



Wales Centre for Public Policy
Canolfan Polisi Cyhoeddus Cymru

International approaches to professional learning for early career teachers

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Summary

- » In March 2026 the Welsh Government's Strategic Education Workforce Plan for Schools (SEWPfS) set out the short-, medium-, and long-term actions for Wales' education workforce. Acknowledging the range of challenges facing the sector, including the recruitment and retention of teachers, the SEWPfS highlights professional learning as crucial to the development and professionalism of the teaching workforce in Wales.
- » Findings from an OECD project on Wales, which informed the development of the SEWPfS, also highlight that early career teachers (ECTs) within the first five years of their careers would benefit from increased professional learning support.
- » In 2025 the Wales Centre for Public Policy (WCPP) were asked by the Welsh Government to explore international approaches to professional learning to help strengthen professional learning provision for ECTs in Wales.
- » To support this work, WCPP commissioned international experts to produce case studies on professional learning for early career teachers from: Australia, the Basque Country, Finland, New Zealand, Norway, and Singapore.
- » In addition to the case studies, WCPP hosted two closed workshops involving the international experts, officials from the Welsh Government, and key stakeholders to encourage discussion of the international approaches and their implications for Wales.
- » The case studies do not seek to provide comprehensive summaries of professional learning systems within each country or region included, nor do they present models that should be directly replicated in Wales. Instead, they present key features of professional learning for ECTs that may be valuable to reflect on when considering how professional learning provision and practice in Wales might be strengthened.
- » Despite the importance of avoiding "policy borrowing", the case studies identify a number of high-level principles worthy of consideration. These include a continuum of professional learning; system-level structures that enable local flexibility; practice-based learning; and the adoption of an asset-based view of ECTs. The case studies also identify several specific practices, including the provision of trained and remunerated mentors, collaborative professional learning models, structured reflection, and multilingual professional learning that is closely connected to classroom contexts, all of which may offer valuable insights for strengthening professional learning in Wales.

Table One: Overview of case study geographies and Wales

	Australia	Basque Country	Finland	New Zealand	Norway	Singapore	Wales
Population size	27 million	2.23 million	5.6 million	5.3 million	5.6 million	6 million	3.19 million
Population density	3 per km ²	295 per km ²	18 per km ²	20 per km ²	15 per km ²	8242 per km ²	150 per km ²
GPD per capita	64,604 USD	41,010 USD	53,149.8 USD	49,205.2 USD	86,785.4 USD	90,674.1 USD	32,152.3 USD
Percentage of rural population	12%	0%	26%	16%	17 %	2%	32%
Official language(s)	English	Euskara and Spanish	Finnish and Swedish	English, te reo Māori and New Zealand sign language	Norwegian	English, Mandarin, Chinese, Standard Malay and Tamil	English and Welsh
Size of teacher workforce	320,377	741,238	90,805	95,911	142,304	29,605	25,115
Average pay	\$58,390	\$60,496	\$44,149	\$41,277	\$56,261	\$48,000	\$45,428
% teachers intending to leave the profession ¹	19.4%	4%	22.9%	22.2%	27.2%	39.6%	29% ²
PISA results ³ (2022)	Above the OECD average for mathematics, reading and science	Spain: OECD average for mathematics, reading and science ⁴	Above the OECD average for mathematics, reading and science	Above the OECD average for mathematics, reading and science	OECD average for mathematics and reading. Below the OECD average for science	Above the OECD average for mathematics, reading and science	UK: Above the OECD average for mathematics, reading and science ⁵
% of government's most recent education budget spent on state-maintained education	1.6% (national budget) and 20% (local government budget)	12.5%	9.5%	12%	12.5%	10.07%	14%

¹ Percentage of teachers aged under 30 intending to leave the profession in the next five years

² This figure represents the number of early career teachers who left the profession in 2022 (OCED, 2025)

³ For more information regarding PISA results, see <https://www.oecd.org/content/dam/oecd/en/about/programmes/edu/pisa/publications/PISA%202022%20Insights%20and%20Interpretations.pdf>

⁴ Results from Spain as the Basque Country does not take part in PISA

⁵ According to IFS 'PISA scores declined by more in Wales than in most other countries in 2022, with scores declining by about 20 [...] This brought scores in Wales to their lowest ever level, significantly below the average across OECD countries and significantly below those seen across the rest of the UK.' (Sibieta, 2024)

	Australia	Basque Country	Finland	New Zealand	Norway	Singapore	Wales
Initial teacher education overview	Two – four years. Includes classroom practicums, including observation and feedback.	Four years. Includes university coursework, school placements, a final project, and school practicum experiences.	Five years. Includes practicums incorporating observation, collaborative planning, supervised teaching, feedback and reflection.	Includes coursework, practicum reports, observations of teaching and reflective tasks.	Includes 110 days of practice-based learning and the support of a mentor.	Up to two years. Includes university coursework and school-based practical training, including lesson planning, teaching and reflection.	Qualification is gained through the completion of Initial Teacher Education. This requires an undergraduate degree and a one-year Postgraduate Certificate in Education (PGCE).
Induction overview	Two years. Teachers collect and provide evidence in order to progress from Graduate to Proficient status. Provision is highly variable but often includes a mentor.	No formal induction.	No formal induction.	Two years. Teachers must provide evidence including lesson observations, feedback records, planning and assessment samples, reflective accounts, and learner outcome data. The programme also includes formal mentoring provision.	Two years. Includes the provision of a formal mentor.	Two years. Includes an initial three-day orientation programme, in-service training courses focused on classroom management and pedagogy, and a school-based mentoring programme.	Three school terms. Includes a 10% reduction in teaching timetable allocation for planning, preparation, and assessment (PPA), together with a further 10% reduction to support reflection and professional learning. Schools are responsible for appointing a mentor.
Post-induction overview	Professional learning is linked to maintaining accreditation. Across Australia, professional learning provision is highly variable.	Professional learning is determined by a school's annual school plan and participation is compulsory.	Professional learning is offered through municipalities, universities, and school-based collaborative structures. Participation in professional learning is regarded as a professional responsibility, but it is not formally mandated or monitored.	Professional learning is guided by the Professional Growth Cycle. Teachers are expected to identify and plan their own learning goals and reflective processes and frequently engage in professional learning communities.	Professional learning includes the provision of a formally trained mentor and approximately one hour per week to participate in mentoring activities.	Professional learning is highly structured and includes formal courses, workshops, mentoring, action research, online learning, conferences, and a wide range of postgraduate opportunities.	Professional learning in Wales is supported by three key elements: the National Professional Learning Entitlement; Schools as Learning Organisations (SLOs); and the development of a culture of research and enquiry.

Introduction

Overview

In March 2026, the Welsh Government published its Strategic Education Workforce Plan for Schools (SEWPfS), setting out short-, medium- and long-term actions for Wales' education workforce. The plan acknowledges the range of challenges facing the sector, including those related to recruiting and retaining teachers, and highlights professional learning as crucial to the development and professionalism of the teaching workforce in Wales. In part, the SEWPfS was informed by findings from the OECD's 'New Professionalism and the Future of Teaching' project, which highlighted that in Wales, as elsewhere, early career teachers (ECTs), particularly those within the first five years of their careers, would benefit from increased professional learning support (OECD, 2025).

To support the Welsh Government and Dysgu's⁶ efforts to strengthen professional learning provision for ECTs, the Wales Centre for Public Policy (WCPP) was commissioned in 2025 by the Welsh Government to explore international approaches to professional learning in contexts similar to Wales, responding to the following research questions:

1. How are early career teachers supported in the first five years of their careers, especially post-induction, in similar countries to Wales or in countries with similar education systems; and
2. What aspects of international professional learning provision might be relevant to Wales' education system?

To address these questions, WCPP commissioned international experts to produce case studies on professional learning for early career teachers from the following countries and regions: Australia, the Basque Country, Finland, New Zealand, Norway and Singapore. To encourage discussion of these international approaches and their implications for Wales, WCPP also hosted two workshops involving the international experts, officials from the Welsh Government, Dysgu, the Education Workforce Council (EWC) and the Education Endowment Foundation (EEF). The workshops were further supported by Professor Alma Harris, Dr Alexandra Morgan and Lucy Crehan, Wales-based education experts who contributed to the development of the case study template and reviewed the international case studies.

This report presents the findings from these case studies and explores potential considerations for the Welsh Government, Dysgu, EWC and education system leaders. It is important to note that the case studies are not intended to provide comprehensive accounts of professional learning approaches within each country or region. Nor are they intended to promote models for direct replication in Wales. Rather, each case study highlights key features and approaches to professional learning for early career teachers that system leaders in Wales may wish to consider when reflecting on the Welsh context and when redesigning or strengthening provision and practice.

⁶ Wales' national professional learning and leadership body for maintained schools and settings in Wales

After defining the key terms used in this research and outlining the importance of effective professional learning, this report is structured as follows:

- Policy and practice context of professional learning for early career teachers in Wales;
- Data insights related to professional learning for ECTs in the case study geographies from the Teaching and Learning International Survey (TALIS), conducted by the Organisation for Economic Co-operation and Development (OECD);
- International practice case studies, including mechanisms for effective professional learning;
- Reflective considerations for policy and practice in Wales; and
- Conclusions.

Key terms

Teacher attrition: 'refers to qualified teachers, leaving the profession, for reasons other than having reached the age of retirement' (Kelchtermans, 2017, p. 692).

Professional learning: 'the product of external and workplace-embedded professional development activities that assist teachers to acquire new knowledge and help them improve their practices in ways that will benefit student learning' (Bobis et al., 2023 p. 518). In Wales, professional learning activities include, but are not limited to, mentoring, INSET days, engagement with professional learning communities and formal training days.

Early career teachers: There is no single definition of an early career teacher; however, for the purposes of this research, the term refers to teachers in years 0–5 of their careers following qualification.

The Welsh Government commonly uses 'practitioners' as a collective term for the professionals working in schools who teach, support teaching and lead learning. This includes teachers, headteachers and other school leaders, teaching assistants and higher-level teaching assistants (HLTAs). Whilst the findings of this report may be of relevance to practitioners, the focus of this research is classroom teachers in the first five years of their career. Therefore, the term 'teacher' is used throughout this report.

The importance of effective professional learning

It is widely acknowledged that teachers have a hugely important influence on pupils' academic progress. Research suggests that there is a positive relationship between being taught by a succession of high-performing, qualified teachers and students' short- and long-term educational success (Lee, 2018). Furthermore, well-designed professional development has been shown to improve the quality of teaching and, consequently, pupil learning outcomes (Day, 2015; Fletcher-Wood, 2022). Previous research by WCPP also found that continuing professional development plays an important role in closing the attainment gap (Day, 2015) and supports teachers in meeting the needs of their learners (Fletcher-Wood, 2022). In its cost-benefit analysis of teachers' access to 35 hours of high-quality professional development in England, the Education Policy Institute found that this entitlement was effectively equivalent to one month of additional learning for pupils in the year the professional learning took place and could increase learners' lifetime earnings by more than £6,000 (Van den Brande and Zuccollo, 2021).

Less is known about the relationship between professional learning and teacher retention, but there is some evidence to suggest that professional learning may be associated with retention or with factors that influence it. For example, the Education Endowment Foundation (EEF) conducted a series of rapid evidence assessments on teacher recruitment and retention to identify priorities for future research.

The assessments found that professional development and support, particularly for newly qualified teachers, may improve teachers' sense of efficacy, which is associated with higher levels of retention (Taylor et al., 2023). Another report in the series, which developed an 'evidence-informed typology' of school leadership approaches to support teacher retention, identified 'prioritising teacher development' as a key factor (Nguyen et al., 2023, p. 13). Research from Cardiff Metropolitan University found that limited professional development opportunities are associated with teachers leaving the profession (Egan et al., 2025), while research from England suggests that effective professional development could improve teacher wellbeing and result in 12,000 additional full-time equivalent teachers remaining in the profession each year (Van den Brande and Zuccollo, 2021).

Despite evidence of its potentially positive impact, professional learning provision for teachers across Wales is described as being of 'variable quality' and in need of greater 'consistency and coherence' (Hutt et al., 2024, p. 49). In addition, research from England indicates that workload pressures often restrict the time available for professional development (Ofsted, 2024). For early career teachers in particular, the challenges associated with high workloads and increasingly complex pupil needs can be especially demanding. In such circumstances, inconsistent access to professional learning opportunities may have a more pronounced impact on those at the beginning of their careers, contributing to the comparatively high attrition rates observed among ECTs (Admiraal et al., 2023).

Policy and practice context



In March 2026 the Welsh Government published its Strategic Education Workforce Plan for Schools (SEWPfS) which aims to embed the ‘vision and values for leaders, teachers and support staff for the future’ (Welsh Government, 2025a). The plan recognises the challenges arising from significant educational reform, including the introduction of the Curriculum for Wales, Additional Learning Needs (ALN) reform, and wider school improvement priorities. It also acknowledges growing pressures within the sector, such as recruitment and retention challenges, concerns about teacher wellbeing, and increasingly complex learner needs. In response, the SEWPfS outlines short-, medium- and long-term actions to support Wales’ educational workforce (Welsh Government, 2026).

The early development of the SEWPfS was informed by Wales’ participation in the OECD’s project, ‘New Professionalism and the Future of Teaching’. This international study explored the vision and ambition for the future of the teaching profession in Wales, with a particular emphasis on strengthening early career support. The findings demonstrate that ECTs would benefit from ‘a comprehensive and structured support system; a rigorous, well-defined induction programme; professional learning communities; partnerships between schools; and diverse, practical learning experiences tailored to local school contexts’ (OECD, 2025, p. 77).

Since September 2025, responsibility for professional learning has been held by Dysgu, the new Body for National Professional Learning and Leadership Education, established by the Welsh Government. This body aims to develop a coherent programme of evidence-informed professional learning that supports teachers in continually improving the quality of their practice at different career stages and within a range of school contexts (Welsh Government, 2025b). A key objective of the new national body is to ensure that educators across Wales have consistent access to high-quality professional learning opportunities throughout their careers.

Dysgu will work closely with local authorities, schools and national partners to deliver professional learning through ‘school-to-school collaboration models’, in which schools support one another’s development by sharing knowledge, expertise and practice (Welsh Government, 2025b), moving away from the previous regional consortia delivery model. Dysgu also plans to implement longer-term reforms relating to support for Additional Learning Needs (ALN) and improving the teaching of Welsh in English-medium schools (Welsh Government, 2025a).

Current provision of professional learning in Wales

Initial teacher education and induction

According to the Welsh Government, initial teacher education (ITE) plays a 'crucial role as the first step in every Welsh teacher's professional learning journey' (Welsh Government, 2025). Currently in Wales, Qualified Teacher Status (QTS) is achieved through the completion of ITE, which can be undertaken through various routes but requires an undergraduate degree and a one-year, university-led Postgraduate Certificate in Education (PGCE) (Welsh Government, 2024). Those who complete a PGCE and obtain QTS must then undertake a statutory induction period, during which they are classified as Newly Qualified Teachers (NQTs). In Wales, the induction period lasts for three school terms or the equivalent, although appropriate bodies may reduce this to a minimum of one term where a teacher demonstrates that they have met the required standard (Welsh Government, n.d.).

During the induction period, NQTs are entitled to a 10% reduction in their teaching timetable for planning, preparation and assessment (PPA), as well as a further 10% reduction for reflection and participation in professional learning activities, such as observing other teachers, attending meetings with mentors or fellow NQTs, and undertaking shadowing opportunities (Welsh Government, n.d.). As part of the statutory induction programme, schools are required to appoint a nominated member of staff to act as an Induction Mentor for NQTs (Welsh Government, n.d.).

Post-induction

Once the statutory induction period has been completed, individual schools are responsible for providing professional learning opportunities for their teaching staff, supported by guidance from the Welsh Government. The current 'vision' outlined by the previous Welsh Government⁷ is that professional learning should (Hwb, n.d.a):

- benefit and meet the needs of learners;
- support the development of the workforce within the context of [schools as learning organisations](#);
- be a continuous and coherent experience over time;
- be collaborative;
- be evaluative in nature and involve reflection and enquiry into pedagogy; and
- be enabled by leadership in learning organisations with the support of local, regional, national and international learning communities.

There are also five National MA Education master's-level programmes and one PhD-level qualification delivered by seven universities across Wales and currently supported by the Welsh Government⁸ specifically for educational professionals. For all but the leadership and ALN master's programmes, funding is available to teachers in the early stages of their careers (years 3–6) (National MA Education, n.d.)⁹.

⁷ The 2021–2026 Welsh Government administration

⁸ Both the National MA Education master's-level programme and PhD qualification are now owned by Dysgu

⁹ Changes to criteria from 2026–2027 will mean that all practitioners, regardless of career stage, will be able to access this provision

According to the previous Welsh Government, professional learning throughout teachers' careers is supported by three key elements: the National Professional Learning Entitlement¹⁰; schools as learning organisations (SLOs); and the development of a culture of research and enquiry (Hwb, n.d.a).

The National Professional Learning Entitlement, known as 'the Entitlement', sets out the support to which practitioners, system leaders and advisers are entitled. It outlines interconnected entitlements and expectations for teachers, teaching assistants, school leaders and system leaders in relation to their professional learning. This includes reflecting on and recording their professional learning journey through Professional Learning Passports¹¹ and actively engaging in allocated professional learning time, including in-service education and training (INSET) days, which currently amounts to up to six days per school year (Welsh Government, 2025). The Entitlement applies to all teachers and teaching staff but is intended to be used flexibly to meet individual professional learning needs.

In addition, education professionals should expect their school or workplace to have adopted the SLO model by engaging all staff in professional growth through teamwork, shared reflection, and collaborative school and community networks. According to the previous¹² Welsh Government, both fulfilling the expectations outlined in the Entitlement and developing as a learning organisation are achieved through fostering a culture of research and enquiry (Hwb, n.d.b).

The Curriculum for Wales

In 2021, the Welsh Government introduced the Curriculum for Wales, replacing previously mandatory subjects with a national framework to guide each school to develop their own curricula for learners aged 3 to 16. The new statutory legislation and guidance provide four key purposes of the curriculum to support learners, and a further six areas which 'bring together familiar disciplines and encourage strong and meaningful links across them' (Welsh Government, n.d.).

The ambition behind this reform was to empower teachers and ensure that curriculum decisions are made locally. However, concerns have been raised regarding the complexity of implementation. As summarised by Evans, prior to the introduction of the curriculum, it was anticipated that there might be quality differences in the curriculums developed by different schools, resulting in unequal delivery of education across Wales (2023). In addition, greater teacher ownership of the curriculum requires confidence, knowledge and the ability to design and adapt to a school-specific curriculum (Evans, 2023).

For ECTs in particular, the implications of the Curriculum for Wales are substantial. Entering the profession during a period of significant reform means that early career development extends beyond subject teaching and classroom management to include curriculum design, adaptation and evaluation. Ensuring that ECTs are supported is therefore critical to the long-term sustainability of the reform programme.

