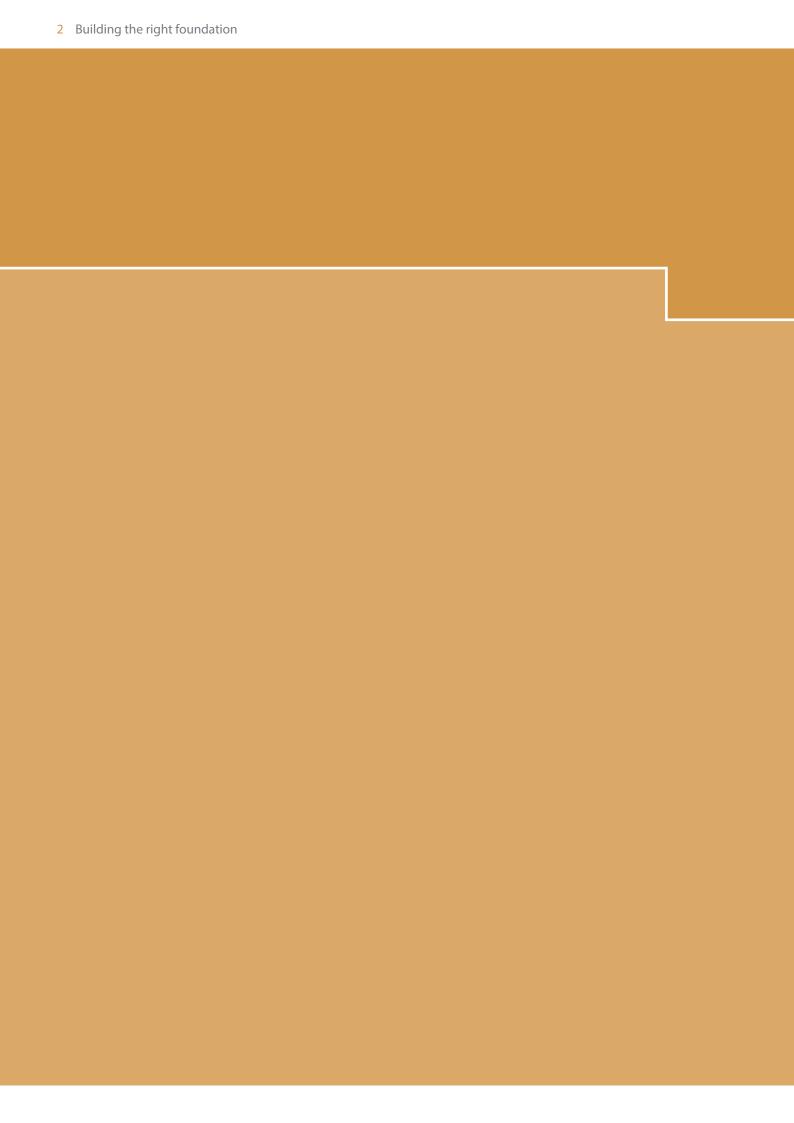


As Australia's education system strives to continue to lift teaching practice, effective induction should and must make a critical contribution. Through effective induction, schools can help to ensure that new teachers begin their teaching journey with the right foundation in place, establishing a firm basis for a strong and effective teaching career.





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Executive summary

The quality of induction following appointment to a teaching position is one of the most important determiners of the self-perceptions which beginning teachers will hold as professional practitioners. What happens in induction is critical to shaping the quality of the teacher's future performance. The induction period is a major test of the extent to which employers, school leaders and the profession are interested in and committed to the quality of teaching in schools.

- Gregor Ramsey Quality Matters: Revitalising Teaching: *Critical times, critical choices* (2000)

Introduction

There is in Australia, as there is internationally, a clear aspiration to create a high performing education system. The Melbourne Declaration on Education Goals for Young Australians (MCEETYA 2008) privileges the position of schools as central to building a democratic, equitable and just society capable of competing in the global knowledge economy. The Declaration recognises that improving student educational outcomes, as 'successful learners, confident and creative individuals, and active and informed citizens', is the key to achieving these public goals as well as serving the individual learners.

Australia's schooling system performs well, but we are falling behind the best performing school systems internationally. Our desire to be better has resulted in continued calls to lift the quality of teaching in Australian schools in pursuit of improved student outcomes(OECD 2005). As Hattie (2003) has noted: 'teachers can and usually do have positive effects, but they must have exceptional effects' as it is the exceptional that will produce the best outcomes for our students.

It is clear that both locally and globally, the education sector understands the importance of induction as a key process in supporting and improving the quality of teaching in schools. In fact, the evidence base for determining best practice in teacher induction is far superior to that of other professions or the corporate sector. Yet, concerns about teacher quality and how new teachers are inducted persist. This suggests to us that there are questions about the effectiveness of existing induction processes that need further investigation. We propose that the issue is not one of design, it is an issue of implementation. It is now about moving from theory to action and making it common practice in all Australian schools. Australian educators have a significant amount of knowledge that they can draw on, but implementation is challenging and it requires strong leadership and a culture that supports the process being implemented.

If we are truly committed to lifting the status of the profession in Australia, then focusing on implementing a robust induction process that is suited to the context and culture of each and every school is critical. This will assist the system as a whole to build a teacher cohort that will deliver the education our children will need to meet the challenges of the 21st century. This is the role of each individual leader in every Australian school and the systems more broadly. The aim of this paper is to synthesise the existing knowledge base to assist school and system leaders to start making the challenging but important decisions about implementation.

Overview of this report

The focus of this paper is to provide an analysis into the key research in the area of new teacher induction.

Section one outlines why school sectors and leaders should invest in induction for new teachers. In any organisation, it is difficult to smoothly and effectively bring new employees in. But for schools this challenge is heightened by the unique position of new teachers: unlike the graduates of other professions, new teachers are required from day one to assume the full responsibility of their role. Australian education systems and schools that are committed to lifting teacher quality need to consider the role of induction in helping to bring in new teachers, focusing on three key areas:

- 1. Engaging high potential teachers.
- 2. Building a professional performance and development culture.
- 3. Moving beyond the 'sink or swim' mentality for new teachers.

In section two we discuss induction in the education context, focusing on its role as a formal program for beginning teaching, a phase in the teacher lifecycle as well as a process of socialisation (Feiman-Nemser 2010). We also consider what the existing literature tells us about the elements of an effective induction program. While there is no universal best practice, there are key themes which emerge from the literature.

Section three considers the current state of induction practice in Australian schools. While there is limited data available on the effectiveness of existing efforts, it is clear that a lot is already being done.

Section four looks to the future and considers where to from here for Australian schools. School leaders do not need to search for new solutions, however they do need to consider how to implement the existing knowledge base in the context of their own schools. We look at the key lessons from successful school systems internationally, which reveal that:

- 1. They see induction as one contributing part in a holistic approach to education designed to improve student outcomes.
- 2. They establish teaching as public practice, rather than private practice as a critical enabler.
- 3. They invest time and resources in induction.

Finally, section five recognises that in seeking to implement change, it is culture, leadership and clarity that are the keys to success.

Section one Why invest in the induction of new teachers?

For many people, there are few things as daunting as commencing a new relationship. There is a lot to process in the early days, as neither party is quite sure of what the other is thinking and feeling and how they like to interact. It can take some time to work through this before reaching the point where each person feels a level of certainty and comfort in how they will relate. The relationship between a new employee and employer is no different. In fact, the employee-employer relationship can be more challenging, as the employee can feel exposed, while the employer, as a highly complex social entity, can appear as a closed book with unspoken norms and rules of engagement. Both parties need something from the other to help smooth the transition into the relationship, yet often what that something is in this complex environment, is not entirely clear.

Induction of new staff – bringing them into the organisation – therefore plays a central role. It can help to determine the success of this new relationship, incorporating and balancing both the needs of the individual newcomer and the organisation itself. Induction recognises that the organisation needs new staff to help achieve sustainability and growth in line with its strategy and goals. It also acknowledges that new employees need assistance to reduce the complexities they encounter when joining a new organisation so that they can start to contribute to the activities of the organisation (Antonacopoulou & Güttel 2010). In today's increasingly global and complex world, organisations are asking for new and different skills and competencies from their people and they want them to start delivering as soon as they join. Yet individuals can't do it alone, they need assistance to navigate the uncertainty of their new role, particularly in relation to developing clarity about their role, confidence in their self-efficacy and social acceptance among their peers (Bauer et al 2007).

