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TASMANIA

Initial teacher education for teaching literacy: Review of literature

Phase 1b Report for the Review of Literacy Teaching,
Training and Practice in Government Schools

Prepared for the Department of Education, Tasmania

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Glossary

ABS	Australian Bureau of Statistics
AC	Australian Curriculum
ACARA	Australian Curriculum, Assessment and Reporting Authority
AC: E	Australian Curriculum: English
ACU	Australian Catholic University
ACDE	Australian Council of Deans of Education
ACER	Australian Council for Educational Research
AITSL	Australian Institute for Teaching and School Leadership
ALLS	Adult Literacy and Life Skills Survey
APST	Australian Professional Standards for Teachers
ATAR	Australian Tertiary Admission Rank
AQF	Australian Qualifications Framework
BCA	Business Council of Australia
BEd	Bachelor of Education
CBO	Community-based organisation
COAG	Council of Australian Governments
DoE	Department of Education Tasmania
ETDS	Exceptional Teachers for Disadvantaged Schools
ESA	Education Services Australia
ESOS	Education Services for Overseas Students
GTPA	Graduate Teacher Performance Assessment
ILSTE	Institute for Learning Sciences and Teacher Education
ITE	Initial Teacher Education
LANTITE	Literacy and Numeracy Test for Initial Teacher Education
LiFT	Learning in Families Together
LiL	Launching into Learning
LPCK	Literacy Pedagogical Content Knowledge
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MTeach	Master of Teaching
NAPLAN	National Assessment Program – Literacy and Numeracy
PE	Professional Experience
PISA	Program for International Student Assessment
PiTE	Partnerships in Teaching Excellence
PSTED	Pre-Service Teacher Education
PST	Pre-Service Teacher
RAS	Refugee Action Support
RTBCTG	Raising the Bar, Closing the Gap
SPSS	Statistical Package for the Social Sciences
STAT	Special Tertiary Admissions Test

TAFE	Technical and Further Education
TAILS	Tutor-Assisted Intensive Learning Instruction Strategies
TEE	Tertiary Entrance Examination
TEMAG	Teacher Education Ministerial Advisory Group
TEQSA	Tertiary Education Quality and Standards Agency
TIPP	Teacher Intern Placement Program
TLI	Teacher Learning Inventory
TQNP	Teacher Quality National Partnership
UTAS	University of Tasmania
UWS	University of Western Sydney

Executive Summary

This literature review focuses on initial teacher education for teaching literacy. It is the second part of the first phase of a five-phase project commissioned by the Department of Education Tasmania (DoE) entitled the *Review of Literacy Teaching, Training, and Practice in Government Schools*. Phase 1a, a review of literacy teaching in schools, informed empirical research conducted in Tasmanian government schools (phase 2). This literature review (phase 1b) shifts the focus from schools to initial teacher education. It informs phase 3 of the project, which investigates preparation of pre-service teachers, at the University of Tasmania, for teaching literacy.

Policy context

Both school education and initial teacher education have been subject to significant scrutiny and increased national regulation in the past decade and a half. This trend has involved a push for “standardisation” and tighter regulation of schooling, the teaching profession, and teacher education providers.

The context in which initial teacher education providers work is shaped by school reforms such as the introduction of the Australian Curriculum and National Assessment Program Literacy and Numeracy (NAPLAN). Providers’ efforts have also been directly affected by several inquiries into teaching and initial teacher education, which have had in common an emphasis on establishing teaching standards. Specific initiatives that set parameters for the work of initial teacher education providers include the:

- Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership);
- Accreditation Standards and Procedures (Australian Institute for Teaching and School Leadership);
- Higher Education Standards (Tertiary Education Quality and Standards Agency); and
- Literacy and Numeracy Test for Initial Teacher Education.

National policies and reforms are informed by relevant research and themselves influence the extent to which research findings are acted on by tertiary education providers and others. As part of, and in addition to, national reforms and programs, the Tasmanian Government has implemented initiatives aiming to lift literacy levels and to improve teacher quality. Among those initiatives, for example, is the Department of Education’s whole-of-agency 2019–2022 Literacy Framework, released in October 2018. The Tasmanian Government has also collaborated with the University of Tasmania on a workforce development strategy, including internships, and the two organisations are part of a newly initiated Future Tasmanian Education Workforce Roundtable¹.

¹ <https://www.education.tas.gov.au/2018/05/future-tasmanian-education-workforce-round-table/>

Preparing pre-service teachers to teach literacy

For this review of scholarly literature and research evidence about preparing pre-service teachers for teaching literacy we adopt as an organising framework Adoniou's (2013) model of teacher preparation. The model responds to repeated calls to better align the phases of teacher education, and outlines the personal, university, practicum/field experience, and first employment contexts in which teacher preparation occurs. We examine the literature relevant to each of these contexts, noting that several studies report on pre-service teacher learning in more than one of these contexts.

Personal context

Pre-service teachers arrive into initial teacher training with existing knowledges, attitudes, and dispositions that influence their preparation and capacity for teaching literacy, and these need to be considered by teacher educators.

In relation to personal literacy capabilities, several studies suggest that many pre-service teachers have inadequate literacy skills, knowledge, and confidence on entry into initial teacher training. Importantly, such gaps may be filled by explicit teaching. In terms of personal capabilities for *teaching* literacy, research points to low levels of confidence and/or narrow conceptualisations of literacy—especially writing—while other studies highlight a mismatch between high confidence and low capabilities.

Taken together, research findings demonstrate that the personal perceived literacy teaching capabilities of pre-service teachers are an important factor to consider for the preparation of effective future teachers of literacy through initial teacher education.

University context

While university is often viewed as the site where pre-service teachers undertake “theoretical learning” and the school classroom is the site where their “practical” learning takes place, the literature shows that this contrast is an oversimplification. Both theory and practical application are present in both contexts.

On such understanding, research has consistently identified a need to provide pre-service teachers with explicit skill development to teach literacy. The overwhelming focus of this research is on teaching reading and—to a lesser extent—writing, rather than on oral and visual literacy. Findings point to positive results from direct skilling approaches; structured code-based instruction; and service learning. There is also evidence that improvements in pre-service teachers' literacy content knowledge follows the strategic use of assessment focused on mastery or on application of knowledge.

Misalignment between coursework and classroom practice has been shown to undermine the usefulness of professional experience. In contrast, research highlights instances where university-based initial teacher education staff connect the varied contexts influencing pre-service teacher preparation by using innovative approaches that integrate coursework and professional experiences. In the process, pre-service teachers are being provided with opportunities to develop their literacy teaching practice in supported ways. Clinical approaches to initial teacher education show

particular promise as a way to bridge the gap between university and the classroom, and to synthesize theory and practice for pre-service teachers. Finally, studies point to the usefulness of timely and guided opportunities for reflection; this is a role that universities in particular can play to enhance the learning in and from professional experience.

Field experience context

A considerable body of research on initial teacher education suggests that the landscape of pre-service teacher professional experience is changing. The school-based practicum placement remains a dominant mode of professional experience, but there is mixed evidence of its effectiveness. Research also suggests that two critical factors determine the effectiveness of pre-service teachers' professional experiences—the quality of the relationship between a pre-service teacher and mentor and the nature of the placement provided.

With respect to the first factor, mentor teachers need to be appropriately experienced and qualified to provide the timely and regular feedback that pre-service teachers identify as crucial. Research also recommends collaborative relationships between pre-service teachers and mentors, underpinned by carefully-structured developmental progressions for learning how to teach literacy. Regarding the second factor, distinctive opportunities to apply theory in practice are being provided in new placement options, supplementary to the school-based practicum format, that integrate university-based coursework units and community-based placements. Studies suggest that community-based field placements also provide unique opportunities for pre-service teachers to “see” school students holistically, and such placements may be especially valuable in preparing pre-service teachers to work with diverse student cohorts.

First employment context

Pre-service teachers' learning and development as teachers continues far beyond their graduation from an initial teacher education program. Likewise, learning to teach literacy is part of an ongoing process of professional learning. It is therefore vital that any consideration of the effectiveness of initial teacher education to teach literacy takes account of the first employment context.

Internships and induction programs hold considerable promise as mechanisms to connect the different contexts of initial teacher education. Both such programs offer potential for supporting PSTs to make successful transitions into the teaching profession. The limited amount of research on this topic suggests that graduate teachers who participate in internships tend to be more classroom-ready than those who did not take part in intern experiences as part of their initial teacher education. Induction processes for new teachers in Australia are generally inadequate and *ad hoc* and there is substantial variation across schools in terms of how teacher induction is implemented.

There are few studies about graduate teachers' first employment experiences specifically with respect to teaching literacy. A common thread in the available literature is that a more coherent approach and appropriate levels of support are required for this transition to be successful and to retain and develop high quality teachers in the profession

Section 1: Introduction

This literature review focuses on initial teacher education for teaching literacy. It is the second part of the first phase of a five-phase project entitled the *Review of Literacy Teaching, Training, and Practice in Government Schools* commissioned by the Department of Education Tasmania (hereafter DoE or the Department).

Phase 1a, a review of literacy teaching in schools, informed empirical research conducted in Tasmanian government schools (phase 2). This literature review (phase 1b) shifts the focus from schools to initial teacher education. It informs further empirical research examining how the University of Tasmania prepares pre-service teachers to teach literacy (phase 3). Consequent phases of the project will include a synthesis of the evidence for effective literacy teaching practice, gathered in phases 1–3 (phase 4) and a final project report (phase 5).

1.1 Background

To provide a clear foundation for this report, we start by examining the key terms used in this review. First, we provide an overview of initial teacher education, then revisit how literacy is conceptualised—as outlined in our phase 1a literature review (Doyle *et al.* 2018).

1.1.1 Initial teacher education

Initial teacher education, also known as pre-service teacher education, is completed prior to entering the profession of teaching (Yeigh & Lynch, 2017). There is a discernible shift internationally towards school-based initial teacher education (Adoniou, 2013) but this trend is not currently reflected in Australia. Here, as in New Zealand, the United Kingdom, and the United States, initial teacher education means gaining a tertiary qualification at a university. This is usually a requirement for teacher registration, which “licences” people to teach in schools (Yeigh & Lynch, 2017).

In Australia and similar jurisdictions, the undergraduate qualification is a bachelor’s degree. That qualification generally comprises three to four years of university study and a fieldwork component in schools. Alternatively, entry to a postgraduate diploma or Master of Teaching program entails formal study shorter in duration than, and following completion of, a bachelor’s degree in another field. In Australia, initial teacher education programs must be accredited in order for graduates to be eligible to register as teachers. Accreditation requires programs to demonstrate adherence to teacher professional standards (Australian Institute for Teaching and School Leadership, 2015; Darling-Hammond, 2012; Ellis, McNicholl, & Pendry, 2012; Lynch, 2012).

During initial teacher education, pre-service teachers are required to take on an extensive array of responsibilities. In addition to mastering curriculum learning areas they will become responsible for teaching; for pre-service primary teachers that can mean working with as many as 10 curricular learning areas. Pre-service teachers must also demonstrate strong personal literacy skills (see section 2.1.1).

Initial teacher education programs play a vital role in developing beginning teachers' capacities to teach literacy, both as a specific learning area and as a cross-curricular capability. This means that all pre-service teachers need to be prepared to teach literacy.

They are expected to develop the capacity to adapt and personalise learning for diverse groups of students in diverse classroom settings (Gonski et al., 2018). They are also increasingly responsible for supporting students' wellbeing needs, and for identifying and supporting equity and broader social justice objectives in their teaching and allied activities. In short, initial teacher education requires pre-service teachers to take on new frameworks to understand teaching and learning, and to embrace responsibilities to help all children learn. Content knowledge and pedagogical knowledge for literacy are central to such endeavours.

1.1.2 Literacy

Literacy is one of the cornerstones of schooling for young Australians according to the Melbourne Declaration (2008), and effective literacy teaching is a community expectation in Australia (de Silva Joyce, Feez, Chan, & Tobias, 2014). Helping children and young people develop sound literacy capacities is crucial—both to support their learning across the school curriculum, and to ensure their full participation in society.

Recognising these dual purposes of literacy, in the Australian Curriculum literacy is defined as 'the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for participating effectively in society' (ACARA, no date). In Australia, the Australian Curriculum, Assessment and Reporting Authority (ACARA) works under direction from the Education Council of the Council of Australian Governments to develop national curriculum and to administer and report on national assessments in schools.

The Australian Curriculum has eight learning areas and seven general capabilities. Literacy is explicitly located in the English learning area and in the literacy general capability. All the reports prepared by us as part of the *Review of Literacy Teaching, Training, and Practice in Government Schools* are informed by and adhere to the nationally-agreed definition of literacy provided by ACARA:

Literacy involves students listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts. (ACARA, no date)

In other words, literacy is not only about reading and writing, but also incorporates oral and visual communication. The Australian Curriculum approaches literacy in an ongoing progression to support and guide development:

in the knowledge and skills students need to access, understand, analyse and evaluate information, make meaning, express thoughts and emotions, present ideas and opinions, interact with others and participate in activities at school and in their lives beyond school (ACARA, no date, no page).

Initial teacher education programs play a vital role in developing beginning teachers' capacities to teach literacy. This role applies to English as a specific learning area *in* the Australian Curriculum and also to teaching literacy as a general capability *across* the curriculum. The latter means that all pre-service teachers need to be prepared to teach literacy, regardless of subject specialisation.

1.2 Search strategy and review methodology

This review of the literature was produced using systematized review methods (Grant & Booth, 2009) over two searches.

Initially we examined a broad range of studies related to the subject by working from a database of more than 900 articles on the preparation of pre-service teachers to teach literacy. Those articles were identified by using search engines provided on the University of Tasmania library website. Titles and abstracts identified in that first search were read and items were selected for review if they reported findings related to the brief for the review which encompassed:

- *knowledge, skills, and dispositions* needed by pre-service teachers to teach literacy; and
- initial teacher education *approaches* to prepare pre-service teachers to undertake such teaching.

Findings that address these two foci are presented in section 3 of this report. While not all the literature reviewed is *specific* to literacy teaching, it is included in this report if we considered it *relevant* to the effective preparation of pre-service teachers to teach literacy.

In addition, we carried out a second search to identify relevant systematic literature reviews published by others. We used the following search parameters: English language, peer reviewed journal articles and scholarly book chapters, year 2008 to present, and international scope. The search terms used were: (a) *systematic review* and (*preservice teachers* or *student teachers* or *pre-service teachers*) and *literacy*; and (b) *systematic review* and (*preservice teachers* or *student teachers* or *pre-service teachers*) and *literacy* and (*pedagogy* or *teaching* or *teaching strategies* or *teaching methods*). That second search yielded four suitable systematic reviews in reputable sources: Cremin & Oliver (2017), Meeks *et al.* (2016), Stephenson (2018), and Lawson *et al.* (2015). These systematic reviews provided useful overviews and insights.

1.3 Structure of this report

In section 2 of this report we outline relevant policy and legislation relating to initial teacher education and to teaching literacy. The policy landscape for initial teacher education has shifted considerably since the beginning of the twenty-first century. Increased use of standards for both providers and pre-service teachers has mandated certain approaches in initial teacher education. This change has then prompted providers to change their practices.

In section 3, we introduce the organising framework for the review of the research studies, adapted from Adoniou's (2013) model of teacher preparation. This focuses on four key contexts for the preparation of PSTs to teach literacy: the personal, university, practicum (or 'field experience') and first employment contexts.

Finally, in section 4 we draw out some key conclusions and implications from this literature review.

In the past decade and a half, discussion about what constitutes ‘quality schooling’ has frequently positioned initial teacher education as a ‘policy problem’, resulting in significant scrutiny of initial teacher education providers.

Section 2: Policy context

In this section, we situate our review of the literature on preparing teachers to teach literacy in relation to broader changes and debates about initial teacher education and the provision of quality education. We outline key federal and state policy and legislative changes, provide an overview of initial teacher education in Australia, and locate the review in its historical and political contexts.

2.1 The changing landscape

Educational reform has long been a focus of Australian government policy. The 1989 Hobart, 1999 Adelaide, and 2008 Melbourne Declarations for education committed to the provision of high quality education for all, and this commitment has remained a cornerstone of policy for the past 30 years (O’Meara, 2011). Higher education provision for Australia’s teachers and questions more broadly about what constitutes “quality teaching” have been central parts of this policy framing, and have led to increasing federal regulation (Mayer, Cotton, & Simpson, 2017). In the past decade and a half there has been significantly more scrutiny of initial teacher education, and ‘more than 40 inquiries into different aspects of teacher education’ (Mills & Goos, 2017, p. 4). The uptake of recommendations from numerous inquiries and reports has resulted in policy reforms and legislative change.

On that understanding, below we first analyse policy at the national level, and then consider the Tasmanian context. For both jurisdictions, we have adopted a chronological rather than thematic approach in order to make visible the ways in which the policy landscape has evolved. We expect that this evolution is ongoing, and that reforms and policy initiatives will continue to affect initial teacher education.

2.1.1 Australian Government policy initiatives

In discussions about what constitutes “quality schooling”, teacher education has been positioned as “policy problem” in Australia and comparable other countries (Mayer *et al.*, 2017). Responding to calls to investigate initial teacher education the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) Teacher Quality and Educational Leadership Taskforce in 2004 commissioned the Australian Council for Educational Research (ACER) to map the terrain. Among other findings, the mapping exercise revealed that professional experience and practicum was the area of greatest concern in providing quality courses because ‘little is known about what constitutes “quality” in professional experience’ (Ingvarson, Beavis, Kleinhenz, & Elliott, 2004, p. v). Accreditation of initial teacher education programs was found to be uneven and the researchers concluded that a national approach to course accreditation had ‘the potential to play a major role in assuring and enhancing the quality of teacher education’ (Ingvarson *et al.*, 2004, p. viii).

