic reasons (such as a desire to serve society; and a sense of care and commitment), and/or perceptions about teaching as a secure career and providing family-work balance. Many that transition will incur a pay cut, which may mean they are 'doing it for the right reasons' (which may also explain why many career-change teachers elect to work in low-SES schools) (Dadvand B et al. 2021).

While there is currently little research indicating how many mid-career individuals would be open to a career in teaching, a survey of mid-career individuals by the Behavioural Economics Team of the Australian Government (BETA) found that one in ten were planning a career transition to teaching, and that one in three were open to the idea (BETA 2022). Supporting mid-career cohorts to transition into teaching can contribute to addressing specific workforce challenges, including improving the diversity of the teaching profession and addressing specific supply challenges (e.g. in particular subject areas and locations).

4.2 Barriers to engaging mid-career cohorts into teaching

Mid-career cohorts considering a transition to teaching face a number of key barriers that can prevent them entering ITE, transitioning to teaching following their ITE degrees, or remaining in teaching. It is worth noting that many of these barriers would generally apply to most mid-career professionals considering a career change, not just those transitioning into teaching.

4.2.1 Financial

Research and stakeholder consultations suggest that financial barriers are the most significant barrier to entry for mid-career cohorts (BETA 2022). Mid-career cohorts generally have greater personal and financial responsibilities than their school-leaver counterparts (e.g. many have caring responsibilities for children or parents; and financial obligations such as mortgages). Specific financial barriers they face include: loss of income during the period of the ITE degree (which can be most acute during full-time, unpaid practical experience placements); the pay cut commonly incurred when switching to teaching; and the requirement to pay course fees/incur student debt.

4.2.2 Program length and content

Closely related to loss of income while studying is the length of post-graduate teaching pathways. A mid-career changer with an undergraduate degree usually requires at a minimum a two-year Master of Teaching to qualify as a teacher. In undertaking a Masters degree, the Australian Qualifications Framework states that the volume of learning is typically one to two years. When the qualification is in a different discipline, which would usually be the case for mid-career changers, the volume of learning is two years following a bachelor's degree or one and a half years following a Bachelor Honours Degree. The QITE review confirmed that the length of the ITE program – and the period of time that the student must forego income – was a significant barrier to attracting mid-career cohorts into ITE. In a choice experiment of mid-career individuals conducted by BETA, the ability to undertake a condensed one-year ITE program was seen as equally attractive as a \$20,000 increase in top pay (though not all survey participants were aware of the two-year requirement) (BETA 2022). In addition, program content must be tailored to address the specific challenges faced by the mid-career cohort (see below).

4.2.3 Competing commitments

As mentioned above, while many ITE programs offer flexibility for university-based components, this is not the case across the board. This can create challenges for mid-career cohorts with competing responsibilities. The need to undertake full-time in person practical experience placements is often the greatest challenge, as placements can be difficult to manage in conjunction with part-time work and family commitments.

4.2.4 Status of the teaching profession

The National Teacher Workforce Action Plan recognises that further work is needed to raise the status of the teaching profession. Mid-career cohorts may be deterred from considering a transition to teaching due to lack of information or awareness about the benefits of teaching, in addition to concerns about workload (Heffernan et al. 2019), noting that stress and pressure associated with the teaching profession reportedly increased during the COVID-19 pandemic (one study found that over 90 per cent of teachers agreed that their workload had become more demanding during this time, increasing their stress levels) (Billet et al. 2022).

4.2.5 Lack of recognition of prior experience

Mid-career cohorts may bring with them valuable professional knowledge and skills from their previous careers and personal lives, but often these skills where relevant are not formally acknowledged. This is true both at the point of entry into an ITE degree and the point of transitioning to teaching.

4.2.6 Specific transition challenges faced by mid-career cohorts

Mid-career individuals may face specific challenges during the transition into the teaching profession (which can also be the case for other professions). Examples include the difficulty with 'going back to square one' as a student, where they may experience greater frustration about a perceived misalignment between theory and practice (Varadharajan et al. 2018), as well as difficulty working in schools (especially where mid-career individuals feel a school may not recognise their prior professional experience). Other challenges include those inherent in the teaching job itself (such as

workload and physical demands (Bauer et al. 2017)) and the lack of locational flexibility (noting many mid-career cohorts are less able to relocate than school leaver counterparts, due to caring and other responsibilities).

4.3 Mid-career pathways across Australia

Bespoke programs aimed at attracting mid-career cohorts to teaching have emerged over recent years, and now exist in most jurisdictions. Governments, higher education providers and schools all have distinct roles to play in delivering pathways aimed at mid-career candidates:

- State and Territory governments play a role in initiating and funding bespoke programs that are delivered in partnership with one or more higher education providers. For example, in areas of limited supply to attract teachers.
- Higher education providers have a critical role to play in promoting and delivering tailored ITE programs to attract mid-career cohorts.
- The Australian Government can also play a role supporting bespoke pathways by supporting programs which target mid-career cohorts, e.g. High Achieving Teachers program.
- Schools can ensure that school leaders are equipped to support the specific needs of mid-career cohorts.