New teachers are in a unique position

When a new teacher enters a school for the first time following graduation, the uncertainty faced is more extreme than in any other profession, because the new teacher assumes full pedagogical and legal responsibility as soon as they enter the school (Tynjälä & Heikkinen 2011). No other profession has such high expectations of its newest members. This heightens the pressure felt by new teachers and demands special consideration.

The importance of induction for new teachers takes on even greater significance, given the moral purpose of schools to raise the bar and narrow the gap in student achievement (Fullan 2002) and recognition of the primacy of teacher quality in improving student outcomes (OECD 2005). The sustainability and growth that is sought by the educational 'organisation' is in reality a systemic goal shared by all schools, and it relies on new teachers across schools being able to provide high quality teaching (OECD 2009). In this context, where induction seeks to support new teachers and improve their confidence and effectiveness, it can be seen to be in the service of lifting student outcomes across the Australian education system – it is induction to not only an individual school, but to the profession of teaching.

These challenges are not new to employers of teachers, in fact they are widely recognised and support for induction is widespread (see e.g. Ramsey 2000; Senate Committee 2013; NSW 2013). Australian schools are already significantly invested in establishing and continuing induction programs, which suggests that our schools have satisfied themselves that induction is necessary and important. However, the concerns that first prompted discussion about induction, such as the unique position of the new teacher already discussed, and others such as unsustainable attrition of early career teachers, continue to persist. In addition, there has been a growing focus on the quality of teachers generally, including new teachers, in the pursuit of improved student outcomes. While there is a lack of evidence either way about the effectiveness of induction to address these issues, for schools and school leaders who are truly committed to lifting student outcomes the focus on teachers, including new teachers, will only intensify and induction for new teachers must be a part of this.

With the focus firmly on improving teacher quality to lift student outcomes, the argument for induction turns to three key issues:

- 1. Engaging high potential teachers.
- 2. Building a professional performance and development culture.
- 3. Moving beyond the 'sink or swim' mentality for new teachers.

Engaging high potential teachers

Concerns about new teacher attrition, and the impact of continued attrition on the profession, are frequently raised as justifying investment in induction, where induction is shown to help reduce attrition rates. However, attrition in and of itself is not the issue. All professions suffer from some level of attrition, and indeed this is desirable where the particular individuals are not suited to the profession. The focus should instead be on the broader goal – if we want to lift the quality of teaching, then we need to keep good teachers (or those who will be good teachers) in schools. The continued discussion of attrition as an issue suggests that schools and the wider community are not confident that this is happening.

Internationally, the attrition arguments have been backed by alarming statistics suggesting that up to half of new teachers may leave the profession in the first few years (Ingersoll & Strong 2011 citing e.g. Grissmer & Kirby 1997). In Australia, the position is not so clear. The attrition factor continues to be cited anecdotally as a reason for concern, however the Productivity Commission recently commented that it is not clear whether this number is 'unduly high' (2012). It is difficult to ascertain the true position in Australia given the fragmentation of data across jurisdictions and frequent reticence to publicly reveal the data, in particular, concerning the number of years of service of those leaving the profession (Buchanan et al 2013).

Consequently, the various data points vary greatly. The 2008 AEU New Educators Survey reported that 50% of first year teachers said they would not stay longer than 10 years in the public sector, with 30% saying they expect to stay in the system up to five years. In 2010, the AEU reported that 29% of early career teachers (teaching for less than four years) saw themselves as staying in the profession for up to 10 years. However, the Staff in Australia's Schools (SiAS) survey presents a much rosier picture: the proportions of early career teachers (teaching for five years or less) who indicated that they intended to leave prior to retirement decreased between the 2007 survey and the 2010 survey (11% primary and 15% secondary in 2007, decreasing to 9% and 13% respectively in the 2010 survey) (McKenzie 2011).

Despite the variability of the data, the concerns about the impact of attrition remain. As recently as May 2013, the Senate Committee for Education, Employment and Workplace Relations were unwilling to discount the attrition concern based on the submissions before it. Assuming then that attrition continues to be a live concern, the key question is the impact of attrition on teacher quality. There appear to be two interrelated issues here: first, there are suggestions that it is the high potential new teachers who may be leaving the profession. Secondly, these high potential teachers are leaving at a time when increasing numbers of more experienced teachers are reaching retirement age, which has profound implications for the profession.

High potential teachers

If we need to keep the best teachers in schools, then there is some concern about whether this is happening. Before the Senate Committee, Dr Christopher Goldspink of Incept Labs, stated that their analysis of performance data in schools pointed towards this conclusion: 'It is hard to explain the distribution of capabilities we are seeing without, for example, thinking that we are probably losing a greater proportion of the more talented in the teacher workforce than we are of the less talented, and so we are getting this gradual skewing of skill distribution.'This was also noted by an extensive investigation in NSW into why early career teachers choose to leave the profession (Schuck et al 2011 citing Ingersoll 2001). The reasons why this is occurring are not clear and the NSW study came to no firm conclusions.

One possible explanation is that, for teachers who have high expectations of themselves personally, the transition from graduate to effective teacher may simply be insurmountable as they feel that they cannot deliver a positive impact to students as they struggle to find their teaching feet with little support. The same could be said of new teachers who bring a high level of idealism to the profession (Schuck et al 2011). This may be enough to cause them to leave teaching, depriving the students and the profession of their talents. It is therefore critical to provide the right support at this stage of a new teacher's career to sustain them through the early years, when the greatest gains in teacher effectiveness can be made (Gordon et al 2006) and positioning them for long term success as a teacher.

Ageing demographic of teachers

If talented new teachers are being lost to the profession, then this concern is magnified as it converges with the ageing demographic of the existing teacher workforce, with the average age of a teacher being 43 years (compared to 38 years in the wider economy) (Productivity Commission 2012). The lack of transparency in the data makes it difficult to make a path from problem to solution, however as the teaching workforce is faced with losing some of its most experienced members in the next two decades, it will need to consider how it will renew and replenish its professional capital. Fullan and Hargreaves (2012 citing Gladwell 2008) have argued that it can take 10,000 hours to achieve mastery within a profession and it is here that the full force of attrition and retirement trends impact: if new teachers are not remaining in the profession for the time necessary to develop significant professional capital at the same time as experienced members of the profession retire, then the collective expertise of the broader profession will be slowly eroded.

Building a professional performance and development culture

Australia's schooling system already delivers good outcomes for students: Australia ranks in the top 10 of the Organisation for Economic Cooperation and Development (OECD) Programme of International Student Assessment (PISA) based on the 2009 key findings. However, the schooling systems of other countries are moving ahead of Australia in achieving improved student outcomes. These countries are not satisfied with 'good' and have implemented system reforms to aim for excellence in student outcomes.

Studying the world's top performing schools, it is clear that these improvements do not come from one particular variable, but from a system that works cohesively together (Darling-Hammond & Rothman (eds) 2011). The interventions that have taken schools from 'good' to 'great' and 'great' to 'excellent' are about shaping the profession and then improving through peers and innovation (Mourshed et al 2010). This puts the learning and development culture of the school at the coalface of improving teacher quality to drive student outcomes. Induction is only one piece of this puzzle, but it is a critical one, as it has the potential to establish the necessary culture for all new entrants into the profession, setting the expectations for new teachers as collaborative, life-long learners.



Moving beyond the 'sink or swin' mentality for new teachers

The commonly recited phrase to describe the experience of new teachers is 'sink or swim' – traditional notions of teaching see new teachers immediately assuming the full weight of teaching responsibility both within and outside the classroom. And unlike other professions, there is no grace period for new teachers – their newness does not change the fact that once they are in front of the class the effectiveness of their teaching has immediate impacts on the outcomes their students will achieve.