The following year, the-then Australian Government's Education Minister announced a national inquiry into teacher education, the first in 25 years, returned to shortly. Concurrently, a *National Inquiry into the Teaching of Literacy* was conducted (Rowe, 2005), and was strongly influenced by a report from the United States entitled *Teaching Children to Read* (National Reading Panel, National Institute of Child Health, & Human Development, 2000). Despite its title, the Australian inquiry did not address the full scope of literacy (as later defined by ACARA, see section 1.1). Rather, it focused entirely on reading. The report strongly recommended the use of phonics-based teaching (Recommendation 2, p. 14) and argued that in the first three years of school the most effective approach to teaching reading is to explicitly focus on phonics, phonemics, fluency, vocabulary knowledge, and text comprehension.² In addition, the report cautioned against the exclusive use of a whole-language approach and concluded that this approach is 'not in the best interest of children, particularly those experiencing reading difficulties' (Rowe, 2005, p. 12). According to Cormack (2010), this conclusion situated the report 'firmly in the discourse of "reading wars" which has dominated curriculum debates in Anglophone nations since the 1960s' (Cormack, 2010, p. 3).

Based on the results of a national survey of teacher education institutions, the Committee for the Inquiry made four recommendations specific to preparing pre-service teachers to teach literacy.

- Recommendation 11 proposed that 'the key objective of primary teacher education courses be to prepare student teachers to teach reading' and that course content be informed by 'evidence-based findings' (Rowe, 2005, p. 52).
- Recommendation 12 noted the need for literacy teaching within subject areas to be included in the coursework of secondary teachers 'so that they are well prepared to continue the literacy development of their students' (Rowe, 2005, p. 52).
- Recommendation 13 focused on establishing 'the link between theory and practice that effectively prepares pre-service teachers to teach literacy, and especially reading, to diverse groups of children' (Rowe, 2005, p. 53).
- Recommendation 14 emphasised the importance of graduates having the capacity to demonstrate 'command of personal literacy skills necessary for effective teaching' (Rowe, 2005, p. 53).

Then, in 2007 the Standing Committee on Education and Vocational Training released its report on the aforementioned ministerial inquiry into teacher education announced in 2005, which was entitled *Top of the Class* (House of Representatives Standing Committee on Education and Vocational Training, 2007).

² These became known as the 'Fab Five' underlying skills for learning to read. The inclusion of oral language in an influential paper by Deslea Konza (2014) later led to the 'Fab Five' becoming the 'Big Six'.

The committee for that inquiry made a dozen recommendations, proposing action across seven key areas. These were:

- a sound research base for teacher education;
- a national system for accreditation of programs;
- additional entry points for teacher education;
- more collaborative approaches to practicum partnerships;
- better induction to the teaching profession;
- supporting career-long ongoing professional learning; and
- examination of funding of teacher education.

A year later another report on teacher quality was released, initiated by the Business Council of Australia (BCA) in collaboration with the Australian Council for Educational Research (ACER). Known as *Teaching Talent: The Best Teachers for Australian Classrooms* (Dinham, Ingvarson, Kleinhenz, & Business Council of Australia, 2008), the report explicitly drew a link between improvements in teacher quality and better educational outcomes for school students, furnishing fertile ground for intense and ongoing scrutiny of initial teacher education providers. The report noted that the 'BCA strongly endorses' (Dinham et al., 2008, p. 24) the recommendations in *Top of the Class* (House of Representatives Standing Committee on Education and Vocational Training, 2007). In addition, the report suggested five reforms:

- Recruiting the most talented, capable and committed people into the teaching profession.
- Introducing a new national certification system that recognises excellent teachers and provides the basis for a new career path for the profession.
- Creating a new remuneration structure that rewards excellent teachers and demonstrates that, as a society, Australia values the teaching profession.
- Developing a comprehensive strategy that supports teachers in continuing to learn and improve their teaching throughout their careers.
- Introducing a national assessment and accreditation system for teacher education courses. (closely paraphrased from Dinham *et al.*, 2008, p. 2)

The emphasis on teaching standards evident in *Top of the Class* and *Teaching Talent* remained apparent in successive reports and reforms.

In December 2008 MCEETYA released *The Melbourne Declaration on Educational Goals for Young Australians*. Significantly, the Declaration noted that 'literacy and numeracy and knowledge of key disciplines remain the cornerstone of schooling for young Australians' (Ministerial Council on Education, 2008, p. 5) and pointed out that successful learners 'have essential skills in literacy and numeracy' (p.8). Signed by all Australian Education Ministers, the declaration also made a 'commitment to action' that

all Australian governments, universities, school sectors and individual schools have a responsibility to work together to support high-quality teaching and school leadership, including pre-service teacher education' (p. 11).

According to Savage and Lewis (2018, p. 128), the Melbourne Declaration highlighted the importance of principal and teacher quality, and provided ‘the conditions of possibility for the current Australian Professional Standards for Teachers (APST)’, which were subsequently reflected in the establishment of the Australian Institute for Teaching and School Leadership—or AITSL (see below). The Melbourne Declaration also emphasised the inclusion of both learning areas and general capabilities in the curriculum—which was taken up by ACARA—and the need to prioritise transparency and accountability via national testing and public reporting. On such grounds, the first NAPLAN tests were administered in 2008 and the My School website was launched in 2010.

During the month that the Melbourne Declaration was released, the *Australian Curriculum, Assessment and Reporting Authority (ACARA)* was also established under Section 5 of the *Australian Curriculum, Assessment and Reporting Authority Act 2008 (Cth)*. The functions of the Authority were to include the development of a national curriculum and the administration of national assessments and associated reporting on schooling in Australia. While ACARA has had no direct role in preparing teachers to teach literacy, its establishment was a significant milestone in the Council of Australian Governments agenda to improve teacher quality.

December 2008 also saw the announcement of the Australian Government’s *Smarter Schools – Improving Teacher Quality National Partnership*, which allocated AU\$550 million over five years to address specific areas of reform. According to Mayer *et al.* (2017), the reform agenda marked the beginning of significant federal intervention in teacher education, and the ‘entanglement of disparate policy agendas’ (p. 4). It also politicised and increasingly regulated initial teacher education. Of particular interest to the present review is the strong focus that the Teacher Quality National Partnership (TQNP) placed on improving the quality of initial teacher education through the development of national standards and systems of teacher registration.

Then in 2010 the Australian Government funded the establishment of the Australian Institute for Teaching and School Leadership (AITSL) to provide national leadership in ‘promoting excellence in the profession of teaching and school leadership’ (Australian Institute for Teaching and School Leadership, 2011). One of AITSL’s core functions has been to develop and maintain national professional standards for teachers and school leaders. In the same year, Education Services Australia (ESA) commenced operations under the ownership of the Australian education ministers. The function of ESA has been to ‘advance key nationally agreed education initiatives, programs and projects’ and to ‘create, publish, disseminate and market curriculum and assessment materials’,³ thereby filling a gap for professional learning created by the development of a new national curriculum. O’Meara (2011, p. 428) notes that the advent of ESA also provided

a portal for PSTs across Australia to access research to improve their professional knowledge, resources to improve their professional practice and networks to promote professional engagement.

During 2008:

- **The Melbourne Declaration on Educational Goals for Young Australians was released**
- **The Australian Curriculum, Assessment and Reporting Authority (ACARA) was established**
- **The first National Assessment Program – Literacy and Numeracy (NAPLAN) tests were administered**
- **The Smarter Schools – Improving Teacher Quality National Partnership was announced**

³ www.esa.edu.au/about/about-us

The Productivity Commission's (2012) *Schools Workforce* report marked the start of an increased examination of the links between student learning outcomes, the performance of graduating teachers, and initial teacher education.

AITSL validated and finalised the Australian Professional Standards for Teachers (APST) in 2010, releasing them in 2011 after ratification by the Australian Council of Deans of Education (ACDE).⁴ The standards 'articulate what teachers are expected to know and be able to do' (AITSL, 2011, p. 1) across three domains of teaching—professional knowledge, professional practice, and professional engagement, and at four career stages—graduate, proficient, highly accomplished, and lead. Echoing Rowe's (2005) earlier recommendations, the standards stipulate that, within the domain of Professional, 'teachers develop students' literacy and numeracy within their subject areas' (AITSL, 2011, p. 4). This requirement is spelled out in Standard 2 (know the content and how to teach it). Under s.2.5, graduate teachers are expected to 'know and understand literacy and numeracy teaching strategies and their application in teaching areas' (AITSL, 2011, p. 11). (See Appendix A for the full list of AITSL Teacher Professional Standards.)

A year later, the *Tertiary Education Quality and Standards Agency (TEQSA) Act (2011)* was passed and requires all initial teacher education providers to ensure that their programs comply with Higher Education Standards. The Australian Qualifications Framework (AQF),⁵ also released in 2011 and updated in 2013, specified the skills expected of graduates. The AQF recognises literacy as a 'foundational skill' (p.95)—'a generic learning outcome ... [that graduates should be able to demonstrate] appropriate to the level and qualification type' (p.11).

Having started in 2008, NAPLAN took on further significance on 2010 with the launch of the MySchool website, which includes school-level data on NAPLAN test results. ACARA oversees both NAPLAN and MySchool. The intended benefits of the National Assessment Program are to 'help drive improvements in student outcomes and provide increased accountability for the community'⁶. MySchool is meant to enable 'everyone to learn more about Australian schools, and for schools to learn more from each other. For parents, *My School* provides information to help make informed decisions about their child's education'.⁷ Additional effects of NAPLAN and MySchool have been to draw attention to the literacy and numeracy outcomes demonstrated by Australian school students and to increase scrutiny of the capacity of teachers to improve those outcomes.

The Shape of the Australian Curriculum (version 4.0) was released by ACARA in 2012, previous versions having been trialled in schools throughout Australia from 2010. In outlining educational goals for young Australians, the Curriculum has specified that 'successful learners ... have the essential skills in literacy and numeracy' (ACARA, 2012, p. 8), and noted that the scope of 'the curriculum will include a strong focus on literacy and numeracy skills' (p. 14). Importantly, the Australian Curriculum dimensions stipulate that literacy is one of the core general capabilities as well as a distinct learning area—Australian Curriculum: English (AC: E).

The need for an evidence base to evaluate initial teacher education and track the performance of graduating teachers was highlighted in the Productivity Commission's *Schools Workforce* report, released earlier in 2012. Up to this point, there had been little in the way of policy proposing how to assess the effectiveness of initial teacher education programs. While Louden *et al.* (2010) have suggested that there is little

4 AITSL updated the standards in 2012 and again in 2015.

5 <https://www.aqf.edu.au>

6 <http://www.nap.edu.au/about/why-nap>

7 <https://www.myschool.edu.au/about/>

progress on that score, the Productivity Commission's report did mark the start of an increased examination of the links between student learning outcomes and initial teacher education.

In 2013, the Council of Australian Governments (COAG) agreed to 'streamline' the Ministerial Council system by creating the COAG Education Council. This forum was to coordinate strategic policy on education. In 2014, the *Teacher Education Ministerial Advisory Group (TEMAG)* was established to 'make recommendations on how initial teacher education could be improved to better prepare new teachers with the practical skills needed for the classroom' (Teacher Education Ministerial Advisory Group (TEMAG), 2014, p. ix). *Action Now: Classroom Ready Teachers* proposed 'a new approach to initial teacher education' (Teacher Education Ministerial Advisory Group (TEMAG), 2014, p. x) that included 'sophisticated and transparent selection for entry to teaching', an approach that selects entrants 'that have both the academic skills – including literacy and numeracy skills – and the desirable personal attributes for teaching' (p. x). Among 38 recommendations made by TEMAG, two refer specifically to teaching literacy:

- Recommendation 13: Higher education providers use the national literacy and numeracy test to demonstrate that all pre-service teachers are within the top 30 per cent of the population in personal literacy and numeracy
- Recommendation 17: Higher education providers equip all primary and secondary pre-service teachers with a thorough understanding of the fundamentals of teaching literacy and numeracy.

The TEMAG report has reiterated many of the findings of the *National Inquiry into the Teaching of Literacy* (Rowe, 2005), released almost a decade earlier, and noted that stakeholders continued to show concern about 'a lack of preparation in literacy teaching' (Teacher Education Ministerial Advisory Group (TEMAG), 2014, p. 22). Acknowledging that 'this is not a new finding' (p.22), the TEMAG Advisory Group has called for revisions to accreditation of initial teacher education courses, and concluded the following:

What is clearly important is to prepare all pre-service teachers to be able to keep up to date with evidence about the effectiveness of teaching practices and continuously review their student outcomes to assess and adapt their own teaching practices to achieve the best learning outcomes for their students (TEMAG 2014, p. 23).

The report has recommended more explicit alignment across teacher education programs, registration requirements, and the graduate standards, and a clearer and stronger role for AITSL to ensure this alignment happened (Savage & Lewis, 2018).

In the 2015–2016 federal budget, the Australian Government responded to the TEMAG report by increasing funding to AITSL by \$16.9 million so it could implement the TEMAG recommendations.⁸ The government has also made a commitment to 'work with universities to make available a national literacy and numeracy test for teacher education students graduating from 2015', and noted that from 2016 all pre-service teachers would be 'required to pass the test before they graduate' (Australian Government, 2015, p. 6). The government's response notes agreement with the Advisory Group that 'core subjects of literacy and numeracy' require

⁸ See: <https://www.education.gov.au/australian-institute-teaching-and-school-leadership-aitsl>.

The *Literacy and Numeracy Test for Initial Teacher Education (LANTITE)* was designed to assess ‘those aspects of initial teacher education students’ personal literacy and numeracy skills that can be measured through an online assessment tool’ and is intended to increase confidence in the skills of graduating teachers.

greater emphasis in teacher preparation and that specifically ‘in the early years of student learning literacy will require a particular focus on phonics and phonemic awareness’ (p.8).

AITSL was subsequently tasked with accrediting all initial teacher education programs in Australia and, in turn, program providers have been required to ensure that programs comply with both current Higher Education Standards as established by the *TEQSA Act (2011)* and with the *ESOS Act (2000)*. Thus, in December 2015 the *AITSL Accreditation Standards and Procedures* were released. Of the six standards, two have specific relevance for the teaching of literacy.

Standard 3 relates to Program Entry and s.3.5 stipulates that

Entrants to initial teacher education will possess levels of personal literacy and numeracy broadly equivalent to the top 30% of the population. Providers who select students who do not meet this requirement must establish satisfactory arrangements to ensure that these students are supported to achieve the required standard before graduation. The National Literacy and Numeracy Test is the means for demonstrating that all students have met this standard.

The National Literacy and Numeracy Test referred to in Standard 3 became the *Literacy and Numeracy Test for Initial Teacher Education (LANTITE)* and was implemented in 2016. The ACER website notes both that the test was designed to assess ‘those aspects of initial teacher education students’ personal literacy and numeracy skills that can be measured through an online assessment tool’, and that it is intended to ‘assist higher education providers, teacher employers and the general public to have increased confidence in the skills of graduating teachers.’⁹

Standard 4 relates to Program Structure and Content and s.4.2 specifies that initial teacher education programs prepare pre-service teachers to use the school curriculum and work in learning areas of their chosen discipline and/or stage of schooling. Schedule 1 of s.4.2 specifies that for both undergraduate programs and graduate entry programs the mandatory requirement for preparation for teaching literacy/English, at primary school level, is at least one quarter of a year of full-time study.

In response to teachers’ needs for greater specificity regarding stages of literacy and numeracy development, ACARA began to develop a tool to assist them to implement the Australian Curriculum: English and the Australian Curriculum: Mathematics. Throughout 2017, the *National Literacy and Numeracy Learning Progressions* were trialled, modified, released for consultation, and ultimately endorsed by the Education Council, as resources to support the Australian Curriculum. ACARA released the progressions in January 2018. They are expected to enable teachers to better identify growth in students’ literacy and numeracy.

Alongside these recent developments have emerged the *Graduate Teacher Performance Assessment (GTPA)*. Developed by the Institute for Learning Sciences and Teacher Education (ILSTE) at the Australian Catholic University, the GTPA is a tool that responds to repeated calls for Australian initial teacher education programs to demonstrate that graduate teachers can apply teaching practices that positively affect their students’ learning. The tool is described as ‘an authentic culminating

⁹ <https://teacheredtest.acer.edu.au/>

assessment designed to demonstrate pre-service teachers' competence in classroom practice'¹⁰, assessed against the AITSL Graduate Teacher Standards (Australian Institute for Teaching and School Leadership, 2011). Intended to aid quality-assured teacher preparation, the GTPA was validated in 2016 and trialled in 2017. In 2018, 14 higher education organisations including the University of Tasmania have been implementing the GTPA and participating in cross-institutional moderation. As a research-led teacher performance assessment, the GTPA is expected to generate large-scale evidence of beginning teacher quality and new knowledge about the application of standards, thereby informing future practice, policy, and research related to initial teacher education.

2.1.2 Tasmanian Government policy initiatives

In parallel with Australian Government reforms outlined above, the Tasmanian Government has implemented a raft of state-wide initiatives intended to lift literacy levels. Most of these initiatives have had direct impacts on schools and practising teachers rather than on initial teacher education providers. However, they have affected how pre-service teachers are supported to learn to teach literacy in Tasmania and discussing them here provides further local context for the review. It is also useful to note that, unlike in other states, there is only one initial teacher education provider based in Tasmania—the University of Tasmania—and access to other (offshore) providers is only available for Tasmanian residents via distance learning.

While the Department has prioritised improving literacy outcomes since the early 1990s,¹¹ the beginning of a period of intense policy activity related to literacy may be traced back to the *2006 Adult Literacy and Life Skills Survey (ALLS)*. Conducted by the Australian Bureau of Statistics (ABS), this survey collected and assessed information about the literacy skills of Australians aged 15–74 across a range of literacy domains. The survey established that literacy skills among Tasmanians were 'consistently ... below the national average in all domains'. More precisely, the results indicated that 'around half of all Tasmanians were assessed as having adequate prose (51.0%) and document literacy skills (49.3%), compared with 53.6% and 53.2% respectively' for Australians (Australian Bureau of Statistics, 2008, p. 2). The ABS report made the point that

it is important to note that population dynamics such as age structure, patterns of migration, labour force status and educational attainment may account for some of the differences in literacy skills between the states and territories (p.3).

Nevertheless, the results of the survey were widely interpreted to mean that approximately half of Tasmania's adult population lacked the necessary literacy and numeracy skills for work and life.¹² Another ABS survey (2011–2012) cemented the idea that 'half of all Tasmanians aged 15–74 [are] functionally illiterate [and without]

¹⁰ <https://www.graduatetpa.com/>

¹¹ In 1993, the Educational Planning Branch of the Department of Education Tasmania released its *Literacy Policy* to inform curriculum provision from Kindergarten to Year 12. This report was followed, in 1997, by the release of *Key Intended Literacy Outcomes, Tasmania* and, in 2003, by the *Literacy and Numeracy Plan for Schools 2003–2005*.