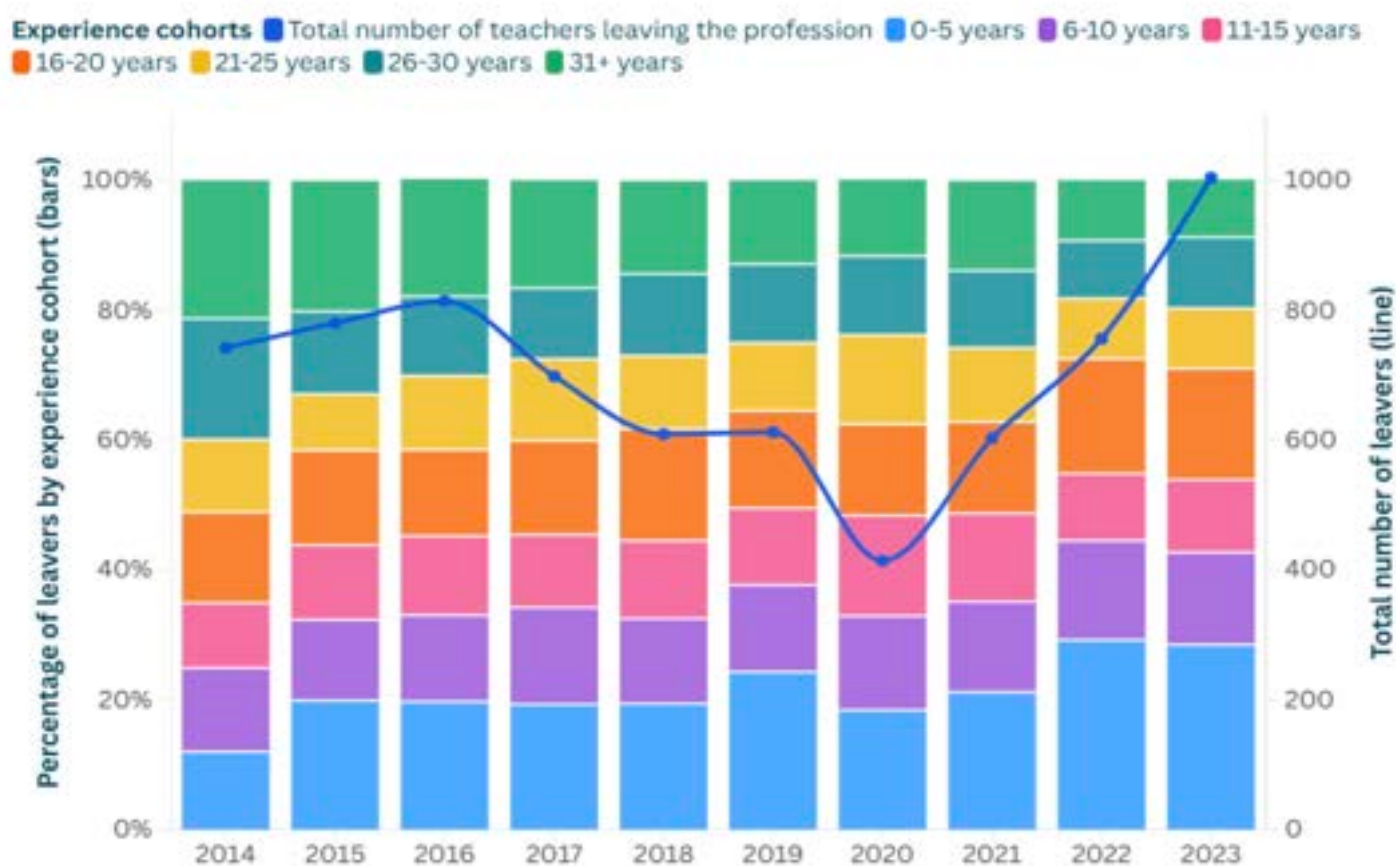
¹⁰ The National Professional Learning Entitlement has been discontinued

¹¹ An online tool provided by EWC which aims to support teachers to capture, reflect, share and plan their professional learning

¹² The 2021–2026 Welsh Government administration

Current challenges facing the teacher workforce

Figure One: Number of teachers leaving the profession each year in Wales with percentage of leavers from each experience cohort.



Source: StatsWales • Data is collated by calendar year i.e. Jan-Dec.

Globally, many countries are facing teacher shortages as a consequence of both recruitment and retention issues, including in Wales (UNESCO, 2024). In recent years, increasing attention has been drawn to the higher proportion of ECTs who make up teacher attrition figures. In Wales, 29% of those leaving the profession in 2022 were ECTs (OECD, 2025). StatsWales data on teacher retention by experience cohort indicate that, over the last ten years for which data are available (2014–2023), an increasing proportion of teachers leaving the profession have come from the 0–5 years' experience cohort. The data also indicate that the overall number of teachers leaving the profession is at its highest level in a decade (Figure One).

Whilst teachers may leave the profession for a number of reasons, including 'retirement, health, family commitments, taking a job in another field, or death' (UNESCO, 2024, p. 60), there are also broader and more complex issues facing the sector that contribute to teacher attrition.

One commonly cited issue facing teachers is the workload pressures within the profession. The most recent OECD Teaching and Learning International Survey (TALIS) results from England¹³ (2018) show that teachers in primary and secondary schools work around 50 hours per week, with more than half of that time devoted to non-teaching tasks such as planning, marking and administrative tasks (Jerrim and Sims, 2019; Maisuria et al., 2023). Workload pressures are further exacerbated by the rise in pupils' behaviour issues and mental health needs in the classroom, both of which have become more pronounced in Wales since the coronavirus pandemic (Hulson-Jones et al., 2025).

In addition, according to the Nuffield Foundation, 47.9% of children born in 2002/03 were identified as having additional learning needs (ALN) at some point during their schooling (Knight et al., 2024). This compares with an estimated 20% of children identified as having special educational needs (SEN¹⁴) in 2010 (Welsh Government, 2010). Whilst teachers are committed to supporting learners with ALN, a survey of teachers across the UK found that changes in the policy landscape have made this increasingly challenging (NASUWT, 2018). Over time, access to specialist support for learners has become more complex, and the threshold for receiving external support has increased. Furthermore, demands on staff, including on specialist support staff, have increased as posts and working hours have been reduced (NASUWT, 2018). Teachers also report that they do not feel adequately equipped with the necessary 'knowledge, skills or expertise to meet the needs of learners' with ALN (NASUWT, 2018, p. 4). Combined with increasing workload pressures and wider professional demands, these challenges have implications for workforce wellbeing and may contribute to difficulties in retaining teachers.

¹³ Findings from England are reported here as TALIS does not include Wales

¹⁴ SEN is the previously-used term, which has been replaced by ALN in Wales

TALIS data

The Teaching and Learning International Survey (TALIS), conducted by the Organisation for Economic Co-operation and Development (OECD) since 2008, provides a valuable international perspective on teachers' working conditions and learning environments across more than 60 education systems.

Within this research, TALIS data provided greater contextual insight into the case study geographies from the perspective of teachers, including their intention to leave the profession as well as their engagement with professional learning, and access to mentoring support. For example, Table Two shows the percentage of respondents from the case study countries¹⁵ who indicated that they intended to leave the teaching profession within the next five years, alongside the percentage of respondents aged under 30, used here as a proxy measure for early career teachers.

The data show considerable variation across countries in terms of the proportion of teachers who intend to leave the profession within the next five years. The highest proportion of teachers aged under 30 intending to leave teaching was recorded in Singapore (39.6%), while the lowest was recorded in Spain (4.0%).

Table Two: Intention to leave teaching within the next five years, by age.

	Total		Under 30 years old		Difference
Country	%	S.E.	%	S.E.	Total - <30
New Zealand*	34.0	2.2	22.2	5.3	11.8
Singapore	28.6	1.0	39.6	2.9	-11.0
Norway*	27.8	1.7	27.2	3.9	0.7
Australia	27.6	1.3	19.4	2.5	8.2
Finland	27.1	0.9	22.9	2.9	4.2
Spain	18.9	0.8	4.0	1.0	15.0
OECD Average	26.8	0.2	20.4	0.8	6.3

* Estimates should be interpreted with caution due to higher risk of non-response bias.

¹⁵ It should be noted that, in the absence of data specific to the Basque Country, this report draws on TALIS data from Spain as the closest comparable context. In addition, the TALIS data cannot be seen to reflect the efficacy of the models and practices of professional learning shared in the case studies.

TALIS findings also highlighted consistently high levels of participation in professional learning across the case study countries, with participation rates exceeding 90% in all cases. However, perceptions of the impact of professional learning varied considerably (see Table Three). Singapore recorded the highest proportion of teachers reporting that professional learning had positively influenced their teaching 'a lot' or 'quite a lot' (56.3%). It was also the only case study country to exceed the OECD average on this measure (55.2%). Finland reported the lowest proportion of teachers indicating a substantial positive impact (27.2%). Further detail on the TALIS findings used in this research can be found in Annex 1.

Table Three: Percentage of teachers reporting that overall PL activities undertaken in the previous 12 months had a positive impact on their teaching 'a lot' or 'quite a lot'

	Total		<= 5 years' experience		6-10 years' experience		>10 years' experience	
Country	%	S.E.	%	S.E.	%	S.E.	%	S.E.
Singapore	56.3	1.5	53.6	3.5	52.8	3.5	57.1	2.0
New Zealand*	51.3	1.8	57.5	4.3	46.1	5.4	50.8	2.5
Australia	49.5	1.3	56.2	2.5	45.7	2.5	48.9	1.8
Spain	48.3	1.2	48.1	1.8	51.0	2.2	47.3	1.5
Norway*	32.4	1.7	42.7	3.6	29.7	3.7	28.8	2.3
Finland	27.2	1.0	28.6	2.5	31.3	2.9	25.9	1.2
OECD Average	55.2	0.3	58.7	0.6	55.5	0.6	54.2	0.3

* Estimates should be interpreted with caution due to higher risk of non-response bias.

International practice case studies

Focusing on the mechanisms of PL

Engaging with evidence from outside Wales provides valuable insight into professional learning approaches that may not otherwise be considered. However, practices that are successful in one national or regional context cannot necessarily be implemented or replicated elsewhere with guaranteed success or acceptance.

In 2021, EEF published guidance to support the design and selection of high-quality professional learning for teachers (Collin and Smith, 2021). Drawing on a systematic review and meta-analysis, the guidance provides a framework for considering how insights about effective professional learning can be transferred across different contexts. The guidance suggests that professional learning can be understood in three ways: forms, programmes and mechanisms.

EEF defines ‘forms’ as types or categories of professional learning characterised by a common set of features, such as instructional coaching or lesson study. Programmes are defined as ‘specific sets of activities and materials which are associated with specific people or institutions’, such as Embedding Formative Assessment. However, EEF found that it is the ‘mechanisms’ that represent the observable and replicable building blocks of effective professional learning.

The EEF guidance outlines 14 mechanisms which fall under four categories, as shown in Table Four.

Table Four: EEF Mechanisms for Effective Professional Learning

	Building knowledge	Motivating teachers	Developing teaching techniques	Embedding practice
Mechanism	- Managing cognitive load - Revisiting prior learning	- Setting and agreeing on goals - Presenting information from a credible source - Providing affirmation and reinforcement after progress	- Instruction - Social support - Modelling - Monitoring and feedback - Rehearsal	- Providing prompts and cues - Prompting action planning - Encouraging monitoring - Prompting context specific repetition

According to the research that informed this guidance, professional learning that is balanced in design, incorporating one or more of the mechanisms from each category, has a greater impact than designs that do not achieve this balance (Sims et al., 2021).

Mechanisms of professional learning can be identified across each of the international practice case studies. In the 'Considerations for Wales' section below, we highlight some of the key mechanisms and examine how they are reflected in one or more of the case study contexts.

Case study 1: Australia

Laureate Professor Jennifer Gore and Dr Drew Miller



Population
size

**27
million**



Population
density

**3 per
km²**



Country GDP
per capita

**64,604
USD**



Percentage of
rural population

12%



Official
language(s)

English

Professional Learning Context

Table Five: Professional learning delivery at a national, regional, provincial or local level – Australia

	National	Regional	Provincial	Local
Initial teacher education (ITE)	✓			
Induction	✓	✓		✓
Post- induction	✓	✓		✓



Size of the
teacher workforce

320,377



Average pay
for teachers who
have just completed
their induction

\$58,390



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

19.4%



Latest PISA
results

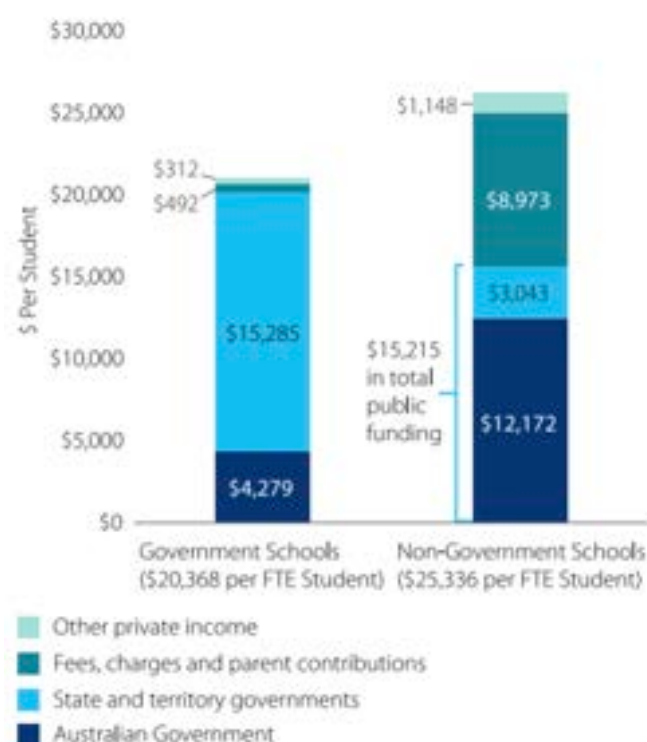
**Above the OECD
average for
mathematics,
reading and science**

Educational context

In the most recent budget, 1.6% of Australian Government expenditure was allocated to public schools, with 4% allocated across all schools. The proportion of federal (national) government spending is higher for non-government schools because the non-government sectors (Catholic and independent schools) receive the majority of their funding from the federal government. By contrast, government schools receive only part of their funding from the federal government, with the remainder, and majority, provided by state governments. Figure Two shows the current funding arrangements, as documented in the Better and Fairer Schools Agreements Progress Report (Department of Education, 2026).

In addition, each state and territory (six states and two territories) has a separate funding agreement with the federal government through [Better and Fairer Schools Agreements](#). In short, school funding in Australia is complex, fragmented and subject to ongoing reform (Greenwell and Bonnor, 2023).

Estimated recurrent funding per student by funding source and school sector, Australia, 2024 (\$)



* ACARA National Report on Schooling (2026), School income data for 2024 funding year.

Figure Two. Funding of Australian Schools

National and state (n = 6) or territory (n = 2) governments are responsible for educational policy. At the national level, the Department of Education, the Australian Curriculum, Assessment and Reporting Authority (ACARA), and the Australian Institute for Teaching and School Leadership (AITSL) are the principal bodies. The overarching national Educational Goals for Young Australians are outlined in the Alice Springs (Mparntwe, pronounced M-ban-tua) Education Declaration, published in December 2019 by the Education Council, a collective of national, state and territory education ministers (Education Council, 2019).

At the state and territory level, using New South Wales (NSW) as an example, the key policy bodies are the NSW Department of Education and the NSW Education Standards Authority (NESA). The NSW Department of Education comprises eight directorates organised according to geographical regions across the state, such as Metropolitan North and Regional North (NSW Government, 2025). Other states and territories have similar arrangements. Schools also develop and implement local policies, including decisions relating to pedagogical frameworks and approaches to professional development (PD).

The Australian Institute for Teaching and School Leadership (AITSL) sets out the Australian Professional Standards for Teachers (APST), which guide teacher performance and development across career stages (AITSL, 2017). The principal stages identified within the APST, beginning at the end of initial teacher education, are Graduate (Conditional/Provisional), Proficient, Highly Accomplished and Lead. It should be noted that Highly Accomplished and Lead Teacher (HALT) status requires an application from individual teachers. In 2023, fewer than 1% of teachers had achieved these higher levels (Department of Education, 2023).

Policies governing professional learning requirements vary slightly between jurisdictions. However, most states and territories require teachers to undertake professional development, typically around 20 hours annually, to maintain their registration. Teacher registration is managed at state and territory level. Beginning teachers at Graduate level are required to achieve accreditation at the Proficient level, which typically occurs within the first two years of full-time employment. Ongoing professional development is then required to maintain accreditation at the Proficient, Highly Accomplished and Lead career stages.

At state level, in NSW, NESA provides a Professional Development Framework to support teachers in selecting and engaging with professional development opportunities (NSW Government, 2026a). The framework focuses on teaching and learning, aligns with the APST, and defines effective professional development as being ongoing, collaborative, context-specific and evidence-based.

Other states use alternative approaches. In the state of Victoria, for example, the Victorian Academy of Teaching and Leadership provides a range of professional learning opportunities (Victoria State Government, n.d.), while the Evidence to Action online platform supports implementation of the Victorian Teaching and Learning Model (Version 2.0), including through the provision of ideas for professional learning (Victoria State Government, 2026).

At the national level, AITSL published new Guidelines for the Induction of Early Career Teachers in Australia in 2023 (AITSL, 2023), replacing the original 2016 guidelines (AITSL, 2016).

A key rationale for the revised guidelines is to frame induction more directly as a mechanism for alleviating teacher workforce shortages. The updated guidance identifies five core elements of induction: mentoring, a focus on professional practices, workplace and community orientation, nurturing relationships, and supporting wellbeing. To date, no initiatives have been mandated or specifically funded at national or state level. Consequently, schools and education systems retain both the discretion and responsibility for implementing induction activities and professional learning more broadly. In recent years, some states and Catholic education systems have adopted explicit instruction as their dominant pedagogical approach and have required all teachers to undertake some professional learning in explicit instruction, although the nature and duration of this learning varies.

At state level, the NSW Department of Education has very recently established the Early Career Academy for Teachers (NSW Government, 2026b). Its vision is to provide a 'centre of excellence' that supports 'the attraction and development of new and future teachers for the NSW public education system'. This sits alongside the Beginning Teacher Information Hub, an online platform designed to support beginning teachers as they commence their careers within the NSW Department of Education (NSW Government, n.d.).

At the national level, ACARA has been primarily responsible for coordinating the review and refinement of Foundation (Kindergarten) to Year 10 curriculum documentation, as well as Senior Secondary (Years 11–12) curriculum documentation.

The most recent Australian Curriculum Review was conducted between 2020 and 2021, resulting in the current Version 9 curriculum, which has been endorsed by Australia's education ministers (ACARA, 2026). Considerable professional development time within schools has been devoted to implementing the revised curriculum.

In addition to the eight states and territories responsible for schooling, Australia has 40 universities, almost all of which provide initial teacher education (ITE). It should be noted that ITE is delivered almost exclusively through universities. ITE is governed by national guidelines for programmes (see AITSL, n.d.a), and funding for universities comes from the national or federal government. In Australia, the term 'provincial' is not used. Equivalent responsibilities sit at state and territory level, where induction and post-induction professional development are also provided, although not mandated, through state-based arrangements.

Professional learning is closely intertwined with school systems and is shaped, at least in part, by market forces. Until recently, state and territory education bodies regulated professional development through accreditation systems, whereby providers could have programmes accredited by demonstrating how the professional standards (APST) were being addressed. This system, which enabled teachers to accumulate accredited hours of professional development, has been de-regulated by most states and territories leaving teachers responsible for maintaining evidence of their own professional learning and demonstrating how it aligns with the teaching standards. This requires compliance with state and territory registration requirements relating to professional learning hours for teachers and school leaders seeking to maintain their accreditation status.

Specific responsibilities for designing and delivering professional learning are therefore difficult to identify. As a result, mechanisms for accessing and documenting available professional learning opportunities within and across states are not always readily available to external stakeholders. State governments frequently provide access to state-endorsed professional learning programmes. In NSW, for example, these programmes are available through the online platform '[Professional learning 2026](#)' (NSW Government, 2026c). However, many of its specific programmes are available only to current NSW Department of Education employees.

The Teachers and Teaching Research Centre within the School of Education at the University of Newcastle (Australia) delivers professional learning focused on the Quality Teaching Model and Quality Teaching Rounds, among other topics, through its not-for-profit social enterprise, the [Quality Teaching Academy](#). Until recently, high-quality professional learning such as this was formally accredited by NESA in NSW. It is now accredited only within the Australian Capital Territory by the ACT Teacher Quality Institute (TQI), the only remaining accrediting body in Australia.

Nonetheless, delivery continues across states and systems, including government, Catholic and independent systems, with more than 1,500 schools and almost 6,300 teachers having participated in Teachers and Teaching Research Centre professional learning programmes.

Both the distribution and use of funds for professional learning vary substantially depending on the state and schooling system. For example, NSW public schools are allocated a global allocation of funding without dedicated budget lines for professional development.

As a result, decisions about whether and how funds are used for professional development rest largely with individual school leaders, who must both prioritise and justify such expenditure. By contrast, NSW Catholic schools operate under a more centralised funding model, in which schools submit budget requests to their regional office. Professional development funding is allocated only where it is explicitly requested, and schools are required to account for its use for professional development activities.