While we have considered how induction may positively impact the school and profession, it is important also to consider the individual teacher's experience: new teachers frequently report feeling isolated and challenged by both the idealism they bring as new teachers and their struggle to establish their own professional identity in this environment. This is alongside the challenges associated with adjusting to full-time teaching, classroom management and negotiating relationships with colleagues (Feiman-Nemser 2010; Ewing & Smith 2003). The challenges faced by new teachers are only heightened by the reality that they must stand in front of the class while they simultaneously attempt to navigate each of these challenges. Induction has a clear role in helping teachers to 'float' in this situation, in a number of key areas.

Providing clarity

The importance of clarity in driving organisational performance has long been recognised (Litwin & Stringer 1968). It would be easy to say that clarity for teachers is self-evident, that the role of a teacher is to contribute to achieving the moral purpose of education. However, this does not recognise the complexities faced by a new teacher in their school context, nor does it take into account the reality that there is no single agreed best way of teaching (OECD 2009). Almost invariably teachers enter the profession because of the intrinsic benefits of teaching, working with children and young people, helping them to develop, and making a contribution to society (OECD 2005), but the translation of these intentions into practice is a universal struggle for new teachers. These positive expectations need to be retained within the profession and connected to the overall mission of the school and the profession.

Promoting self-efficacy

The main challenges faced by new teachers are remarkably similar across countries - motivating students to learn, classroom management and assessing work (OECD 2005). When asked to assess their self-efficacy, new teachers (including new Australian teachers) report significantly lower levels of self-efficacy than more experienced teachers and while the differences are not quantitatively large they are telling (OECD 2012). While it is not unexpected that new teachers might be less effective in their first few years of teaching, this experience can have significant personal costs for the new teacher: one new teacher described the experience as 'fracturing' (Ewing & Smith 2003). Even where teachers do not leave the profession, the effects of this experience can have long-term consequences for the teacher's confidence in their own effectiveness, and both students and the wider school may not benefit from the fresh and innovative thinking that new teachers can bring (OECD 2005).

Facilitating social acceptance

New teachers face challenges associated with social acceptance based both on the physical teaching environment and the staffroom culture. The physical experience of a new school has been described as 'individual classrooms linked by a common parking lot' (Feiman-Nemser 2010 citing Little 1999) and this has implications for new teachers seeking to establish new relationships and can contribute to the feeling of isolation that new teachers often experience. However, even the shared spaces can be daunting for new teachers as they seek to navigate the norms and rituals of the staffroom culture (Ewing & Smith 2003). Added to this are the complexities of relating to parents and the community.

The structure of the new teacher-school relationship discussed here establishes the clear challenges faced by the profession, the school and the individual in bringing new teachers into schools, and the clear need to address these challenges in the pursuit of teacher quality. Induction, as the key lever in facilitating a new employeeemployer relationship must have a role to play here.

The changing nature of the teaching workforce

One specific issue gaining increasing attention is the trend towards casualisation in the teaching workforce. The Productivity Commission recently investigated the schools workforce and proposed a package of reforms which focus on improving teacher quality. As part of its investigation, the Commission looked at supply and demand for teachers. It noted that the schools workforce was experiencing similar trends to those observed across the wider economy towards increasing contract and casual employment. This is combined with ongoing imbalances in the supply and demand of different groups of teachers, where there are and have been persistent surpluses of general primary teachers in metropolitan areas, whereas shortages in certain secondary subject disciplines, and more generally in rural, remote and indigenous schools continue. The Commission were clearly concerned about the causalisation trend and its potential to contribute to the loss of good teachers, particularly where such teachers are denied access to professional development.

The report, *Schools Workforce*, specifically refers to three case studies provided by the Australian Council of Deans of Education about the insecurity experienced by high performing graduates. Whilst recognising that there needs to be a balance between flexibility and providing appropriate working conditions for teachers, the Commission noted its concern that short term contracts may be a disincentive for some high performing teachers. There is no simple answer to the challenges faced by school leaders in the current environment. However, casualisation does add an additional layer of complexity to the teacher-school relationship and consequently to the induction debate. If the trend continues as it has, then it presents a significant leadership challenge for schools.

Does induction contribute to improved student outcomes?

The case for induction inevitably demands consideration of whether induction programs will help to improve student outcomes and, while the evidence base remains limited, the indications are positive. One of the characteristics of successful education systems in East Asia, is that the reforms introduced by these systems persistently focus on learning as the key criterion of their interventions, rather than teaching (Jensen 2012). While induction by its nature focuses on the teacher, it is important to question the impact that induction of new teachers has on student learning. However, this is not an easy question to answer. First, we have to agree what is meant by student outcomes which can be interpreted narrowly as academic achievement, or more broadly to include the wellbeing and engagement of students (see e.g. MCEETYA 2008). Secondly, induction activities do not have an easily identifiable nexus with student learning, being at least one step removed from the students' learning experience (Ingersoll & Strong 2011).

Induction has a positive impact on student achievement

Various studies have investigated whether a direct link between induction and student outcomes exists, with the majority focusing on academic achievement, but the existing empirical evidence is not sufficient to establish the existence of a causal relationship (Ingersoll & Strong 2011; Darling-Hammond et al 2009). While the research does not establish a direct link, a comprehensive review of empirical research by Ingersoll and Strong concluded that despite limitations identified in the various studies, they collectively provide support for the claim that induction (often equated with mentoring) has a positive impact on student achievement, as well as teacher commitment and retention and teacher classroom instructional practices (2011).

Student achievement

Ingersoll and Strong found that almost all of the studies reviewed showed that the students of new teachers who experienced some form of induction achieved better testing or academic outcomes ((Thompson et al 2004); (Fletcher et al 2008); (Fletcher & Strong 2009); (Rockoff 2008)). Again, the intensity of the intervention appeared relevant to the outcomes. However, one prominent study, funded by the US Department of Education and conducted by a research team from the Mathematica Policy Research Centre of Princeton, New Jersey, compared teachers receiving a comprehensive induction program and a control group of teachers who received standard induction support. This study found that it was only after two years of induction that there was a significant positive difference observable in student achievement between the students of the comprehensive induction teachers and the control group teachers.

Teacher commitment and retention

Ingersoll and Strong reviewed six studies: Kapadia et al (2007); Fuller (2003); Fuller & Cohen (2006); Henke et al (2000); Smith & Ingersoll (2004); Hans-Vaughn & Scherff (2008) and Duke et al (2006). Each study showed that induction had some degree of positive impact on achieving higher satisfaction, commitment or retention in new teachers. However, the degree of impact varied significantly, indicating that both the intensity of the induction interventions, as well as the nature of the intervention, were relevant to the outcomes achieved.

Teacher classroom practices

The reviewers found that two of the four studies considered (Evertson & Smithey 2000 and Stanulis & Floden 2009) indicated that new teachers who received some sort of induction also showed improvement in a range of classroom practices across the different studies, such as classroom organisation and student engagement. A third study by Davis & Higdon (2009) found that induction (in this case school-university induction partnerships) 'may' contribute to teacher effectiveness. The fourth study (Roehrig et al 2008) had ambiguous findings.

But significant questions remain

While the review did conclude that induction had positive impacts on the three dimensions above, it also indicated that the existing research does not yet answer a number of significant questions about the nature and impact of induction.

Which elements of induction programs are the most effective and why?

This question, Ingersoll and Strong suggest, is made more complex by the multiple and competing definitions of teacher effectiveness. Comparing novices and experts underscores the point that competence, proficiency and expertise take time to develop and do not automatically flow from experience. However, this does not tell us how novices gain skill and develop over time (Feiman-Nemser 2010).

How much is enough?

While the studies considered suggested that the quantity of induction is important, it is not clear how much, and at what intensity, is actually enough to make a difference.

What is the cost / benefit analysis of induction?

Existing practice in induction varies widely across different schools and systems and it follows that the financial cost involved also varies. Research into the cost / benefit of different programs and their elements would be of great value to the schools, systems and policy-makers making decisions or recommendations on induction.

What about the context?

It intuitively makes sense that context should influence the design of induction programs. In his review of schools in New South Wales, Ramsey appeared to take for granted that induction programs should recognise the specific needs of the school, such as Indigenous or non-English speaking backgrounds and special education needs. However, to date, the research has not specifically explored this issue.