Pathways that target mid-career cohorts primarily have common key characteristics. Individual pathways will combine a number of these characteristics, depending on target cohort and context.

4.3.1 Shorter program length

Postgraduate programs aimed at attracting mid-career cohorts into ITE often do so by offering a shorter program length (QITE Review). Shorter programs are attractive to mid-career cohorts because they reduce the amount of time out of the workforce and loss of income. To meet this demand, many higher education providers around Australia offer accelerated programs, which condense the time required to complete a Master of Teaching.

Typically, such programs are completed in around 18 months, but they can be completed in as little as 1.3 years. Under such models, the content of the program itself is not cut down or altered but is condensed into a shorter time-frame – often requiring students to undertake a summer trimester. Consultations with higher education providers indicated that there is little scope to further shorten this timeframe without changes to the Accreditation Standards. These accelerated programs are already intense for students, and providers face a scheduling challenge to fit theoretical and practical experience requirements within these timeframes.

Case Study: University of Newcastle Master of Teaching (Secondary) – Fast Track

The University of Newcastle Master of Teaching (Secondary) allows students to study in trimesters, fast-tracking what is usually a 2-year degree into 18 months. As such, the content is delivered over a compressed period, but is not otherwise different. Practical experience requirements are built into the 18-month period. The course includes simulated learning environments SimTeach, SimSchool and SimCave, designed as safe, interactive spaces for students to practice before entering the classroom.

4.3.2 Paid employment during the program

There are many examples in Australia of mid-career pathways that offer students the opportunity to undertake relevant paid employment while completing their ITE program, in order to address the loss of income while studying. Such approaches can involve either working as a teacher in a paid capacity towards the end of the ITE program or working as a part-time paraprofessional throughout the ITE program.

Teacher pathways involve ITE students being paid to teach unsupervised during the period of study. Theoretical ITE content is generally front-loaded, with paid teaching occurring later in the program. Students will typically be assigned less than a full teaching load, to allow for time to complete their studies / access supports such as coaching and mentoring. Teach for Australia's (TFA) Leadership Development Program is the longest running earn as you learn teacher pathway in Australia, but such programs also exist at a state level employing different regulatory approaches. Enabling students to earn money for teaching while studying addresses the loss of income barrier for part of the degree, while also contributing to teacher supply.

In paraprofessional employment-based pathways, ITE students work part-time as a paraprofessional in a school while completing their ITE program (e.g. teacher aide; education support officer). These pathways also enable career changers to earn money while studying, in a role that is relevant to the ITE qualification. However, employing students as paraprofessionals, rather than teachers, means they are not taking on the significant responsibility of teaching unsupervised before they finish their studies. Because of this, such employment can also start from an earlier point during the program (i.e. there is less pressure to front-load theoretical content so that the student is prepared to teach unsupervised).

Case Study: Teach for Australia's Leadership Development Program

TFA's Leadership Development Program is Australia's longest-running employment-based pathway to teaching. This two-year program is open to mid-career entrants, though many TFA Associates undertake the program immediately following conclusion of an undergraduate degree. TFA Associates complete a six-week residential program, then commence a paid teaching placement with a 0.8 load in a low SES school. Associates graduate with a Master of Teaching. Given the intensity of the work / study load, Associates are heavily supported, including through coaching and mentoring.

4.3.3 Flexibility

While many providers offer accelerated programs, the intensity of such programs mean they will not be suitable for all types of mid-career cohorts. Many students (e.g. those with caring responsibilities, those seeking to upskill over time while remaining in existing paraprofessional jobs) may require a more flexible part-time model. Providers use different approaches to maximise flexibility in their existing programs by offering part-time study options; allowing students to study online or blend online and in-person learning; providing opportunities to finish the program over a longer period of time; and ensuring students have access to institutional supports (e.g. support to develop digital literacy skills).

4.3.4 Provision of financial incentives

Direct financial incentives can also lower the cost of transitioning to teaching (BETA 2022). State government-supported pathways often include incentives such as scholarships, training allowances, subsidised course fees and completion bonuses. While financial incentives are designed to reduce the cost of switching, they will not fully offset that cost for most career changers. For this reason, it is important that they are coupled with other approaches (e.g. appealing to intrinsic motivations).

Case study: Queensland, Turn to Teaching

The Queensland Government-funded Turn to Teaching program targets cohorts in high-demand subjects and locations. It provides students with a \$20,000 scholarship during the first year, as well as benefits for relocation / working in rural and remote locations. During the second year, students gain Permission to Teach and teach a 50 per cent load in a government school. Students have access to a supervising teacher, mentor and community of practice to share their experiences. Following the program, students receive an offer of permanent employment as a teacher in a priority subject area or region.

4.3.5 Guarantees of employment

Some state governments guarantee employment in government schools following completion of programs. Most often, this is a general guarantee of employment somewhere in the state; in other programs, a particular region might be specified. Offers of employment can provide increased certainty / lower the risk associated with a career transition for mid-career changers.