Initial teacher education (ITE)

ITE programmes, which are regulated by programme standards known as the Accreditation Standards and Procedures for ITE providers (AITSL, n.d.a), are typically four years in duration at undergraduate level or two years at postgraduate level and provide all pre-graduation professional development. In addition to their coursework, pre-service teachers must complete and pass a Teaching Performance Assessment (TPA), a portfolio assessed against the Australian Professional Standards for Teachers (APST), during the final year of their ITE programme (see AITSL, n.d.b). The APST comprise three key domains, professional knowledge, professional practice and professional engagement, alongside seven underpinning standards (AITSL, 2017). In 2025, an ITE Quality Assurance Oversight Board was established to oversee a systematic approach to assessing and improving the quality, consistency and outcomes of ITE programmes across Australia.

To clarify, the AITSL Australian Professional Standards for Teachers (APST) guide teacher development across career stages, beginning upon completion of an ITE programme, at which point graduates are recognised at the Graduate stage of the Standards (AITSL, 2017).

AITSL's standards for ITE programmes guide the design, delivery, and content of those programmes.

During ITE, students complete 40 (postgraduate) or 80 (undergraduate) hours of professional experience with a longer block towards the end of their degree programme, typically four weeks for postgraduate students and ten weeks for undergraduate students. During these practicums, the classroom teacher provides the majority of support through observation, feedback and assessment reports, with oversight from a university supervisor and, in some cases, a school leader responsible for coordinating student teachers within the school.

Induction

The induction period, which is generally considered to commence upon employment as a teacher, lasts approximately two years for full-time equivalent teachers (AITSL, 2023). It should be noted that employment may be casual, fixed-term or permanent, and access to induction support varies considerably according to employment status, with casual teachers often receiving little or no formal support.

Induction for early career teachers primarily involves an orientation to the school and, perhaps, an assigned mentor whose focus tends to be assisting with meeting accreditation requirements. In 2023, however, almost half (45%) of Australian early career teachers within their first five years of teaching reported that they had not received a formal induction into the profession.

Among those who did receive induction, the proportion fell from 61% in 2019 to 55% in 2023. Over the same period, the range of support available to new teachers also declined significantly. Practices such as observation by experienced teachers, reduced face-to-face teaching loads and targeted professional learning became less common, while induction programmes increasingly focused on essential requirements, such as brief school orientation and the allocation of a mentor (see Figure 2) (AITSL, 2025a).

New teachers collect and present evidence as the basis for progressing from 'Graduate' to 'Proficient'. A school-based accreditation supervisor typically guides beginning teachers through this process, although this individual is not necessarily an officially assigned mentor. Instead, the accreditation supervisor is usually a member of the school leadership team who is ultimately responsible for approving the completion of this process and notifying the relevant authorities.

Having a mentor is not mandatory, and mentors do not necessarily receive formal training or additional remuneration for undertaking the role (see also AITSL, 2025b).

Specific support for teachers through the induction period varies by system and state. For example:

- In NSW, the Department of Education provides two hours of release from classroom teaching per week during the first year and one hour per week during the second year of full-time employment, primarily to support accreditation.
- NSW Catholic Schools provide ten hours per year for the teacher and ten hours per year for the mentor during the first three years of employment, again with a primary focus on accreditation.

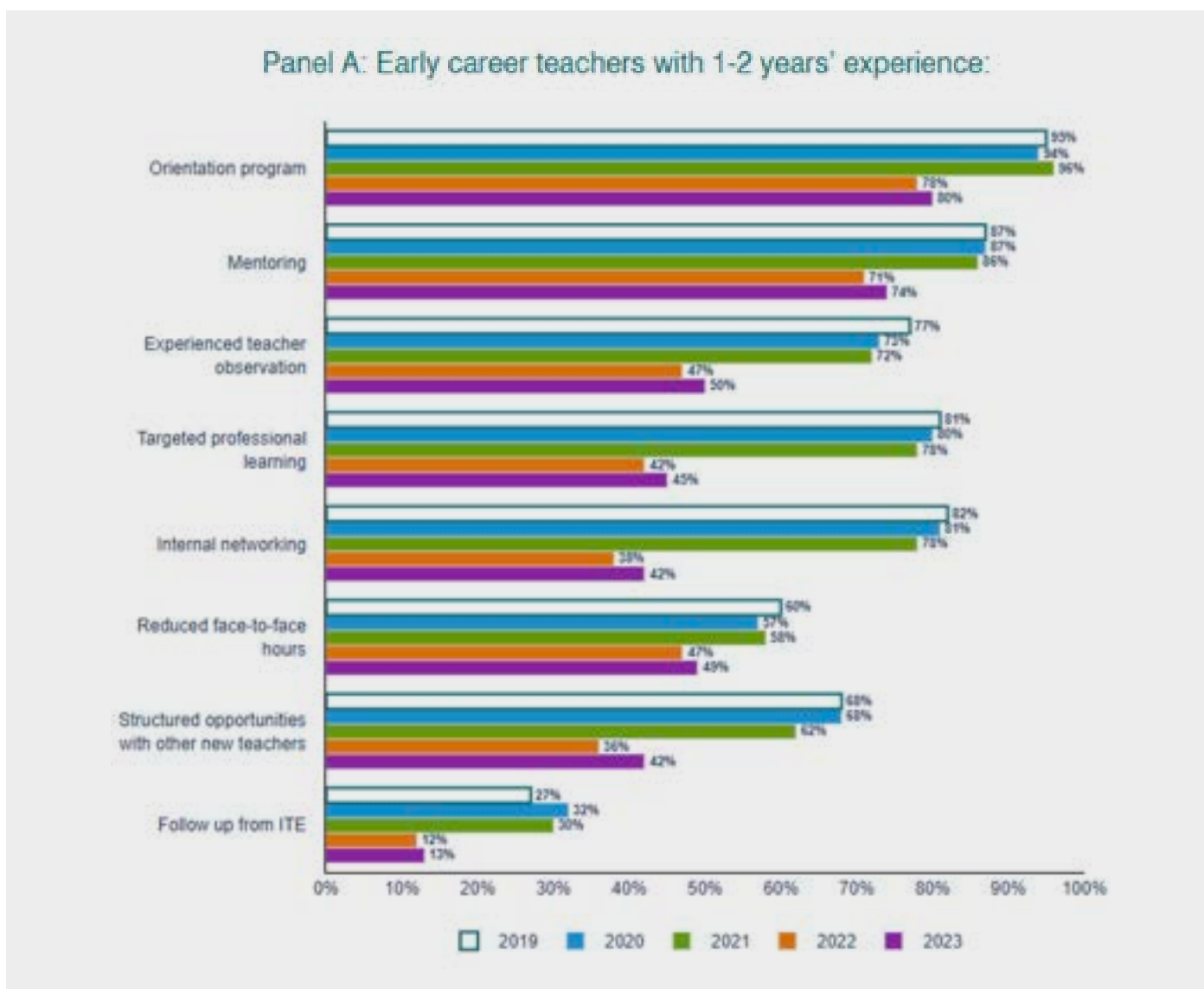


Figure Three: Early career teachers induction activity experiences, 2019–2023

As noted above, teachers are already employed when participating in induction. However, due to current workforce shortages, alternative pathways now exist for pre-service teachers to gain authorisation to teach and be employed as teachers while completing their ITE programme. For such teachers, induction occurs, or should occur, concurrently with ITE. Our recent study of induction across Australia demonstrates substantial variability in support across all states, territories and sectors, with no nationally consistent approach in place.

The National Teacher Workforce Action Plan, endorsed by the Australian federal government in 2022, identified induction as a key mechanism for alleviating acute teacher shortages by supporting the transition from ITE into the school system (Department of Education, 2022). Further details regarding our study within this initiative, known as Strengthening Induction, are provided below (Key learning from Australia). Overall, the implementation of induction remains highly variable and continues to be shaped by systemic and institutional constraints, as well as inadequate funding (Kearney, 2016; 2021; 2023; Kelly et al., 2018; Kidd et al., 2015; Mansfield & Gu, 2019).

Post-induction

Teachers undertake continuing professional development (PD) throughout their careers, including to maintain active accreditation status. As noted previously, state agencies, such as NESA in NSW, are partly responsible for monitoring teacher PD processes and requirements. This includes mandating PD programmes, stipulating PD priority areas, facilitating mechanisms for reflection, and designating the number of PD hours required annually.

Teachers undertake 'teacher-identified' professional learning, meaning PD that reflects the interests and professional needs of the individual teacher. This may include anything from paid attendance at workshops or conferences to postgraduate study or online professional learning. PD opportunities are advertised through state department and professional association websites, as well as social media platforms. Some PD opportunities must be self-funded, particularly for casual teachers, whereas others are funded by a teacher's school. School leaders are typically responsible for coordinating whole-school approaches to PD, with most states scheduling at least four pupil-free days for such activities. Funding for professional development for beginning teachers is the responsibility of state departments of education and may be used to reduce face-to-face teaching time or to provide a nominated mentor.

Some teachers report strong continuity and support throughout their professional learning journey, while others question the relevance of both ITE and PD, despite the common professional standards that underpin both. It is important to note that, in Australia, induction is considered part of the broader early career phase rather than a separate stage of professional development (see also George et al., 2018; Mockler, 2018; Weldon, 2018; Wyatt & O'Neill, 2021).

Key learning from Australia

At the initiative of the Teachers and Teaching Research Centre (TTRC), in 2023 a [Teacher Retention Network \(TRN\)](#) was established to bring together

researchers leading major Australian Research Council- and Australian Government-funded projects focused on key challenges facing Australia's teaching workforce. Since its inaugural meeting in 2023, the TRN has provided a forum for sharing insights and methodologies and for bringing diverse findings into productive dialogue. In March 2026, members of the TRN published a policy briefing highlighting key findings from each project and hosted a webinar in April for policymakers, academics, principals, teachers and other interested stakeholders (Teacher Retention Network, 2026).

Our project within this network, titled *Strengthening Induction through Quality Teaching Rounds (QTR)* (Gore et al., 2025), is a five-year federally funded national initiative providing QTR professional development for 1,600 teachers, with early career teachers (ECTs) as the primary target group. QTR is a collaborative form of PD that enables structured and reciprocal observation and analysis of lessons using a pedagogical framework known as the Quality Teaching (QT) Model (see Table Six).

To illustrate the process in greater detail, Figure Four presents an example from the key resource used within QTR, the *Quality Teaching Classroom Practice Guide*, focusing on the element Deep Knowledge. This double-page spread is replicated for each of the 18 elements within the QT Model.

Dimension	Elements
Intellectual Quality	Deep Knowledge Deep Understanding Problematic Knowledge Higher-order Thinking Metalanguage Substantive Communication
Quality Learning Environment	Explicit Quality Criteria Engagement High Expectations Social Support Students' Self-regulation Student Direction
Significance	Background Knowledge Cultural Knowledge Knowledge Integration Inclusivity Connectedness Narrative

Table Six: Dimensions and elements of the Quality Teaching Model

On the left-hand page, the element is introduced through concise descriptors of high and low presence, in this case contrasting deep knowledge with shallow knowledge. Beneath this, a coding scale provides a detailed framework for describing observable aspects of classroom practice. A guiding question above the scale prompts teachers to focus their observations and make informed judgements. Teachers are advised to code only what they observe and, where possible, to use whole numbers. These guidelines encourage intellectual engagement and deliberate decision-making among all participants, including the teacher whose lesson is being observed.

The right-hand page offers additional support. The *Notes* section elaborates on the meaning and application of the element, helping to clarify any uncertainties that may remain after reading the description and coding scale.

At the bottom of the page, the Suggestions section offers practical strategies for strengthening the element in future lessons. These suggestions also serve as useful prompts during coding discussions, helping teachers consider whether, and how, a lesson might have been designed to make the element more visible.

While teachers typically focus on the left-hand page during coding, the right-hand page provides valuable supplementary guidance.

Normative decisions, such as whether a lesson should have demonstrated an element more clearly, are made collectively by the teachers engaged in QTR, usually in groups of four known as professional learning communities (PLCs). These decisions draw on participants' knowledge of their students, curriculum, pedagogy, and assessment requirements. This collaborative process fosters deep professional dialogue and supports analysis that is sensitive to local contexts.

A set of Rounds is complete when each teacher in a group has taught a lesson that has been observed and analysed with their PLC peers. Each Round takes between half a day and a full day and involves four key steps:

1. Discussion of a professional reading selected by a different PLC member each Round (approximately one hour);
2. Observation of one teacher's regular classroom practice, with all PLC members observing the full lesson (typically 40–60 minutes);
3. Individual coding of the lesson, including by the teacher who taught the lesson, using the 18 elements of the QT Model (approximately 30 minutes); and
4. A coding discussion in which PLC members collaboratively analyse the lesson and pedagogy more broadly, using the language and structure of the QT Model (approximately two hours).

1.1 Deep Knowledge

Description

Knowledge is deep when it concerns the central ideas or concepts of a topic, subject or learning area and when the knowledge is judged to be crucial to the topic, subject or learning area. Deep knowledge is evident when either the teacher or the students provide information, reasoning or arguments that address the centrality or complexity of a key concept or idea, or when relatively complex relations are established to other central concepts.

Knowledge is shallow when it does not concern significant concepts or key ideas of a topic, subject or learning area, or when concepts or ideas are fragmented and disconnected from a central focus. Knowledge is also shallow when important ideas are treated superficially by the teacher or students, or when there is no clear focus on an important idea or concept. This superficiality can arise from trying to cover large quantities of fragmented information that results in the content covered remaining unconnected to central ideas or concepts.

To what extent is the knowledge being addressed focused on a small number of key concepts and the relationships between and among concepts?

Coding Scale

5. Knowledge is deep because focus is sustained on key ideas or concepts throughout the lesson.
4. Most of the content knowledge of the lesson is deep. Sustained focus on central concepts or ideas is occasionally interrupted by superficial or unrelated ideas or concepts.
3. Knowledge is treated unevenly during instruction. A significant idea may be addressed as part of the lesson, but in general the focus on key concepts and ideas is not sustained throughout the lesson.
2. Some key concepts and ideas are mentioned or covered by the teacher or students, but only at a superficial level.
1. Almost all of the content knowledge of the lesson is shallow because it does not deal with significant concepts or ideas.

NOTES

1. The essential difference between deep knowledge and deep understanding is that deep knowledge is about how content is presented in a lesson, while deep understanding is about the learning students demonstrate. It is possible for deep knowledge to be presented (by the teacher, students or guest speakers), but for students to demonstrate only superficial understanding, or vice versa.
2. In curriculum debates, a strong distinction is often made between depth and breadth of knowledge, which at times pits one against the other. It is important to recognise that substantial syllabus content coverage (some breadth) is necessary in order to achieve depth of knowledge. Consequently, depth cannot be achieved simply by focusing on less content.
3. The main issue related to deep knowledge is one of quality. Deep knowledge requires relevant syllabus content to be organised and taught in such a way that a small number of key ideas or concepts are clearly established as the intended learning for the lesson. Depth is present if the content of a lesson is structured such that the central focus brings coherence and purpose to the lesson.

SUGGESTIONS

- Identify and review students' prior knowledge as a starting place for addressing deep knowledge.
- Identify significant concepts in syllabuses by reviewing components such as objectives, outcomes and content.
- Reflect on how syllabus content can explicitly illustrate the concepts.
- Identify the key concepts and relationships to be addressed by asking the questions: What do I want the students to learn? Why does that learning matter?
- Check that you have identified the key concept or relationship by asking the question: How well does the concept or relationship draw the content together?
- Ensure the learning goals of each lesson focus on key concepts and the relationships between them. Unpack these with students and clearly connect learning activities to the key ideas or concepts.
- Map outcomes and content during unit planning so that each lesson focuses on illustrating significant concepts while addressing manageable amounts of content.
- Connect key concepts being addressed from lesson to lesson.
- Provide opportunities for students to connect, identify and clarify knowledge, using graphic organisers such as concept maps, Venn diagrams and flow charts, which explain relationships within a complex issue or topic.
- Select specialised resources carefully to build deep knowledge. These could include field experts, the local community, online resources, multimedia and out-of-school visits.
- Provide unit overviews for students so that they can see how the concepts fit into the overall picture.

Figure Four: An example of one element of the QT Model (Deep Knowledge)

While consensus on each element's code is encouraged, the primary goal is to foster deep professional dialogue and generate fresh insights into teaching and learning. QTR has been rigorously investigated, including through five randomised controlled trials. Participation in just one set of Rounds has consistently demonstrated significant positive effects on teaching quality, teacher outcomes, and the academic achievement of students, with evidence indicating approximately two to three months of additional growth within a single school year (Gore et al., 2017, 2020, 2021; Harris et al., 2022; Povey et al., 2023).

In addition, QTR has been shown to be cost-effective, requiring only four to six days of teachers' time, typically spread across a school term (Deloitte Access Economics, 2020), and is highly scalable (both within and across schools) because it requires limited external input.

Specifically, a two-day workshop is provided for at least two teachers per school, with no further external support required. Teachers are then empowered to implement and extend the initiative within their own schools. Importantly, within the Strengthening Induction project, QTR brings ECTs together with more experienced colleagues, as each PLC is comprised of at least two ECTs and at least one teacher with more experience.

Midpoint findings from this project show that participation in QTR is significantly enhancing ECTs' induction experiences by strengthening their professional knowledge, classroom practice, collegial relationships, sense of efficacy, and overall wellbeing (see Figure Five).

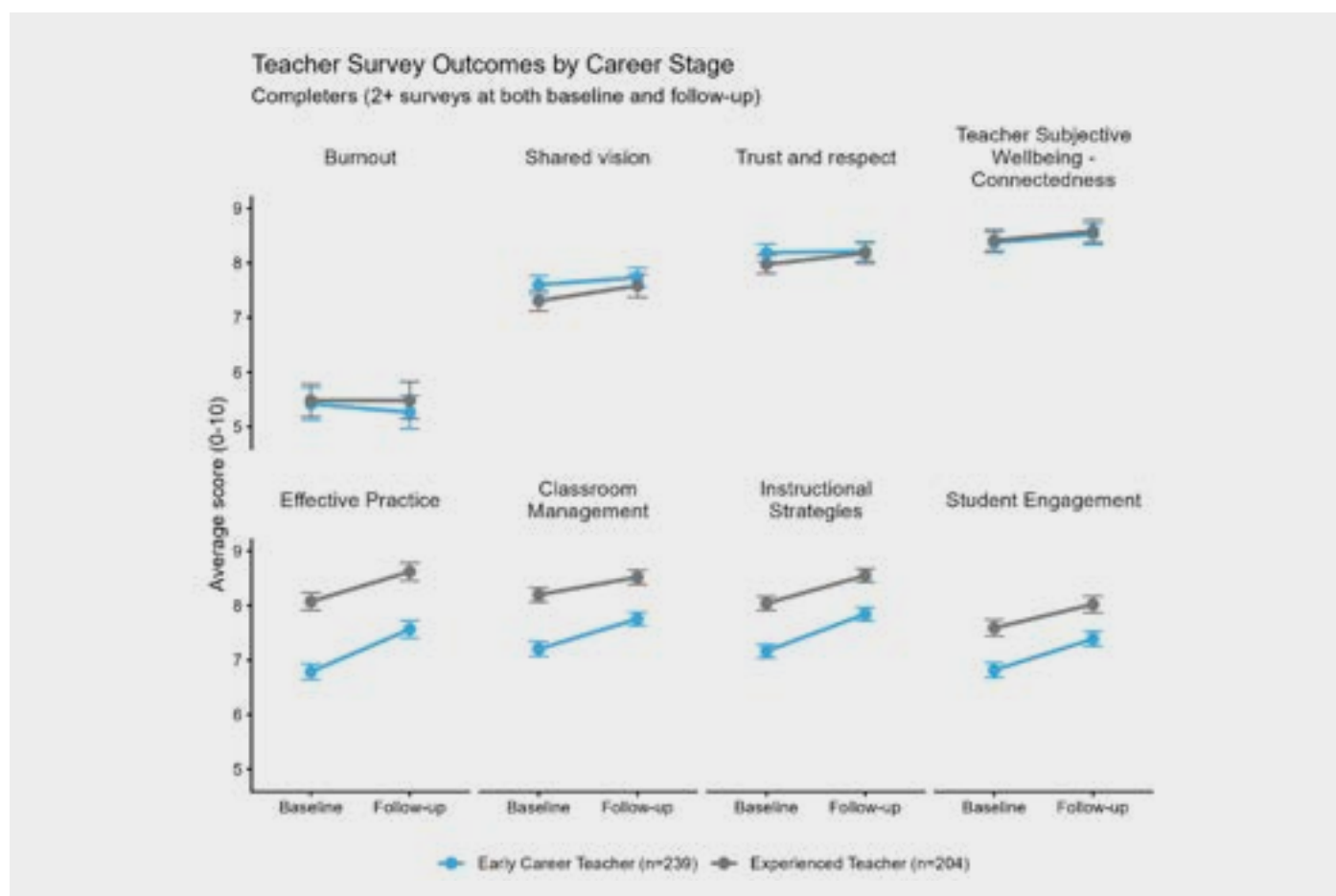


Figure Five: Impact of participation in QTR for early career and more experienced teachers

Participation is also contributing to improved teacher retention, with pre- and post-QTR survey data demonstrating a reduction in intention to leave the profession (Gore et al., 2025; Rosser & Harper, 2025). Analysis suggests that the following components are shaping the positive impact of QTR on induction experiences:

1. QTR provides structured opportunities for ECTs to observe teaching, as well as to be observed and receive feedback on their own teaching;
2. QTR facilitates fine-grained and comprehensive analysis of pedagogy through the QT Model, connecting theory and practice and deepening teachers' understanding of effective practice; and
3. QTR nurtures a safe environment in which to discuss pedagogy, flattening power hierarchies, often based on subject area, years of experience, or institutional authority, between novice and more experienced colleagues.