Focus on induction should continue

While the existence, or not, of a direct link between induction and student outcomes remains an open question, it is clear that new teachers face many challenges when they join the profession. If induction can assist them to better navigate these challenges more quickly, in a way that improves the quality of their teaching, and improves the likelihood that quality new teachers will be retained in the profession, then it intuitively makes sense that there is value in induction and that it could well lead to improved student outcomes. The critical questions that need answering to progress the debate is which aspects of induction have the most significant impact and in which contexts?

Section two What is induction?

Perhaps more than in any other profession, academics and commentators from the education sector have probed the meaning of induction. The commentary ranges from discussion of the program of work that makes up the induction experience to broader questions about the concept of induction and its intended impacts (see e.g. Killeavy 2006; Wood & Stanulis 2009; Fulton et al 2005; Breaux & Wong 2003) some of which have already been touched on in the previous section. While it is not the goal of this report to undertake an exhaustive review of the literature defining induction, it is worthwhile considering the big picture of induction before considering the specific elements that should make up an effective induction program. This approach gives us some insight into how the specific elements might live and breathe in the school context, as they come into contact with the culture of the school.

The big picture

At a conceptual level, induction is capable of a variety of often interwoven meanings. School leaders face a particular challenge in considering how these multiple meanings will fit into the existing culture of their schools. One approach suggested by Feiman-Nemser (2010) recognises three distinct meanings of induction:

- 1. A formal program for beginning teaching.
- 2. A phase in the teacher lifecycle.
- 3. A process of socialisation.

A formal program for beginning teaching

Induction must recognise the inescapable fact that no matter the quality of pre-service education, there are elements of the job of teacher that can only be learned on the job. It should therefore facilitate and support the difficult transition that new teachers make from being classroom participants to leaders of their own classrooms.

A phase in the teacher lifecycle

Beyond recognising the special circumstances of the new teacher, the induction program can be more broadly located in the teacher lifecycle as one unique phase in the many phases of a teacher's lifecycle.

In Australia, the induction 'phase' also includes the important transition for new teachers from provisional to full registration. While induction is clearly not only about this transition, the fact that new teachers must also be working towards full registration during this period requires special recognition. The Nationally Consistent Approach to Teacher Registration in Australia (endorsed by all Ministers for Education on 14 October 2011) requires new teachers to provide evidence that their teaching performance meets the Proficient career stage of the Australian Professional Standards for Teachers. The nationally consistent approach recognises that new teachers will require appropriate support throughout the period of provisional registration, including support to help the teacher achieve and demonstrate the knowledge and skills required for meeting the Proficient Standard.

A process of socialisation

There is power in recognising induction as a formal and informal process of socialisation – it can perpetuate the status quo if new teachers are inducted into the school 'as is' or it can be a force for change if the process brings new teachers into a culture that is seeking to challenge and improve norms and practices (Feiman-Nemser 2010). This meaning recognises the importance of induction as going beyond simply learning to teach – but rather as a means to connect new teachers to the profession of teaching.

This starts within the individual school, reflecting the growing importance of collaborative practice and the movement from 'teaching as independent practice to teaching as an interdependent practice' (Feiman-Nemser 2012). It also justifies the rightful place of induction in developing and sustaining a culture of performance development in Australia's schools. While induction is inevitably linked to a particular school, as a process of socialisation, it can start to reach beyond the school fence to collaborative learning in networks outside of the school, which may have particular importance for casual or rural teachers.

No universal best practice

The multiple meanings of induction set the backdrop for how elements of an induction program are experienced by new teachers and the school. But focus must turn to the detailed question of what constitutes an effective induction program. Of course there is no simple answer: the research (see boxed text and below) does not establish the most effective elements, and it is clear that even among the world's best performing schools and the corporate sector there is significant variation in practice.

Themes from education research

Given the depth of research that exists in this area, the themes emerging from this research provide some insight. In a recent study, Kearney undertook a review of both Australian-based and international literature to determine the characteristics of effective induction programs. He identified the following eight characteristics as constituting effective induction (2012): 1

- Provision of a mentor;
- Opportunity for collaboration;
- Structured observations;
- Reduced teaching and/or release time;
- Teacher evaluation;
- Opportunities for professional discussions and/or communication;
- Professional support and/or professional networking; and
- Part of a program of professional development.

Kearney's selection of these eight characteristics was made on the basis that six or more of the ten sources that he reviewed acknowledged the characteristic as a component of induction.

¹ Source: Kearney's review covered international reports (Darling-Hammond et al 2009; Moskowitz & Stephens 1997; OECD 2005); reports from the United States (Fulton et al 2005); two Australian reports (Department of Education, Science and Training 2002 and 2003); an international literature review (Howe 2006); a United States-based literature review (Serpell 2000); two empirical studies (Smith & Ingersoll 2004; Wood & Stanulis 2009) and a Statebased report from New South Wales (NSW Department of Education and Training 2004)

The corporate experience

There has been significantly less research into induction in the corporate sector, although opinions do abound. This is perhaps because other professions generally do not suffer from the same structural 'sink or swim' problem as teaching. Consider the position of a new law graduate. A new lawyer entering the profession must complete a further year of post-graduate study before being eligible for admission to the bar which signifies full membership of the profession. This is not so different to the new teacher, however this is where the similarities cease. The new lawyer generally works within a team reporting to a manager who will provide close supervision of their work. The more senior members of the team and the manager are generally the ones to interface directly with external parties. And even when a new lawyer is admitted, it is generally a condition of practice that for the early years, junior lawyers are subject to continuing supervision. While not the same in every profession, most if not all place similar restrictions, whether cultural or based on regulation, on the work of new graduates, rather than expecting them to accept full responsibility from day one.

Among professions and indeed individual organisations, induction practices vary widely. The Australian Association of Graduate Employers (AAGE) advises organisations on the end-to-end process for bringing in new graduates, including induction. They recommend that an induction process should:

- Recognise the importance of the socialisation aspects of induction: where possible, graduates should be inducted in groups to promote teamwork and the formation of support networks. Where this is not possible, opportunities to connect more widely are important.
- **Focus on providing clarity**: graduates to be able to view their role in the broader context of the organisational strategy.
- Introduce graduates to the organisation's culture: introduction to the culture, including through interacting with senior leaders, is critical to establishing expectations for new graduates.
- Provide graduates with a mentor or a buddy: mentoring for new graduates provides initial support and helps to facilitate organisational learning.

Case study: Corporate case study

A leading Australian oil and gas company sees its graduate program for the 70 graduates it employs each year as central to the ongoing success of the business, driven by the belief that the company's next generation of leaders will emerge from this graduate pool.

The program is a 3-year investment in the individual, designed to help each graduate build a foundation for his or her career. This approach recognises that graduates are on an extended learning curve as they enter the organisation. Consistency is key and all managers and new employees receive a new starter orientation pack which aims to ensure that all new staff experience a consistent and comprehensive on-boarding experience, which reinforces the organisation's values.

Unlike the graduate teacher, the graduates at this company receive close supervision and support as they go about their work. As well as being part of the graduate community and having an assigned "buddy", each graduate is part of a team and is managed by a direct line manager who provides guidance on day to day work, reviews progress and provides feedback. As well as building their technical and non-technical skill base, the 3-year program is designed to provide graduates with the space to learn the business and understand how their role contributes to the organisation's goals. This focus on providing clarity is one of the hallmarks of the program, and in the first week the graduate's manager meets with the new employee to help him or her understand their role. Mastering tasks or learning skills can make little sense in the early days of a new employee's work without the context and understanding of why he or she is learning to do something, and how he or she will work with other staff. The orientation meeting helps overcome role ambiguity by clearly explaining to the new employee the position requirements and what is expected of him or her as a member of staff. The program also gives graduates time to form networks across the business, contributing to their sense of belonging to the organisation in the short term as well as building the relationships that will sustain their careers at the organisation into the long term.