4.3.6 Additional coaching / mentoring support

Providing additional coaching and mentoring support is also a key characteristic to attract – and as importantly, to retain – mid-career cohorts into ITE and teaching. Many bespoke programs offer students additional coaching and mentoring support and build the time for the student to undertake these activities into the design of the pathway.

4.4 Barriers to delivering mid-career pathways

Governments and higher education providers face barriers to developing and delivering bespoke mid-career pathways.

4.4.1 Mid-career pathways can be challenging to design

As mid-career pathways are still in their infancy in Australia, many approaches are still being piloted. There is a lack of evidence for providers and governments to identify ‘best practice’ design and recognise key components which make a program effective.

4.4.2 Must meet teacher registration requirements

Where mid-career pathways are particularly novel, this can necessitate deep engagement with regulators and TRAs to ensure programs meet teacher registration requirements. For example, several jurisdictions already have arrangements allowing students to be paid to teach unsupervised during their ITE program (e.g. through Permission to Teach arrangements in Victoria; Limited Authority to Teach in Tasmania). Implementing such arrangements can involve engaging with regulators to secure approvals, or coming up with practical workarounds to ensure students are able to fulfil their ITE requirements (e.g. finding ways for paid teaching placements to be counted towards practical experience requirements to fulfil program requirements).

4.4.3 Mid-career pathways can be costly to deliver

Depending on the pathway, costs may include paying direct financial incentives to students (e.g. scholarships and bursaries); increased delivery costs (e.g. where programs include intensive student supports); or increased administrative costs (e.g. to undertake matching for earn-as-you-learn pathways). There is also no guarantee that there will be sufficient demand to fill all available places in mid-career pathways, so providers and governments run the risk of incurring high costs to develop programs with little payoff in terms of uptake.

4.4.4 Implementing new systems and procedures

Delivering bespoke mid-career pathways can also require higher education providers to change the way programs work in practice and implementing new systems and procedures. This may include, for example, changes in scheduling (e.g. intensive delivery of some subjects in the case of accelerated programs); changes to how practical experience is coordinated and assessed; and, in the case of employment based pathways, the need to build or deepen partnerships with schools in order for these components to be delivered.

Discussion

4.5 Opportunities

4.5.1 Better pathways for mid-career entrants

The Panel views a Masters degree as the appropriate qualification level to provide postgraduate ITE students with the appropriate level of pedagogical, disciplinary, content and practical knowledge required to be successful in the classroom. The Panel does not see a case for returning to a one year Graduate Diploma of Education as a way of shortening the time spent out of the workforce, as it is not academically and professionally proportionate with the complexity and status of teaching.

The Panel considers there is scope to attract more mid-career entrants through developing accelerated academic pathways as part of a Masters degree, allowing postgraduate ITE students to more quickly enter the workforce while maintaining existing standards. For example, the National Teacher Workforce Action Plan includes an action to streamline alternative authorisation to teach arrangements while maintaining standards. Streamlining authorisation could support an internship model where Masters students complete some of the practical elements of their degree under paid employment conditions. This could shorten the time mid-career entrants are not in employment by providing ITE programs with the flexibility to focus on academic content at the beginning of the program and meeting other more practical requirements during the period of employment, such as practical experience placements, TPAs and particular Teacher Standards (e.g. Standard 6 – Engage in Professional Learning).

4.5.2 Developing and disseminating evidence and best-practice guidance

Mid-career programs are in their infancy and evidence on their effectiveness is still emerging. The future development of mid-career pathways could be improved by:

- disseminating evidence; and developing best-practice guidance from evaluations identifying the critical features for successful design and implementation, and
- piloting promising features that may not currently have a solid evidence base or where for specific cohorts whether critical features need to be adjusted for context.

4.5.3 Improving flexibility in program delivery

While providers use different approaches to attract and support mid-career cohorts, such as by allowing students to study online or blend online and in-person learning, this could be more consistently available across all higher education providers.

4.6 Considerations

4.6.1 Cost and supply

Mid-career programs are costly to deliver. Bespoke models which provide a high level of support to ITE students and allow a gradual increase of responsibilities over time are associated with improved teacher quality. But because these models are the most expensive to deliver, their potential to address overall supply challenges in the short term is limited. Conversely, pathways that shorten the

length of ITE programs, such as through greater program intensity, can be more scalable but unless sufficient support is provided to ITE students can adversely affect supply through increased attrition due to burn out.



Discussion questions

- **Better pathways for mid-career entrants:** How can Masters degrees be structured so that mid-career entrants can assume roles in the classroom within 12-18 months instead of two years? What changes to regulatory arrangements are needed to enable this?
- **Building the evidence base:** Would a framework for assessing the success of mid-career programs assist in sharing lessons learned in designing mid-career programs?
- **Increasing flexibility:** Is their sufficient flexibility in providers delivery of ITE to cater to the circumstances of mid-career entrants?

In your responses, please provide supporting evidence.

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