We argue that, unlike many induction supports that are largely structural, such as reduced teaching hours, or substantive, such as those focused on accreditation, QTR simultaneously:

- enhances the structures supporting induction through cross-generational PLCs engaged in reciprocal observation and discussion of teaching;
- focuses the substance of induction on teachers' core professional work, namely pedagogy, in a manner that is both fine-grained and adaptable; and
- addresses the relational dimensions of teacher collaboration through confidentiality, reciprocity and a democratised process (Gore et al., 2026).

Recent data collected more than a year after participation in QTR has found teachers are overwhelmingly reporting positive impact on their teaching practice, their relationships with colleagues, their sense of belonging to the profession and their intention to stay in teaching (Gore et al., under review).

The evidence of QTR's impact, both for all teachers and specifically for ECTs, is compelling. It demonstrates that this single initiative is generating broad and positive effects across multiple dimensions of professional learning and practice (see, for example, Bowe & Gore, 2017; Gore & Bowe, 2015; Gore et al., 2017; Gore & Rosser, 2020; Gore & Rickards, 2021; Gore et al., 2021; Gore et al., 2024; Gore et al., 2025; Gore et al., 2026; Prieto et al., 2015; Sincock et al., 2026).

Case study 2: Basque Country

Mikel Gartziaarena



Population
size

**2.23
million**



Population
density

**295 per
km²**



Country GDP
per capita

**41,010
USD**



Percentage of
rural population

N/A



Official
language(s)

**Euskara
and Spanish**

Professional Learning Context

Table Seven: Professional learning delivery at a national, regional, provincial or local level – Basque Country

	National	Regional	Provincial	Local
Initial teacher education (ITE)	✓	✓		
Induction		✓		
Post- induction		✓		



Size of the
teacher workforce

741,238



Average pay
for teachers who
have just completed
their induction

\$60,496



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

4%



Latest PISA
results

**OECD average
for mathematics,
reading and science**

*The information included in these infographics relates to Spain as data is not provided at a regional level for Basque country

Geographic context

This case study adopts a regional perspective on the Basque Country, located between France and Spain. Its primary focus is the Basque Autonomous Community (BAC), although it also includes relevant information on the Foral Community of Navarre.

The Basque Country comprises seven territories on both sides of the Pyrenees, spanning parts of Spain and France. Three of these territories, Lapurdi, Nafarroa Beherea and Zuberoa, form Iparralde, the Northern Basque Country, which is located in France. The other four, Araba, Bizkaia, Gipuzkoa and Navarre, are administratively divided between two neighbouring autonomous communities: the Basque Autonomous Community and the Foral Community of Navarre, together known as the Southern Basque Country.

The Basque Country accounts for approximately 12.5% of Spain's GDP, generating around €250 billion from a national total of approximately €2 trillion (2025).

Educational context

In the BAC, 23.6% of the most recent government budget was allocated to state-maintained education. In Navarre, the corresponding figure was 15.8%.

Educational policy is organised differently across the three territories. In the BAC and Navarre, policy is determined at both national and regional levels. The Spanish State establishes the constitutional and legislative framework, while the two autonomous communities exercise extensive powers to regulate and administer education within their respective territories. In the Northern Basque Country, educational policy is determined primarily at national level by the French State.

However, its implementation is territorially organised through the Académie de Bordeaux and the departmental services of the Pyrénées-Atlantiques, while local authorities are responsible for some operational matters such as school buildings and related services.

With particular relevance to professional learning in primary and secondary education, the principal recent policy driver in the BAC and Navarre has been the implementation of the LOMLOE (the new educational law) through regional educational and curriculum reform. This should not be understood as a shift from a purely content-based curriculum to a competence-based curriculum, as competence-based education had already been introduced through earlier legislation and policy. At state level, the previous law, LOE (2006), introduced basic competences into the curriculum which were subsequently reorganised as key competences under LOMCE (2013). In the BAC, the Basque Government's Department of Education launched the Heziberri 2020 plan, an education policy which had already established a competence-based framework, and the 2023 curriculum decree presents the current model as a further development of that approach, now articulated through key and specific competences. In Navarre, the official curricula for both primary and secondary education demonstrate continuity between the previous LOMCE framework and the current LOMLOE framework.

For professional learning, the principal implication is therefore not the adoption of an entirely new educational philosophy, but rather the need to implement a more explicit competence-based model within planning, assessment and classroom practice. In the BAC, this is reinforced by the 2023 Education Law, which promotes a plurilingual and intercultural model organised around Basque and Spanish, together with at least one foreign language, and places particular emphasis on teacher education and continuing professional development in language competence, pedagogy, inclusion and digital competence.

In Navarre, curriculum reform has likewise been framed around the development of key competences and learners' holistic development. In both territories, professional learning is shaped primarily by curriculum implementation, multilingual education, inclusion and pedagogical change, rather than by a single teacher training policy.

The system is also politically significant, particularly in relation to language policy and the balance between the public sector and publicly funded private schools (often referred to as semi-private schools). In 2023/24, the public sector enrolled 56.1% of non-university students in the BAC and 67.0% in Navarre, making it the larger sector in both territories. Language provision also differs substantially between the two jurisdictions. In the BAC, Model D (Basque immersion) enrolled 259,756 students in non-university general education in 2023/24, representing 68.9% of total enrolment across Models A (Spanish with Basque as a taught subject), B (partial Basque immersion) and D, rising to 77% by the end of primary education. In Navarre, Models B and D together enrolled 27,552 students in 2023/24, equivalent to 24.4% of total enrolment, while Model D alone accounted for 18%. This difference is partly linked to Navarre's system of linguistic zoning, which determines the territorial availability of Basque-medium provision (see Gartziaarena & Villabona, 2022).

Professional learning context, ITE & induction

In the BAC and Navarre, schools are not generally provided with a single unrestricted budget specifically dedicated to professional learning. Instead, teacher professional development is primarily organised and funded through the Education Departments' training plans, teacher training degrees and CAP master's programmes, support services and targeted funding calls.

In the BAC, this includes the annual teacher training plan, school-based and peer-learning activities, support from the Berritzegune network – regional pedagogical support centres – and specialised programmes such as IRALE for Basque-language development.

Within some project-based schemes, schools are required to specify the training activities to be undertaken, the provider responsible, and the associated budget. In Navarre, each school develops its own teacher training plan based on identified needs, with support from its designated CAP adviser within the departmental training system. Training is primarily organised through the CAP network, EIBZ for Basque-language training, Ikasnova for distance learning, and activities recognised through agreements with collaborating organisations. Public provision is more directly embedded within the departmental system, although some recognised training routes are also available to concerted private schools.

Initial teacher education

In the BAC and Navarre, initial teacher education for both primary and secondary teachers is primarily underpinned by a national framework rather than separate regional professional standards. For pre-primary and primary teachers, the qualifying route is a four-year degree in Primary Education.

For secondary teachers, the standard route consists of a subject-specific undergraduate degree followed by a regulated Master's degree in Teacher Training, commonly known as a CAP master's programme. Universities design the detailed curriculum, but only within the requirements established for these regulated professions and subject to external quality assurance and regional authorisation.

Trainee adaptation exists, but only within these national limits. In the BAC, universities can shape ITE through the language of instruction and the sociolinguistic profile of the degree programme. For example, the University of the Basque Country (EHU) offers Primary Education through Basque and also through trilingual pathways, while some study routes allow recognition of Basque-language proficiency under Decree 47/2012. Where a degree is completed through the medium of Basque, graduates automatically receive certification at C1 level in Basque. However, these arrangements constitute regional or institutional adaptations within the national framework rather than an alternative or independent framework of professional standards.

Induction

In the BAC and Navarre, there is no separate induction programme for newly appointed teachers that operates as a distinct professional learning framework. Instead, for teachers who obtain a permanent public-sector teaching post through the official recruitment process, the relevant formal period is the 12-month probationary phase (the so-called fase de prácticas).

In the BAC, the most recent regulations set this period at three months and one day of direct teaching. In Navarre, the official framework provides for a probationary phase during the first year in post, with the possibility of extension in specific circumstances.

During this phase, newly appointed teachers undertake full teaching responsibilities and receive normal pay, but they are supported and assessed through school-based and administrative structures. In the BAC, each teacher in practice is assigned a tutor by the school.

The tutor is expected to provide guidance on lesson planning, classroom practice, assessment criteria, didactic coordination, tutorial and guidance plans, inclusion and attention to diversity, and engagement with families.

The school leadership team must also familiarise the teacher in practice with the school's educational project, annual plan, regulations, projects and governance structures, while the inspector supervises the process. The regulations further state that, where possible, the tutor should visit the novice teacher's classroom at least once a month for formative observation or modelling rather than for evaluative or punitive purposes.

In Navarre, a similarly formalised probationary structure is followed, based on the work of a qualifying commission and evidence provided by the tutor, the school director and the teacher's own self-evaluation. Assessment indicators cover planning, classroom practice, assessment, tutorial responsibilities, collaboration with colleagues and families, participation in innovation or improvement projects, and the identification of personal training needs. In other words, the phase is not limited to administrative confirmation of appointment; it also evaluates core dimensions of professional practice. In neither territory is language proficiency formally assessed or specifically targeted during this phase.

The professional learning available during this period is best understood as part of the general continuing professional development offer rather than as induction-specific training. In the BAC, this includes the Prest Gara and Ikasiz Hezi continuing training plan and specialised provision such as IRALE, which offers courses in Basque communicative competence, the development of Basque-language materials, the Basque dimension of the curriculum, oral communication, and related methodologies.

In Navarre, continuing professional development is organised through the Annual Plan for Permanent Teacher Education and delivered mainly through the CAP network, EIBZ for Basque-language training, and Ikasnova for distance learning, alongside school-based working groups and training plans, as outlined previously.

Post-induction

Following the probationary phase, the BAC and Navarre do not operate a separate, standardised post-induction programme specifically for early career teachers. Instead, teachers enter the general continuing professional development system. In the BAC, this is organised primarily through the Education Department's Ikasiz Hezi and Prest Gara framework, the Berritzegune support services, and the IRALE programme for Basque-language development. In Navarre, it is organised through the Annual Plan for Permanent Teacher Education and delivered principally through the CAP network, EIBZ for Basque-language training, and Ikasnova for distance learning. Basque-language training represents a particularly prominent strand of professional learning in both territories.

Participation in professional learning is shaped by a combination of departmental priorities, school development plans and individual teacher choice; it is therefore not based solely on personal preference. In the BAC, each public school must include a training plan within its annual school plan (PAC), and participation in the activities included within that plan is compulsory for teachers. Official guidance specifies that this training may take place within the school, through the Berritzegune network, or through peer-learning formats within educational settings.

In Navarre, the Department similarly links professional learning to the school's own training plan and to the Annual Plan for Permanent Teacher Education. Current official guidance specifies 25 hours of compulsory institutional training per academic year, with at least 20 hours to be completed annually and the remaining hours completed over a two-year cycle. Alongside this compulsory institutional training, teachers may also undertake optional individual courses according to their professional interests and the training opportunities available.

With regard to support for early career teachers after induction, there is no separate, standardised mentoring programme for teachers in years 2–5. It is therefore more accurate to say that support at this stage is typically school-based and collegial rather than formally regulated across the system, with the exception of the initial three months and one day in the BAC and the one-year probationary evaluation period in Navarre. In practice, early career teachers may receive guidance from colleagues or school leaders, but this should not be presented as a uniform regional policy, as provision depends heavily on the policies and culture of individual educational centres.

Key learning from the Southern Basque Country

In the Southern Basque Country, one of the principal lessons is that effective professional learning should not be reduced to participation in isolated training courses. Following the probationary phase, teachers in the BAC and Navarre enter the general continuing professional development system rather than a distinct post-induction pathway for years 2–5.

In practice, this means that professional learning is organised through broader institutional structures such as Prest Gara, Ikasiz Hezi, IRALE and the Berritzegune network in the BAC, and through the Annual Plan for Permanent Teacher Education, CAP, EIBZ and Ikasnova in Navarre (Gobierno Vasco, 2025; Gobierno de Navarra, n.d.). A key implication is that professional learning appears strongest when it is sustained, connected to schools, and linked to genuine pedagogical needs rather than being treated as one-off provision detached from professional context.

A second key lesson is that, within this context, effective professional learning is closely connected to minority-language-centred multilingualism, particularly in the BAC. Research from the Southern Basque Country indicates that teachers generally hold positive attitudes towards multilingualism and contemporary communicative methodologies. However, these beliefs are mediated by a strong commitment to Basque as the core language of multilingual education.

Gartziarena's doctoral dissertation, based on responses from almost 1,100 pre-service teachers, in-service teachers and university lecturers across the four southern territories, concluded that participants favoured multilingual and communicative approaches but also identified a need for further training in multilingual pedagogies such as translanguaging and speaking-based methodologies to support the use and revitalisation of Basque (Gartziarena, 2021).

Similarly, Gartziarena and Villabona (2022) identified statistically significant positive attitudes towards Basque-centred multilingualism among in-service teachers, pre-service teachers and university lecturers.

This suggests that professional learning is most effective when it helps early career teachers understand multilingualism through the specific sociolinguistic realities of Basque-medium and multilingual schooling rather than through generic language-training models.

A third key principle is the importance of bridging theory and classroom practice through structured reflection. Gartziarena and Altuna (2022) found that both the practicum and progression through the academic programme were significant factors in shaping student teachers' beliefs towards more contemporary multilingual teaching approaches based around a minority language. Although this evidence originates from initial teacher education, it is highly relevant for early career professional learning because it suggests that professional growth is more likely when teachers are supported to connect theoretical knowledge, school experience and guided reflection.

This aligns with Moodie's (2016) argument that teacher education should help teachers critically reflect on their own prior learning experiences, as inherited models of teaching can otherwise constrain professional change through what is often described as an apprenticeship model of practice.

Within the Basque context, the IGOA project provides a useful illustration of this principle. Its explicit aim is to strengthen future teachers' sociolinguistic awareness, develop their pedagogical and linguistic role-modelling capacities, and empower them to work effectively across diverse educational settings (Universidad del País Vasco, n.d.; Gartziarena, 2025).

The literature also points towards several features that appear to make professional learning more effective in practice: applicability, contextualisation and opportunities to reconsider classroom language use.

Gorter and Arocena (2020) and Cenoz and Santos (2020) found that participation in continuing professional development focused on translanguaging was associated with changes in teachers' beliefs about language separation, language mixing and classroom language practices.

Similarly, Gartziarena et al. (2024) found that primary teachers in the Basque Country were generally receptive to multilingual approaches to teaching and learning, while also highlighting the need for training plans that are relevant and applicable to classroom realities.

More recently, Gartziarena et al. (2026) argued that teacher education faculties in the Basque Country function as important professional spaces for supporting and updating pre-service teachers' understanding of multilingualism and pedagogical innovation adapted to local sociolinguistic contexts. Taken together, these studies suggest that professional learning is more effective when it is dialogic, practice-based and responsive to local linguistic realities than when it is abstract, generic or decontextualise.

The principal weakness of the current picture is not a lack of professional learning opportunities, but rather the limited systematisation of a specific post-induction pathway for early career teachers and the limited availability of public evidence regarding comparative effectiveness and student outcomes in the Southern Basque Country. Official frameworks clearly describe a general CPD architecture in both the BAC and Navarre, but the published evidence reviewed here is substantially stronger in relation to teachers' beliefs, professional orientations and localised interventions than it is in relation to robust system-level evaluations of which forms of professional learning produce the greatest long-term effects on teacher practice or pupil outcomes (Gobierno Vasco, 2025; Gobierno de Navarra, n.d.).

For this reason, one of the clearest areas for future development is the creation of a more explicit early career framework beyond probation, incorporating stronger mentoring arrangements, clearer connections between school improvement and teacher enquiry, and more systematic evaluation of outcomes. Overall, the most valuable lesson from the Southern Basque Country is that effective professional learning is not simply a matter of offering more courses but of creating sustained opportunities for teachers to connect multilingual theory, sociolinguistic awareness and classroom practice in meaningful and contextually relevant ways (Gartziarena, 2021; Gartziarena & Altuna, 2022; Gartziarena & Villabona, 2022).

Case study 3: Finland

Dr Jonna Kangas and Minna Saadé



Population
size

**5.6
million**



Population
density

**18 per
km²**



Country GDP
per capita

**53,149.8
USD**



Percentage of
rural population

26%



Official
language(s)

**Finnish
and Swedish**

Professional Learning Context

Table Eight: Professional learning delivery at a national, regional, provincial or local level – Finland

	National	Regional	Provincial	Local
Initial teacher education (ITE)		✓		
Induction				✓
Post- induction			✓	✓



Size of the
teacher workforce

90,805



Average pay
for teachers who
have just completed
their induction

\$44,149



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

22.9%



Latest PISA
results

**OECD average
for mathematics,
reading and
science**

Educational context

In 2025, the Ministry of Education was allocated around 9.5% (c. €8.45 billion) of the entire Finnish Government budget. Responsibility for financing education is shared between the state and local providers.

The Ministry of Education and Culture, and the National Agency for Education set educational policy in Finland.

The vast majority of children in Finland attend publicly funded and provided schools. Only c.2% of children attend private schools, which also follow the national core curriculum.

Schooling is free of charge from pre-primary education (age six) through to tertiary education. This is intended to ensure equal access to high-quality education for all, regardless of socioeconomic background. The teaching profession is highly valued. All teachers in Finland are required to hold a Master's degree from a university, with the exception of early years teachers, who are required to hold a Bachelor's degree.

Professional learning context, ITE & induction

In Finland, responsibility for designing and delivering professional learning for teachers is shared across several layers of the education system and is embedded within a strongly decentralised, trust-based governance culture. Professional learning is provided through both public and private organisations. All teachers, including those working in early childhood education (ECE), primary education, and secondary education, complete a university degree, and teacher professionalism is grounded in research-based higher education.

While universities design and deliver a substantial proportion of teacher education, municipalities are responsible for organising and funding in-service professional learning for teachers working in municipal schools and early childhood settings. As local education providers, they identify competence needs, commission training from universities or other accredited providers, and coordinate long-term professional development strategies.

Municipal autonomy means that there is considerable variation in how professional learning is structured, yet the national framework ensures coherence in purpose and quality expectations.

At the national level, the Finnish National Agency for Education (EDUFI) provides guidance for teacher competence development and supports the system through national funding programmes and strategic initiatives. EDUFI coordinates large-scale professional development initiatives, such as training related to curriculum reform, inclusion, and digitalisation, but it does not prescribe the content of teacher education. Instead, it promotes coherence and equity by providing frameworks and financial incentives. The Ministry of Education and Culture (MoEC) establishes the legislative and policy framework for teacher education, defines funding models for universities, and guides long-term national strategies. Municipalities are the principal providers of schooling and allocate funding for professional development for teachers and schools.