Within the 3-year program, emphasis is placed on the first day on the job, followed by their first 90 days in the organisation:

- The first day: from the first day, new graduates are introduced to the workings of organisation and its role in the community – both the "how" and the "why" of the organisation – providing them with their first entry point into the culture of the organisation. They are also introduced to the executive sponsor for the program and the Graduate Committee who look after the graduate community.
- **The 90 day plan:** Managers support their graduates through the first 90 days with the assistance of a structured 90 day plan which ensures that graduates attend a number of courses. These courses are designed to help graduates navigate the big picture of the organisation, through providing important contextual information about the oil and gas industry, the organisation's licence to operate in the environment and their communities, and health and safety. However, they also help graduates navigate the day-to-day complexity of the organisation through providing practical guidance on information systems and IT.

Need for clarity

One important aspect of the induction process that emerges is a focus on clarity. Hay Group has been researching what accounts for organisation performance for over 50 years. Our research shows that clarity is a critical aspect of organisation climate – meaning 'how it feels to work here' – which in turn drives performance. Clarity and standards are the two key dimensions of climate that enable organisations to deliver high performance:

- **Clarity**: people know what the mission and direction of the organisation is and how their job contributes to delivering on the mission and direction.
- **Standards**: People are clear about what success looks like in their role and what is expected of them in terms of performance.

We have researched organisation climate in schools and found a positive correlation between school climate and the education outcomes of students. We have also found that while school leaders demonstrate strengths in co-creating a vision for the school that engages staff (and are often stronger in this regard compared to their peers in the corporate sector) they are less likely to clearly articulate how this vision translates into individual roles, and therefore are not so clear on setting expectations of performance.

A key aspect of an induction program therefore must include the following:

- Clarity Communicating the vision for the school: having a dialogue with
 the new teachers about the vision for the school and helping them to connect
 their personal moral purpose to that of the schools, ensuring alignment and
 congruence.
- Clarity Being clear about the job: helping teachers translate this vision
 into specifics of what it means for their teaching practice. In the best schools,
 this is often achieved through the joint planning of lessons where 'what good
 instruction looks like in our school' is discussed and agreed.
- Standards Setting performance expectations: working with each teacher to craft some clear performance goals for their teaching which is framed in improving the learning of their students.

Section three Current state: Existing practice in Australian schools

Australia appears to be ahead of the curve in terms of the proliferation of induction programs in Australian schools. In the Teaching and Learning International Survey 2008 (TALIS), Australia reported that over 90% of new teachers undertake some form of formal induction, against the TALIS average of 75%. The various government departments with education responsibilities in each State and Territory have all issued varying levels of guidance and online resources to support both schools and individuals through the process of induction. Some specific initiatives include the following:

- In the Australian Capital Territory, new teachers participate in a variety of programs including a New Educator Support Program in week 5 of every term for the first three years. This program aims to support new teachers in establishing themselves in the classroom and developing as a professional. New teachers also receive an allowance of 15 days of classroom release time over their first three years to support their professional development.
- Tasmania has introduced the Beginning Teacher Time Release Program which requires new teachers to access a minimum teaching load release of two hours per week, which may be banked up to six hours, to attend or participate in a particular professional development activity.
- New teachers in Western Australia are supported by The Institute for Professional Learning through its Graduate Teaching Induction Program and are provided with additional financial support and non-contact time.
- As a part of the evidence-based process for new teachers to attain full registration, the Victorian Institute for Teaching (VIT) has introduced a requirement that new teachers have a mentor. This requirement supports new teachers to access feedback on practice and engage in professional discussions as they build their evidence base. It also requires new teachers to work collaboratively with mentors in classroom situations. VIT view mentoring as central to the development of new teachers as independent practitioners.

However, it is difficult to build a comprehensive picture of induction practice in Australian schools and even more difficult to assess the effectiveness of the varying initiatives. Staff in Australia's Schools (SiAS) data provides some insight into the types of assistance being provided to both primary and secondary early career teachers (defined as teachers with less than five years' experience) and the perceived helpfulness of each type of assistance.

Early career teachers: Types of assistance provided and perceptions of their helpfulness

Since you began teaching, which of the following types of assistance have you been provided with by your school or employer, and how helpful were they?	Primary			Secondary		
	Been provided %	Very helpful / helpful %	Not helpful %	Been provided %	Very helpful / helpful %	Not helpful %
A designated mentor	80	74	8	77	66	13
An orientation program designed for new teachers	73	63	6	84	63	8
Observation of experienced teachers teaching their classes	74	74	4	72	68	8
Structured opportunities to discuss your experiences with other new teachers	69	64	7	67	56	12
A reduced face-to-face teaching workload	52	66	9	56	65	11
Follow-up from your teacher education institution	34	29	45	34	27	44
Other assistance	20	87	6	19	78	8

Source: McKenzie 2011

While it is difficult to identify to what extent new Australian teachers have access to the eight characteristics of effective induction, it appears that a significant proportion of new Australian teachers are participating in mentoring (McKenzie 2011; OECD 2012), structured observations (McKenzie 2011) and reduced teaching loads (McKenzie 2011). SiAS also reports that the average percentage of respondents rating the assistance provided as very helpful or helpful is 70%, 71% and 66% for mentoring, structured observation and reduced teaching loads, respectively.

Mentoring is a common component of induction programs, for example the NSW Department of Education and Communities currently employs 50 teacher mentors who work across 92 schools that have significant numbers of new permanent teacher appointments. These mentors annually support about 60% of the total number of newly appointed teachers in government schools (NSW 2013). In Victoria, mentoring plays an important role in new teacher registration.

There is also some evidence that new teachers have opportunities to collaborate, at least with other new teachers, although the perceived helpfulness of these opportunities for new teachers in the SiAS survey is lower on average, with 60% of respondents rating the assistance provided as very helpful or helpful. However, in response to TALIS, Australian teachers reported that professional collaboration is relatively weak (OECD 2009).

Another characteristic of effective induction is teacher evaluation. The practice of teacher evaluation has received increasing attention in Australia in recent years (see e.g. Jensen 2011; AITSL 2012). Yet, while virtually all teachers in Australia are required to undertake some form of appraisal, it rarely amounts to anything more than an administrative burden (Jensen 2011 citing OECD 2009). This indicates that significant improvement in teacher evaluation practices should be a focus area for not only new teachers, but the broader profession.

The Australian Teacher Performance and Development Framework (endorsed by all Ministers for Education in August 2012) recognises that Australian schools need to focus on building a performance and development culture. The Framework outlines the key components for establishing and sustaining this culture: a focus on student outcomes; a clear understanding of effective teaching, leadership, flexibility and coherence. The Framework also specifies four essential elements of the performance and development cycle that all teachers across Australia are entitled to:

- development of performance and development goals;
- support towards achieving goals and access to high quality professional learning;
- provision of evidence of achievement of goals including observation of practice and collaboration with colleagues; and
- informal and formal feedback including formal review against their performance at least annually.

With this Framework in place, it becomes a matter for schools to implement these elements in a way that takes them beyond being seen solely as an administrative burden.

Case study: Education case study

Dandenong North Primary School has been on a continuous improvement trajectory since 2005 which has taken it from being below like-school averages in literacy and numeracy to being above similar schools. Alongside other initiatives, Principal Kevin Mackay sees induction as an important contributor to the school's improvement: "in a high performing organisation it becomes increasingly important to make sure that any new staff understand what the expectations and goals are, that they're part of a team and how their role fits into the overall team dynamics and the organisation; whatever they do contributes to improved student learning outcomes."

The school has established a special governance structure for induction to ensure it receives the attention it deserves. Three teachers form an induction committee, with each teacher receiving a small special payment in recognition of their work. This structure ensures that the induction process is focused and continually improved, with a key role of the committee being to integrate feedback received on the process annually.

All new staff

All new teachers (other than short-term casual relief teachers) participate in an induction program which focuses on setting expectations and engaging new staff in the school's teaching method. Mr Mackay views the culture of the school as very important to its success and bringing new staff along on the journey from day one is therefore critical.

The program provides the necessary information for new teachers to navigate the complexities of a new school and facilitate decision-making, as well as providing an opportunity for new staff to meet other staff members in charge of various programs within the school. The program is based around face-to-face modules focusing on important aspects of school life: school goals, the teaching model, occupational health and safety, and particular programs that are important for the school community, such as English as an Additional Language. New teachers are also provided with a buddy, a substantial reference handbook and are taken on a school tour. New educational support staff take part in a modified induction program.