¹² Concerns about adult literacy levels in Tasmania led to the development of the *Tasmanian Adult Literacy Action Plan 2010–2015*, launched in 2010. An adult literacy coalition was subsequently convened to monitor the implementation of the Plan at the expiry of which *26TEN: Tasmania's Strategy for Adult Literacy and Numeracy 2016–2026* was released in 2016.

Raised awareness about comparatively low literacy levels among adults in Tasmania led to increasing discussion about the importance of teacher quality in ameliorating this challenge.

the skills needed to get by in the modern world [among them skills related to] filling out forms, or reading the instructions on their prescription' (Australian Broadcasting Corporation, 2013).

Raised awareness about comparatively low literacy levels among adults in Tasmania led to increasing discussion about the importance of teacher quality in ameliorating this challenge. In 2008, the Australian Government had responded to such concerns when it released the *Smarter Schools National Partnership for Improving Teacher Quality* (TQNP). This framework provided Tasmania with \$10.5m from 2009 to 2013 to improve teacher quality (Australian Government, 2013). In Tasmania, the first year of the TQNP included¹³:

- Partnerships in Teaching Excellence (PiTE) program, providing additional professional experience time and a mentor teacher for selected final year pre-service teachers.
- A postgraduate certificate in literacy in collaboration with the University of Tasmania.

Other initiatives under the program included the establishment of networks of schools to develop and implement whole-school or whole-network literacy and numeracy plans, and the provision of additional staff resources for leadership teams, professional learning, coaching and mentoring, and the collection and use of student assessment data to guide teaching.

In 2008, a program called *Raising the Bar, Closing the Gap (RTBCTG)* was funded for four years. The program was designed to increase the number of students finishing Year 6 with functional literacy skills. It was initially implemented in 36 primary schools across the state, and those were selected because they had significant numbers of students who had scored below the national minimum standard on NAPLAN. Under the program, a school received two additional staff, one of whom was an assistant principal whose presence meant the principal could lead literacy and numeracy improvements in the school. The program was expanded in 2011 to include secondary schools on the strength of an independent evaluation of the pilot program, which found evidence of improved literacy practice and a positive impact on learning outcomes (see Hay et al., 2011).

Tasmania's Literacy and Numeracy Framework 2012–2015 was then released in 2012. It clearly articulated the Department's direction for the next three years and noted that 'all learning is underpinned by effective curriculum implementation with a continual focus on literacy and numeracy' (Tasmanian Government Department of Education, 2012). The framework also stated the Department's intention to provide ongoing support for teachers 'to ensure they are equipped with the skills and resources for effective literacy and numeracy teaching'. This professional support was provided via the *Network Literacy and Numeracy Lead School and Network Lead Teacher Strategy*.

In recognition of the vital role played by parents and caregivers in literacy development in the pre-school years, the *Launching into Learning (LiL)* initiative was also introduced in 2012. This program is designed for parents with children aged from birth to four years and has an explicit focus on early literacy development.

¹³ https://docs.education.gov.au/system/files/doc/other/tas_ssnp_annual_report_2009.pdf

Shortly after, the Department also produced a suite of resources for teachers, beginning with *Supporting Literacy and Numeracy Success – A teacher’s Resource for Early Years to Year 12* (Tasmanian Government Department of Education, 2013). Introduced as ‘a common resource for all teachers and schools to use as they implement *Tasmania’s Literacy and Numeracy Framework 2012–2015* (Tasmanian Government Department of Education, 2015d), that resource was meant to inform school improvement planning. To be read in conjunction with various other departmental resources, it is cross-referenced in several internal policies (e.g. Tasmanian Government Department of Education, 2014a, 2014b, 2015b).

The *DoE Assessment and Reporting Procedure* was also released in 2013 and subsequently updated in 2015 (Tasmanian Government Department of Education, 2015a). The procedure document defines school improvement as

the process by which schools strive to become more effective with the aim of becoming high performing schools, *especially in the areas of literacy and numeracy*, student participation, general satisfaction and equity of outcomes. (p. 2, italics added for emphasis)

The procedure also stipulates that principals ‘must ensure their school participates fully in NAPLAN’ (p. 8), and ‘must report baseline data in their school improvement plans ... to enable progress against outcome targets to be measured’ (p. 8). The responsibilities of principals have also been extended and require them to communicate ‘aggregated data including achievement in literacy and numeracy testing and student assessment data against the Australian Curriculum to the school community’ (p. 10).

The Department’s *Learners First Strategy 2014–2017* (Tasmanian Government, 2014) noted that a priority for school education was to ‘provide continuing opportunities for quality literacy and numeracy pedagogies for all students K-12’. The year the strategy was released, the Office of the Auditor General of Tasmania also found that it was ‘highly likely that non-specialist teachers were widely used in public high schools and that there was a lack of departmental guidance for school principals in relation to required skills, qualifications and experience’ (Crown in the Right of the State of Tasmania, 2014, p. 3) Nevertheless, the Auditor General’s office was ‘satisfied that the Teachers Registration Board was implementing applicable legislation and standards in relation to teacher registration’ (p. 4). The Auditor General concluded that ‘the scope of work to improve the quality of teaching was appropriate, given the small size of the organisation and its mandate’ (p. 4).

In tandem with *Tasmania’s Literacy and Numeracy Framework 2015–2017*, the Tasmanian Government rolled out its *Literacy and Numeracy Specialist Teacher Strategy*, which has provided 25 staff with opportunities to work directly with students requiring additional literacy support across Years 6 to 8 (Tasmanian Government Department of Education, 2015d). A series of *Good Teaching* resources has also been produced to further support schools to implement the strategy, among them a set with a specific focus on teaching literacy at different stages of schooling. *Good Teaching: Literacy K–2* (Tasmanian Government Department of Education, 2015c) was followed by *Good Teaching: Literacy 3–6* (Tasmanian Government Department of Education, 2016a) and *Good Teaching: Literacy 7–10* (Tasmanian Government Department of Education, 2016b).

The recently formulated Education Workforce Roundtable Declaration prioritises the co-design of a training package from entry into initial teacher education courses through to the end of early career teachers' third year of teaching.

Building on the family engagement work initiated under the auspices of the aforementioned LiL program, the Tasmanian Government then launched its *Learning in Families Together (LiFT)* initiative in 2016. This program has been designed to help parents build their confidence and skills in order to support their children's literacy and numeracy learning at home in the K–2 years. Intended to encourage collaborative relationships across home, school, and community, the LiFT program has provided additional funding to 80 of the more disadvantaged primary schools in Tasmania so staff can provide activities that increase forms of parental engagement that help improve literacy and numeracy outcomes for Tasmanian children.

In 2017, the Department then initiated the *Middle Years Project* to focus on literacy improvement in the transition from primary to secondary school. The project supports groups or associations of schools to work together on such an endeavour. Supporting a culture of continuous improvement is the *2018–2021 DoE Strategic Plan: Learners First: Every Learner, Every Day*. This document highlights as one of its four key goals that 'learners have the skills and confidence in literacy and numeracy to successfully participate in learning, life and work' (Tasmanian Government, 2018).

The Tasmanian Government recently committed to realign the coaching initiative, funding an additional 35 instructional coaches, focusing initially on literacy, increasing the total number of coaches in Tasmanian government schools to 120.5 full-time equivalent personnel by 2020. It did so because 'literacy and numeracy skills provide the foundation for improving education outcomes in all other curriculum areas' (Tasmanian Government, 2018–2019, p. 66; Tasmanian Government Department of Treasury and Finance, 2016–17).

Most recently, during 2018 the Minister for Education and Training convened several Future Tasmanian Education Workforce Roundtable discussions with representatives from the Department, University of Tasmania, Peter Underwood Centre, Tasmanian Principals Association, Teachers Registration Board, and Australian Education Union. This broad coalition has developed a Declaration¹⁴ that states as one of its two priorities the following:

Tasmanian education leaders will co-design an early career teaching training package for early career teachers, from their entry into initial teacher education (ITE) courses through to the end of their third year of teaching. Multiple education partners will be involved, and the program will be supported by a strong mentor program, professional learning and individualised support. (p.4)

The role of the University of Tasmania, alongside the state government, is evident from the Future Tasmanian Education Workforce Roundtable and Declaration. In addition, ITE programs at the University have responded to state and national developments. As noted above, the University collaborated with the state government on initiatives as part of the *National Partnership for Improving Teacher Quality (TQNP)*. The TQNP initiative, the Partnerships in Teaching Excellence (PiTE) program in 2009–2013, was followed by a related initiative for PSTs in 2016, as part of a Department of Education workforce development strategy: The Teacher Intern Placement Program (TIPP). TIPP provides opportunities for pre-service teachers to undertake their final year of study while based full-time in a school working alongside experienced teachers.

¹⁴ <https://documentcentre.education.tas.gov.au/Documents/Education-Workforce-Roundtable-Declaration.pdf>

The program is available to 40 University of Tasmania teacher education students annually and includes additional mentoring, professional development, and support, as well as a cash incentive/small salary and the guarantee of a permanent teaching position on graduation.

Adhering to new national requirements for initial teacher education program accreditation, since 1 July 2016 all pre-service teachers undertaking their initial teacher education at the University of Tasmania have also been required to complete the LANTITE prior to their final professional experience placement. In 2017, 97 per cent of those students passed the literacy portion of the test, which was above the national average of 92 per cent.¹⁵ It is worth noting that higher education providers have discretion about when they require pre-service teachers to sit the test, with some requiring prospective pre-service teachers to do so as part of course entry requirements. Other providers have their own initial internal literacy and numeracy tests in addition to the LANTITE. Since 2015, the University of Tasmania has made its faculty-based literacy and numeracy competency tests compulsory for all initial teacher education students and, to be eligible for professional experience, pre-service teachers are expected to pass these and achieve 80 per cent or above.

In October 2018, the Department released its *2019–2022 Literacy Framework*, which will be followed by an action plan early in 2019. The framework builds on previous iterations of *Tasmania's Literacy and Numeracy Framework* (Tasmanian Government Department of Education, 2018), reflecting the government's ongoing intention to minimise the impact of socioeconomic status on students' literacy outcomes. The new framework prioritises attention to the importance of oral language, the need for evidence-based practices that are consistent and aligned, and the use of valid and reliable measures of impact and learner growth. It represents a departure from previous frameworks in that it applies across the whole agency and not just across schools, signalling an explicit statement of collective responsibility to improve literacy in Tasmania.

2.2 Impacts and implications of the reforms

The teacher education reforms and literacy teaching initiatives outlined above have had—and continue to have—significant implications for and impacts on different parts of the education sector. Not surprisingly, they have also generated substantial critique both from within the ranks of those most directly affected and from education researchers more broadly. Here we focus on the implications of these changes and responses to them for initial teacher education.

First, Yeigh and Lynch (2017, p. 117) have noted that repeated calls for an 'innovative reconceptualisation' of initial teacher education in Australia reflect a global push to rethink and modernise initial teacher education. This view has increased pressures to measure teaching quality against agreed professional standards and to use data from these measures to guide teacher training and professional learning. While the function of teacher professional standards remains crucial to generate feedback for the providers of initial teacher education (ITE) programs, Yeigh and Lynch (2017, p. 118) have argued that the standards also 'represent "unfinished business" in terms of ongoing ITE development'. If teacher training and student achievement are to be

¹⁵ <http://www.utas.edu.au/education/news/news-items/2018/april/tasmanian-student-teachers-top-national-literacy-and-numeracy-tests>

meaningfully connected, they argue, then the standards need to be operationalised into 'more precise measures of teacher behaviour that will allow the profession to drill down into these standards at a more fine-grain level' (p.123).

In turn, Cormack (2010) has used discourse analysis to examine the claims made about reading pedagogy in the *Report of the Inquiry into the Teaching of Literacy* (Rowe, 2005). On the basis of that analysis, he has argued that the terms "method" and "evidence" are deployed in the report in ways that privilege evidence labelled "scientific". This tendency has effectively discounted qualitative insights and practitioners' professional expertise and established a connection between science and policy in ways that have shaped reading pedagogy. In turn, it heavily influenced how teachers have been prepared so that they can teach literacy. In this light, positioning teacher education as a "policy problem" solvable only by government intervention has undermined trust in the professional judgement of teachers and resulted in 'increasing ... regulation associated with teaching and teacher education' (Mayer *et al.*, 2017, p. 4).

Mayer *et al.*'s (2017, p. 4) discourse analysis of key state and federal policy documents in Australia since 2010 has found that woven through 'competing accountability discourses' that have characterised the reform agenda over the last 15 years has been a thread linking teacher effectiveness to teacher preparation effectiveness, which in turn has been evaluated by student achievement measures. However, using students' standardised test scores to make judgements about teachers and teacher education programs 'is at best a tenuous link' that risks 'conflating teacher/teaching effectiveness with teacher education effectiveness' (Mayer *et al.*, 2017, p. 14). What is needed, they have concluded, is 'careful reconsideration of what effectiveness could and should encompass' and they posit that this work 'could lead to a shared research agenda ... and ... inform policy discussions and ultimately the enacted accountability mechanisms (p. 15).

Noting that innovations introduced on a national scale are likely to have both intended and unintended outcomes, O'Meara (2011, p. 429) has suggested that the likelihood of potential negative impacts is increased 'when the innovation represents a collection of initiatives that have the potential to impact on a wide range of people and sectors'. Observing that the "marketisation" of higher education may result in lowered entry requirements to teaching degrees to ensure viable student cohorts (and some would argue it already has had this effect), O'Meara (2011, p. 429) has made the point that any such change is 'in conflict with a national agenda targeting improvements in teacher quality'. Ironically, in this scenario variations in teacher quality and impacts on educational outcomes may well continue, despite significant investments to establish national initiatives aimed at standardisation. Research examining factors that predict academic achievement in the first year of an initial teacher education course has found that while 'ATAR was a significant predictor of achievement, it was not the strongest predictor. Students' self-reported behavioural engagement and motivation ... emerged as the most powerful single predictor of academic achievement' (Gerald Wurf & Croft-Piggin, 2015, p. 86).

In this context, it is worth noting that there has been substantial recent commentary about the relative risks and benefits of raising the Australian Tertiary Admission Rank (ATAR) required for entrance to teaching degrees. While use of a minimum ATAR for entry to initial teacher education courses may appear prudent and may help improve the calibre shown by pre-service teachers, it fails to capture both the complex equity issues affecting the selection of pre-service teachers and the factors

contributing to teacher quality. Imposing a minimum ATAR would run counter to current efforts to provide multiple pathways to attract diverse cohorts of pre-service teachers to teach in increasingly diverse classrooms. Indeed, even scholars with differing views on the usefulness of an ATAR benchmark for entry into initial teacher education courses have agreed that the fixation with ATAR scores is overly simplistic and counterproductive (Morgan & Aspland, 2018).

In turn, Savage and Lewis (2018) have argued that the articulation of “teacher quality” as the central policy problem that needs “fixing” has led to unprecedented federal intervention in the pursuit of national consistency in schools and in initial teacher education. It has also led to the emergence of power asymmetries as states and territories are positioned differently in relation to the national reform context (Savage, 2016), and created new tensions and concerns, particularly for small states such as Tasmania. Advocating an approach to understanding policy reform as ‘a highly dynamic and messy process that is always subject to change and mutation’, Savage and Lewis (2018, p. 138) have noted that reforms invariably undergo diverse translations in different jurisdictions. This finding suggests that there is scope to prepare pre-service teachers to teach literacy in Tasmania in productive and locally-responsive ways.

Reforms invariably undergo diverse translations in different jurisdictions, suggesting that there is scope to prepare pre-service teachers to teach literacy in Tasmania in productive and locally-responsive ways.

Section 3: Preparing pre-service teachers to teach literacy

Teacher education in Australia is highly scrutinised but as Stephenson (2018, p. 121) has noted 'the scrutiny appears to have come from enquiries and reports, not from research and systematic reviews of the research'. Indeed, while 'everybody wants quality teachers in schools' (Adoniou 2013, p. 49), and while there is agreement about the imperative for "quality teaching", there is less clarity about what constitutes effective initial teacher education. Studies into the effectiveness of initial teacher education programs have been scant (Ingvarson et al., 2014; Louden, Heldsinger, House, Humphry, & Fitzgerald, 2010; Rowan, Mayer, Kline, Kostogriz, & Walker-Gibbs, 2015) and fewer still have been studies that examine initial teacher education for teaching literacy. Many evaluation studies of initial teacher education effectiveness have been based mainly on pre-service teacher self-reports (Mayer *et al.*, 2017).

Above, we noted a shift, primarily in the United Kingdom and to some extent in the United States, towards promoting practice-based approaches to initial teacher education. That focus has been chiefly on skills development in classroom contexts (Hodson, Smith, & Brown, 2012), and Wold *et al.* (2011) have cautioned against purely school-based approaches, emphasising the need for theory and research to inform literacy teaching. This observation shifts discussion away from simplistic solutions calling for 'more practice, less theory' towards a more nuanced debate about how to better integrate theory and practice, or as Yeigh and Lynch (2017, p. 115) put it, how to close the 'knowing/doing gap'.

We aim to contribute to that discussion by taking up Adoniou's (2013) model of teacher preparation as an organising framework for our literature review. Adoniou's model has responded to repeated calls for better alignment of the phases of teacher preparation and provides, in her terms, 'a "quadumvirate" of contexts that are crucial to effective teacher preparation' (p. 52). She has advocated the need to place greater focus on the pre-service teachers at the centre of the initial teacher education enterprise in order both to consider in holistic ways their experiences and to emphasise the importance of understanding and connecting the different contexts that influence initial teacher education for effective (literacy) teaching.

Conceptualising teacher education as a 'shared and interlocking responsibility', Adoniou (2013, pp. 51-2) has highlighted that 'the journey into teaching begins before teacher preparation commences and continues beyond the completion of formal teacher preparation'. She has distinguished four contexts relevant to pre-service teacher learning: *personal literacy* background and experience, *university-based experience*, *practicum* experience, and *first employment experiences* in a school (Figure 1). These contexts are interconnected, mutually reinforcing, and internally contradictory and complementary. Research on initial teacher education has frequently addressed more than one context.