Initial teacher education

All teachers in Finland are required to hold a university degree in education.

Universities are responsible for designing and delivering curricula for research-based degree programmes.

Students first undertake a Bachelor's degree (three years) and then continue to a Master's degree (two years). Finland does not apply a single national set of professional standards for teachers. Instead, teacher development during Initial Teacher Education (ITE) is underpinned by national legislation, which defines the qualification requirements for all teacher categories. This legal framework establishes the minimum degree level, the scope of pedagogical studies, and the structure of supervised teaching practice.

It ensures that teacher education across the country meets a consistent standard while allowing universities considerable autonomy in programme design and assessment.

Professional learning in ITE is grounded in the understanding that becoming a teacher requires far more than acquiring theoretical knowledge; student teachers must learn through and from practice. Practicums (practice-based learning) provide this essential learning environment by offering authentic classroom contexts where theory and practice intersect, enabling student teachers to observe, experiment, refine, and evaluate teaching in ways that cannot be replicated through university study alone. Research shows that practicums shape core aspects of teacher development, including reflective thinking, professional identity, classroom interaction strategies, and the ability to integrate theoretical knowledge into pedagogical decision-making.

During these school-based placements, student teachers engage in structured observation, collaborative planning, supervised teaching, feedback discussions, and reflective analysis, all of which help them understand teaching as a complex professional activity and assess their suitability and readiness for the profession.

In this way, practicums function as the central bridge between university learning and professional competence. They explain why practical training is essential, clarify the professional capabilities developed in authentic settings, and demonstrate how supervised, research-informed practice fosters the growth of autonomous, reflective, and ethically responsible teachers.

Informal induction

Finland does not operate a formal, nationally mandated induction period for newly qualified teachers. Once teachers graduate with their university degree and meet qualification requirements, they are eligible to apply directly for permanent teaching positions. However, many municipalities and schools provide local induction-type support, which may include informal or semi-structured mentoring, peer collaboration, joint planning, and workplace-based professional development.

In some municipalities, new teachers are paired with an experienced colleague who supports them with school procedures, curriculum interpretation, classroom management and planning. Because these arrangements are local rather than national, mentor training and remuneration vary between employers, and mentoring cannot be regarded as a universal entitlement.

In the absence of a formal induction curriculum, early career teachers continue to develop their subject knowledge and pedagogical expertise through continuing professional learning provided by municipalities, regional training centres, or universities.

This may include short courses, curriculum training, collaborative inquiry, or participation in school-based development projects. Finnish schools typically operate with high levels of professional autonomy and local decision-making, which supports early career teachers in engaging with ongoing pedagogical discussions and curriculum work from the outset.

Reflective practice remains a central expectation within Finnish teaching. New teachers are encouraged to reflect on their work through lesson planning, team discussions, school development meetings, and professional dialogue with colleagues.

The strong research-based orientation of Finnish teacher education means that graduates enter the profession with well-developed analytical and reflective skills, which they continue to apply when evaluating and refining their classroom practice. Schools often promote a collaborative culture in which reflection occurs within grade-level or subject teams, through peer observation, or via joint problem-solving discussions.

Post informal-induction

As Finnish teachers all hold Master's degrees and their degree programmes combine theory and practice, early-career teachers are generally well prepared for the profession. Employers provide an introduction to the school and may offer mentoring within the school if they choose to do so. Professional learning for teachers during their first five years follows the same principles that apply throughout a Finnish teacher's career: autonomy, trust, and continuous professional development.

Professional learning is offered through municipalities, universities, and school-based collaborative structures, and teachers are expected to participate as a matter of professional responsibility rather than as something that is mandated or externally monitored.

There is no national mentoring entitlement for teachers after qualification. Municipalities and individual schools may provide mentoring or assign a support colleague, but this varies locally and is not uniformly regulated. Mentor selection, training, and remuneration are therefore determined at the municipal or school level. Variation is managed through professional culture rather than national regulation. Teachers enter the profession with a strong, research-based Master's degree; schools operate with high levels of professional trust; and collaboration, peer support, and shared planning are embedded within everyday practice.

These structures mean that, even without a standardised mentoring programme, new teachers are rarely left entirely without support. Continuous professional development is built on trust rather than external assessment, and teachers have the freedom to choose the in-service training they attend. This applies equally to mentoring arrangements: support is often collegial and embedded within everyday school practice, such as peer-group mentoring, rather than being part of a formalised and monitored system (see Heikkinen et al., 2012; Ollila et al., 2025).

Ongoing professional learning is an integral feature of Finnish education, and the system expects teachers to keep their knowledge and skills up to date.

According to the OECD's case-study report on Finland, continuous professional development covers pedagogy, subject-specific teaching methods, educational technology, assessment strategies, and classroom management. It is offered by universities, teacher education institutions, educational organisations, and professional development providers.

Municipalities frequently organise professional learning related to curriculum updates, subject-area developments, and local priorities, while national core curriculum reforms typically trigger extensive training and school-based development work. In addition to municipality- and school-based arrangements, early-career teachers also benefit from national-level support structures. The Finnish Teachers' Union (OAJ, 2025) offers professional learning materials, legal guidance, and thematic training opportunities, while the Finnish National Agency for Education (EDUFI, 2026) provides curriculum resources, development programmes and digital learning materials that teachers can use to deepen subject expertise and pedagogical competence.

These organisations complement local provision and form part of the broader ecosystem that supports teachers' professional growth during the first years of their careers.

Finland does not provide nationally mandated 'off-timetable' time for early-career teachers. All teachers work within the same contractual framework, which includes non-teaching hours for planning, collaboration and school development. Professional learning days are provided by municipalities, but early-career teachers do not receive reduced teaching loads as part of a formal induction or early-career framework.

Finnish teachers generally expect and are often eager to engage in professional learning. Their professional learning needs are assessed by the supervisor or the teacher themselves can identify a need either for personal learning or for the entire school. The training is then discussed with their supervisor and a process is agreed for how any resulting knowledge or expertise will be disseminated to the entire organisation (if applicable). The municipality and/or schools may also organise professional learning for the whole staff.

Key learning from Finland

In Finland, the most effective aspects of professional learning for early-career teachers arise from the coherence between research-informed ITE, reflective school cultures, and opportunities to remain connected with universities and national development initiatives. Early-career teachers benefit from strong collegial collaboration, curriculum-linked municipal training, and opportunities to deepen their expertise by participating in alumni mentor-training programmes and contributing to large-scale national research projects that follow teachers from selection into professional practice.

These structures reinforce the analytical and reflective habits established during initial teacher education and support the development of professional identity and pedagogical judgement during the first years of teaching. What works particularly well is the consistency of the pedagogical ethos across career stages: teachers continue to apply the same research-based reasoning and collaborative inquiry approaches that they developed at university.

However, the absence of a nationally regulated induction process or guaranteed mentoring means that support varies between municipalities, and early-career teachers may lack protected time for structured professional learning, such as lesson planning and curriculum resource development. Despite these challenges, Finland's alignment of university research, school-based collaboration, and teacher autonomy creates a professional learning environment in which early-career teachers can develop steadily and meaningfully while continuing to contribute to, and benefit from, the research and development that shape the education system.

Connection with Initial Teacher Education

Finnish ITE provides teachers with a strong foundation in pedagogical theory, research literacy, reflective practice, and curriculum understanding. This prepares new teachers to engage in self-directed and collaborative learning once they enter the profession. According to the 21st Century European Teachers report, Finnish teachers are expected to continue learning through 'collaborative and participatory' professional development, which aligns with the reflective and inquiry-oriented practices emphasised during ITE (Basballe et al., 2024).

In this sense, early-career professional learning extends what teachers have already cultivated as student teachers: the capacity to analyse their own practice, engage with colleagues, and use research to inform professional decisions.

ITE in Finland develops teachers' capacities to analyse their own practice, interpret research, and justify pedagogical decisions. These competencies form the basis for all subsequent professional learning.

When teachers enter the profession, they continue working within structures that build upon these abilities through collaborative planning, curriculum interpretation, reflective dialogue, and school-based pedagogical development.

The relationship between universities and student teachers also strengthens continuity. Many institutions invite alumni to participate in mentor-training programmes, enabling early-career teachers to supervise student teachers. This maintains a direct connection between graduates and their alma mater, exposes them to current research, and reinforces the reflective stance developed during ITE.

Schools and Leadership as Contextual Developers of Practice

In Finland, the most effective aspects of professional learning for early-career teachers arise from the coherence between research-informed initial teacher education, reflective school cultures, and opportunities to remain connected with universities and national development work. Early-career teachers benefit from collegial collaboration, curriculum-linked municipal training, and opportunities to continue engaging with research-informed approaches during their first years in the profession. These structures reinforce the analytical and reflective habits established during their studies and support the development of professional identity and pedagogical judgement.

School-level leaders and teacher teams play an important role in shaping this professional learning environment. Headteachers and teaching staff assess their developmental needs and determine how school-based professional learning should be organised.

Collaborative structures, such as professional learning communities, lesson study groups, and pedagogical meetings, are commonly used to connect professional learning directly to everyday teaching practice. Because teachers are regarded as trusted professionals, professional learning is embedded within their routine pedagogical work rather than being implemented as a separate, externally controlled activity.

While the absence of a nationally regulated induction system means that structured support varies between municipalities, the alignment of research-based teacher education, collegial school culture and teacher autonomy still creates a context in which early-career teachers can continue to develop steadily and meaningfully.

Mentoring as a Core Component of Practicum Learning

In Finland, mentoring during practicum is carried out by professionally qualified mentor teachers who have completed dedicated mentor training programmes offered by universities. This preparation ensures that mentors can provide high-quality pedagogical guidance, support student teachers' professional decision-making, and connect everyday practice to the principles of research-informed teaching. Mentor training includes core elements such as guidance skills, feedback practices, co-planning, observation techniques, and the ability to facilitate reflective discussions.

Mentors typically work in university teacher training schools or in selected partner early childhood centres and municipal schools. Across all settings, mentoring is recognised as a formal professional competence, and mentors are supported in their role through ongoing collaboration with university staff responsible for the academic and theoretical components of the programme.

This close partnership ensures that the practicum is not experienced as an isolated placement but as an integrated component of the teacher education curriculum.

In many programmes, trainees are additionally supported by a reflective peer partner, another student with whom they observe, plan, and analyse teaching episodes. Peer reflection is used to strengthen professional dialogue, encourage collaborative problem-solving, and deepen understanding of pedagogical reasoning. In some early childhood education and primary education contexts, paired practicums are used, allowing two students to undertake a placement together under the guidance of one mentor. This structure has been found to enhance professional confidence, encourage collaborative planning and co-teaching, and provide both emotional and pedagogical support during the early stages of teacher identity formation.

Research indicates that mentoring also strengthens mentors' own professional learning by prompting them to articulate their pedagogical thinking, reflect on their practice, and engage in collaborative curriculum development with both student teachers and university staff.

Collaborative Learning

Finnish schools operate within strong cultures of teamwork, collegial dialogue, and reflective practice. Continuous professional learning often includes peer observation, reflective dialogue, and collaborative inquiry, which the Finnish case study describes as a 'collaborative and participatory' model of professional learning that promotes continuous improvement and innovation.

Early-career teachers participate fully in these structures. Staff meetings, pedagogical discussions, joint planning, curriculum work, and local development projects serve as the principal platforms for deepening reflective and critical engagement with their practice.

In Finland, the relationship between what teachers learn during ITE, what they experience during the first years of teaching, and the professional learning opportunities available later in their careers is coherent, although not formally structured. Because Finland does not have a national induction programme or mandatory CPD requirements, continuity is achieved primarily through the research-based orientation of ITE and the professional autonomy embedded within school culture, rather than through a centrally designed progression model.

Annex

Examples of national research programmes in Finland include:

Teacher Trajectory and Workforce Research (e.g. the KASVU research programme): Large-scale longitudinal studies follow teacher candidates from selection through university study and into the workforce. These studies examine learning, motivation, professional identity, and the development of professional competences.

Early-career teachers contribute data and benefit from evidence-based insights that inform the continuous improvement of ITE and support for teachers in the early stages of their careers.

EDUCA-flagship: National multi-university research programmes investigate issues such as declining learning outcomes, changing teaching environments, school attendance, and the evolving competences required in future education systems. Early-career teachers benefit from the dissemination of research findings, professional learning materials, and research-informed development initiatives that reach schools across the country.

Research-based Development Programmes Funded by the Ministry of Education

Previous national development programmes have strengthened the connection between research and practice across all phases of teachers' careers. Universities, teacher training schools, and municipalities collaborate to develop new pedagogical models, leadership approaches, and learning environments. Teachers, including those in their first years of professional practice, participate in pilot projects, training programmes, and collaborative experimentation, ensuring that research and practice continue to evolve together.

These ongoing national research initiatives ensure that early-career teachers remain connected to the same knowledge base that shaped their initial education while also contributing to the evidence base that informs and improves the education system.

Case study 4: New Zealand

Derek Wenmoth



Population
size

**5.3
million**



Population
density

**20 per
km²**



Country GDP
per capita

**49,205.2
USD**



Percentage of
rural population

16%



Official
language(s)

**English, te reo Māori
and New Zealand
sign language**

Professional Learning Context

Table Nine: Professional learning delivery at a national, regional, provincial or local level – New Zealand

	National	Regional	Provincial	Local
Initial teacher education (ITE)		✓	✓	✓
Induction				✓
Post- induction				✓



Size of the
teacher workforce

95,911



Average pay
for teachers who
have just completed
their induction

\$41,277



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

22.2%



Latest PISA
results

**Above the OECD
average for
mathematics,
reading and science**

Educational context

Education accounts for roughly 12% of total New Zealand Government spending, and education policy is set nationally.

New Zealand's current professional learning environment is dominated by a central push to 'teach the basics brilliantly' through mandated, evidence-based approaches to literacy and mathematics, supported by a refreshed curriculum and a Common Practice Model that specify how teachers should teach.

At the same time, education has become increasingly politicised, with curriculum content, the role of te reo Māori (the Māori language) and mātauranga Māori (Māori knowledge in its broadest sense), and even the governance of the profession itself sitting at the centre of culture-war debates and legislative change.

The result is a system in which professional learning is more directed and prescriptive than previously, but also more fragile (TALIS, 2024), because teachers are being asked to invest in changes that can appear politically driven, narrowly focused on short-term achievement gains, and insufficiently connected to a broader, future-focused vision for learners.

Historically, professional learning in Aotearoa New Zealand was largely designed and delivered by a wide range of accredited Professional Learning and Development (PLD) providers, working towards broad national priorities and responding to school- or Kāhui Ako-led applications for regionally allocated PLD. Today, responsibility is becoming increasingly concentrated within the Ministry of Education itself. National teams now design tightly specified, evidence-based PLD packages, particularly in structured literacy and assessment, while regional Ministry offices are building their own facilitation and brokerage capacity to support implementation. In effect, New Zealand is moving from a relatively open PLD marketplace to a model in which professional learning is centrally designed, regionally led, and strongly tied to a small set of government-determined priorities (Professional Learning & Development, n.d.)

Schools receive operational funding that they can, in practice, use to support professional learning, including courses, release time, and travel costs. Boards and principals therefore have discretion to direct part of their general budget towards PLD.

Operational funding is calculated using per-pupil rates, with additional allocations based on school type, size, and equity index. Smaller schools receive additional funding to offset fixed costs, and schools also receive funding based on socio-economic factors. Operational funding is not ring-fenced for PLD (Ministry of Education, 2024).

Initial Teacher Education

New Zealand uses national professional standards established by the Teaching Council to underpin all initial teacher education (ITE) programmes, and providers must assess every graduating teacher against these standards before recommending them for certification. The central framework is the Teaching Council's Standards for the Teaching Profession, embedded within Our Code, Our Standards, which apply to everyone entering or practising within the profession. ITE providers must design programme outcomes and assessments so that graduates can demonstrate that they meet these Standards at the point of graduation and entry to provisional certification.

Evidence demonstrating that student teachers have met these standards is typically gathered from multiple sources, including coursework, practicum reports, observations of teaching, and reflective or inquiry-based tasks mapped against each standard and its associated indicators. Assessment is moderated within the provider organisation, and providers must be able to present evidence to the Teaching Council demonstrating that their graduating teachers consistently meet the required Standards.

ITE providers in Aotearoa New Zealand demonstrate that graduates meet the [Teaching Council's Standards for the Teaching Profession](#) through rigorous ongoing self-review processes, national moderation, and comprehensive evidence portfolios.

Key evidence includes 10 to 15 mapped Key Teaching Tasks (KTTs), mandatory practical experience of between 80 and 120 days, and a final integrative assessment that draws together learning across the programme (Teaching Council Aotearoa New Zealand, 2019).

The majority of ITE in Aotearoa New Zealand combines university-based study with substantial practicum placements supervised by experienced teachers and places a strong emphasis on subject knowledge, pedagogy, and ongoing reflective professional learning. Although specific arrangements, such as the payment and training of mentors, vary by provider and sector, there are common national expectations and patterns.

All accredited ITE programmes include structured practicum placements in schools or early childhood settings as a core component. During these placements, student teachers work under the supervision of a fully certificated teacher, often referred to as an associate teacher or mentor teacher, who oversees teaching, provides feedback, and contributes to formal assessment reports submitted to the ITE provider.

Many providers and sector organisations offer professional learning opportunities for associate teachers, including targeted mentoring programmes that focus on effective feedback, coaching, and aligning support with the Teaching Council's standards. Some programmes and initiatives also provide remuneration for associate teachers undertaking mentoring responsibilities.

University-based or provider-based coursework develops subject knowledge, including curriculum content and disciplinary knowledge, alongside studies in curriculum design, assessment, inclusive education, and theories of learning and development.

Practicum experiences are designed to integrate this knowledge, requiring student teachers to plan, teach, and assess learning sequences aligned with The New Zealand Curriculum or Te Whāriki, usually under close supervision and with structured feedback.

Many programmes incorporate inquiry-based or practice-based learning in which student teachers investigate aspects of their own teaching within a particular subject area, for example trialling different approaches to literacy or mathematics instruction, and explicitly connect practice to theory and research.

Reflective practice is emphasised as a key mechanism for professional learning, with ITE students usually required to maintain reflective journals, e-portfolios, or written reflections that analyse lessons, student responses, and learning outcomes. Commentary from the Education Review Office and findings from New Zealand research highlight that systematic reflection on practice helps beginning teachers develop confidence and professional readiness. As a result, programmes encourage regular cycles of planning, action, reflection, and adaptation.

Reflection is often supported through professional learning communities, tutorials, and seminars in which student teachers share experiences, receive feedback from lecturers and peers, and connect their reflections to the Standards for the Teaching Profession.

ITE programmes frame teaching as a continuous professional learning journey, preparing graduates for subsequent induction, mentoring, and professional development once employed as provisionally certificated teachers. Student teachers are encouraged to develop habits such as seeking feedback, engaging with professional literature, and documenting their learning so that they can continue to grow their practice beyond graduation.

Induction

In New Zealand, the formal induction and mentoring period for new teachers is typically two years of supervised teaching after they gain a Tōmua (Provisional) practising certificate. During this period, they complete an induction and mentoring programme before applying to move to a Tūturu (Full, Category One) practising certificate, usually on the basis of at least two years of documented induction and mentoring evidence. Successful completion of induction is not simply a matter of time served; it requires documented, standards-referenced judgements by mentors and professional leaders demonstrating that the teacher's practice meets the national professional standards.

There is, however, some flexibility within the system. Teachers with substantial prior experience or overseas teaching experience may, in certain circumstances, only need to complete one year of formal induction and mentoring in Aotearoa New Zealand before being considered for full certification, provided that their mentor and professional leader endorse the application and all Teaching Council requirements have been met.

During induction, new teachers in New Zealand are developed and assessed against the Teaching Council's professional standards (Ngā Paerewa | Standards for the Teaching Profession), and schools must use standards-based, evidence-informed appraisal processes to support and evaluate their progress.