New graduates

New graduates are teamed up with a mentor as part of the Victorian Institute of Teaching requirements. In addition to this, in 2013, five new graduates commenced at the same time and the school took the opportunity to invest in an external coach to help guide the new teachers. The coach was available to discuss any issues or problems that the new teacher encountered. The new teachers welcomed the option to engage with an independent person who could answer questions outside of the staff room environment.

Case study: Education case study (continued)

School programs for all staff

Induction is just one piece of the puzzle; the school has introduced a number of initiatives to support all teaching staff, including new teachers, to achieve improved student outcomes:

- Peer observation: Over the past few years, the school has worked towards breaking down the traditional perception of teaching as "private practice" through taking a stepped approach to introducing peer observation. The process started with a dedicated observation classroom and was then role-modelled by the leadership team in their everyday classrooms. All staff are now required to complete two hours of peer observation each term and all classrooms are open.
- **Teacher evaluation:** All teachers undertake an annual review. The foundation for the evaluation is a shared understanding of what good teaching looks like at the school. Teachers undertake a self-evaluation and are observed and given feedback by their reviewer. Teacher and reviewer then meet to discuss and agree the evaluation.
- **Coaching:** The school has now implemented a coaching program where all teachers participate either as coaches or coachees. All teachers are expected to have two coaching encounters per year, designed to build teachers' self efficacy. Coachees can seek coaching on particular teaching challenges with coaches trained to help the coachee work through the challenge, rather than providing the answer. The school aims to have all of their teachers trained as coaches.



Registration requirements

In Australia, new teachers undergo induction at the same time as they are working towards registration. In 2011, the Ministers for Education endorsed a Nationally Consistent Approach to Teacher Registration in Australia which requires new teachers to demonstrate proficiency against the Australian Professional Standards for Teachers. The process of registration continues to be administered at a State and Territory level, however the new approach specifies a set of elements that will be common to the registration processes and requirements of each state and territory, and which will be progressively implemented by the individual jurisdictions. Given its close ties with induction, the registration process also provides some insight into the current experience of new teachers in Australia.

Case study: New South Wales

The NSW framework positions the accreditation of new teachers within the overall lifecycle of the teacher, based on the Australian Professional Standards for Teachers. New teachers (who are employed for the first time in NSW after 20 September 2004) are required to achieve accreditation² at the Proficient Standard by providing evidence that they have met the Standard descriptors at this career stage.

The NSW Institute of Teachers (NSWIT) recognises that a new teacher's journey towards accreditation is a partnership between the new teacher and their school, aimed at both the individual and the school. For the individual, it is about enabling the new teacher to build and integrate their initial teacher education into their teaching practice. For the school, the process assists schools to smooth the transition for new teachers into the teaching profession. Importantly, NSWIT also recognise that the process of achieving the level of Proficient Teacher should be about developing and building the confidence and expertise of new teachers.

By focusing the accreditation process on supporting and assisting new teachers to achieve proficiency, the NSWIT process is aligned closely to the goals of induction. As such, it is not surprising that the suggested process includes many of the key characteristics of induction, including feedback, classroom observation, collaborative teaching opportunities and professional learning opportunities.

Case study: The Victorian Institute of Teaching's Provisionally Registered Teacher Program

All teachers working in Victoria must be registered by the Victorian Institute of Teaching. Teachers entering the profession are granted provisional registration. To attain full registration they are required to achieve the Australian Professional Standards for Teachers at the proficient career stage. Recognising the critical importance of this career stage, the Institute has taken a whole of profession approach and invested heavily in supporting schools and mentors, as well as provisionally registered teachers.

Provisionally registered teachers attend after school seminars where they are provided with information and resources to understand and apply the standards to their practice. A point of contact is provided by Institute staff, which is particularly important for teachers working across schools, on short term contracts or as casual relief teachers.

Provisionally registered teachers must undertake an evidence-based process in their schools to meet the standards. This is defined by the Institute and requires an inquiry into practice. Loosely based on the Helen Timperley model of professional learning, the inquiry supports collegial and reflective practice that is focussed on improving student learning. Experienced colleagues undertake two days of training to become school mentors. Mentors work with provisionally registered teachers in their classrooms, provide on-going feedback and engage in professional conversations that support reflection on practice.

School principals and school leaders are vital to the full registration process. They provide induction into the profession through school-based mentoring and lead a school panel who assess the teacher's evidence in relation to the standards and make a recommendation to the Institute

A critical factor in the success of this program has been close cooperation with all education sectors in Victoria. The Department of Education and Early Childhood Development partners the Institute in the delivery of mentor training and this is supported by the Catholic and Independent school sectors and by the principals in their schools. To date over 14,000 teachers have attended mentor training and regular feedback from provisionally registered teachers indicates that over 95% are provided with a mentor in their school.

The Institute framework for attaining the standards has been in place since 2004. The effectiveness of this approach has been the focus of annual independent evaluations. Findings show that provisionally teachers perceive the process to support their professional practice. Over 80% of provisionally registered teachers identify that the process has prompted them to change aspects of their classroom work for the better and develop their teaching knowledge and practice and over 90% of mentors support this view. Most importantly, three quarters of provisionally registered teachers indicate that the process and support associated with it has influenced the likelihood that they will stay in the teaching profession.

Source: Victorian Institute of Teaching www.vit.vic.edu.au

Section four Looking forward: Focus on action not design

The picture emerging from this review is that there is no lack of recognition of the importance of induction, nor of knowledge about what elements could constitute an effective induction program. We can see this not only in the academic discussion, but also in the work happening at a national, system and school level in Australia e.g. in the development of a national Framework for teacher performance and development, an Australian Charter for professional learning and a nationally consistent approach to teacher registration that are robust and fit for purpose. However, this knowledge may not be enough to ensure that the significant effort currently being exerted to induct new teachers is effective, as concerns about teacher retention and quality remain.

What is clear is that school leaders do not need to search for new solutions. The focus must now turn to the effective implementation of existing knowledge. For school and system leaders embarking on this challenge, we believe that induction efforts need to take into account three things that high performing schools do well:

- 1. They see induction as one part of an overall system designed to improve student outcomes.
- 2. At the foundation of the system, they establish teaching as public practice, rather than private practice.
- 3. They invest time and resources in induction.

In this final section, we consider how the world's best performing schools have implemented various elements of induction. However, even these schools do not agree on the best way of doing things and there is wide variation in the way that schools around the globe have chosen to implement induction. This is not necessarily surprising, as each system has taken a different path towards improvement. While the totality of these systems have brought success, it is not clear which elements of induction are the most important. The challenge for school leaders here is that implementing or re-shaping an effective induction program will mean taking these three points and focusing on them in the individual school context. This is a leadership challenge which requires a clear focus on establishing an enabling culture in the school, and clarity on the expectations of teachers working within that culture.



The success of the school systems of Ontario, Finland and Singapore have shown how diverse systems can achieve improved outcomes for students and lift teacher quality. While insight can be drawn from looking at the varied elements within these systems, one of the biggest lessons is simply that each country has dedicated significant time and effort to establishing a holistic view of the system itself. The components of these systems have all been designed to work together to create high performing schools (Darling-Hammond & Rothman (eds) 2011). This is not a new observation, but its importance cannot be understated (Barber & Mourshed 2007; Mourshed et al 2010; Darling-Hammond & Rothman (eds) 2011). The holistic approach means that effective induction cannot stand alone, it must be tied to the goals of improving student outcomes and be aligned to the other initiatives within the system. As such, the elements of induction are often not limited to new teachers, but can apply equally to all teachers.

This is not to minimise the importance of induction. A good system will not achieve its full potential unless it effectively brings in new members. Induction, therefore, still has a distinct role for to play as part of the overall approach taken by schools and systems. We believe that induction should recognise and support new teachers in navigating the unique challenges that they face early in their careers, as distinct from the needs and challenges of more experienced teachers. Taking a holistic approach means that system and school leaders need to think about how their existing initiatives e.g. to build collaboration will be experienced by new teachers. It also requires special attention on how induction can most effectively provide the first entry point to a career of ongoing professional learning and development necessary to drive improved student outcomes and teacher quality. It is about increasing clarity of the whole and then identifying the role of new teacher induction within that.