Nevertheless, the model is useful precisely because it simplifies reality and enables consideration of each context. Therefore, in this section we discuss studies on context under four subheadings, acknowledging up-front that the boundaries among them are permeable and that the foci of several studies cross over contexts. Because our specific focus is initial teacher education for teaching literacy, we pay relatively more attention to the university and practicum contexts, and less to the two others in Adoniou's (2013) model.

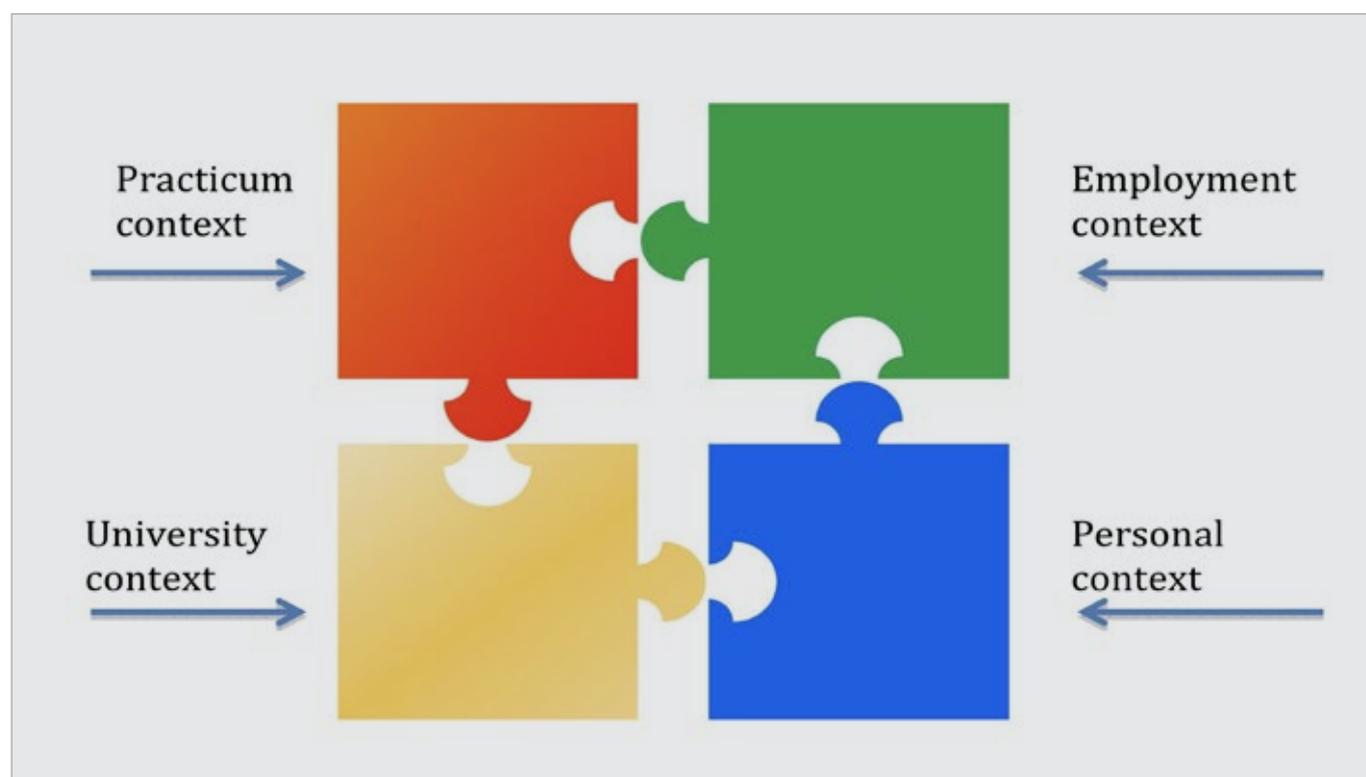


Figure 1: Adoniou's (2013) model of teacher preparation used as a basis for considering preparation of pre-service teachers for teaching literacy

3.1 The personal context

Pre-service teachers enter initial teacher education programs with a range of literacy and knowledge, and diverse attitudes and opinions about teaching literacy. Attitudes and opinions are formed in large part by having consciously or unconsciously observed teaching practice in classrooms during their own schooling (Yeigh & Lynch, 2017). Among educators there is a sense that members of the community think they are experts on education simply because they have spent many years in school. Among pre-service teachers, their experience of schooling forms a vicarious or '*ipso facto* teaching apprenticeship', which encourages them 'to think they already know how to teach' (Yeigh & Lynch, 2017, p. 116). In addition to shaping pre-service teachers' attitudes and opinions about literacy, prior schooling experiences also inform their expectations about teaching and the schemas through which they understand and interact with ideas that shape teaching (Curtner-Smith, 1999). Kukner and Orr (2015, p. 43) have noted that pre-service teachers are inclined 'to replicate traditional models of learning' which they may have experienced in their own vicarious teaching apprenticeship. In research on physical education, Curtner-

Pre-service teachers' personal literacy skills and attributes have been identified as important in preparing them to be high quality teachers.

Smith (1997) has also observed how teachers change curriculum so it aligns with their perspectives and ideologies. These findings are consistent with those made by Dymont and Hill (2015) in research with pre-service teachers in Tasmania, for whom already-held attitudes and opinions formed the frame underpinning new learning.

Pre-service teachers' attitudes and opinions about literacy are constructed from their involvement in social environments over their life course (Cumming-Potvin, 2009). A complex array of influences is at play. Their personal literacy skills form in particular social milieus. Likewise, their understandings of what literacy is, and of how literacy is taught and learnt, take shape in those milieus, perhaps most powerfully through public discourses, including media commentary (Draper, 2008; Kukner & Orr, 2015). The emergence of new literacies, including 'critical, digital, visual, performative, and alternative texts' (Kukner & Orr, 2015, p. 43) is another influence on pre-service teachers' understandings of literacy (Robertson & Hughes, 2011).

3.1.1 Personal literacy capabilities

Pre-service teachers' personal literacy skills and attributes have been identified as important in preparing them to be high quality teachers (TEMAG, 2014). Here we report on studies that have investigated their existing literacy knowledge. Stephenson's (2018) systematic review of 52 Australian studies published between 2005 and 2015 on the knowledge and skills held by pre-service teachers included 15 studies that specifically considered literacy. Eleven of the studies addressed content and four addressed pedagogical content; 10 found that pre-service teachers had inadequate personal literacy knowledge; three reported mixed findings; and two reported that pre-service teachers had adequate literacy knowledge. However, those studies reported the effects of university-based courses and/or field experiences and are dealt with in sections 3.2 and 3.3 below. One study that investigated existing literacy skills among 203 secondary teaching undergraduates via diagnostic testing of spelling, vocabulary, and punctuation came to the dire conclusion that 'many undergraduate students appear to have literacy problems so fundamental that remediation in the late stages of their degree program cannot hope to overcome a lifetime of poor literacy performance' (Moon, 2014, p. 128).

However, other research suggests that such gaps may be addressed by explicit and targeted teaching. For example, an intervention study conducted by Lee (2009) with 130 pre-service teachers in a university in the United States has found a statistically significant difference in their knowledge of emergent literacy following completion of an early literacy teacher preparation course (and see section 3.2 and below).

The main finding from this body of work was that it is difficult to draw general conclusions about whether pre-service teachers' personal literacy knowledge is "adequate" because no common definition of 'personal literacy' is provided in the review and the studies also define 'adequacy' differently. For example, judgements regarding adequacy have sometimes been based on reported results of assessment tests and sometimes on author conclusions. In other words, knowledge about literacy among pre-service teachers has been judged as "inadequate" if authors made clear statements to that effect, or if mean scores on a measurement task were reported and were less than 80 per cent, or if fewer than 80 per cent of participants met the standard set by the authors. Stephenson (2018, p. 124) has noted that 'this

level is an arbitrary standard, but on the few occasions when authors provided an acceptable standard, that standard was between 70 per cent and 85 per cent correct on assessment tasks’.

Notwithstanding these limitations, Stephenson’s review has added weight to recommendations in the report by the TEMAG (2014) that pre-service teachers’ personal literacy knowledge and skills require attention (see section 2.1). Importantly, taken together, the studies reviewed by Stephenson (2018) suggest that pre-service teachers can *acquire* necessary literacy content and skills during initial teacher education when provided with appropriate content in coursework and remedial support (see section 3.2).

Another systematic literature review of empirical work from 1990 to 2015 by Cremin and Oliver (2017) has focused specifically on writing as an aspect of literacy. Their review encompasses 22 studies that address teachers’ attitudes to writing; their sense of themselves as writers; and the potential impacts of their writing on pedagogy and/or student assessment outcomes in writing. Relevant to pre-service teachers’ personal literacy capabilities is their conclusion that, overall, many such new teachers experience low levels of self-confidence in relation to writing, often because of their own negative writing histories. One of the studies they have reviewed, which was conducted by Norman and Spencer (2005), involved 59 elementary school pre-service teachers from two cohorts in a large comprehensive Californian university. All had bachelor’s degrees in fields other than education and all were enrolled in a fifth-year post-baccalaureate elementary teacher education program, which included two semesters of coursework on literacy. Analysing data from their autobiographies and assignments, Norman and Spencer (2005) found:

- More PSTs viewed themselves positively as writers (58%) than negatively (33%);
- The majority (63%) expressed a preference for personal creative forms of writing; only 13% preferred analytic/expository writing;
- 90% acknowledged the impact (positive and negative) of influential people, especially teachers, on their self-perceptions, distinguishing between classroom environments which encouraged writing and those which provided writing instruction;
- 63% saw writing ability as an inherent gift/talent; 36% saw it something that could be improved.

The finding that most pre-service teachers in this Californian study expressed beliefs that writing ability is “fixed” rather than learned prompted Norman and Spencer (2005) to suggest that providing opportunities for them to engage in sustained writing-intensive professional development would be a productive area for focus in initial teacher training.

3.1.2 Teaching literacy capabilities

In addition to pre-service teachers’ personal content knowledge *about* literacy, researchers have examined their personal capabilities for *teaching* literacy. Here we discuss studies that address their self-perceptions about their preparedness for teaching literacy. Therefore, this section forms a ‘bridge’ between the personal

Pre-service teachers' confidence to teach literacy does not always match their competence or knowledge of metalinguistics.

context (and pre-service teachers' views about their own literacy capabilities) and the university context (capabilities related to teaching).

Several studies in Stephenson's (2018) systematic review that specifically investigated pre-service teachers' literacy skills and knowledge found that their *confidence* to teach literacy was not matched by their *competence* or knowledge of metalinguistics (see Bostock & Boon, 2012; Fielding-Barnsley & Purdie, 2005; Meehan & Hammond, 2006). These findings are consistent with those made by Washburn *et al.* (2011), who examined 91 pre-service teachers' levels of knowledge of basic language constructs in one university in the United States and found a mismatch between (high) perceived ability and (low) metalinguistic knowledge. At the same time, studies in which it has been found that pre-service teachers did *not* over-estimate their competence to teach literacy have also found—perhaps not surprisingly—that they lacked confidence in relation to teaching phonics (see Fielding-Barnsley, 2010; Mahar & Richdale, 2008) and grammar (see Harper & Rennie, 2008).

Cremin and Oliver's (2017) systematic review of pre-service teachers' perceptions of themselves as writers has found that many lacked confidence in their own writing abilities. Most did not view themselves as writers (see Morgan, 2010) and, in fact, many admitted to disliking writing (see Gallavan, Bowles, & Young, 2007; Gannon & Davies, 2007); yet, they valued writing skills for their students. Importantly, studies reporting on the effects of providing opportunities for pre-service teachers to reflect on and engage in developing their own writing have tended to suggest that such opportunities enhanced their confidence and self-efficacy as writers (see Daisey, 2009; Dix & Gawkwell, 2011).

A major study by Loudén *et al.* (2010) has focused on pre-service teachers' knowledge of literacy and mathematics. That study involved 590 pre-service teachers from 15 Australian universities completing the Teacher Learning Inventory (TLI) in the 2008 and 2009 academic years. All were in primary education programs, and in bachelor, postgraduate diploma, or Master of Teaching degrees. Two components of the TLI are of particular relevance for this report: the pre-service teachers' *self-reported perceptions of preparedness for teaching in relation to early years literacy*; and their *actual knowledge for literacy teaching in relation to reading and writing in the early years*.

In relation to pre-service teachers' perceptions of preparedness for literacy teaching, Loudén *et al.* (2010) discussed their data in terms of how 'easy' participants found it to agree with various Likert-scale questions. In Figure 2 we refer to perceptions of being 'well-prepared' and 'less well-prepared' for various aspects of pedagogical skills and content knowledge.

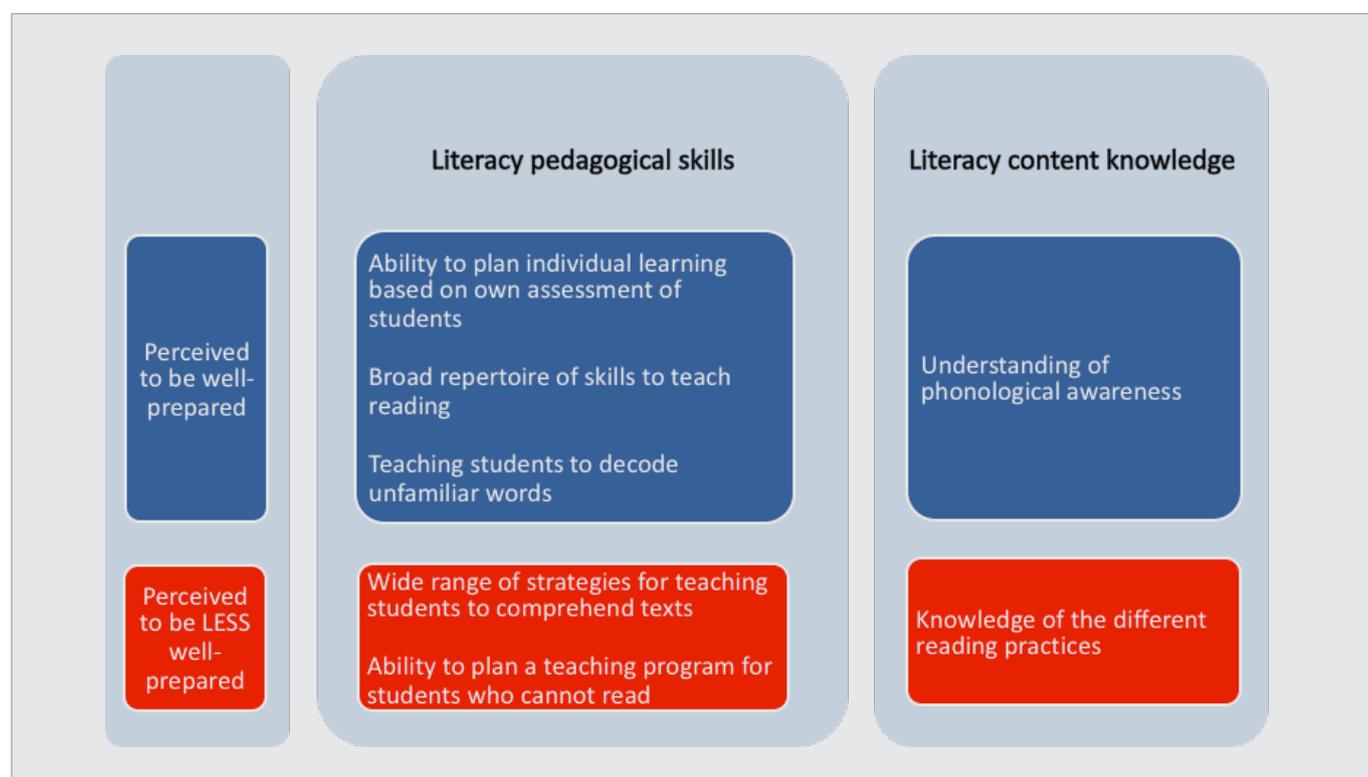


Figure 2: Pre-service teachers' perception of preparedness for literacy teaching (based on Table 11 in Louden *et al.*, 2010)

Before moving on to the second component of the study by Louden *et al.*, it is useful to consider findings from a recent systematic review of literature of how well-prepared pre-service teachers are to teach early reading (Meeks, Stephenson, Kemp, & Madelaine, 2016). That review examined 13 studies:

- four Australian; nine from the United States,
- five experimental/quasi experimental; seven surveys; and one assessment for initial teacher accreditation.

The authors have found that most pre-service teachers reported feeling confident in their ability to teach early reading but were less confident to teach children when they struggle with reading. The limited research available for review suggests that while most early childhood and primary pre-service teachers said they advocate a code-based approach to teaching reading, they 'did not have the knowledge to implement this approach' (Meeks *et al.*, 2016, p. 93). In the seven survey studies reviewed by Meeks and colleagues, the results ranged from 'not prepared/not confident' to 'somewhat' or 'moderately prepared' to teach early reading. In addition, they reported that the survey studies highlight that 'many PSTs demonstrated limited knowledge of literacy terminology and limited skills in applying that knowledge in practice' (Meeks *et al.*, 2016, p. 92). These findings reinforce the implication from Louden *et al.*'s (2010) study that the personal (perceived) literacy teaching capabilities of pre-service teachers are an important factor to consider for the preparation of effective future teachers of literacy through initial teacher education (see also Bos, Mather, Dickson, Podhajski, & Chard, 2001).

The second component of the research by Louden *et al.* (2010) that is relevant here was an assessment of pre-service teachers' knowledge of literacy teaching. Pre-service participants in the study had been given a series of tasks to assess how well they could analyse school students' literacy performance in reading and in writing, and then recommend strategies that would lead to improvement in performance. A key finding was that pre-service teachers in master's level teaching programs demonstrated knowledge of literacy teaching in these tasks substantially greater than students in undergraduate and graduate diploma programs—a difference of 1.53 standard deviations between the mean scores for master's versus other programs. This result has prompted the authors to stress the importance of recruiting well-qualified entrants to the teaching profession.