Induction guidelines specify that evaluations must be standards-based and evidence-informed, using the teaching criteria as the reference point for judging professional practice.

Provisionally certificated teachers, their mentor, and their professional leader are required to maintain records of progress and evidence demonstrating achievement of the Standards throughout the two-year induction and mentoring period.

Professional learning that must be evidenced typically includes lesson observations, documented feedback, planning and assessment samples, reflective commentary, and learner outcome data explicitly linked to the relevant standards and criteria. The induction and mentoring plan is tailored to each teacher and agreed between the provisionally certificated teacher, mentor, and professional leader, before being reviewed and adjusted as the teacher develops. Mentoring is positioned as an educative process rather than a purely evaluative one. During induction, provisionally certificated teachers are supported by trained mentors who provide tailored feedback, facilitate critical reflection, and help teachers strengthen their practice in alignment with the Standards.

The Guidelines for Induction and Mentoring and Mentor Teachers emphasise high-quality, responsive mentoring that extends beyond compliance requirements to genuinely support teacher learning. Research conducted by the New Zealand Council for Educational Research (NZCER) highlights that effective mentoring is central to the development of early-career teachers, although quality varies considerably across settings (Watson et al., 2022). The provision of mentor allowances and the expectation of educative mentoring are positive features of the system; however, monitoring and quality assurance of mentoring across different contexts remain limited. This variability means that some teachers receive excellent support, while others experience mentoring that is more ad hoc or compliance focused.

National guidance states that provisionally certificated teachers should receive 0.2 release time, equivalent to one day per week, during their first year and 0.1 release time during their second year of teaching. This release time is intended to support activities such as observing other teachers, meeting with mentors, attending professional learning opportunities, planning, assessment, and engaging in reflective inquiry, rather than carrying a full teaching load.

The paid supervising or mentor teacher appraises the new teacher 'in line with the Registered or Practising Teacher Criteria' and recommends whether their teaching performance is satisfactory and meets the required standards. The professional leader, typically the principal, endorses this recommendation and attests within the practising certificate application that the teacher has completed an appropriate induction and mentoring programme and met all required criteria.

Newly inducted teachers in Aotearoa New Zealand are currently entering a labour market in which securing employment is generally achievable, although the balance between fixed-term and permanent positions varies considerably according to region, sector, and subject specialism.

Post-induction

While New Zealand has relatively clear expectations for induction and mentoring during the first two years of teaching, the picture becomes more varied once teachers gain full certification. Ongoing professional learning is shaped by a combination of national frameworks, such as the Professional Growth Cycle and the Standards for the Teaching Profession), Ministry-funded PLD priorities, and school-based professional learning cultures.

The discussion below explores what this looks like in practice across three key areas: mentoring, curriculum and pedagogical knowledge development, and opportunities for reflective and collaborative professional inquiry.

Once teachers have completed their induction and mentoring period, usually after two years as provisionally certificated teachers, they transition to ongoing professional development guided by the Professional Growth Cycle (PGC). This cycle is a reflective framework linked to Ngā Paerewa | Standards for the Teaching Profession that supports teachers in identifying and planning their own learning goals and reflective processes over time. It is not based on a prescribed number of professional learning hours, but instead provides a structure for continued growth through reflection, goal setting, and evidence of learning. In New Zealand, there is no fixed minimum number of professional learning hours that teachers must complete annually in order to maintain their practising certificate.

Teachers must show evidence of engagement in professional learning and development as part of the re-certification process, but the specific amount, content, or number of hours is not prescribed.

PLD often aligns with national priorities, and programmes commonly include workshops, peer learning sessions, and follow-up support that are accessible to teachers across all career stages. Many schools support teachers through in-school PLD, external courses, and communities of practice. Although there are no mandated subject knowledge requirements after induction, teachers frequently attend curriculum-focused workshops linked to national curriculum developments.

Reflection is embedded within the Professional Growth Cycle, through which teachers reflect on their practice against the Standards and document evidence of learning, professional growth, and impact on learners. Many schools promote professional learning communities (PLCs) in which teachers plan collaboratively, share effective practice, observe one another, and engage in collaborative inquiry. The Education Review Office (ERO) highlights that effective PLCs contribute positively to curriculum implementation and teacher development. Observation and feedback cycles, whether peer led or leader led, are also widely used as part of professional learning.

Formal mentoring that is structured through induction typically concludes once full certification has been achieved. Beyond this point, mentoring becomes more variable and depends on school culture and leadership decisions. Some schools continue coaching or supporting early-career staff through performance management, professional growth conversations, or leadership roles within PLD. There is, however, limited national monitoring or moderation of mentoring quality across different settings.

Variation in mentoring quality is well documented as a challenge within the New Zealand system, with research finding considerable variation across schools and a need for clearer expectations and stronger support mechanisms.

There is no universal requirement for teachers to maintain reflective journals or undertake formal inquiry projects after induction, although many schools incorporate such practices into performance appraisal processes, professional growth planning, or whole-school improvement initiatives. These activities are generally guided by local leadership priorities and quality frameworks rather than by national mandates.

In practice, teachers are supported to engage in professional learning through a combination of Ministry-funded PLD, often linked to national priorities, school PLD budgets that support courses or postgraduate study, and time allocated through staff meetings, teacher-only days, or informal release for peer observation and collaborative inquiry. Career incentives, such as curriculum leadership, mentoring responsibilities, or specialist roles, can also encourage engagement and may be accompanied by salary allowances or additional staffing units. Overall, teachers are expected to continue developing professionally, but the practical supports that make this possible are uneven, and the extent to which PLD is treated as part of core work rather than an 'add-on' varies significantly across settings.

In New Zealand, there are no mandated mechanisms that explicitly connect professional learning for early-career teachers after induction with what they learned during ITE or with the opportunities available beyond their first five years of teaching. In practice, continuity in professional development is largely shaped by school context, leadership priorities, and the initiative of individual teachers.

While frameworks such as the Professional Growth Cycle and the Standards for the Teaching Profession provide a consistent structure for reflecting on and documenting professional learning, they do not prescribe specific developmental pathways that build sequentially on earlier learning or systematically prepare teachers for long-term career growth. As a result, professional learning experiences can sometimes appear fragmented or opportunistic. Teachers who are proactive, well supported by leadership, or connected to strong professional networks may experience a coherent progression of learning that deepens their knowledge and expertise over time.

Others may find opportunities to be more ad hoc, determined largely by available PLD providers, school priorities, or funding arrangements.

This highlights a broader challenge within the system: while high-quality professional learning opportunities exist, there is limited structural continuity to ensure that professional learning at all career stages builds cumulatively and aligns with both prior learning and longer-term career development.

Key learning from New Zealand

Several core principles emerge from the New Zealand context as foundational to supporting the ongoing development of early-career teachers:

The Professional Growth Cycle (PGC)

frames teaching as an ongoing professional learning journey grounded in systematic reflection. Teachers are expected to identify learning goals, gather evidence of their practice and its impact on learners, and use this evidence to inform their professional growth.

This reflective orientation is cultivated during ITE, where student teachers maintain reflective journals and e-portfolios and engage in inquiry-based coursework that links practice to theory (Teaching Council of Aotearoa New Zealand, 2026). The Education Review Office (ERO, 2020) found that systematic reflection during ITE helps beginning teachers develop confidence and readiness for the profession. However, the extent to which reflection continues to be structured and supported after induction varies significantly across schools, suggesting that while the principle is well established, its consistent application remains uneven.

Professional development in New Zealand is anchored to Ngā Paerewa

Standards for the Teaching Profession, which provide conceptual continuity across career stages. These standards describe expected practice in areas such as Te Tiriti o Waitangi partnership, professional learning, professional relationships, learning-focused culture, design for learning, and teaching. From ITE through to full certification and beyond, teachers are assessed and supported in relation to these same standards (Teaching Council of Aotearoa New Zealand, 2017; updated 2026). While the standards provide a consistent framework, ERO (2022) notes considerable variation in how standards-based professional learning is implemented in practice. The standards offer conceptual coherence, but they do not prescribe structured progression or sequenced PLD pathways, meaning that continuity depends heavily on school context and leadership.

Professional learning is most effective when it connects theory to practice.

During ITE, this is achieved through substantial practicum placements, typically lasting between 80 and 120 days, during which student teachers work under the supervision of experienced associate teachers, progressively taking on greater teaching responsibility while receiving structured feedback. Inquiry-based and practice-based courses require student teachers to investigate their own teaching, trial different strategies, and connect outcomes to research and professional standards.

ERO (2020) commentary emphasises that linking professional learning directly to classroom practice is essential for teacher readiness and professional development. However, after induction, opportunities for practice-based inquiry become more variable and depend largely on school investment in professional learning communities, peer observation, and collaborative planning structures.

National guidance recognises that meaningful professional learning requires time.

Provisionally certificated teachers receive 0.2 release time, equivalent to one day per week, during their first year and 0.1 release time during their second year. This time is intended for observing other teachers, meeting mentors, attending professional learning opportunities, planning, assessment, and engaging in reflective inquiry. While release time is mandated during induction, no equivalent provision exists after induction. Watson et al. (2022) and ERO (2022) both note that, following full certification, access to time for professional learning becomes highly variable and is often embedded within staff meetings, teacher-only days, or dependent on staffing capacity and school priorities. This represents a significant structural gap in support for ongoing professional development.

The two-year structured induction and mentoring programme is also a notable strength of the New Zealand system.

It provides clear expectations and a defined timeframe for transition to full certification; financial recognition for mentors through the mentor teacher allowance; protected time, through release time, for new teachers to engage in professional learning; and standards-based, evidence-informed appraisal processes.

While induction provides a clear two-year pathway supported by defined structures, professional learning after full certification becomes considerably more variable. There are no mandated PLD hours, no sequenced developmental pathways, and no guaranteed access to mentoring, release time, or structured professional learning opportunities.

As a result, the quality and quantity of professional development available to an early-career teacher during years three to five depend almost entirely on school context, leadership priorities, staffing capacity, and individual initiative.

There is also limited national monitoring or quality assurance of mentoring practices. Mentor selection, training, and ongoing support vary considerably across schools. Some mentors undertake professional learning and provide high-quality, reflective support, while others may have little preparation beyond their own teaching experience.

After completing induction, teachers lose the mandated release time that supported their professional learning during years one and two. There is no requirement for schools to provide ongoing release time for observation, collaboration, or external PLD. Consequently, early-career teachers often find themselves carrying full teaching loads with limited time to engage in the reflective and collaborative professional learning activities that supported their growth during induction.

Professional learning opportunities after induction are often fragmented and opportunistic rather than coherent and developmental. Teachers may participate in Ministry-funded programmes, school-based PLD, external workshops, or postgraduate study, but there is no overarching framework or pathway that enables teachers to build progressively on prior learning or plan systematically for long-term career development.

New Zealand has established strong foundations for early-career teacher development, particularly through structured induction, educative mentoring, national professional standards, and targeted Ministry-funded PLD.

These elements are intended to create conditions in which early-career teachers can develop their practice with support, clarity, and access to high-quality professional learning.

However, significant challenges remain. While the necessary structures and intentions are largely in place, the experiences of beginning teachers remain variable, and not all receive the quality of induction and mentoring support that would be desirable. In addition, the transition from structured induction support to highly variable post-induction experiences creates discontinuity at a critical stage of professional development. Inconsistent mentoring quality, limited access to protected time for professional learning beyond year two, and fragmented PLD opportunities all undermine the potential for coherent and progressive professional growth.

Addressing these challenges requires system-level attention to the structures, resources, and expectations that underpin ongoing teacher learning.

By extending those principles that work effectively during induction, such as protected time, high-quality mentoring, coherent developmental pathways, and evidence-informed practice, into the post-induction years, New Zealand could strengthen support for early-career teachers during the crucial period when they are consolidating expertise and making decisions about their long-term commitment to the profession.

Case study 5: Norway

Professor Eva Bjerkholt and Tonje H. Brokke



Population
size

**5.6
million**



Population
density

**15 per
km²**



Country GDP
per capita

**86,785.4
USD**



Percentage of
rural population

17%



Official
language(s)

Norwegian

Professional Learning Context

Table Ten: Professional learning delivery at a national, regional, provincial or local level – Norway

	National	Regional	Provincial	Local
Initial teacher education (ITE)	✓	✓	✓	✓
Induction	✓	✓	✓	✓
Post- induction	✓	✓	✓	✓



Size of the
teacher workforce

142,304



Average pay
for teachers who
have just completed
their induction

\$56,261



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

27.2%



Latest PISA
results

**OECD average for
mathematics and
reading. Below the
OECD average for
science.**

Educational context

Approximately 12.5% (250 billion NOK out of a total budget of 2,000 billion NOK) in 2025 was spent on state-maintained education in the most recent government budget, and education policy is set nationally.

Induction programmes were introduced through pilot projects in 1998. In 2003, the national network was established, along with regional projects across the country led by representatives from universities. In 2017, the Norwegian Parliament decided that Newly Qualified Teachers (NQTs) in kindergartens and schools should participate in induction and professional mentoring programmes.

Approximately 62% of NQTs participate in induction and professional mentoring programmes. These programmes are highly recommended but not mandatory, and there are still some municipalities and private providers that have not established such programmes.

Employers are responsible for NQTs' professional development, and programmes are delivered by individual municipalities through their local departments of education.

The Ministry of Education and Research, through the Directorate for Education and Training, is responsible for the national curriculum. Universities provide education, courses, and further education opportunities, as well as support for establishing induction programmes. Counties and municipalities, acting as employers, are responsible for delivering professional learning and induction programmes. Local authorities receive funding from the national budget and allocate it according to local needs and priorities.

Initial teacher education (ITE)

Norway has a national curriculum for teacher education and a quality framework for teacher education that applies to all student teachers throughout their education. ITE involves both university-based study and practical training in schools and kindergartens. During their practical teacher training, students receive mentoring from trained mentors.

Students are assessed throughout both their ITE programme and their practice periods and are fully qualified as teachers upon graduation.

ITE is provided primarily through public and a few private universities and university colleges all over Norway. It includes approximately 110 days of practical teacher training, during which students receive professional mentoring from experienced teachers who have completed formal mentor education and who use a developmental and reflective approach.

The mentors in the practical teacher training are trained and remunerated by universities in collaboration with the relevant counties and municipalities. Subject knowledge and pedagogical knowledge are integrated throughout the five-year Master's-level programmes for primary and secondary school teachers and the Bachelor's-level programmes for kindergarten teachers.

Teacher education institutions are also responsible for supporting newly qualified teachers through mentoring and follow-up activities after graduation.

Induction

The induction period lasts two years according to the national framework for induction and professional mentoring of NQTs. Teachers are fully certified during their teacher education, and therefore there is no additional assessment of NQTs after graduation.

Norway has a national framework for Induction and Professional Mentoring (Department of Education, 2025), which states that mentoring should be based on the national framework and the principles of professional mentoring. The framework requires qualified mentors for NQTs, defined as experienced teachers with more than three years of professional experience and formal mentor education.

The document Principles and Obligations (Department of Education, 2025) sets out stakeholders' responsibilities and the principles underpinning professional mentoring, with the aim of personal development. There are no formal assessments within induction and professional mentoring programmes, as teachers are already fully qualified when they graduate from ITE.

NQTs should have a professional formally trained mentor. The number of mentoring hours received by each NQT varies according to local priorities and resources. Mentoring should take place both in groups and individually, with a focus on professional development. Activities include observation-based mentoring, networking opportunities for NQTs and mentors, and seminars focused on induction and mentoring. Some mentors take part in a local mentoring community, but not all. Some also participate in local mentoring networks. The induction programmes are evaluated annually by participating NQTs, their mentors, and their employers (Tonna et al., 2026, pp. 43–72).

All teachers are fully qualified and certified when they graduate from teacher education. During their first year, most NQTs in schools are employed on temporary contracts, whereas kindergarten teachers often secure permanent positions. There is a shortage of teachers at all educational levels, and therefore the likelihood of employment is high (Helms-Lorenz et al., 2026; Olsen et al., 2020).

Post-induction

National guidance stipulates that all NQTs should be provided with a formally trained mentor during their first two years as teachers.

Mentors are often selected by leaders in kindergartens and schools in collaboration with the local authority responsible for education. Mentors are compensated through either time in lieu or additional remuneration. Municipalities expect private kindergarten providers and local school authorities to collaborate with teacher education at a university in their region to ensure quality. Many have established networks for trained mentors, through which teacher education providers organise annual mentoring seminars. Critical reflection and critical thinking should form part of the mentoring approach, as the aim is both professional development and the retention of new teachers. A professional mentoring framework for NQTs provides guidance for this work and supports professional development.

In the initial year, teachers in schools, though not in kindergartens, receive a 6% reduction in teaching time, approximately equivalent to one teaching hour per week, in order to participate in mentoring activities outlined in local programmes. These activities may include seminars, networking opportunities, lesson observations, and individual and group mentoring. Information about this entitlement is generally communicated during recruitment and interview processes. Most NQTs in schools receive reduced teaching time during their first year, usually linked directly to induction and mentoring activities.

Municipalities across Norway organise professional learning and professional mentoring workshops between two to six times a year in their own municipalities according to their individual induction programmes. Universities also provide relevant continuing professional development opportunities and formal mentoring education, and collaborate in partnerships focused on research and development activities and projects.

The document *Principles and Obligations for Mentoring* (Ministry of Education, 2025) highlights the importance of linking teacher education to the profession as part of a continuum of professional learning for teachers in both kindergartens and schools.

Key learning from Norway

Induction and mentoring in Norway are based on a reflective mentoring approach that acknowledges the competence and needs of NQTs as the starting point for further professional development (Ministry of Education, 2025). *Profesjonsfaglig veiledning* is the Norwegian term for mentoring and refers to professional mentoring for newly qualified teachers that supports reflection on practice and promotes their professional development as teachers (Bjerkholt and Olsen, 2020).

Universities organise regional networks for trained mentors in many parts of the country and arrange annual meetings where the focus is on professional mentoring, current developments in mentoring, relevant research, and the sharing of professional experiences. Based on international research and findings in the [Norwegian STEP-project](#), there is clear evidence of the importance of developing supportive cultures for professional learning within schools and kindergartens, alongside committed leaders and qualified professional mentors for NQTs. Further professional development opportunities for NQTs and their colleagues should include comprehensive induction programmes. These programmes should be embedded within broader strategies for teacher professional development at all levels.

It is imperative that NQTs are included in the professional communities and seen as equal contributors and valuable resources for mutual learning. Too often, NQTs are viewed with a deficit perspective, focusing on what they 'lack' instead of what they can contribute (Skytterstad et al., 2025).

Therefore, it is important that induction and mentoring programmes recognise and value the competence that NQTs bring to their professional communities.

Research also demonstrates that qualified professional mentors are important for promoting professional development because they promote reflective and critical thinking (Ulvik et al., 2025). The approaches adopted by headteachers and kindergarten leaders towards inclusion and recognition have a significant influence on NQTs' sense of belonging and confidence in their teaching. Their perception of professional competence and mastery is essential for the development of their identity as teachers (Toom and Husu, 2021).

Local school authorities and headteachers must acknowledge the competence that NQTs bring from ITE and actively recognise and utilise the competence they contribute to schools and kindergartens. The STEP project identified that the NQTs' competence was rarely requested as a contribution to mutual learning within professional communities. The profession requires greater understanding of the content and approaches used within ITE, while ITE providers need feedback from the profession in order to develop the relevance and quality of teacher education.

In Norway, teacher education has responded to political demands related to deeper subject and didactical knowledge and enhanced research competence.

For example, trainee teachers now develop and write a Master's thesis based on their subject knowledge and didactical expertise acquired during their teacher education, drawing upon experiences gained through the reformed teacher education programmes for primary and secondary school teachers.

In addition, there is also now an increased emphasis on developing relational competence as part of ITE, induction, and ongoing professional learning. Local induction programmes should be anchored within local political agreements and strategic priorities and are normally conveyed through interviews and information meetings with employers. In addition, the local universities and university colleges also inform graduating students about the induction phase, induction and mentoring programmes, and the national framework for mentoring (Ministry of Education, 2025).