In action: The Ontario system

Ontario's system shows how 'system thinking' can be brought to bear in considering the professional development needs of new teachers. At the system level, Ontario recognises the importance of comprehensive professional development based on a foundation of high standards through a coherent system that ensures appropriate and effective professional development for teachers at all levels of experience. Within this framework, the professional development needs of new teachers are privileged as part of the New Teacher Induction Program (NTIP) which is mandated for all new teachers in public schools. Professional development is one of three key induction elements, alongside mentoring and orientation. The NTIP requires that professional development provided to new teachers must be differentiated, ongoing and appropriately targeted to the development needs of new teachers in areas such as classroom management, communication with parents, and assessment and evaluation. The NTIP takes a broad view of professional development, recognising that development takes place through classroom observation, common planning time, shared professional development for new teacher and mentor, professional dialogue with colleagues/mentors, working with learning teams, online conferencing and in-service sessions.

Initiatives that make a difference

International systems have implemented a wide variety of initiatives which have been identified in the literature as characteristics of effective induction.

Quality mentoring

Almost universally, mentoring is seen as a critical component of induction. Across the academic commentary and existing practice in both schools and the corporate sector, there is special recognition of the role of mentoring as being particularly important for new teachers. Research has found that intensive mentoring for teachers has positive impacts on students' achievements in mathematics and reading (Rockoff 2008) and teacher retention (Smith & Ingersoll 2004). Consequently, mentoring practice is now widespread – in Australia, over 90% of teachers report that their school has a mentoring program, with the average for countries participating in TALIS at 75% (OECD 2012). Conceptions of mentoring are also broadening beyond the traditional idea of a mentor and mentee meeting together away from the classroom. Increasingly, mentoring relationships are classroom observation and feedback to enrich the learning gained from the mentoring relationship. This broader conception of mentoring is encouraging, however, the general experience of new teachers, as reported by the OECD, is that mentoring and induction programs are not resulting in substantially more feedback being provided to new teachers (OECD 2012).

In action: Mentoring in Shanghai

Shanghai has implemented the gold standard in mentoring programs. While mentoring programs vary depending on teacher seniority, school and district, a number of common design features are identified by Jensen (2012) below.

- Diagnosis of mentee needs: mentoring relationships usually begin with a comprehensive diagnosis of mentee strengths and weaknesses.
- Classroom observation: mentor and mentee observe each other's lessons, as well as public demonstration lessons.
- Demonstration classes: depending on their level of seniority and capabilities, some mentees deliver demonstration classes at the school or District level and then receive feedback from mentors.
- Research projects: mentors focus on developing research capabilities and guide mentees in research projects undertaken at school or District level.
- Lesson planning: mentors guide mentees in preparing lessons, developing teaching plans and discussing how to make improvements.
- Record of learning: mentees usually record what they have learnt through the mentoring program, detailing case-studies of student learning and articulating their own personal teaching style.

Structured observations

Structured observations involve teachers learning from the experience of observing other teachers in the classroom. For new teachers, this can be by way of observing more experienced teachers, or it may be the new teacher who is the subject of the observation.

In Shanghai, lesson observation underpins the functioning of professional learning. Many of the other programs within the system would not be effective without it, for example mentors and mentees regularly observe each other's lessons. Similarly, members of research and lesson groups or professional learning communities observe and support each other as they trial different ways of teaching. Teachers regularly observe exemplary teachers in the school and at District level.

Teacher evaluation

In pursuit of improving teacher effectiveness, research has shown that teacher appraisal and feedback significantly improves teachers' understanding of their teaching methods, teaching practices and student learning (Jensen 2011 citing Wade 1984; Hattie 2009 and Meyer et al 1965). However, in Australia there is currently no one effective universal approach to teacher evaluation, instead sectors and schools are implementing their own approaches. In addition, it is clear that Australian teachers (and consequently their students) are not currently experiencing teacher appraisal in a positive way: the TALIS results report that the predominant view among teachers in Australia is that appraisal is undertaken simply to fulfil administrative requirement and that it has little impact on the way that they teach (OECD 2009).

There is significant work being done in this area in Australia. On 3 August 2012, the Education Ministers endorsed the Australian Teacher Performance and Development Framework. This Framework focuses on creating a culture of teacher quality, feedback and growth for all teachers within all schools. In taking this Framework from policy into action, schools can look to the East Asian education systems, which have effectively developed a strong culture around review of professional practice, observation and ongoing feedback to teachers. Importantly, they have also put the hard work into establishing clarity around expectations for performance.

In action: Singapore: Enhanced Performance Management Systems (EPMS)

Singapore introduced the EPMS for all teachers in 2005. It is a competency-based system which identifies the knowledge and skill requirements as well as the professional characteristics appropriate for each of the three career tracks available to Singaporean teachers. It aims to help teachers improve themselves and better their performance, encouraging them to reflect on their teaching practice, chart their own professional development and reinforce the behaviours valued by the Ministry of Education. Teachers are evaluated annually, although ongoing review and discussion is encouraged. The annual evaluation draws on three work review meetings between the teacher and their supervisor/principal, informal feedback and a tool for potential assessment (OECD 2009).

Opportunities for collaboration: Professional learning communities

One of the most discussed ways of introducing collaboration into a school is through establishing professional learning communities (PLCs), a term which has for better or worse been used to describe many different iterations of collaborative practice (DuFour 2004). When effective, PLCs have been shown to have positive impacts on both teacher practice and student achievement. However, as with teacher evaluation, the successful introduction of PLCs requires a cultural shift away from the individual classroom towards teachers 'meeting the educational needs of their students through collaboratively examining their day-to-day practice' (Vescio et al 2008).

In action: Japanese research lessons

In Japan, the practice of research lessons has become an important part of the collaborative culture of schools with the aim of improving student learning. Teachers collaborate in groups to demonstrate strategies to achieve a particular learning and teaching goal (e.g. reciprocal teaching) through developing a lesson. The cycle of the research lesson involves teaching, observing, and critiquing the lesson that is developed. Following the teaching and observation, the group reconvenes to reflect and provide feedback on the strengths and weaknesses of the lesson and makes suggestions to improve the lesson. Teachers have the autonomy to decide the frequency of the research lessons and the learning and teaching goal. The process can take 10-15 hours over 3-4 weeks, and the time devoted by teachers occurs between when the school day ends and when the working day ends, typically between 2.45 – 5.00pm. While typically conducted within schools with the aim of driving a continuous improvement culture, some research lessons are provided publically to facilitate the spread of best practice across schools (Darling-Hammond et al 2009 citing Fernandez 2002).

Opportunities for professional discussions and/or communication

High performing school systems provide opportunities for new teachers to interact with their peers, as well as with more experienced teachers. While Finland is currently looking to improve the approach to in-service professional learning, it has long recognised the importance of bringing teachers together in different fora. Teachers and other staff members in Finland are routinely involved in decision making; teacher and administrator teams work together to develop syllabi, select textbooks, develop curriculum and assessments, decide on course offerings and budgets, and plan and schedule professional development (Hargreaves et al 2007; Vaiijam el al 2007). These deliberations are themselves a form of professional development, as teachers study issues and share their ideas. By focusing on important subjects such as curriculum design, Finland has focused collaboration on school-wide improvement efforts (Darling-Hammond & Rothman (eds) 2011).

Professional support and/or professional networking

The Ministry of Education in Singapore established the Beginning Teacher's network to facilitate valuable peer support, pooling of teaching-learning resources and to provide a platform for professional sharing. It sees such networks, which are also in place for more experienced teachers, as important in helping to foster a culture of collaborative learning and promoting a teacher-led culture of professional excellence and with the ultimate outcome of deepening the knowledge base of the profession.



Founded on teaching as public practice, rather than private practice

One of the defining features of high performing schools seeking to improve the quality of teacher instruction is that these schools provide opportunities for teachers to learn from each other (Barber & Mourshed 2007). This is almost inextricably linked to the preceding point, as induction, as part of an holistic approach, relies on teaching being public practice, rather than being cloistered in the individual classroom. This is clearly evident from the discussion of international practice above. Many of these examples rely on teachers welcoming other teachers into their classrooms and their extra-classroom practice.