Returning to the systematic literature review on writing produced by Cremin and Oliver (2017; see 3.1.1), a recurrent theme among the studies they reviewed was that many pre-service teachers had narrow conceptions of what counts as writing and believed that writing abilities are fixed. One study considered by Cremin and Oliver (2017) is useful to illustrate and further underscore these findings. By Draper *et al.* (2000), the paper has reported on a survey of 107 pre-service elementary teachers on semi-structured interviews with a sub-sample of 24 of them. The study investigated factors influencing the development of their beliefs about reading and writing and their current habits in relation to these. The investigators were also interested in how pre-service teachers' personal histories of reading and writing related to their present attitudes and habits, and wanted to establish how they related those histories, attitudes, and habits to their plans for teaching reading and writing in the classroom. Key findings included:

- Family practices and specific teachers were perceived to be influential in shaping their current habits and beliefs;
- There were differences between pre-service teachers who considered themselves to be non-writers compared to those who deemed themselves writers. The non-writers had early negative experiences with writing and recalled copying text, whereas the writers recalled engaging in creative writing;
- All of them were unaware of the breadth of their current writing practices and defined themselves based on narrow academic perceptions of writing, disregarding other forms of writing, such as emails and personal notes.

Interestingly, while all the pre-service teachers said they wanted to foster children's pleasure in writing, most did not see themselves as role models for writing.

Finally, for another study also focused on writing, Gardner (2014) conducted mixed methods research in the United Kingdom with 115 pre-service elementary teachers to investigate the extent to which they took up their initial teacher education as confident writers. An initial survey elicited their attitudes to writing, as well as their self-perceptions as writers. The survey was repeated following a specific intervention at three months. At that time, the pre-service teachers undertook five writing workshops addressing different forms of writing, such as narrative, poetry, and informal letter writing. They were expected to reflect on the process of writing with a "response partner", to produce a "writer's sketchbook" to record observations, ideas, and feelings, and then to engage in focus group conversations. The study has found that almost half of the pre-service teachers reported at the start that they had never enjoyed writing, whereas after the workshops over three-quarters understood that seeing themselves as writers would positively influence

their teaching of writing. They also reported having a heightened awareness of the affective dimensions of writing. Based on those results, Gardner (2014) has concluded that the writing workshops enabled pre-service teachers to appreciate the socially-situated nature of writing and broadened their perspectives on the purposes and processes of writing.

3.2 The university context

Adoniou (2013, p. 54) notes that ‘university learning is usually posited as the “theory” as opposed to the “practice” that pre-service teachers expect to learn in the classroom. This contrast is an over-simplification because both theories and practical applications are present in university learning and in classroom teaching. In particular, the school-based practicum has become a well-established—indeed mandatory—component of university-based initial teacher education programs meant to operate in conjunction with coursework (see Standard 4.2, AITSL Accreditation Standards and Procedures, 2015). In this section we therefore refer to studies that focus on the practicum in relation to university and coursework. In Section 3.3, we continue to examine the ‘practicum context’ in Adoniou’s model but do so in terms of studies that emphasise field experience settings.

Preparing pre-service teachers to teach literacy effectively is part of the broader remit of initial teacher education programs to provide them with pedagogical knowledge to teach effectively across discipline areas. This knowledge comprises general understandings of sound teaching approaches informed by relevant learning theories and accounts for how these must be contextualised for different students, classrooms, schools, and environs. Classroom management and instructional principles, for example, are foundational aspects of teachers’ work that need to be developed through initial teacher education.

Studies of effective pedagogical approaches to prepare pre-service teachers to teach literacy have had multiple emphases. Some have focused on the explicit skilling of pre-service teachers to teach code and provide meaning-focused literacy instruction. Other approaches, such as those informed by sociocultural theories, have emphasised the need to help pre-service teachers develop dispositions to understand the characteristics of literacy learners whom they teach in present and future classroom contexts. One suggestion has been that initial teacher education must be designed to help pre-service teachers develop strengths-based dispositions to understand children and young people as competent and capable literacy learners who bring a range of experiences, needs, skills and capacities into the classroom in their ‘virtual schoolbag’ (Thomson, 2002, p. 2).

In this section we aim to distil from the available evidence what characterises effective university-based programs to prepare pre-service teachers to teach literacy. We address this objective by reference to pedagogical approaches, strong integration, and reflection. Most of the studies on these themes also incorporate some consideration of a professional experience component. The research base on such matters is growing, but published works generally refer to small-scale, single case studies.

3.2.1 Specific pedagogical approaches for teaching literacy

Preparing pre-service teachers to teach literacy may involve specific pedagogical approaches. Tetley and Jones (2014) have conducted a study investigating potential links between specific aspects of field experiences and pre-service teachers' knowledge of phonological constructs, as well as confidence to teach reading. The study has involved 224 pre-service primary teachers in a New South Wales university who participated in a survey after completing a sequence of four language and literacy courses and professional experience.

A key finding has been that pre-service teachers who encountered commercial phonics packages such as *Ants in the Apple* or *Jolly Phonics* during their professional experience had higher knowledge scores in phonics and phonological awareness. Pre-service teachers who encountered *Reading Recovery* had lower scores. Tetley and Jones have acknowledged that they 'lack more specific information on the nature of these experiences' (p. 26) and can only speculate on the reasons behind these findings. A further interesting finding was that field experiences that could be expected to be helpful were not related to participants' confidence to teach reading. This finding is counterintuitive, 'since a popular view of field experiences in teacher education is that they function to promote confidence to teach' (Tetley and Jones, 2014, p. 27). They have concluded that their study shows that specific field experiences—such as those involving commercial phonics packages—promote knowledge of language concepts but provide no evidence that such experiences promote confidence to teach reading.

An intervention study by Al Otaiba *et al.* (2012) has involved 28 pre-service teachers in delivering early literacy programs for kindergarten or first grade students over an eight-week period. The study has compared their performance using two different programs. The first was a tutor-assisted intensive learning instruction strategies (TAILS) and the second, a 'book buddies' shared book reading program. The two interventions were based on principles of direct instruction¹⁶ and involved participation in a professional experience where pre-service teachers conducted one-on-one remediation tutoring sessions. The research design involved a pre-test post-test instrument based on an adapted Preparedness to Teach Reading survey. The pre-service teachers who participated in the intervention programs in the study conducted by Al Otaiba *et al.* (2012) have reported high knowledge scores on a post-test about literacy content knowledge and considered themselves well prepared to teach early reading. Those who participated in the TAILS intervention reported feeling more prepared to teach reading than those who led the 'book buddies' program. The authors have attributed the success of TAILS to the scripted and structured, code-focused—that is, phonics-based—instruction component which they claim helped pre-service teachers apply their knowledge and appropriately combine code and meaning-focused instruction—that is, addressing vocabulary and comprehension.

In turn, Hudson *et al.* (2009) have reported on a project called *The Reading Squadron*. This project involved 10 final-year pre-service teachers who, following the completion of three university literacy units, volunteered to participate in a literacy program that was developed in a partnership between a local primary school and

¹⁶ Direct instruction is a step by step version of explicit instruction 'that follows a pre-determined skill acquisition sequence administered to students placed in ability/achievement groups' (Luke, 2014, p. 1).

the university. Participation in the program afforded the pre-service teachers an opportunity to apply in practice what they had been taught in their coursework. Starting with a day-long training session run by three staff from the primary school who had literacy teaching expertise, the session focused on instructional strategies for using books—that is, traditional print texts—to promote students’ reading confidence, phonemic awareness, and comprehension. In that workshop, the PSTs were provided with ideas for scaffolding questions, direct phonics instruction and an overview of reading strategies to support readers. They also observed a demonstration of implementation of the *Reading Squadron* program. The pre-service teachers then conducted one-to-one reading activities in two one-hour sessions per week over a six-week period. In each session they worked for 30 minutes with two students who had been identified as struggling readers.

After completing the project, the pre-service teachers completed a questionnaire and participated in interviews. The three mentor teachers who had been involved also completed a questionnaire to determine their perceptions of the program’s strengths and weaknesses. Based on participants’ self-reporting, the authors found that:

- The pre-service teachers believed they had increased knowledge of how children read;
- The pre-service teachers felt better able to cater to students’ differing abilities and to devise support strategies for students experiencing reading difficulties;
- Both pre-service teachers and mentor teachers felt that an experience such as *Reading Squadron* ‘would be well-placed as part of a core unit within the teacher education degree’ (Hudson et al., 2009, p. 8) because of the mutual benefits it conferred for mentor teachers—who received extra assistance with struggling readers, and PSTs—who had opportunities to put their university study into practice.

Another small-scale exploratory study, conducted in Australia by Dawkins *et al.* (2009), has examined the effects of pre-service teachers working as voluntary reading tutors. In that study, first year to fourth year pre-service teachers enrolled at a local university responded to a request for volunteer reading tutors. Comparison of pre- and post-intervention survey results support findings established by Hudson *et al.* (2009) suggesting that partnership between pre-service teachers and schools in early intervention reading programs ‘offers an ideal opportunity to restore the balance between theory and practice and affords preservice teachers a comprehensive experience in teaching early reading skills while providing effective support as trained tutors’ (Dawkins et al., 2009, p. 47). The authors have concluded that service learning projects, such as this intervention, prove beneficial for all participants by linking undergraduate coursework with authentic teaching and learning opportunities in schools, that are additional to formal practicum placements.

Finally, Thwaite (2008) has reported on a study of a remedial program to improve pre-service teacher’s written literacy. Upon entry into the Bachelor of Education (BEd) Primary program at one Australian university, an original cohort of 227 students enrolled in a “multiliteracies” unit and underwent a pre-test of their written literacy skills. The three largest groups of pre-service teachers in this cohort were those who had entered via the Special Tertiary Admissions Test (STAT); those who had entered via the Tertiary Entrance Examination (TEE); and students from

Service learning projects prove beneficial for all participants by linking coursework with authentic teaching and learning opportunities in schools, additional to practicum placements.

Technical and Further Education (TAFE) institutions. Of the 211 students who sat the pre-test, 154 (73%) failed and so were directed to take part in a three-week writing intervention involving explicit instruction in effective academic writing. Based on the identified needs of the pre-service teachers, the intervention focused on producing written texts at whole text, paragraph, and word levels.

After 22 students withdrew, 132 pre-service teachers completed a post-test which included 20 multiple choice questions—half on grammar and half on spelling and based on features that language education staff had noticed that undergrads often had difficulty with—and two one-page written responses to two different topics. Students had to sit only those test components that they had previously failed. The data were analysed both qualitatively and quantitatively. Linguistic analysis of their written texts focused on the texts' generic, paragraph, and sentence structures, and sentence-level grammar and punctuation. The pass rate for the text-writing component was 83 per cent. Statistical Package for the Social Sciences (SPSS) software was used to identify differences between various groups of students and between the pre- and post-tests. No significant differences were found among the different groups of pre-service teachers and the majority (86%) passed the post-test. It should be noted, however, that the benchmark for the spelling/grammar post-test had been lowered from 14 to 12 out of 20 because the researchers 'did not feel it was right to give a large number of students the impression that their literacy skills were insufficient without them having a clear pathway for help' (Thwaite, 2008, p. 208).

Moreover, because the intervention was offered three times, with changes made in each offering, the researcher concluded that statistical analysis of the pre- and post-test results would not be valid. Nevertheless, Thwaite (2008) has argued that the qualitative data suggest an improvement in the pre-service teachers' literacy skills, even though the intervention was relatively short. She has noted, too, that the intervention had greater success in addressing lower-level linguistic skills, such as punctuation and spelling, than it did with addressing higher-level text and paragraph structuring. Importantly, Thwaite (2008, p. 208) has suggested that 'any improvement could be due to a number of factors, including the fact that because the unit had focussed on writing and spelling, students had learnt to pay more attention to these areas'.

3.2.2 Strategic use of assessment

Two recent studies by Westerveld and Barton (2016, 2017) have reflected the increasing focus of some universities on the development of pre-service teachers' literacy knowledge in initial teacher education courses and help to shed light on the extent to which focused intervention on pre-service teachers' identified literacy deficits leads to improved personal literacy. The first study was conducted during the 2014 teaching year in a unit for literacy teaching in the early years and focused on pre-service teachers' language structure knowledge in the first year of a four-year degree program at an Australian University (Westerveld & Barton, 2016). The pre-test post-test study measured pre-service teachers' phonological awareness skills, including their capacity to identify the number of syllables in a word, and the number and position of sounds in words. Between the pre- and post-test, the students undertook the standard coursework in the literacy unit, which included one two-hour tutorial focusing on phonics and one two-hour tutorial focusing on phonological awareness and teaching phonics. In the pre-test at the beginning of

their first semester, 111 pre-service teachers demonstrated adequate performance identifying syllables and final sounds in words, with 91 per cent and 73 per cent of pre-service teachers answering more than 80 per cent of the items correctly. Results were much lower for identifying the number of sounds in words—12 per cent scoring above 80 per cent and identifying the second sound in words—two per cent scoring above 80 per cent. The key finding from this study was that the post-test conducted after the semester of literacy coursework found no material change in 68 pre-service teachers' phonological awareness skills. This finding suggests that the coursework had been ineffective in improving pre-service teachers' knowledge of the tested aspects of language structure.

Prompted by these rather disappointing results, the authors implemented a new intervention in the 2015 teaching year. That intervention formed the basis for their subsequent study (Westerveld & Barton, 2017). Seeking to improve first-year pre-service teachers' phonological awareness and orthographic knowledge, the authors modified the *Teaching of Reading and Writing* unit to introduce two online modules and an online test addressing phonological awareness and orthographic conventions. The online modules introduced for that second intervention took approximately one hour each to complete and were developed around three elements: quality of pedagogy, quality of resources, and delivery strategies.

The authors employed a form of assessment-driven learning in which the students were required to complete a 20-question quiz following the completion of the two modules. These two additional modules were a compulsory addition to the regular coursework for the unit, and passing the quiz required them to correctly answer at least 18 of the 20 questions—scoring 90 per cent, which contributed towards 10 per cent of their overall unit assessment. During the quiz, the students were free to refer to their learning materials and, after completion, they were given an itemised overview of their performance, including the correct answer for each question. Critically, students were ineligible to complete the unit until they achieved the minimum pass score (90%), and they could repeat the quiz as many times as necessary to attain a pass. The test was administered to the 238 students enrolled in the course at the end of the semester. It is interesting to note that the test was attempted an average of approximately 10 times per student, which seems to indicate that the “open book” nature of the quiz did not replace the need for actual content knowledge.

Apart from the introduction of the two online modules, which was the focus of Westerveld and Barton's second study, the coursework for the unit remained the same as that used in 2014. Voluntary pre- and post-study surveys were conducted to assess the efficacy of the two online modules and quiz. Two hundred and ninety-four pre-service teachers completed the survey at commencement, and 158 completed at the end of the unit. As with the 2014 study, the survey included a set of questions that tested phonological awareness and morphological awareness and introduced an orthographic knowledge task.

The authors compared results from this survey with those from the 2014 survey and have found that the overall performance of the second cohort was 'notably higher compared to the previous cohort ... who were not exposed to the online modules, nor the assessment task and showed no improvement during their first semester of studies' (Westerveld & Barton 2017, p. 105). The results were based on answers to survey questions designed to test orthographic and phonics knowledge. Improvement was shown to be statistically significant at $<.001$ in all areas tested,

except syllable awareness, which showed a ceiling effect at start of semester. That finding has led them to conclude that the two online modules with associated assessment tasks led to a significant improvement in pre-service teachers' knowledge of these areas, although the proportion achieving mastery in phonological awareness remained very low: 27.2 per cent compared to 10.3 per cent in the previous cohort. Achievement in orthographic knowledge was more acceptable, with mastery (more than 75 per cent correct) by 63.3 per cent of students.

However, the authors have also reported a high attrition in the *Teaching of Reading and Writing* course in the year of the intervention, with only 238 of those 456 originally enrolled completing the unit, representing an almost 50 per cent attrition rate. The increased phonological and orthographic knowledge was only reported amongst those who remained in the course. How students who withdrew may have differed from those who completed is not known; nor is whether the results would have differed had the attrition rate been much lower. These matters are important considerations in assessing the broader effects of this intervention.

Another intervention-based study by Fenwick *et al.* (2014) has elucidated the false dichotomy created by constructing university as the 'site of theory knowledge' and school as the 'site of practice knowledge' in initial teacher education. Prior research in the general field of tertiary education suggests that application of knowledge to develop deep understanding 'does not necessarily need to involve immediate use within professional practice' (Fenwick *et al.*, 2014, p. 3) if the teaching and learning strategies and assessment tasks are properly aligned.

In the study by Fenwick *et al.*, 53 first year pre-service primary teachers undertaking a 12-week unit on linguistics in an Australian university learned about traditional and functional grammar, early language acquisition, how students learn English as an additional language, and the relationship between oral and written language. Teaching and learning strategies were intended to help the pre-service teachers to develop deep understanding of language by constantly moving between knowledge transmission and application. Crucially, assessment activities were closely aligned and emphasised applying knowledge. The research generated two kinds of data, which were analysed to determine the extent to which the teaching and learning strategies helped embed deep understandings of language. A questionnaire completed at the end of the unit asked the pre-service teachers to reflect on their levels of confidence about to language learning, and to consider how useful they felt the teaching strategies and assessment tasks had been. To supplement the data collected from the questionnaire responses, the pre-service teachers completed an extended written response requiring the application of functional grammar, in a closed-book examination.

Data from the questionnaire showed that 62 per cent of the pre-service teachers did not feel confident about their linguistic knowledge at the beginning of the unit, compared with just two per cent at the end of the unit. The results of the examination responses were compared with those derived from the previous cohort who had not been exposed to an extensive emphasis on application of knowledge. Comparison revealed that 25 per cent more students in the second cohort exhibited sophisticated linguistic knowledge, evidenced by their capacity to 'identify patterns, generalise, hypothesise and move confidently between levels of language system within their analyses' (Fenwick *et al.*, 2014, p. 24).

The researchers concluded that while the majority of pre-service teachers were able to move from a surface level of knowledge to a deep level of understanding in this 12-week unit on linguistics, a small number did not move. For those pre-service teachers, Fenwick *et al.* (2014) suggest that the provision of more time and opportunities to practice working with a new and complex body of content knowledge would be beneficial. They also urge the providers of initial teacher education programs to regularly revisit language and learning knowledge that is deemed to be of high importance to the profession throughout multi-year programs, especially in those units that do not make immediate connections between theory and practice.