There are several good examples from Norwegian municipalities all over the country on induction and mentoring programs that follow the national framework (Ministry of Education, 2025). One notable example of a well-functioning comprehensive induction and mentoring program is found in the municipality of Lillestrøm. Its programme is based on the national framework and is designed to include newly qualified teachers, mentors, leaders, and municipal representatives from the education sector. Newly qualified teachers in Lillestrøm often point to the induction and professional mentoring programme as one of the most important reasons for applying for a teacher position in Lillestrøm. Another example is from Notodden municipality, where

NQTs participate in different seminars and workshops during their first two years as teachers. In addition to receiving individual and group mentoring, they attend between eight and twelve sessions annually across the two-year induction period.

The NQT, mentor and headteacher meet each semester for a dialogue around the induction programme and their experience as a NQT within their specific school context.

Case study 6: Singapore

Professor Alma Harris



Population
size

**6
million**



Population
density

**8242 per
km²**



Country GDP
per capita

**90,674.1
USD**



Percentage of
rural population

0%



Official
language(s)

**English, Mandarin
Chinese, Standard
Malay and Tamil**

Professional Learning Context

Table Eleven: Professional learning delivery at a national, regional, provincial or local level – Singapore

	National	Regional	Provincial	Local
Initial teacher education (ITE)	✓			✓
Induction	✓	✓		
Post- induction	✓		✓	

The National Institute of Education (NIE), Singapore, an autonomous institute within NTU (Nanyang Technical University), is the national teacher education institute and an integral part of the nation's education system.



Size of the
teacher workforce

29, 605



Average pay
for teachers who
have just completed
their induction

\$48,000



Percentage of teachers
aged under 30 expressing
the interest to leave teaching
in the next five years
in the country

39.6%



Latest PISA
results

**Above the OECD
average for
mathematics,
reading and science**

Educational context

10.07% of the most recent government budget was spent on state-maintained education, and the National Government sets education policy.

In Singapore, all professional preparation and training programmes are recognised and supported by the Ministry of Education (MOE) through the National Institute of Education (NIE), which is centrally funded by the Government and provides accredited teacher training and development programmes.

Other private forms of professional learning are available, but they do not automatically count towards career pathways, progression, or remuneration.

All education professionals are MOE employees and can be deployed across the system as required. In addition, Singapore offers different [career pathways for teachers](#), allowing for specialisation and a differentiated workforce.

The MOE supports lifelong development and training, so there is a wide range of funding opportunities and grants available to support professional learning.

Professional learning is a national requirement; the MOE invests heavily in supporting and monitoring it. Teachers are entitled to 100 hours of professional learning annually, which can be undertaken at the NIE (e.g. accredited learning or higher degrees) or at the school level through individual training days or collaborative school-based activities such as professional learning communities. Each school has a dedicated training fund that can support teacher development, including opportunities to connect with other schools in Singapore and overseas.

Initial Teacher Education

Teacher Education (TE) in Singapore is guided by several national frameworks and expectations that underpin teacher preparation and development. Most recently, these standards and expectations have been captured in the Teacher Education Model for the 21st Century, known in Singapore as TE21 (Figure Six). The Singapore Teaching Practice Framework (STP) defines teaching practices and is founded on principles of student-centred learning and effective pedagogy (Figure Seven).

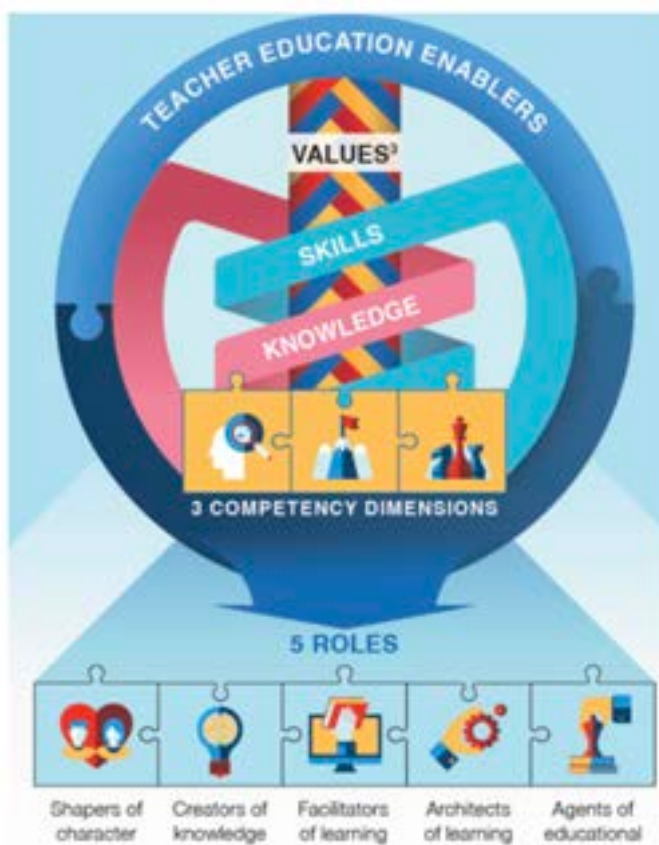


Figure Six: Teacher Education Model for the C21st (TE21)

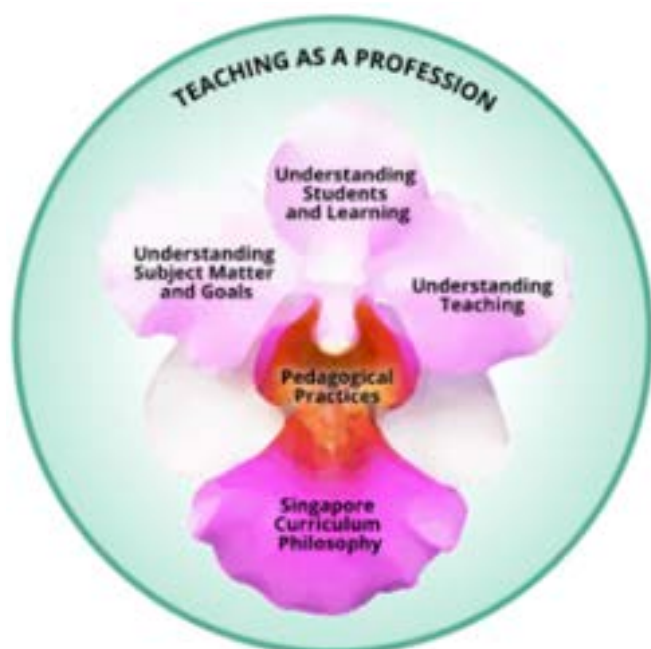


Figure Seven: Singapore Teaching Practice Framework

This framework aligns with the Values, Skills and Knowledge (V3SK) framework to equip teachers for the 21st century by developing competencies such as critical thinking, communication, and digital literacy (Figure Eight). A student teacher's learning journey is guided by the TE21 model and anchored in the V3SK approach to developing the three competency dimensions of student teachers, preparing them to fulfil the five roles of future teachers: Shaper of Character, Creator of Knowledge, Facilitator of Learning, Architect of Learning Environments, and Agent of Educational Change.

Initial Teacher Education (ITE) in Singapore takes between 16 months and two years for standard diploma and postgraduate programmes at the NIE and combines university coursework with extensive school-based practical training. The focus is on integrating theory and practice, with a strong emphasis on pedagogy, subject mastery, and real-world application. The ITE programme is intensive, and high standards are clearly stipulated and expected. The emphasis is on a model of teacher growth (Figure Nine) and self-reflection. Student teachers are assessed through classroom observation, performance tasks such as lesson planning and teaching, and continuous assessment against the TE21 model, which incorporates ongoing feedback, formative assessment, and practical evaluation.

Each student also has a mentor throughout the programme. Singapore has a robust instructional mentoring programme, also referred to as a growth-oriented mentoring programme. It is the national standard for mentoring all newly qualified teachers. It is embedded within the two-year Beginning Teachers Induction Programme and is fully aligned with the Teacher Growth Model (TGM) and the STP framework.

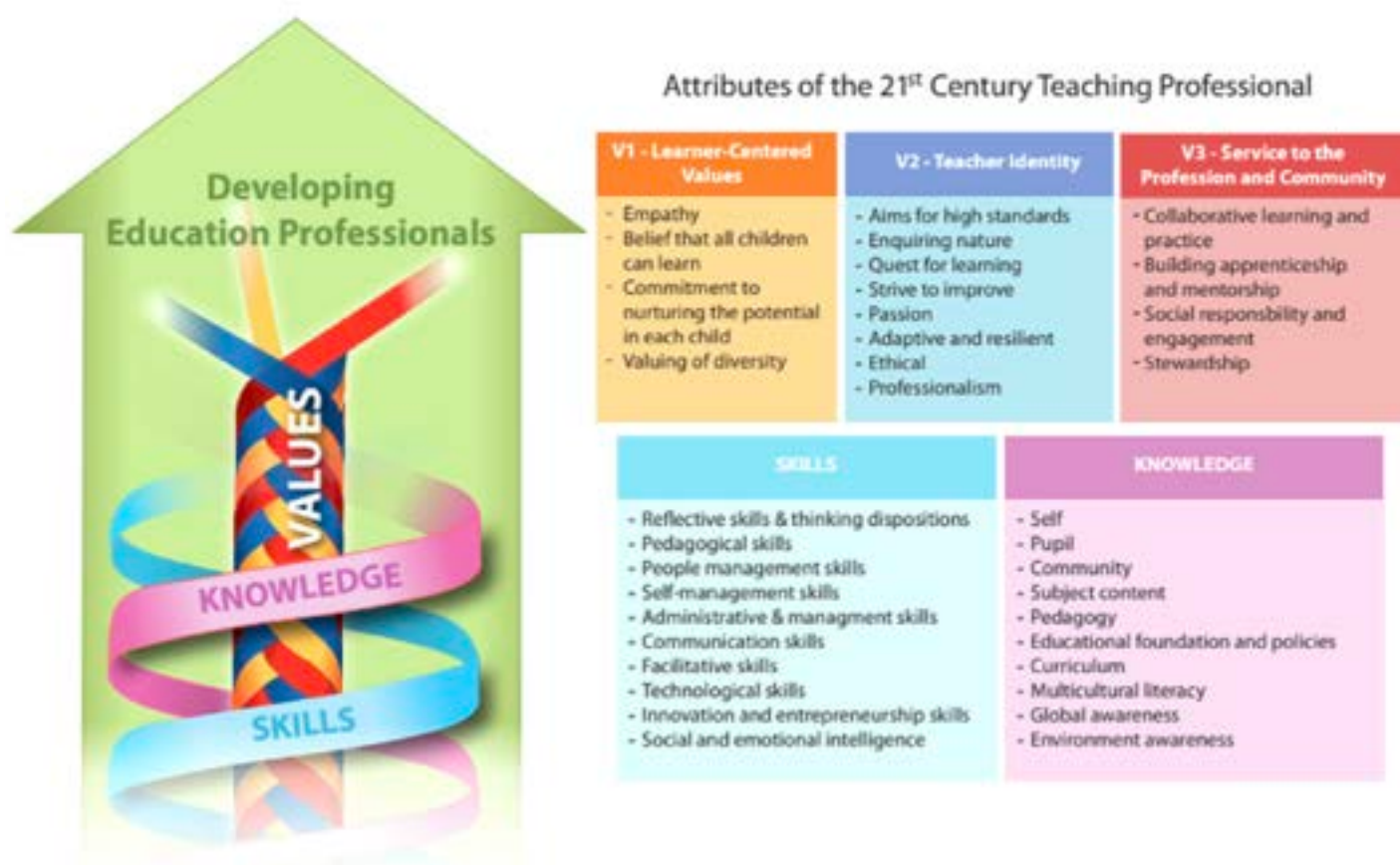


Figure Eight: Values, Skills and Knowledge Framework (V3SK)

Mentor training includes a mandatory eight-day Instructional Mentoring Programme delivered by the Academy of Singapore Teachers (AST) and the NIE. Mentors are recognised master teachers who receive an additional allowance on top of their normal salary, and the mentoring process is developmental and reflective. It includes co-planning lessons, lesson observation, structured feedback, reflective discussions, and goal setting linked to the TGM.

Induction

The induction period for newly qualified teachers in Singapore is two years. Within the career framework, induction is known as the Beginning Teachers Induction Programme. The programme is administered by the MOE and focuses specifically on teachers' professional development and mentorship.

The induction phase includes an initial three-day orientation programme, in-service training courses on classroom management and pedagogy, and a school-based mentoring programme, which is an entitlement for all beginning teachers.

The probationary period for newly qualified teachers is one year, after which they are confirmed in post but continue within the induction phase.

The Singapore Teaching Practice Framework (STP) defines teaching practices and is grounded in principles of student-centred learning and effective pedagogy. The Teaching Growth Model (Figure Nine) provides Singapore teachers with a roadmap for enhancing their competencies throughout their careers.

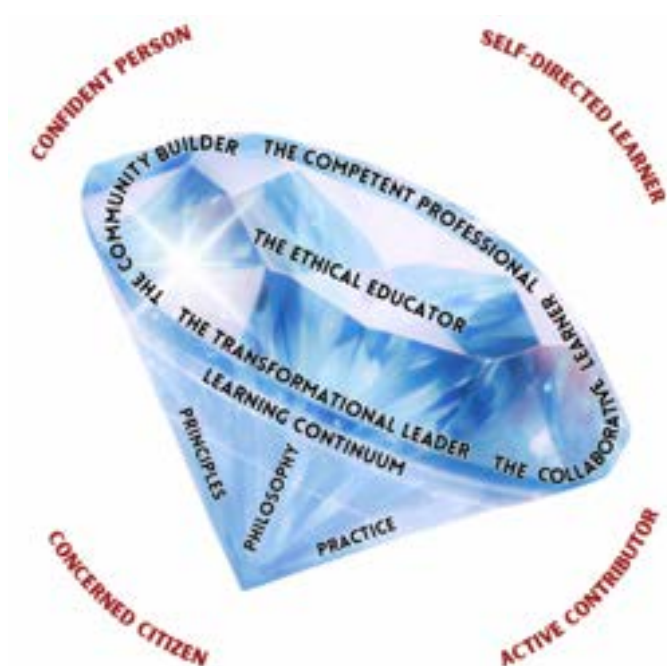


Figure Nine: Teacher Growth Model

A core belief within the Singapore system is that every learner is valued and that teaching is a gem to be nurtured and supported through a process of continuous teacher growth.

During the induction programme, beginning teachers are rigorously evaluated through: a) Written evaluations that focus on the quality of self-reflection and attention to student learning. b) Assessment of classroom practice and professional competence, including the ability to set targets, attend to pastoral needs, and use digital resources effectively. c) Reflective practice and the extent to which novice teachers are becoming confident practitioners who contribute positively to school life.

Teachers who are being mentored receive a 20 per cent reduction in timetable allocation, and there is a strong emphasis on reflective practice and subject expertise.

The mentor plays a pivotal role in guiding, advising, and supporting the novice teacher throughout induction. Subject and pedagogical knowledge are developed in context through expert input and reflection under the mentor's oversight. School-based mentors are paid, on average, 2,500 Singapore dollars (c. £1.4k) per month in addition to their teaching salary. Many school mentors are Senior Teachers, Lead Teachers, or School Staff Developers with considerable expertise and experience.

Mentoring extends beyond ITE in Singapore, as it is also available to more experienced teachers. Essentially, this system-wide mentoring programme is the backbone of professional learning in Singapore, and it is argued that it explains both its quality and impact. It is widely recognised as the primary means of developing subject knowledge and reflective practice, particularly among novice teachers.

Investment in mentoring is substantial, and mentors therefore carry significant responsibility within the system for enhancing and sustaining high-quality professional practice. In Singapore, after ITE, trainee teachers do not receive a fixed allocation of time off timetable during school-based practice, although they do have a lighter workload. To put this in perspective, qualified teachers spend approximately 18 hours per week on direct classroom instruction. Their working week typically ranges from 47 to 53 hours. Consequently, a significant proportion of their time is spent on non-teaching tasks such as administration, planning and student management. Within this allocation of time, there are also opportunities to engage in school-based training and mentoring activities. Once they have completed probation and induction, teachers are generally appointed to permanent full-time positions within the MOE.

Post-induction

In Singapore, professional learning is highly structured from ITE onwards. There is strong internal coherence across the professional learning offered at different career stages, and a clear national roadmap outlining the values, expectations, and aptitudes required to progress from novice to expert.

Professional learning and teacher growth are closely governed and monitored to ensure national consistency and compliance. Following induction, teachers in Singapore access diverse, ongoing and high-quality professional learning opportunities, including structured courses, workshops, mentoring, action research, online learning, conferences, and a range of postgraduate options at the NIE.

The Academy of Singapore Teachers (AST) offers a broad range of professional learning opportunities designed to meet the needs of teachers at different stages of their careers.

In-service training programmes include the Singapore Instructional Mentoring Programme, Teacher Leaders Programme, Teacher Work Attachment Programme and Outstanding Educator in Residence Programme. All professional learning opportunities seek to strengthen teachers' expertise in their subject matter, including pedagogical content knowledge. There are also opportunities for teachers to learn from each other through professional learning communities and school-to-school networks. It is both a contractual requirement and a professional expectation that teachers engage in lifelong professional learning. Teachers are expected to undertake 100 hours of professional learning each year, with funding provided through the MOE.

Effective professional learning

Singapore has developed a lifelong learning approach to equip all teachers with the values, competencies and knowledge required for an uncertain and increasingly complex future. The role of teachers is viewed as fundamental to building a community of lifelong learners, and teachers are seen as nation builders. Key principles underpinning teacher development in Singapore centre on service, core values and a commitment to lifelong learning. There is a strong belief that teaching lies at the heart of ensuring future generations can flourish and succeed in an ever-changing world.

Consequently, there is substantial investment in teachers' lifelong learning, with opportunities to pursue different pathways that align with individual talents, strengths, and career aspirations. Clearly articulated values are enacted through a highly structured and carefully designed national system of teacher development.

The model of teacher professional learning, including ITE, is coherent and standardised, ensuring quality while leaving very little to chance. The NIE is the main provider of ITE, making programme regulation relatively straightforward and reducing the variability that can arise when multiple providers operate within a country. Within the teaching profession, career pathways are particularly effective because they offer different routes for progression within a tightly controlled framework, maximising opportunities for the talent pool while minimising the risk of drop-out or disaffection. It is important to note, however, that Singapore is a very small country; managing teachers' professional learning at a national level is therefore more straightforward than in much larger, more diverse, and more complex education systems.

Centralisation is also a key driver of Singapore's system, alongside MOE oversight and control. It has been argued that any attempt at decentralisation remains, in practice, centrally directed, that is, managed and controlled from within the system itself (Ng, 2017). While this may appear paradoxical, it reflects the lived reality of educators in Singapore who participate in carefully managed forms of professional collaboration, agency, and autonomy.

The strength and effectiveness of Singapore's approach make criticism difficult, and it is challenging to identify areas for improvement given the strength of the evidence regarding the benefits, successes, and outcomes associated with teachers' professional learning. However, the scope for developing as a teacher outside the frameworks, stipulations, and rules that frame the Singaporean education system in general is highly questionable.

A wide range of texts explain and describe how this lifelong model of teacher development operates in practice. Many of these texts are written by scholars and practitioners who work and live in Singapore (e.g. Lee et al., 2025). There is also a substantial body of material published by the MOE and the AST that describes and illustrates how teachers engage in, lead, and initiate professional learning. This material tends to be practical in nature and written for teachers, promoting the strengths of the various approaches to professional development and training adopted within the country. Overall, the literature available on the subject tends not to offer significant critique or depart from the accepted narrative about teacher development and learning within Singapore.

Considerations for Wales

As outlined in the introduction, the purpose of this project has been to explore how early career teachers are supported through professional learning in international education systems and to consider the implications and lessons for the Welsh education system. This section focuses on learning for Wales arising from the case studies presented in this report and the discussions held during the two closed workshops.

The international case studies provide a high-level overview of each system's approach to initial teacher education (ITE), induction (where applicable), and post-induction support. Notably, across the case studies, participation in courses or training programmes is shown to be only one component of a broader professional learning ecosystem, which often includes mentoring, structured reflection and feedback, collaborative communities of practice, and practice-based enquiry. In effect, professional learning is treated not as a one-off event but as a continuous process. Additionally, the workshop discussions highlighted a shared belief that professional learning should be a cornerstone of the teaching profession and, whilst it is by no means a solution to all the challenges facing the workforce, it contributes to teachers feeling more supported and valued, which may in turn have implications for retention.