An open and collaborative professional learning and development culture in schools is critical to this. This requires a fundamental shift in thinking towards seeing teaching as public practice, rather than private practice. This shift is already building momentum and it reaches right into the heart of the fundamental structural challenges faced by new teachers. From the perspective of the new teacher, opening the classroom doors and inviting collaboration doesn't just provide significant learning opportunities. It also provides an opportunity for schools to address one of the key challenges faced by graduates: the isolation of the traditional classroom. Schools must adopt open practices to support induction as part of the broader professional learning and development culture. As Carroll (2007) writes, 'these practices should be designed to incorporate new teachers into a network of relationships with colleagues that supports their continued learning and growth – ending sink or swim placements for novice teachers'. Critical to this will be a culture of trust, underpinned by clarity, consistency and fairness where teachers believe that they are being supported to do their best work in service of their students' learning.

There is no doubting that public practice and collaboration underpin the components of induction seen in high performing schools. However, in Australia, teachers report that more collaboration is needed (Jensen 2012 citing OECD 2009). Moreover, collaboration should not exist for collaboration's sake: high performing schools have established the culture necessary to convert collaboration into improved teaching and learning outcomes.

Induction is an investment

Like all initiatives designed to drive improvement, effective induction initiatives will take time and resources. The best performing schools make this time available and support teachers to engage in things like professional development and collaborative lesson planning.

There is clear recognition that new teachers need the time to invest in induction in order to set themselves up for a successful career. However, this must be balanced against their teaching load.

The review of current practice in Australia shows that the jurisdictions are already moving in this area. The real question here is how much time is enough? While schooling systems in Australia are already making judgments about how much time is required, further investigation is perhaps needed to establish the right amount of time for the benefit of both students and teachers. Jensen's review of East Asian systems found that in Shanghai, teachers teach larger, but fewer, classes compared to most other systems. Teachers teach classes of up to 40 students for 10-12 hours each week. Shanghai's approach frees up a significant amount of non-teaching time to engage in other activities known to have a large impact on student learning, such as preparing for lessons, teacher collaboration, classroom observation and giving feedback. In Europe, instruction takes up less than half of a teacher's working hours (Darling-Hammond et al 2009). At the other extreme, teachers in the US teach an average of 23 students for 30 hours a week. Australia sits in the middle with the average teaching time being 20 hours in an average class size of 23 students (Jensen 2012).

This approach is not limited to new teachers, it must recognise that teachers of all levels will be involved in the induction of new teachers, including through mentoring or collaboration practice, as well as their own professional development. More experienced teachers also need support in terms of time and resources. Many Australian schools already invest in training mentors or coaches, however leading international schools recognise that other initiatives require special skills to be most effective, for example Shanghai trains teachers in classroom observation and Singapore provides training in performance management for newly appointed middle managers (Jensen 2012).

Section five

Harnessing the power of induction: A leadership challenge

It is clear that Australian education sectors and schools have the raw material necessary to build effective induction programs for new teachers. It is now about turning the theory into action. Many schools are already doing good work in this area. However, OECD data still suggests that there is work to be done. Teachers still see evaluation processes as largely an administrative burden and collaborative efforts remain weak (OECD 2009). To ensure that the effort put into both existing induction programs and the development of new programs has the desired impact, there is a clear need to focus on culture and the power of leaders to champion change.

It's about culture

Achieving similar outcomes for induction in Australia to those discussed above will require significant cultural shifts in 'the way things are done' in schools currently and the behaviours required from school leaders and teachers. In particular, moving towards a culture that embraces teaching as public practice will be critical. Without this, important elements of induction initiatives e.g. those that rely on collaborative efforts and teacher evaluation, will fall short. More broadly, without these changes, it will be challenging for education to fully embrace the performance and development culture that the sector is moving towards.

While these shifts are starting to happen and are well progressed in some sectors and schools, all schools must move in the same direction to drive nationwide improvement. Working towards sustainable culture change is challenging and organisations often face significant obstacles in making culture change stick. These obstacles generally stem from three key issues:

- culture is inherently intangible and it can therefore be difficult to grasp;
- behaviour change is central to culture change, yet changing the behaviour of one person is hard enough, let alone trying to sustain new behaviours throughout an entire organisation; and
- culture change efforts can be met with cynicism and unless changes are sustained, old habits can quickly re-emerge.

Most culture change initiatives attempt to transform culture by targeting behaviour change directly. They target systems and initiatives, such as forming teams to try to increase collaboration or changing performance management to drive a professional development culture. However, these change efforts typically do not have long-lasting impact since the underlying drivers of behaviour remain untouched. What is needed is an approach that addresses the deeper drivers of behaviour, through tapping into a shared purpose and meaning between individuals, groups and the organisation, through drawing on a range of sources, including history, teaching models, dominant values and motives of teachers, networks within the schools and the community environment. Finding this shared meaning and purpose is the key to sustainable change in the individual school environment.

School leaders are central to success

The need to target a deep shared meaning and purpose brings to bear the central role of school leaders in leading improvement efforts in induction. Leaders are the champions of culture as they are uniquely positioned to develop and bring the organisation together around the shared meaning and purpose. They must then role model the attitudes and behaviours necessary to drive the changes required.

Leading cultural change is not for the faint of heart and will require a willingness to explore the deep drivers within the school and themselves. Helping others to change their beliefs and behaviours requires a clear sense of self, emotional maturity and resilience to go the distance towards sustainable change. School leaders need to be mindful of the leadership styles (the patterns of behaviour that have an impact on school climate) that they employ to ensure that they are evolving the school culture in the right direction (Goleman 2000). Our work with school principals in Australia, United Kingdom and Singapore shows us that school leaders can often fall into the trap of using too narrow a repertoire of styles, doing what comes naturally. For instance, the egalitarian culture in some schools makes it harder for a school leader to use the visionary style which involves providing positive and negative feedback to staff in terms of their performance relative to the standards required to deliver on the mission of school.

Clarity is critical

Finally, clarity is critical in bringing people along for the ride. Clarity in teacher induction is critical for communicating the vision of the school, being clear about the job and for setting performance expectations. One of the biggest challenges in organisations is that leadership behaviours, management systems and organisational symbols send conflicting messages and open the door to revert to the old, easier way of doing things. Clarity is required at both the big picture level, in terms of what the change is trying to achieve, as well as at the individual level. School leaders have a critical role to play in connecting individual teachers, including new teachers, into this big picture as a critical enabler of teacher performance and, consequently, improved student outcomes.

Conclusion

There is no need for Australian schools to continue to search for what good induction practice looks like. Now, the challenge is about turning the research and the frameworks into practical initiatives in schools, in a way that will really make a difference for new teachers. Turning theory into action is no mean feat and it will require school leaders and teachers to work together to create the cultural conditions that will promote the success of induction initiatives. As Australia's education system strives to continue to lift teaching practice, effective induction should and must make a critical contribution. Through effective induction, schools can help to ensure that new teachers begin their teaching journey with the right foundation in place, establishing a firm basis for a strong and effective teaching career.



Teacher induction checklist

Tick the box most relevant to your school for each statement.

	Never	Sometimes	Always
Enabling factors			
New teachers are clear on the vision and goals of our school and their role in bringing this vision to life with their students			
New teachers are clear about how their teaching practice will be measured relative to the agreed standards on good learning at our school			
Our school supports open classrooms and collaborative teaching practice			
Performance and development initiatives at our school are appropriately targeted to the differing needs of new teachers			
Our school dedicates resources to induction, including through making time for new teachers to engage in induction initiatives and for experienced teachers to support new teachers			
New teachers can access all the support available within our school and beyond in order to continue to develop their own practice (e.g. mentors, peer learning groups, professional development seminars, social networking tools)			
Induction practice			
Our school has a formal induction process for new teachers			
New teachers have access to a mentor			
New teachers are active participants in classroom observation of practice, both being observed and observing other teachers			
New teachers receive ongoing, constructive feedback aimed at improving student learning through teacher practice			
New teachers having the opportunity to engage in collaborative teaching practices inside and outside of our school e.g. professional learning communities			
We seek and act on feedback from new teachers on their induction experience			
We seek and act on new professional knowledge, understandings and practices that new teachers bring into our school.			

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