3.2.3 Strong integration between conceptual and practical learning

Misalignment between university coursework and in-class practice can undermine the usefulness of professional experience (Zeichner, 2010). There is plentiful evidence of the need for greater integration between conceptual understandings of literacy teaching that are developed in coursework, on the one hand, and, on the other, practical understandings of teaching literacy that emerge from pre-service teachers' professional experiences (Adoniou, 2013; Darling-Hammond, 2006). Without such integration, pre-service teachers may be denied opportunities to apply what they have learned in coursework. Indeed, in some studies the practicum was found to be a site of incongruence for pre-service teachers who experienced disconnections between the conceptual learning they undertook in coursework and the experiences they had in practice (Adoniou, 2013; Pomerantz & Condie, 2017). These studies have also established the point that the emphasis in initial teacher education programs on broadened literacy knowledge and pedagogies may not match classroom practices encountered during practicum. In Adoniou's (2013) 16-month study with beginning teachers, for example, pre-service teachers reported that they had witnessed little effective literacy teaching in practicum placements and that their coursework literacy assignments did not align with what was occurring in the practicum.

Among pre-service teachers, acquiring relevant knowledge and skills to teach literacy does not necessarily translate to classroom practice (Sanden, 2016). Pomerantz and Condie (2017) have worked with 10 pre-service teachers who participated in a semester-long practicum and who had completed a literacy methods course. The purpose of the study was to explore how and in what ways pre-service teachers transferred knowledge from literacy methods courses at university to classroom practice. The study participants were observed teaching two reading lessons during their practicum, then interviewed about their instructional decisions soon after the lessons. The findings have revealed that the participants acquired *knowledge of reading* and *knowledge of students* (which relate to literacy subject matter knowledge and general pedagogical knowledge). However, they did not demonstrate *knowledge learned in teacher preparation* and *knowledge of topical content*—either in most of the lessons observed or in the interviews.

The findings made by Pomerantz and Condie (2017) have led them to propose a 'knowledge transfer continuum' with five levels, ranging from "conscious rejection" by pre-service teachers of what they had been taught at university ['I am doing round robin reading because that's what grade ones do at this school'] to "expert

In some studies, the practicum was found to be a site of incongruence for pre-service teachers who experienced disconnections between the conceptual learning they undertook in coursework and the experiences they had in practice.

transformation of knowledge” to cater for specific student needs [‘I am going to choose a read-aloud text as a content introduction to a new science’]. Between these extremes, they propose, lie three additional points as indicated in Figure 3.

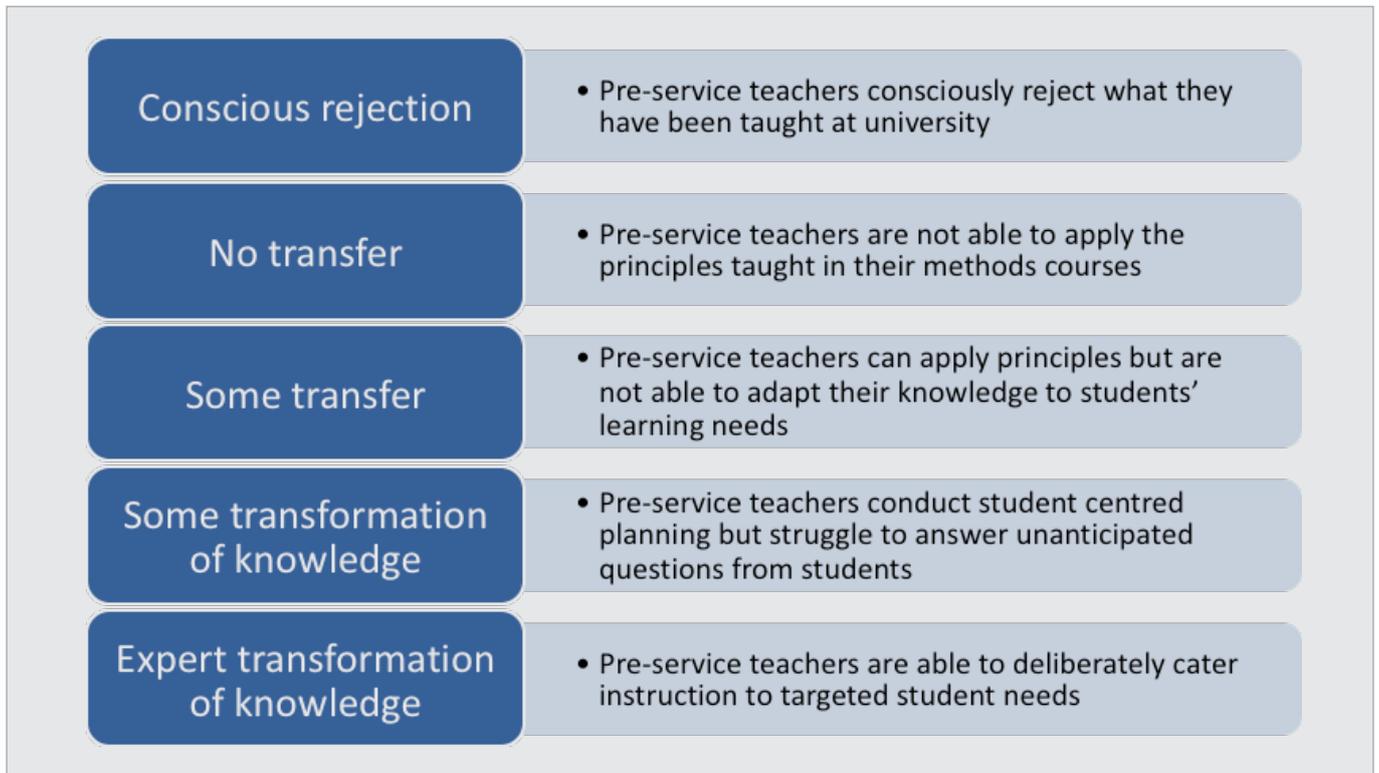


Figure 3: Knowledge transfer continuum (based on Pomerantz and Condie, 2017)

Fourteen of the 20 lessons observed showed evidence of some transfer of university-based learning. On that basis, Pomerantz and Condie (2017) have suggested several possible reasons for the limited ability to apply principles learned in coursework to guide in-the-moment instructional decision-making, include the school context and school-based pedagogy being more influential than pre-service preparation. However, they have also concluded that sometimes failure to transfer is due to ‘failures of initial learning’ (Perkins & Salomon 2002, cited in Pomerantz & Condie, 2017, p. 220). They have further determined that pre-service teachers could benefit from ‘much more practice during teacher preparation, analysing and adapting curriculum materials found in schools, based on sound principles’ (p. 220). On this basis, they have suggested extending the duration of the initial teacher education practicum.

An approach to the practicum more akin to clinical practice may also hold merit. Clinical practice is an approach to initial teacher education that emphasises ‘close connections between theory and practice, sustained and substantive time spent in clinical sites and the explicit development of pre-service teachers capacity to make evidence-informed judgments’ (Kriewaldt, McLean Davies, Rice, Rickards, & Acquaro, 2017, p. 154). Advocating for more clinical experience, Grossman *et al.* (2009) have noted that in relation to literacy teacher education this kind of experience might bridge professional knowledge and skilled practice; universities

and schools; and the settings in which teacher preparation is conducted and in which the initial years of teaching service occur (for the latter also see section 3.4).

Leader-Janssen and Rankin-Erickson (2013) have provided an example of a clinical approach to initial teacher education that highlights the functions of such strong integration. They conducted a mixed methods study with 21 pre-service teachers in a 16 week 'coursework + clinic' literacy course that focused on teaching the early reading skills of phonemic awareness and decoding. The course involved conceptual work and a supervised on-campus clinic in which the pre-service teachers provided weekly one-on-one tutoring sessions for primary school students struggling with reading. The research design used a pre-test and post-test, which also involved a control group of 13 pre-service teachers who undertook courses without the 'coursework + clinic' experience.

The study by Leader-Janssen and Rankin-Erickson (2013) has found that the pre-service teachers who took the 'coursework + clinic' literacy course achieved statistically significant gains in both self-efficacy to teach literacy and literacy content knowledge. The latter was focused on teaching reading, such as developing decoding skills, fluency, vocabulary and comprehension. The success of the intervention was attributed to the ways in which the unit and the clinical experience were structured. The integration of clinical experience and coursework in the unit provided opportunities for pre-service teachers to immediately apply the teaching strategies they were learning. That experience increased their self-efficacy for teaching reading by developing their instructional decision-making capabilities and abilities to apply the methods and strategies for teaching reading. On the strength of the findings, the authors have suggested that the design of the clinical experience and its emphasis on each pre-service teacher tutoring one struggling reader may have enhanced their investment in teaching reading well. In turn, that investment may have contributed to an additional investment in their own learning. In other words, it mattered to the pre-service teachers that they learned both to "know" and to "do".

Love (2009) has reported on another example of a clinical specialist approach that has been implemented in the Master of Teaching course at the Graduate School of Education at the University of Melbourne since 2008. That two-year teacher preparation course has been designed to develop "master teachers" using 'an intensive and systematic articulation of the university theory components with the school practicums' (Love, 2009, p. 545). The program has been characterised by two key features. The first is careful selection of partnership schools that serve diverse student populations. The second involves university-based "clinical specialists" working with school-based "teaching fellows" to ensure congruency between university and school settings. School-based clinical seminars are used to set up tasks that need to be completed and problems that need to be explored by pre-service teachers in classroom settings. Love (2009) has described one task as a deep reflection on the use of oral language to support students' learning in a critical teaching episode. The transcript of the teaching episode and the pre-service teachers' reflections on this work are then used for further analysis in a core subject called Language and Learning. A key resource used in this subject is an interactive eight-unit DVD developed by Love and her colleagues, showing authentic classroom interactions, teacher interviews, and literacy artefacts.

Love (2009, p. 558) has also reported that over an intensive six-week period involving both electronic and face-to-face tutorials, the pre-service teachers, who are not language specialists, are able to build 'valuable and transferable insights into the important role of oral language in disciplinary learning' as well as a body of useful literacy pedagogical content knowledge (LPCK) that they can apply in their own disciplinary teaching areas. While no original research is reported in the paper, Love has detailed how a clinical approach to teacher preparation for teaching literacy enables a deep synthesis of theory and practice and fosters an appreciation of the powerful mediating role of spoken language in students' learning.

3.2.4 Opportunities for reflection

It is widely acknowledged that pre-service teachers benefit from opportunities to reflect on their coursework and professional experiences (Shoffner, 2008; Welsch & Devlin, 2007). Unfortunately, simply providing such opportunities is no guarantee that the desired learning will occur. This point is highlighted by Brock *et al.* (2007) who outline an approach in the United States incorporating substantial debriefing sessions. Twenty-three pre-service teachers participated in a literacy methods course at university while also working in small teams of three or four to deliver one-hour literacy lessons in school classrooms over seven weeks of a semester. The teams collaboratively planned literacy instruction lessons during their coursework time and worked with different upper-primary school classroom teachers to teach the literacy lessons each week. After each lesson, the teams held a 30-minute debriefing conversation facilitated by one of the researchers, one of whom was also the course instructor. This open forum discussion focused on what they observed during the lessons and elicited their impressions of individual students and thoughts on what strategies and activities were more and less successful. The case study reported on findings from the debriefing conversations of two of the teams involving 23 pre-service teachers.

The study reported mixed findings. For some pre-service teachers, the practicum lessons provided opportunities to contextualise literacy instruction; this included modifying teaching strategies based on learners' needs, which was one of the course's core learning goals. However, some pre-service teachers resisted such practices and instead held deficit views of the students they were teaching, blaming them for failing to achieve the intended learning outcomes or for lack of engagement with the lesson content. These pre-service teachers were unable or unwilling to interrogate their own approaches and practices when students struggled to learn. The findings highlight both the importance of uncovering and addressing pre-service teachers' own views, attitudes, and dispositions towards teaching literacy before they undertake professional experience placements (see section 3.1) *and* the complexity of addressing such preconceptions.

Brock *et al.* (2007) have also cautioned that teacher educators need to be more prepared both to model correct techniques and to intervene when pre-service teachers have trouble implementing desired practices in school classrooms. As both lead author of the paper and university co-ordinator of the program discussed in the paper, Brock has concluded that her program might have benefitted had she intervened earlier and has pointed to the need to be strategic about how teams are formed. She has also suggested it is likely to be beneficial for teacher educators to spend additional time with those pre-service teachers who experienced difficulties in order to help guide their reflections on their experiences. On balance, the study

has provided several insights into the potential for university-school initiatives that incorporate opportunities for reflection and that account for the challenges involved in supporting pre-service teachers to reflect on and be prepared to modify their own views.

An intervention for pre-service teachers working in schools with large numbers of Indigenous students that has been evaluated by Burnett, Lampert and Crilly (2013) reinforces recommendations by Brock *et al.* (2007) for timely and guided reflection opportunities. The research reported in 2013 has examined the Exceptional Teachers for Disadvantaged Schools (ETDS) program developed by Queensland University of Technology¹⁷ for pre-service teachers in the third year of a four-year degree program. The ETDS aims to extend pre-service teachers' pedagogical knowledge in working with Indigenous students and focuses on core skills development, particularly in numeracy and literacy. The program challenges deficit beliefs about Aboriginal and Torres Strait Islander students using what is described as a highly scaffolded and mentored program incorporating practicum placements in disadvantaged schools. The preparation coursework for the ETDS program combined:

- socio-cultural theory to build pre-service teachers' understandings of disadvantage;
- a skills-based approach to extending pedagogical knowledge (for example behaviour and classroom management); and
- a focus on core skills development approaches, particularly in numeracy and literacy.

Burnett *et al.* (2013) have focused their study on ETDS field placements for the 98 pre-service teachers in the 2010 and 2011 cohorts. They have noted that while principals and teachers in the ETDS schools highlighted 'the importance of an appropriate balance between on-campus exposure to targeted theory and the opportunity to apply this knowledge in "real world" practicum experiences' the study confirmed findings from other research 'that this process is far from straightforward' (p. 171) (see section 3.2.3). Interviews with ETDS participants before and after field experiences have highlighted the point that timely feedback and reflection are crucial. Burnett *et al.* (2013) have illustrated this finding by drawing on pedagogically-oriented stories from practicum experiences of two of the non-Indigenous pre-service teachers who were placed in schools with large cohorts of Aboriginal and Torres Strait Islander students.

The data presented in the study included the email dialogues between the university's ETDS project leader and these two pre-service teachers. The narrative analysis has examined the latter's reflective emails, written during practicum, in which they expressed the challenges they were experiencing. That analysis has revealed the deficit perspectives held by the two in relation to Indigenous students in their practicum class and shown how these views were then challenged by reflective questioning from the ETDS project leader. Questions provoked the pre-service teachers to examine the connections between situations they were encountering on practicum and theories on disadvantage and Indigenous education they learned in their university coursework. By reference to their interviews with pre-service teachers participating in the ETDS program both before and after the practicum, Burnett *et al.* (2013) have found that timely reflection opportunities and feedback

Timely reflection opportunities and feedback on pre-service teachers' reflections are key supports during placements in complex school environments.

¹⁷ The program has since expanded into the National Exceptional Teachers for Disadvantaged Schools program.

on pre-service teachers' reflections are key supports during placements in complex school environments. Guided reflection tasks appear to be especially useful to facilitate pre-service teachers' learning experiences, providing 'moments of slippage' that enable pre-service teachers to link theory and practice and 'rethink, reconsider and relearn in ways that may address rather than cause educational disadvantage' (Burnett *et al.*, 2013, p. 175).

Importantly, the pre-service teachers who participated in the ETDS were not a cross-section of the full cohort. Rather, they were selected on the basis of their grade point averages, on having successfully completed a compulsory Aboriginal and Torres Strait Island education unit, and on being committed to the project's objectives and the requirements of the program. Nevertheless, Burnett *et al.* found that the two students whose responses formed the intensive cases in their study initially held deficit views in ways that parallel the positions held by 'resistant' pre-service teachers encountered by Brock *et al.* (2007). This suggests the approach to timely, guided reflection in the ETDS approach holds promise for working across broad pre-service teacher populations.

Finally, Mosley and Zoch (2012) have also discussed the role of reflection in pre-service teacher education. This study based in the United States has examined pre-service teachers' fieldwork experiences in an adult literacy education class which was a part of the coursework in a reading specialisation unit. Although the context here is adult literacy, the findings are of interest for pre-service teachers preparing to teach in schools. In their coursework, the participant pre-service teachers took a *Community Literacy* subject that prepared them for practicum work by focusing on literacy practices in communities, international struggles for literacy, and family literacy practices. Culturally relevant teaching approaches were employed in the coursework, to support pre-service teachers developing literacy teaching approaches and dispositions which valued the student as 'the subject of the process of learning to read and write as an act of knowing and a creative act' (Freire, 1983, p. 10). The coursework called for pre-service teachers to read and review literature about literacy as a social practice with reference to the 'funds of knowledge' of literacy learners, which Gonzales *et al.* (2005) have described as the knowledge based in social and cultural practices that are part of students' family and community lives and daily routines.

This approach guided the pre-service teachers' work in their practicum, which emphasised teaching reading and writing using a broad sociocultural approach, and foregrounded participants' experiences and cultural backgrounds. The pre-service teachers developed literacy lesson plans to prepare for their placement teaching sessions, which encompassed approaches such as inviting vocabulary from students' daily lives into the tutoring sessions as text. The two-hour practicum sessions consisted of the adult literacy teacher providing direct instruction to the class for the first hour, while pre-service teachers supported individual students. In the second hour, the pre-service teachers taught lessons they had created during their coursework.

Of interest for this report are the written reflection tasks that the pre-service teachers were assigned as part of the course, and which required them to reflect on the roles of teachers and learners with reference to the funds of knowledge of the literacy learners they were tutoring. Drawing on a close discourse analysis of three preservice teachers' written work during the course, this study found that pre-service teachers learned to construct their pedagogy with reference to students'

funds of knowledge, political interests, and ways of making meaning. The authors attributed the success of the course to the integrated practicum-coursework experience as well as to the pre-service teachers' engagements in reflection on practice as part of the coursework assessment.