Many of the case study geographies share a similar context to Wales, including in size, bilingualism or multilingualism, and significant levels of rurality. Whilst this provides a useful perspective on approaches that might work within the Welsh context, it does not mean that a successful system or approach from one area can be successfully replicated in Wales in its entirety. Instead, as noted previously, it is important to consider the *key elements or mechanisms* of the approaches described in the case studies that may offer valuable learning for Wales. To support this, where applicable, the relevant mechanisms identified within the EEF guidance have been highlighted in **orange**.

Despite their diversity, the case studies point to several high-level shared principles that international experts identified as likely to contribute to an effective professional learning system:

- 1. A 'continuum' of professional learning.** Professional learning is most effective when viewed as a continuum that begins during ITE and continues throughout the early career phase and beyond. Where this is demonstrated successfully, early career development is not treated as a standalone intervention or a short course, but as part of a coherent, career-long process characterised by consistent expectations and shared professional language across different stages of practice.
- 2. System-level structures that enable local flexibility.** Several systems combine national or regional scaffolding, including frameworks, standards, guidance, resources and capacity-building infrastructure, with locally delivered programmes shaped by schools, local authorities and professional networks. Examples include national frameworks implemented through municipality-run schemes and university-supported mentor networks, as well as regional guidance that requires school training plans to enable local adaptation of content and delivery.

- 3. Practice-based learning.** Across the case studies, professional learning is most consistently associated with routines grounded in classroom practice, including observation, feedback, co-planning, structured reflection and enquiry cycles, rather than relying primarily on isolated training events. This helps ensure that professional learning and development is embedded within day-to-day professional practice and experience, reinforcing the principle that PL is not a moment but an ongoing process.
- 4. Adopting an asset-based view of early career teachers.** Moving from a deficit-based perspective towards an asset-based view of early career teachers, and recognising the contributions they make to school communities, may help ECTs feel more valued and better supported. This begins with fostering knowledge and experience development during ITE and continues once they enter the school environment. It is further enabled through peer support, leadership guidance, and meaningful engagement in discussions relating to school improvement and curriculum development.

In addition to these shared principles, the case study authors highlighted a number of specific practices that may be worthy of consideration in Wales. These are outlined in Table Twelve. It is worth noting that the practices identified below collectively reflect at least one mechanism from each of the four categories outlined in Table Four.

Table Twelve: Shared practices and considerations for Wales

Practice	Detail	Case study examples	Consideration for Wales
Paid and trained mentor provision	Across a number of case studies, mentors are trained, resourced and recognised as a key component of professional learning provision. Mechanisms: • Setting and agreeing on goals; • Social support; and • Monitoring and feedback	• Norway's national framework specifies the expectation that mentors should be experienced teachers who have completed formal mentor education. It also highlights the value of reflective practice within mentoring to support both professional development and teacher retention. • Singapore embeds mentoring as a national standard, providing mentor training and a financial allowance in addition to their standard pay. The mentoring role includes co-planning, lesson observation, feedback, and reflective goal-setting linked to the Teacher Growth Model. • Finland demonstrates strong mentor preparation within practicum settings through universities, indicating that mentoring is regarded as a specialised professional competence.	Currently in Wales, schools are responsible for appointing a nominated member of staff to become an Induction Mentor (Welsh Government, n.d.). A key issue raised during the workshops was the fact that the quality of mentoring is highly variable across Wales as it relies heavily on the quality of the individual mentor. Therefore, Wales could explore the possibility of establishing a more formalised mentoring programme, ensuring the provision of trained and paid mentor provision within the workforce. Such an approach could help reduce variability and strengthen consistency in the quality of support provided to ECTs.

Practice	Detail	Case study examples	Consideration for Wales
Collaborative models	Collaborative professional learning is a prominent feature across the case studies, although it takes different forms, including professional learning communities (PLCs), peer-learning groups, cross-school networks, and Quality Teaching Rounds (QTR) as a specific collaborative programme. Mechanisms: • Presenting information from a credible source; • Social support; and • Modelling	• Finland's case study demonstrates a highly collaborative professional culture in which teachers engage in joint planning, pedagogical dialogue, and reflective problem-solving as part of everyday practice. • Australia's QTR model exemplifies structured collaboration through cross-experience PLCs engaged in reciprocal observation and shared analysis of pedagogy, which has been shown to be particularly effective for ECTs. • Norway and the Basque Country highlight the importance of both municipal and regional network infrastructure to ensure cross-school collaboration. Singapore similarly promotes collaboration through PLCs and school-to-school networks supported by dedicated school training funds.	Wales' professional learning provision already emphasises the importance of collaboration within and between schools (Hwb, n.d.a). However, the case studies provide specific examples of how ECTs can be actively supported and embedded within collaborative learning structures, rather than leaving collaboration to be determined solely by individual school practice. Strengthening opportunities for cross-school collaboration, particularly within rural contexts, could support the sharing of expertise and professional knowledge across the sector.

Practice	Detail	Case study examples	Consideration for Wales
Structured reflection	Across the case studies, the ability to be able to critically reflect on one's own practice is consistently highlighted as essential. Structured reflection is identified as a key mechanism linking professional learning with professional judgement and classroom decision-making. Mechanisms: • Revisiting prior-learning; • Setting and agreeing on goals; • Rehearsal; • Prompting action planning; and • Encouraging monitoring	• Finland's case study describes reflective practice as a core expectation from ITE onwards, sustained through collaborative professional dialogue. • Norway's mentoring approach is explicitly reflective and developmental, designed to promote professional growth and support teacher retention. • Australia's QTR model creates structured reflective dialogue through a shared professional language and disciplined analysis of teaching practice.	Reflection is currently supported in Wales through the use of Professional Learning Passports and as part of the SLOs philosophy (Hwb, n.d.a). Reflection could be further embedded within ECTs' experiences and more consistently integrated across schools through structured reflective practices supported by mentors and collaborative groups. The case studies suggest that reflection is most powerful when embedded within observation and feedback cycles, as well as inquiry-based professional learning.

Practice	Detail	Case study examples	Consideration for Wales
Multi-lingual PL that is relevant to classroom-context	The Basque Country case study is particularly relevant for Wales because it demonstrates how professional learning can be shaped by minority-language-centred multilingualism and the sociolinguistic realities of classrooms, rather than by generic language training detached from pedagogy. Mechanisms: • Rehearsal; and • Prompting context specific repetition	• The Basque Country case study emphasises that professional learning is most effective when it is dialogic, practice-based, and adapted to local linguistic realities. This approach supports teachers in connecting multilingual theory, sociolinguistic awareness, and classroom practice. • Furthermore, the New Zealand case study highlights how language and curriculum priorities can become vulnerable when teachers experience shifts in policy or guidance driven more by political change than by professional judgement. This underlines the importance of ensuring that language-related professional learning remains closely connected to classroom practice and educational need.	A Welsh approach could strengthen bilingual and Welsh-medium priorities by making multilingual professional learning explicitly relevant to classroom practice, with a stronger focus on pedagogy and practical application rather than solely on language proficiency. The Basque Country's model of multilingual teaching and professional learning, organised through broader institutional structures that allow for local adaptation, may offer useful lessons for Wales, particularly given the differing linguistic contexts that exist across the country.

Conclusion

These case studies of international approaches to professional learning provide an opportunity to reflect on current provision in Wales and to identify potential areas for strengthening the design and delivery of professional learning for early career teachers. Across the six international case studies and the two closed workshops, several shared principles that are likely to contribute to an effective professional learning system were identified: a continuum of professional learning; system-level structures that enable local flexibility; practice-based learning; and an asset-based view of early career teachers. Alongside these overarching principles, a number of specific practices were also highlighted, including trained mentors, collaborative models, structured reflection, and multilingual professional learning provision. Collectively, these principles and practices may offer valuable insight into how to develop and support effective professional learning in Wales. Welsh education experts have also emphasised the importance of engaging with system leaders and the teaching workforce, particularly early career teachers, throughout the policy development process, as this is likely to increase the prospects of successful design and implementation.

There are a number of challenges currently facing the education workforce in Wales, including workload pressures, increasing behavioural issues among children and young people, and the growing number of pupils identified with ALN (Jerrim and Sims, 2019; Maisuria et al., 2023; NASUWT, 2018). The impact of these challenges are experienced by all teachers, but they are likely to be contributing factors to the comparatively high attrition rates among early career teachers (Admiraal et al., 2023). Despite the previous Welsh Government outlining a comprehensive entitlement to professional learning for early career teachers, including throughout ITE and induction, there is high variability in the quality of provision. There are also questions regarding the extent to which ECTs are able to access and fulfil their professional learning entitlement given competing workload demands and wider pressures on schools (Ofsted, 2024; Hutt et al., 2024).

Providing high-quality professional learning should not be regarded as a singular solution to these pressures and challenges. Indeed, addressing the broader structural and workforce issues facing the profession is essential if high-quality professional learning is to be developed, sustained and meaningfully engaged with throughout teachers' careers. Nevertheless, evidence suggests that well-designed professional learning can have a positive effect on pupil outcomes and teacher retention, or on factors that are associated with retention. Additionally, the introduction of the SEWPFs, the establishment of Dysgu, and the broader operating landscape for teachers determined by the Curriculum for Wales presents an opportunity for Wales to consider the current professional learning provision and consider how it can be strengthened and improved in the years ahead.

Annex 1: TALIS data

Table A1 (also presented in the main body, see p. 17) shows the percentage of respondents from the case study countries who indicated that they intend to leave the teaching profession within the next five years, alongside the percentage of respondents aged under 30, used here as a proxy for early career teachers.

It shows a high level of variation across countries in terms of the proportion of teachers who intend to leave the profession within the next five years by age group. For example, in Singapore, almost 40% of teachers aged under 30 reported an intention to leave teaching within five years, compared with only 4% of teachers in the same age group in Spain.

In Singapore, the proportion of teachers aged under 30 intending to leave the profession was higher than the proportion recorded for all teachers. In contrast, in all other case study countries, intentions to leave among teachers aged under 30 were lower than the national average for all teachers. The largest difference was observed in Spain, where the gap was 15%.

Across all OECD countries around a quarter (26.8%) of all teachers intend to leave the profession within the next five years. The equivalent figure for teachers aged under 30 was lower, at 20.4%.

Table A1: Intention to leave teaching within the next five years, by age

	Total		Under 30 years old		Difference
Country	%	S.E.	%	S.E.	Total – <30
New Zealand*	34.0	2.2	22.2	5.3	11.8
Singapore	28.6	1.0	39.6	2.9	-11.0
Norway*	27.8	1.7	27.2	3.9	0.7
Australia	27.6	1.3	19.4	2.5	8.2
Finland	27.1	0.9	22.9	2.9	4.2
Spain	18.9	0.8	4.0	1.0	15.0
OECD Average	26.8	0.2	20.4	0.8	6.3

* Estimates should be interpreted with caution due to higher risk of non-response bias.

Table A2 shows changes between 2018 and 2024 in the proportion of teachers aged under 30 in the case study countries who reported that they intended to leave the teaching profession within the next five years.

Across the case study countries, trends between 2018 and 2024 indicate a growing intention among younger teachers to leave the profession. Australia, Finland and Norway experienced notable increases in the proportion of teachers aged under 30 who reported plans to leave teaching within the next five years. By contrast, changes among younger teachers in Spain and New Zealand were minimal, with little or no increase over the same period.

Singapore stood out as the only case study country to record a decline in the share of teachers aged under 30 intending to leave teaching between 2018 and 2024. Nevertheless, Singapore continued to record the highest proportion of younger teachers planning to leave the profession within five years in both 2018 and 2024.

Among all countries examined, Norway recorded the largest increase in intended attrition over the period, rising by 17.5 percentage points, while New Zealand recorded no change.

Table A2: Change in share of teachers intending to leave teaching within the next five years among teachers under age 30, from 2018 to 2024

	TALIS 2018		TALIS 2024		Change (2024 – 2018)	
Country	%	S.E.	%	S.E.	%pt. dif.	S.E.
Norway*	9.7	(1.4)	27.2	(3.9)	17.5	(4.1)
Finland	9.7	(2.0)	22.9	(2.9)	13.2	(3.5)
Australia	12.2	(1.4)	19.4	(2.5)	7.2	(2.9)
Spain	3.6	(1.3)	4.0	(1.0)	0.3	(1.6)
New Zealand*	22.2	(2.4)	22.2	(5.3)	0.0	(5.8)
Singapore	48.2	(2.0)	39.6	(2.9)	-8.6	(3.5)

* Estimates should be interpreted with caution due to higher risk of non-response bias.

Shown in Table A3 is the percentage of respondents from the case study countries who participated in professional learning during the previous 12 months. These figures include all teachers.

Across all case study countries, participation in professional learning was high, with more than 90% of teachers reporting engagement in such activities. New Zealand and Singapore recorded the highest levels of participation during the previous 12 months, with 99.7% of teachers in both countries reporting involvement in professional learning. By contrast, Finland had the lowest participation rate at 90.4% and, together with Norway (95.1%), was one of only two case study countries to fall below the OECD average of 96.0%.

In terms of the breadth of engagement, Table A2 shows that teachers in New Zealand reported undertaking the highest average number of professional learning activities, at 5.3 activities per teacher. Finland not only had the lowest proportion of teachers participating in professional learning but also recorded the lowest average number of activities undertaken among the case study countries (2.8).

Table A3: Percentage of respondents who participated in professional learning in the last 12 months

Country	% teachers		Average number of activities	
	%	S.E.	Mean	S.E.
New Zealand*	99.7	0.1	5.3	0.1
Singapore	99.7	0.1	5.1	0.0
Australia	99.3	0.2	4.8	0.0
Spain	97.9	0.2	4.2	0.0
Norway*	95.1	0.6	3.5	0.1
Finland	90.4	0.7	2.8	0.0
OECD Average	96.0	0.1	4.1	0.0

* Estimates should be interpreted with caution due to higher risk of non-response bias.

Table A4 (also presented in the main body, see p. 18), below, shows the percentage of respondents from the case study countries who reported that, overall, the professional learning activities they had undertaken during the previous 12 months had a positive impact on their teaching, either 'a lot' or 'quite a lot'.

Among the case study countries, Singapore stood out with the highest proportion of teachers reporting that professional learning had a positive impact on their teaching 'a lot' or 'quite a lot' (56.3%). It was also the only country to exceed the OECD average of 55.2% on this measure. In contrast, Finland recorded the lowest proportion of teachers reporting a similarly positive impact from professional learning, at 27.2%.

Across the case study countries, there was no clear relationship between teachers' years of experience and the likelihood of reporting that professional learning had a positive impact on their teaching. In general, teachers with fewer than five years of experience reported higher levels of impact than those with six to ten years of experience, with the exceptions of Spain and Norway. Similarly, teachers with fewer than five years of experience generally reported higher levels of impact than those with more than ten years of experience, the exception being Singapore).

Table A4: Percentage of teachers reporting that professional learning activities had a positive impact on their teaching 'a lot' or 'quite a lot'

	Total		Less than 5 years' experience		6–10 years' experience		More than 10 years' experience	
Country	%	S.E.	%	S.E.	%	S.E.	%	S.E.
Singapore	56.3	1.5	53.6	3.5	52.8	3.5	57.1	2.0
New Zealand*	51.3	1.8	57.5	4.3	46.1	5.4	50.8	2.5
Australia	49.5	1.3	56.2	2.5	45.7	2.5	48.9	1.8
Spain	48.3	1.2	48.1	1.8	51.0	2.2	47.3	1.5
Norway*	32.4	1.7	42.7	3.6	29.7	3.7	28.8	2.3
Finland	27.2	1.0	28.6	2.5	31.3	2.9	25.9	1.2
OECD Average	55.2	0.3	58.7	0.6	55.5	0.6	54.2	0.3

* Estimates should be interpreted with caution due to higher risk of non-response bias.

The percentage of respondents from the case study countries who reported having an assigned mentor is presented in Table A5.

Across the case study countries, Finland, Norway and Spain recorded overall proportions of teachers with an assigned mentor that were below the OECD average of 9.4%, at 4.7%, 4.8% and 6.9%, respectively. This pattern was consistent across all experience categories within these countries.

In every case study country, the likelihood of having an assigned mentor declined as teachers' years of experience increased. The highest proportions of teachers with mentors were observed among those with five or fewer years of experience, while the lowest proportions were found among teachers with more than ten years of experience. This pattern is likely to reflect a progression from mentee to mentor as teachers advance through their careers.

New Zealand stood out among the case study countries, recording the highest overall proportion of teachers with an assigned mentor (21.8%). This was also the case for teachers with five or fewer years of experience (48.2%) and those with six to ten years of experience (12.3%). Notably, New Zealand recorded the second-highest proportion of teachers with mentors among those with more than ten years of experience (12.3%) and experienced the largest decline in mentoring participation between teachers with five or fewer years of experience and those with more than ten years of experience, at 35.9 percentage points.

An interesting exception was Finland, which was the only case study country to report no teachers with an assigned mentor among those with more than ten years of experience.

Table A5: percentage of respondents who have an assigned mentor by experience

	Total		Less than 5 years' experience		6–10 years' experience		More than 10 years' experience		Difference
Country	%	S.E.	%	S.E.	%	S.E.	%	S.E.	≤5 – >10
New Zealand*	21.8	1.6	48.2	4.4	28.4	4.1	12.3	1.8	35.9
Singapore	20.1	1.1	42.1	3.7	23.9	3.2	16.1	1.1	26.0
Australia	17.7	1.1	40.6	2.9	13.7	2.1	10.4	1.1	30.2
Spain	6.9	0.6	15.1	1.7	8.2	1.0	3.1	0.5	12.1
Norway*	4.8	0.7	17.9	2.6	2.4	1.1	0.0	0.0	17.9
Finland	4.7	0.6	13.7	2.1	5.8	1.5	1.6	0.4	12.0
OECD Average	9.4	0.2	26.4	0.6	9.5	0.4	4.7	0.2	21.7

* Estimates should be interpreted with caution due to higher risk of non-response bias.

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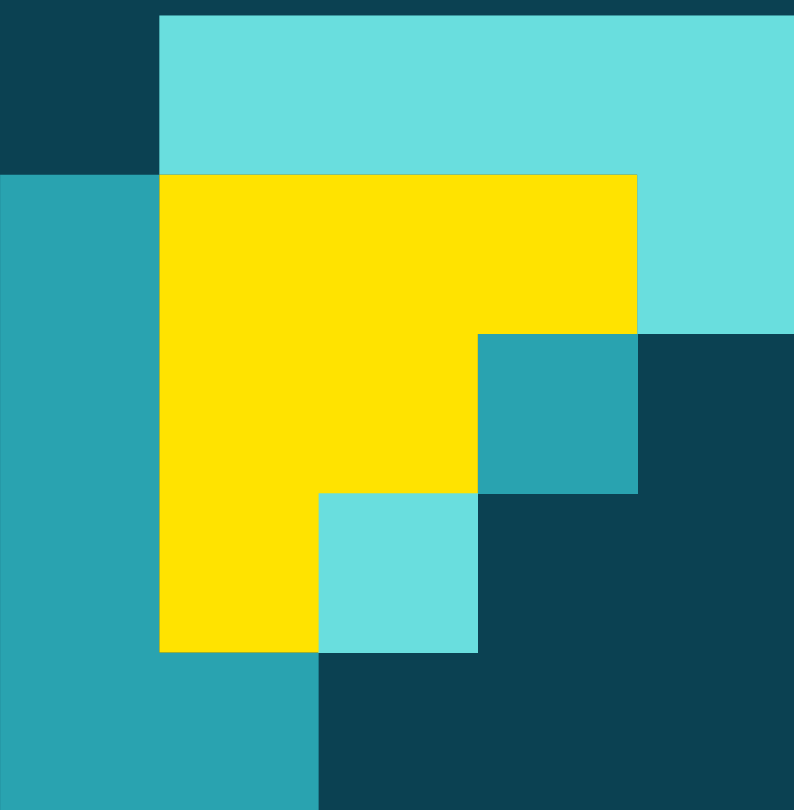
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