3.3 The field experience context

In Australia, the supervised school-based practicum remains the predominant form of professional experience for pre-service teachers (Adoniou, 2013). In its conventional form, practicum involves a pre-service teacher in an extended placement in one classroom with a mentor teacher.¹⁸ Pre-service teachers generally nominate the practicum experience as among the most valuable forms of preparation they receive for teaching in general (Pomerantz & Condie, 2017). However, despite its popularity and widespread use, there is mixed evidence of the effectiveness of current models of practicum (Adoniou, 2013; Ambrosetti, Knight, & Dekkers, 2014; Ticknor, 2015). Adoniou (2013) argues that the value of the pre-service professional experience is related to the quality of the placement and the nature of relationship between the university and professional experience context, to a large extent embodied in the relationships between mentors and pre-service teachers. While incongruence between coursework and classroom experiences is sometimes the result of a clash of perspectives, dissonance between pre-service teachers' university experiences and their practicum experiences can also be due to the selection of their mentors. As Adoniou (2013, p. 55) has noted, 'mentoring teachers are of all qualities and have varying motivations' and volunteer or are assigned to pre-service teachers for a range of reasons.

In this section, we turn our attention to studies that specifically examine the relationships between mentors and pre-service teachers, because the evidence suggests that this a critical factor in the success and effectiveness of pre-service teachers' professional experiences (Lawson, Çakmak, Gündüz, & Busher, 2015). We also widen our focus to consider the evidence for the efficacy of community-based field experiences for pre-service teachers that are supplementary to the traditional school-based format practicum in initial teacher education. In doing this work, we locate further evidence for what makes for effective professional experience, because fieldwork placements that occur beyond the school environment arguably have the potential to provide unique affordances for preparing pre-service teachers to teach literacy to diverse student populations (McDonald et al., 2011).

It is important to note that while numerous small-scale studies have investigated fieldwork experiences from the perspective of preparing pre-service teachers to teach literacy, there are very few longitudinal or large-scale studies with this specific focus.

Fieldwork placements that occur beyond the school environment arguably have the potential to provide unique affordances for preparing pre-service teachers to teach literacy to diverse student populations.

¹⁸ In accordance with general usage in relevant literature, in this literature review we employ the term 'mentor teachers' or 'mentors' to refer to the practising school teachers who pre-service teachers are placed with for their practicum. In contrast, in Tasmania, the term 'colleague teacher' is commonly used to refer to the teacher that pre-service teachers are assigned to on their practicum, while the term 'mentor teacher' is generally used to refer to the practitioner a graduate teacher is assigned to in their first year of teaching.

3.3.1 The relationship between mentors and pre-service teachers

Professional experience for pre-service teachers is a shared enterprise involving multiple stakeholders and requiring effective collaborations and partnerships. A key relationship is that between pre-service teachers and their mentor teachers and the relationships that form between them is integral to the success of professional experiences.

Dissonance between the approaches or perspectives of mentor teachers and the pre-service teachers they supervise may challenge effective practice in the field experience context. In a narrative study about teaching writing, for example, Burnett *et al.* (2015) reported differences between mentor teachers' and pre-service teachers' respective approaches to teaching writing. Five pre-service teachers in the final year of a three-year undergraduate initial teacher education program took part in interviews with the research team to examine how pre-service teachers positioned themselves as literacy teachers. The researchers were particularly interested in exploring continuities and discontinuities between pre-service teachers' personal and professional literacies, and between the literacy teachers they wanted to be and the teachers they felt they were expected to become.

The participating pre-service teachers were able to relate what the authors called 'success stories of confident literacy teaching' (p. 284), speaking about the confidence they developed as a result of their placements. Interestingly, while these success stories were 'frequently patterned by school discourses, for example in the emphasis on levels and targets' (p. 288), the pre-service teachers often also told 'opposition stories' in which their approaches contrasted with those used by teachers they observed. One pre-service teacher described how her mentor teacher required students to undertake daily writing practice in silence, whereas the pre-service teacher preferred more flexible and shared approaches to teaching writing that involved classroom discussion. This example offers insight into different views of literacy practices that may be held by pre-service teachers and mentor teachers. While none of the five participating pre-service teachers was reluctant to voice ideas that ran counter to what they observed in the classroom, Burnett *et al.* (2015) have noted that 'practices encountered in school often won out over practices ... explored at university'. The need to recognise the affective dimension of learning to become a literacy teacher and to continue to encourage reflection and critique in initial teacher education.

Ticknor (2015) has also noted the dissonance experienced by some pre-service teachers in their practicum where there are differences between the literacy teaching approaches they had been introduced to during their coursework and the approaches taken by their mentor teachers. The setting for Ticknor's study was the initial licensure program¹⁹ of a four-year teacher education program at a large public university located in the southwest of the United States, from which graduated approximately 150 elementary (K-6) teacher candidates each year. The study investigated how pre-service teachers use language to mediate their professional identities in initial teacher education courses. At the beginning of the research, Ticknor taught an elementary language methods course in which all the participants were enrolled; note that the number is not specified.

¹⁹ 'Initial Licensure program' is a term used in the US for teacher preparation programs designed for those who have an undergraduate degree in an area of study other than teacher education and who want to pursue graduate studies to become licensed as an elementary/primary or secondary school teacher.

The primary data source for the larger study were 11 in-depth small group interviews, over three academic semesters, and the goal of the interviews was to encourage participants to share their field experiences. The pre-service teachers in Ticknor's (2015) study were frustrated that they did not observe in the classroom the broadened literacy practices that aligned with the social justice agendas for literacy evident in their initial teacher education programs. Instead, they observed what they saw as practices focused on narrow assessment measures and not on the interests, backgrounds, and potentials of students.

Ticknor has also concluded from her findings that pre-service teachers seeking to put into practice those broadened literacy teaching approaches were at some professional risk where those approaches conflicted with mentor teachers' practices. Drawing on critical sociocultural theory she submitted that pre-service teachers' participation in practicum is imbued with power relations, particularly for those who hope to gain future employment in a school in which they undertake their professional experience placement (see section 3.4).

Various studies have also investigated the qualities of successful mentoring relationships in professional experience placements in teaching—without necessarily focusing on literacy teaching per se. Those studies have provided a range of insights about the effectiveness of preparation programs for mentoring relationships, and confirmed that carefully structured and sequenced progressions of literacy teaching experiences supported by mentor teachers are seen as valuable (Adoniou, 2013; Pomerantz & Condie, 2017; Sempowicz & Hudson, 2012). The studies also confirm that pre-service teachers and mentors need to negotiate to develop effective collaborations (Bradbury & Koballa, 2008) and that sound communication between mentors and mentees facilitates pre-service teachers' learning (Hudson & Millwater, 2008). Smith and Avetisian (2011) call for more educative dialogues between mentors and pre-service teachers about diverse views of teaching and pedagogical practices, and argue that such productive conversations builds shared knowledge, practices, and discourses for teaching. However, perceptions of what constitutes effective mentoring differ (Tillema, Smith, & Leshem, 2011), and mentors may see their function as ranging from advisor to friend (Li, 2009).

No matter the relationship, Lawson *et al.*'s (2015) systematic review of research relating to the teaching practicum found that pre-service teachers perceive feedback as a crucial element of the mentor/mentee relationship. Indeed, in a study by Sempowicz and Hudson (2011) feedback was a cornerstone of an effective mentoring partnership between teacher and pre-service teacher and was provided in multiple forms. In their study, the mentor would question the mentee about pedagogical decisions in class time, make suggestions, and offer advice for improvement. Feedback on the mentee's teaching episodes was then more formally provided in both verbal and written formats. While the focus of that study was on classroom management, its findings are relevant because the approach is transferable to professional experience for literacy teaching and offers a useful illustration of a carefully sequenced progression of learning in professional experience. The progression can be summarised as follows:

- Effective practice began with the pre-service teacher observing the mentor teacher's practice. The focus was on classroom management, and the mentor teacher's practice was based on the principles of the school-wide positive behaviour plan. This first step could equally well focus on literacy teaching and be based on a school-wide literacy strategy.

Mentor teachers need to be well-supported and provided with professional learning opportunities to develop their own capacities for effective practicum collaborations.

- The pre-service teacher was then given the opportunity to practise the observed strategies, by delivering one short lesson (20 to 30 minutes) repeatedly, to six different groups of four students, to gain experience in implementing behaviour management strategies.
- This work was scaffolded and supported by the mentor teacher, who provided feedback to the pre-service teacher to encourage reflection on practice.
- In a further progression, the pre-service teacher was observed teaching a longer lesson (45 to 60 minutes) and the newly learned behaviour management strategies were evident in the pre-service teachers' practices.

Sempowicz and Hudson (2011) have concluded that this developmental progression both provided multiple opportunities for pre-service teachers to grow their repertoire of practices and resulted in transfers of observed strategies to pre-service teachers' own teaching practices. Although the mentors in their study provided timely and regular feedback to pre-service teachers, the authors concur with the need for 'purposeful professional development [so that mentor teachers] can refine and extend their mentoring practices' (Murray, Hudson & Hudson 2011, cited in Sempowicz & Hudson, 2011, p. 52). Others agree that mentor teachers need to be well-supported and provided with professional learning opportunities to develop their own capacities for effective practicum collaborations (Huling, Resta, & Yeargain, 2008; Jonson, 2008).

Another study conducted in Australia by Ambrosetti (2011) has investigated perceptions of the mentoring relationship among 75 pre-service teachers following their participation in professional experience. The research found that participating pre-service teachers thought that a successful mentoring relationship involves the formation of a reciprocal relationship conducive to learning. The findings were similar for first and final year pre-service teachers; however, the nature of the relationship was different. First year pre-service teachers described working with their mentor in a "helper" role in order to observe and develop teaching skills. The helper role included assisting the mentor teacher prepare for a lesson, roaming the classroom, and being actively involved in classroom activities. Final year pre-service teachers were more collaborative and tended to work with the mentor as a "partner" in a shared teaching role.

From an analysis of the pre-service teachers' interviews, Ambrosetti (2011) has concluded that the quality of professional experience is influenced by the quality of the relationship between pre-service teachers and their mentor teachers, and by the expertise of the mentor in modelling teaching practice and providing effective feedback. This finding converges with one of the noted challenges in practicum experiences, namely the problem of securing appropriately experienced and qualified mentor teachers to support pre-service teacher learning during practicum (Adoniou, 2013; NSW Government, 2012).

3.3.2 Community-based fieldwork placements

Initial teacher education providers are widening the array of fieldwork experiences on offer for pre-service teachers beyond the traditional extended school-based practicum. Some examples, such as clinical experiences, have been discussed in section 3.2. Here we examine research on community-based placements, which can provide additional fieldwork opportunities for pre-service teachers' pedagogical

learning. Research about community-based placements reveals the important role such placements serve in supporting pre-service teachers to understand school students in holistic terms and learn approaches to build relationships that form the basis of successful literacy teaching.

Much research that investigates professional experience in community-based organisations focuses on providing to pre-service teachers a range of experiences with culturally diverse student groups. For example, Sleeter's (2008) review of studies of the impacts of field placements in communities found evidence of positive impacts on pre-service teachers':

- beliefs and attitudes towards diversity;
- beliefs about contributions by family and community to students' learning;
- willingness to teach in schools with diverse student populations.

Most such studies focus on the broader outcomes underpinning the successful teaching of literacy to students from diverse backgrounds rather than on outcomes specifically related to literacy. For instance, in one large case study of pre-service teacher placements in community-based organisations in the United States, McDonald *et al.* (2011) found the conditions of community-based organisations less constrained than those in schools, and established that those organisations provided pre-service teachers with opportunities to "see" students. This idea of "seeing" was linked to a reading called 'Seeing the Student' by William Ayers (2001), which was drawn from the pre-service teachers' literacy methods course. The reading was about developing a complex ecological perspective on children and their educational opportunities. Interviews with participating pre-service teachers in this study revealed that they had appropriated some of the tools from their literacy methods course to mediate their entry into the community-based organisation. For example, one participant re-applied an 'identity collage' assignment (using images cut from magazines) as a task in the community-based organisation.

The analysis conducted by McDonald *et al.* (2011) showed that outcomes arising from these community-based placements for pre-service teachers included:

- gaining exposure to students of different ethnic, racial and/or linguistic groups and the sociocultural contexts of students' lives;
- learning to engage students different from themselves by invoking students' expertise and cultural capital;
- facilitating opportunities for pre-service teachers to learn about children's home lives.

On the strength of the evidence, McDonald *et al.* (2011) have concluded that community-based placements offer a promising strategy for preparing pre-service teachers to work in schools serving diverse populations. To be effective, however, they contend such experiences must be integrated with other coursework and field work (see section 3.2.3).

In a smaller case study from the United States, Brayko (2013) reported on pre-service teachers undertaking a literacy methods course that involved placements in after-school literacy courses operating within ethnic-minority community-based organisations. The coursework involved the pre-service teachers planning a "read-

Community-based placements offer a promising strategy for preparing pre-service teachers for the challenges of teaching literacy. To be effective, however, such experiences must be integrated with other coursework and field work.

aloud” activity with a specific content objective encouraging children to engage with texts by listening along to an adult reading them aloud. The pre-service teachers’ lesson planning entailed developing questions and discussion prompts to scaffold comprehension as students talked before, during, and after reading.

Brayko’s study focused on literacy pedagogical learning opportunities for pre-service teachers involved in the placements in two organisations and involved seven pre-service teachers who undertook 60-hour placements in community-based organisations. The two organisations at the centre of Brayko’s study served kindergarten and primary school students from different cultural and ethnic communities: one was attended by Latino immigrant students, and the other by Somali Muslim immigrant and refugee students. The pre-service teachers were placed in each organisation to observe and provide literacy support to students in the multi-age community programs. They worked with students in small groups and one-on-one to support literacy learning, particularly by reading with students and implementing the “read-aloud” strategy the pre-service teachers had learned in their coursework. The researchers analysed pre-service teachers written observations and journal entries.

In relation to literacy, the researchers found that the pre-service teachers had improved their proficiency in facilitating student talk around text and vocabulary development. Brayko’s observations revealed that the pre-service teachers:

- implemented the ‘read-aloud’ activity employing the model taught in their methods course, making adaptations in response to valued practices in the organisations (e.g. allowing the students to select the book for the read-aloud);
- built relationships with students in the community-based organisations and were able to leverage those relationships to support students’ engagement in reading;
- learnt aspects of culturally responsive literacy pedagogy, such as recognising and valuing linguistic and literary competence in children who were using literacy skills and abilities differently.

Another Australian study by Ferfolja (2009) involved 37 pre-service teachers participating in a professional experience program providing literacy tutoring for refugee high school students. In that study, the pre-service teachers took part in an eight-week block of after-school tutoring in one of four centres designated for such purposes in Western Sydney high schools. This option was offered to pre-service teachers as part of the third practicum of their education degree. Prior to starting work in the Refugee Action Support program, the pre-service teachers had completed literacy and social justice subjects as a requirement of their degree and participated in 18 hours of literacy and numeracy training provided by the Australian Literacy and Numeracy Foundation. During the tutoring sessions, the pre-service teachers supported refugee students with school work the students had brought to the session. This approach differed from school-based placements where pre-service teachers planned teaching episodes insofar as the centres were designed so that the refugee students had agency in determining the direction of their learning in these sessions.

Group interviews of four to six participants were conducted with 31 of the pre-service teachers. Ferfolja (2009) found that participating pre-service teachers formed strong

bonds with the students they tutored and developed understandings of working with culturally diverse students. Ferfolja then theorised this as the development of teacher capital (Bourdieu, 1977) developed from informed and nuanced pedagogical practices for engaging with sociocultural difference in classrooms. She also claimed that participating pre-service teachers 'learned that cultural awareness and literacy require mediation, articulation and active intervention by teachers' (p.405).

Finally, Naidoo (2012) reports on a case study from the Northern Territory about preparing pre-service teachers for teaching Aboriginal and Torres Strait Islander students by means of a field experience that combined classroom teaching and community engagement. Four non-Indigenous pre-service teachers undertook a remote community teaching placement at Tennant Creek. The program was conducted in a partnership between the Australian Literacy and Numeracy Foundation and the University of Western Sydney. Pre-service teachers from a Master of Teaching (Secondary) course at the university were selected into the program because they were deemed exemplary and on the strength of an expression of interest to participate in the program. Following a one-week observation-based placement in the Tennant Creek community, the pre-service teachers undertook a four-week classroom and community practicum supported by one of the university's liaison officers.

For their classroom placements the pre-service teachers taught their learning area specialisation(s). They also engaged secondary school students in a range of literacy and curriculum-based practices such as screen printing, digital storytelling, drama workshops on the theme of "family", and creating newspaper articles on stories of their own choosing. By such means, pre-service teachers also engaged students in multiliteracies, in learning with wiki tools and digital storytelling platforms, and in video conferencing to connect to students in an urban school in Sydney. For their community placements, participating pre-service teachers conducted community projects on the theme "communicating our world", which provided authentic applications for literacy tasks. For example, creating a community newspaper involved discussing what issues to cover, recording interviews, producing articles, deliberating over layout, and ultimately distributing papers.

Naidoo (2012) has reported that participating pre-service teachers were able to support students and community members' participation in literacy practices by making the activities relevant to learners' lives. The pre-service teachers in that study participated in focus group conversations before and after their placements and discussed their involvement in the school and community. Using thematic discourse analysis, the study found that involvement in the school and community helped non-Indigenous pre-service teachers learn about and respect the cultures of Indigenous students. It also enabled the pre-service teachers to consider a critical view of literacy and question their own biases (also noted in 3.1 and 3.2). Naidoo (2012, p. 95) emphasised how important it was for pre-service teachers working in Indigenous communities to adopt 'an Indigenous pedagogy by embedding Indigenous perspectives in lessons'. This sentiment is echoed in other small scale studies that explore pre-service teachers' abilities to work with Indigenous students and their families in relation to literacy development (see for example Bennet & Lancaster, 2013).

Learning to become a teacher does not stop on completion of an accredited initial teacher education program. Similarly, learning for teaching literacy is an ongoing project—a process of lifelong professional learning.

3.4 The first employment context

Learning to become a teacher does not stop on completion of an accredited initial teacher education program. Similarly, learning for teaching literacy is an ongoing project—a process of lifelong professional learning. It is for this reason that any measure of the effectiveness of pre-service teacher preparation must include observation and interaction with new graduates as they make the transition into their first classroom (Adoniou 2013, p. 50).

Pre-service teachers often experience shock when they first step into a classroom as a graduate teacher. The shock may be especially severe when the initial teacher education at university is experienced as disconnected from the professional experience and classroom contexts, but it can also happen when these experiences have been congruent. Literature in the field about the experiences of beginning teachers often refers to this period as involving a kind of “reality shock” (see Adoniou, 2013). This is a misleading term as it erroneously implies that university and practicum experiences are somehow not “real”. Nevertheless, there are ‘aspects of teaching essentially inaccessible to student-teachers’, as pointed out by Hagger *et al.* (2011, in Adoniou 2013, p. 54). Unlike other professionals, many teachers have full responsibility for their role from their very first day of employment (Hay Group, 2014). Knowing that a class full of students relies on them for their learning raises the bar for beginning teachers, no matter the quantity and quality of professional and coursework experience their initial teacher education provided. Universities and schools clearly have a responsibility to work together to ease this transition, especially given the reportedly high attrition rate of novice teachers in the first few years post-graduation (O’Brien, Goddard, & Keeffe, 2008)²⁰ and the importance of sustained and high-impact professional learning in the first five years of teaching (Jacob & McGovern, 2015).

Adoniou (2013) conducted a 16-month inductive study of the first-year experiences of 14 beginning teachers who were graduates of a Bachelor of Education in primary teaching in an Australian university, with a focus on literacy teaching. Eight interviews and observations as well as three anonymous surveys constituted the data. The findings highlight damaging effects when there is a gap between initial teacher education and first employment. All the participants in the study were reportedly enthusiastic about applying theoretical and pedagogical content knowledge about literacy acquired during their studies and said that they felt confident about teaching literacy. However, ‘many were then placed in schools where they were not allowed to teach literacy in that manner’ (Adoniou 2013, p. 55). Indeed, half of the participating initial teacher education graduates in Adoniou’s study were reconsidering their ongoing commitment to the teaching profession by the conclusion of the study. The problem, Adoniou concludes, is that ‘the schools did not see themselves as part of the beginning teachers’ professional whole, they saw themselves as the whole within which a beginning teacher would have to fit’ (p. 56).

Importantly, the beginning teachers in the study had not expected their university to prepare them completely for teaching literacy. What they had expected, not

²⁰ AITSL (2016) notes that because there is no national database that captures teacher attrition rates in Australia, estimates ‘are highly uncertain and range from 8% to 50%’ within the first five years of teaching and that ‘many of these appear to have originated from UK or US studies’ (p.12)

unreasonably, was a greater connection and closer alignment between their university learning and their experience as graduate teachers in the classroom. For productive change to occur, Adoniou (2013) argues, beginning teachers' first schools should provide contexts that allow them to implement knowledge that aligns with that already gained, and with experience built, in personal, university, and practicum contexts (see Figure 1). One way to ensure a more careful match of teachers with schools, she has suggested, is by creating more decentralised models of staffing and principal autonomy in appointing teachers.

Two approaches to mitigating such jarring experiences for new teachers by creating greater alignment across initial teacher education contexts are *internship programs* and *induction programs* for beginning teachers. We briefly discuss the available evidence in relation to the effectiveness of these below.

3.4.1 Internships

Teaching internship programs are neither new nor homogeneous, but they usually involve pre-service teachers being placed in school settings in the final year of their initial teacher education program. They are typically paid a stipend and are expected to undertake their coursework alongside a negotiated partial teaching workload.

Internships have been found to provide pre-service teachers with early encounters of first employment contexts and to help produce work-ready graduates who are sought by principals (Foxall, 2014). The evidence-base for internships is under-developed and little research examines their specific affordances for literacy teaching. In a recently published policy analysis, Ledger and Vidovich (2018) contend that the variations in models of internship is an under-researched area of teacher education programs. For example, there is insufficient research which considers how pre-service teachers experience the competing demands involved in undertaking an ongoing classroom placement as part of the internship, while concurrently completing the fourth and final year of their initial teacher education qualifications. Yet it is widely known that pre-service teachers with internships are simultaneously undertaking multiple coursework units that typically have assessment tasks due around the same times. Therefore, it is important that internship programs have sufficient flexibility to be responsive to the assessment demands that pre-service teachers are subject to in their final year of their teaching qualification, again highlighting the need for greater synergy between contexts. Despite the scarcity of research and challenges of internships, Ledger and Vidovich (2018) indicate that pre-service teachers who take part in internships are better prepared and classroom-ready than their mainstream counterparts.

3.4.2 Induction programs for beginning teachers

As noted in Section 2, the Teacher Education Ministerial Advisory Group (TEMAG) report, (TEMAG, 2014) identified the induction of beginning teachers into their first teaching appointments was largely inadequate in Australia. The report highlighted that the lack of a consistent approach in the teaching profession to the induction of novice teachers meant that *ad hoc* induction processes were the norm. This tendency leaves beginning teachers with inadequate support, and that has been seen as a key reason for teacher graduates leaving the profession in the first five

Internships offer valuable early encounters of first employment contexts for pre-service teachers and help to produce work-ready graduates. However, internship programs must be responsive to the assessment demands that pre-service teachers are subject to in the final year of their teaching qualification, again highlighting the need for greater synergy between contexts.

years after they start teaching (TEMAG, 2014). Among the deficiencies identified in the induction process, McCormack (2005) has noted the particular effects of inadequate mentoring and supervision, lack of support in behaviour management, excessive responsibilities, and failure to recognise and reward professional growth. These findings are echoed in later research by Kidd *et al.* (2015) who have found that while many beginning teachers reported receiving satisfactory induction, overall the perception was that mentoring and induction opportunities are limited. Kidd and her colleagues concluded that a lack of support for new teachers has a negative impact on their career plans and thus may affect teacher attrition rates, especially when coupled with work dissatisfaction, and an informal entrance into the profession—often via casual or contract positions.

While there is no universal best practice for teacher induction and substantial variation exists, even among the highest performing schools (Hay Group, 2014), several key themes emerge from the literature about what could be done better. For example, a review of both Australian and international literature on effective induction has identified a cluster of eight key characteristics:

- 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 2012, cited in Hay Group 2014, p.19).

These features have been reflected in a later case study by Kearney (2017) that showcased a highly successful induction program operating in an Australian secondary school. Kearney (2017) notes that making assertions about a program cited as 'best practice' is fraught with difficulty because there is no consensus about what constitutes 'best practice'. Yet the program described does demonstrate features that align with high quality teacher induction programs showcased in the international literature (see for example Fulton, Yoon, & Lee, 2005; Howe, 2006; Langdon, 2011; Pain & Schwillie, 2010; Wong & Britton, 2005).

While there are no mandated mechanisms for inducting teachers in Australia (Kearney 2017), a national framework for improving teacher induction now exists: *Graduate to Proficient: Australian guidelines for teacher induction into the profession* (Australian Institute for Teaching and School Leadership, 2016). These AITSL guidelines prioritise the following principles:

- making induction available to all beginning teachers, not just those on permanent contracts or in metropolitan areas;
- objective review of the range of supports and strategies provided in an induction program;

- providing support and training for experienced teachers who are mentors to ensure practice is aligned with the features of ‘practice-focused mentoring’ as outlined in the Guidelines; and
- critical assessment of the focus of current induction practice to ensure that an induction amounts to more than just orientation to the school (Australian Institute for Teaching and School Leadership, 2017, p. 14).

As Feiman-Nemser (2001, p. 1027) has noted, ‘teacher induction is often framed as a transition from ... student of teaching to teacher of students’. Such a transition places beginning teachers in a vulnerable position, as they are expected to demonstrate skills and abilities that they do not yet have and that they can only develop by practising what they may not yet fully grasp. Arguing that strong induction programs have a multiyear timeframe and taking a ‘developmental stance’, Feiman-Nemser (2001, p. 1035) advocates a continuum of teacher professional development. Working from individual teachers’ needs and strengths and operating with a shared understanding of good teaching practice, those using such a continuum could start to help new teachers build their professional identities and provide connected learning opportunities that ‘link initial teacher preparation to new teacher induction and new teacher induction to continuing professional development’ (p. 1048). While professional learning for teaching literacy is beyond the scope of this literature review, we reiterate the importance of understanding initial teacher education for teaching literacy in the broader contexts of learning to teach generally and ongoing professional learning. Viewed in such manner, learning for teaching literacy can be seen as an evolving project for which no single institution has total responsibility. The ultimate success of such a project depends on the contributions made by those working in universities and schools, and by practitioners and researchers in partnership. The challenge is to build a system with sufficient ‘connective tissue’ (Feiman-Nemser, 2001, p. 1049) to hold together the different contexts of teacher education in a coherent and cohesive whole.

Learning for teaching literacy is an evolving project for which no single institution has total responsibility. The challenge is to build a system with sufficient ‘connective tissue’ to hold together the different contexts of teacher education in a coherent and cohesive whole.

Section 4: Conclusion

This literature review has focused on initial teacher education for teaching literacy. It augments other work being completed in a three-year research project examining literacy teaching, training, and practice in Tasmanian Government schools. That work includes another literature review (of literacy teaching in schools), interviews with school staff in 28 schools around the State, interviews with staff in initial teacher education at the University of Tasmania, and questionnaires administered with beginning teachers.

Internationally, there is an extensive literature on initial teacher education, and a significant emphasis in that literature on preparing pre-service teachers to teach literacy and on supporting teachers and schools to mentor those emergent professionals as they take up practicum placements and employment.

Our examination of Australian policy literature has shown that initial teacher education has been increasingly subject to national policies and reforms that aim to lift educational attainment, including in relation to literacy. Among the most prevalent policy agendas are those related to professional standards for teachers and requirements, including a national literacy and numeracy test, for entry to the profession. At the same time, providers of initial teacher education have been increasingly subject to standards and monitoring for accreditation purposes. These various policy agendas and concomitant reforms impact on what is required and possible in initial teacher education to support literacy teaching.

Noting this broad-based agenda, in this literature review we used Adoniou's fourfold model of teacher preparation as a framework around which to summarise and analyse the literature on initial teacher education as it pertains to the teaching of literacy. Adoniou's model is based on the idea that teacher education is always affected by four contexts: pre-service teachers' personal characteristics and histories; university settings; practicum and other professional experience placements; and first employment experiences.

Our review has affirmed the point that pre-service teachers do not begin their professional educational training as blank slates. They come to higher education programs with diverse values, knowledges, attitudes, and dispositions that colour the ways in which they are in the world. Among the most important findings from the literature are insights into the fact that many teachers' own early experiences of learning to be literate were suboptimal. Many have developed narrow understandings of what literacy is, of how it is attained and developed, and of their own capacities. Many lack confidence in their own literacy levels and/or in their capacities to teach others to learn the skills needed to be literate. Evidence suggests that there is real need to ensure that initial teacher education includes deliberately designed opportunities for all concerned to openly, respectfully, and reflexively examine the influence of personal contexts on professional practices, with a view to embed constant self-learning into professional development over whole careers.

The review has also affirmed the critical influences that initial teacher education providers have on pre-service teachers' preparedness to teach—both in general terms and in relation to literacy. There is compelling evidence to suggest that pre-service teachers need and want more in the way of explicit skill development to teach literacy. In this light, more might be done to embed direct skilling approaches,

structured code-based instruction, and service learning, which have been shown to have considerable efficacy in helping pre-service teachers learn to teach literacy. Finally, among the most telling findings are those related to the negative effects on pre-service teachers that arise from mismatches between coursework requirements in their initial teacher education programs and the experiences they then have of classroom practices. Usefully, providers of initial teacher education are now and more often seeking to innovate in their own higher education teaching to address such mismatches. Among the most promising developments in this respect are innovations in clinical approaches to initial teacher education.

The literature also provides significant insights on the influence of field experiences and the practicum on pre-service teachers. There are mixed and contrary findings on the efficacy of the school-based practicum placement. There is also growing evidence of the need to ensure better investment in the quality of two aspects of the placement—the relationship between pre-service teacher mentee and classroom teacher mentor; and the placement itself. In relation to the first, mentoring has a specific set of skills that are acquired over time with support; that is, it is honed with professional development. Evidence suggests that there are manifold opportunities for more support for just this kind of professional development for classroom teachers expected to mentor pre-service teachers. In relation to the second, if placements are to be transformative experiences, evidence suggests there is need for more strategic discussions between initial teacher education providers and schools, and between the former and those working in community-based organisations where educational services are also provided.

There is also compelling evidence in the literature of the profound effect on pre-service teachers of their first employment experiences. Paramount in ensuring that such experiences are positive is the use of comprehensive, creative, thorough, consistent, monitored, and evaluated induction programs. Yet studies have shown that these crucial periods are often delivered in ad hoc and inadequate ways. Upfront, the apparent disinvestment in the wellbeing of emergent professionals, whether deliberate or unintended is highly likely to contribute to the attrition levels that see four in five teachers leave the profession after five years. The flipside of this observation is that where inductions are robust, consequential professional development opportunities are mapped out and followed through, and mentoring and communities of practice are supported, retention and professional mastery improve and become “contagious”.

In the final analysis, there is cause for considerable optimism about initial teacher education and the support that can be provided to pre-service teachers as they learn professional skills and capacities, including in relation to preparing to teach literacy. Across varied national and international jurisdictions, school levels, rural and urban settings, and community types, study after study has shown the efficacy of reflexivity and honest conversations about values, dispositions, and approaches. Those studies have shown the importance of higher education settings in which initial teacher education occurs, and of the utility of innovations such as a clinical approach to learning how to teach. They have demonstrated that where practicum placements continue to be used front-end work must be done to ensure mentors and mentees understand what that crucial relationship means and can foster, and to ensure that the placement is well-thought out. Branching out to community-based organisations has been shown to pay dividends. And lastly, those studies have established the efficacy of investing in robust induction and professional development pathways that strongly scaffold the first five years of professional experience, and then continue to provide ongoing support over the whole of the career.

Appendix A

Australian Professional Standards for Teachers: standards at the graduate teacher level (AITSL, 2011)

PROFESSIONAL KNOWLEDGE		PROFESSIONAL PRACTICE
1 Know students and how they learn	2 Know the content and how to teach it	3 Plan for and implement effective teaching and learning
<p>1.1</p> <p>Physical, social and intellectual development and characteristics of students</p> <p>Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning.</p>	<p>2.1</p> <p>Content and teaching strategies of the teaching area</p> <p>Demonstrate knowledge and understanding of the concepts, substance and structure of the content and teaching strategies of the teaching area.</p>	<p>3.1</p> <p>Establish challenging learning goals</p> <p>Set learning goals that provide achievable challenges for students of varying abilities and characteristics.</p>
<p>1.2</p> <p>Understand how students learn</p> <p>Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.</p>	<p>2.2</p> <p>Content selection and organisation</p> <p>Organise content into an effective learning and teaching sequence.</p>	<p>3.2</p> <p>Plan, structure and sequence learning programs</p> <p>Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.</p>
<p>1.3</p> <p>Students with diverse linguistic, cultural, religious and socioeconomic backgrounds</p> <p>Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds.</p>	<p>2.3</p> <p>Curriculum, assessment and reporting</p> <p>Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.</p>	<p>3.3</p> <p>Use teaching strategies</p> <p>Include a range of teaching strategies.</p>
<p>1.4</p> <p>Strategies for teaching Aboriginal and Torres Strait Islander students</p> <p>Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds.</p>	<p>2.4</p> <p>Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians</p> <p>Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages.</p>	<p>3.4</p> <p>Select and use resources</p> <p>Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning.</p>
<p>1.5</p> <p>Differentiate teaching to meet the specific learning needs of students across the full range of abilities</p> <p>Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities.</p>	<p>2.5</p> <p>Literacy and numeracy strategies</p> <p>Know and understand literacy and numeracy teaching strategies and their application in teaching areas.</p>	<p>3.5</p> <p>Use effective classroom communication</p> <p>Demonstrate a range of verbal and non-verbal communication strategies to support student engagement.</p>
<p>1.6</p> <p>Strategies to support full participation of students with disability</p> <p>Demonstrate broad knowledge and understanding of legislative requirements and teaching strategies that support participation and learning of students with disability.</p>	<p>2.6</p> <p>Information and Communication Technology (ICT)</p> <p>Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.</p>	<p>3.6</p> <p>Evaluate and improve teaching programs</p> <p>Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.</p>
		<p>3.7</p> <p>Engage parents/carers in the educative process</p> <p>Describe a broad range of strategies for involving parents/carers in the educative process.</p>

4 Create and maintain supportive and safe learning environments		PROFESSIONAL ENGAGEMENT	
		6 Engage in professional learning	7 Engage professionally with colleagues, parents/carers and the community
4.1 Support student participation Identify strategies to support inclusive student participation and engagement in classroom activities.	5.1 Assess student learning Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning.	6.1 Identify and plan professional learning needs Demonstrate an understanding of the role of the Australian Professional Standards for Teachers in identifying professional learning needs	7.1 Meet professional ethics and responsibilities Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.
4.2 Manage classroom activities Demonstrate the capacity to organise classroom activities and provide clear directions.	5.2 Provide feedback to students on their learning Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning.	6.2 Engage in professional learning and improve practice Understand the relevant and appropriate sources of professional learning for teachers.	7.2 Comply with legislative, administrative and organisational requirements Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage.
4.3 Manage challenging behaviour Demonstrate knowledge of practical approaches to manage challenging behaviour	5.3 Make consistent and comparable judgements Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning	6.3 Engage with colleagues and improve practice Seek and apply constructive feedback from supervisors and teachers to improve teaching practices.	7.3 Engage with the parents/carers Understand strategies for working effectively, sensitively and confidentially with parents/carers.
4.4 Maintain student safety Describe strategies that support students' wellbeing and safety working within school and/or system, curriculum and legislative requirements	5.4 Interpret student data Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.	6.4 Apply professional learning and improve student learning Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning.	7.4 Engage with professional teaching networks and broader communities Understand the role of external professionals and community representatives in broadening teachers' professional knowledge and practice.
4.5 Use ICT safely, responsibly and ethically Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching.	5.5 Report on student achievement Demonstrate understanding of a range of strategies for reporting to students and parents/carers and the purpose of keeping accurate and reliable records of student achievement.		

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