Teachers Matter:

Models for Effective Teaching in Low SES Schools

Final Report 2015

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APPENDICES

FIGURES

LIST OF ACRONYMS USED

ACDE – Australian Council of Deans of Education

BERA – British Educational Research Association

ECT – Early Career Teacher

GOO – Growing Our Own

ITE – Initial Teacher Education

MTECE – Morayfield Teacher Education Centre of Excellence

NETDS – National Exceptional Teachers for Disadvantaged Schools

OLT – Office of Learning and Teaching

SCTE – School Centres for Teaching Excellence

SES – Socio-Economic Status

SVA – Social Ventures Australia

TFA – Teach for Australia

EXECUTIVE SUMMARY

A scoping project was undertaken in partnership between Social Ventures Australia (SVA) and the Australian Council of Deans of Education (ACDE), funded through the Office for Teaching and Learning (OLT). The two deliverables of the scoping project are:

1. An audit of current practices within Australian initial teacher education providers for preparing pre-service teachers to effectively teach in schools in disadvantaged and low SES communities (see *Appendix B*).
2. A literature review of recent research relating to recruitment, development, support and retention of teachers in schools in low SES communities (see *Appendix C*).

This report synthesises the audit survey and literature review to provide a summary of the current landscape. The report highlights effective practices and cases of practice. It also identifies gaps in existing support as well as opportunities for further research and collaborative partnership to address such gaps.

Key Findings

1. Commitment and Approaches
There is a high level of commitment to preparing Australian teachers to teach within schools in disadvantaged and low SES communities. The survey data indicates this commitment is mainly shown through initial teacher education coursework study and professional experience placements in low SES schools.

Notable survey results include:
- Almost all surveyed initial teacher education providers (97%) have content embedded into subjects that is non-teaching specific though relevant to educators working in low SES communities.
- A significant proportion of institutions (84%) provide the opportunity for professional experience placements in low SES schools.
- A majority (81%) have mandatory preparation that is low SES and teaching discipline specific.
- Cross-institutional program partnerships between initial teacher education providers and industry stakeholders focused on low SES education are uncommon (31%).

A review of recent literature of initial teacher education for low SES contexts shows how research has critically examined teacher education, compared teacher education programs, explored recruitment and selection of quality teachers, investigated pre-service teachers'

motivations for choosing to teach, explored strategies to prepare students to teach students who are culturally and linguistically diverse, and reflected on strategies for enhancing the effectiveness of professional experiences, mentoring, and school/university partnerships.

2.Theoretical and Practical Preparation
Initial teacher education providers prepare pre-service teachers through both theory and practice to teach in schools in disadvantaged and low SES contexts as indicated by the survey results.

Some notable survey results include:
- 81% of the initial teacher education providers surveyed provide mandatory preparation to work in schools in disadvantaged and low SES contexts. This proportion represents approximately 83% of Australia's initial teacher education graduates.[1]
- All (100%) of surveyed institutions reported that their initial teacher education students will be exposed to some low SES specific content, whether embedded into teacher core or education elective units. This sample represents approximately 85% of Australia's teacher education graduates.[2]

Similar trends are apparent in the professional experience placements. The key findings were:
- 84% of surveyed institutions offer the opportunity to undertake professional experience placements in schools in disadvantaged and low SES communities. This proportion of surveyed institutions represents approximately 75% of Australia's teacher education graduates.[3]

Recent research has increasingly focused on partnerships between institutions where pre-service teachers are simultaneously immersed in theory/praxis networks between the university and the school, in order to foster reflexive inquiry, cultural responsiveness and the ability to respond flexibly to contingent circumstances, diversity and uncertainty.

3."Bright Spots" in Initial Teacher Education
Emerging from the survey data are 13 initial teacher education "bright spot" programs and partnerships that target improving the teaching and learning in disadvantaged and low SES contexts. In addition, the literature review provides an overview of landmark research into quality teaching in low SES communities.

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[1] Based on AITSL Initial Teacher Education Data Report, 2011. http://www.aitsl.edu.au/docs/default-source/initial-teacher-education-resources/2013_aitsl_ite_data_report.pdf
[2] Ibid.
[3] Ibid.

Recommendations

The following projects are recommended:

1. **Researching curriculum design factors that shape ITE graduate standards for the transition and retention of early career teachers in schools in disadvantaged and low SES communities**

   Undertake longitudinal national research study into innovative curriculum design that sustains the transition of pre-service teachers into their early careers in the teaching profession analysing discipline developments, graduate teacher standards, effective pedagogy and the spatial-socio-material-affective dimensions of teaching and learning in low SES contexts. The literature review suggests that the "transition experience" for new graduates has a significant longer-term impact on their teacher identity and their sustainability in the profession.

2. **Establishing a repository of online resources about quality teaching in disadvantaged and low SES schools**

   This would include a research repository, "bright spots" case studies of ITE curriculum design and innovative pedagogical practices, other relevant resources, as well as online discussion and mentoring that respond to difficulties of teaching in disadvantaged/low SES contexts.

3. **Spreading and Connecting through a Community of Practice**

   Create a national community of practice that connects universities, schools, and organisations that are dedicated to quality teaching in disadvantaged and low SES contexts and focus on the preparation of teacher graduates. This collaboration would establish a sharing of innovative pedagogical practice for the increased diffusion of knowledge relative to inclusive teaching in schools in disadvantaged and low SES contexts.

1. INTRODUCTION

This report is the outcome of a scoping project conducted through a partnership between Social Ventures Australia (SVA) and the Australian Council of Deans of Education (ACDE), funded through the Office for Teaching and Learning (OLT).

It builds on SVA's *Growing Great Teachers* project (December 2013), which explored improvements to the recruitment and retention of quality early career teachers in schools located in disadvantaged and low socioeconomic (SES) communities. The report identified three key themes:
1. effective teacher preparation
2. regular professional feedback and support
3. open and supportive school culture and leadership.

Upon completion of the *Growing Great Teachers* project, Social Ventures Australia approached ACDE to partner with them to undertake a scoping project. The scoping project was overseen by ACDE's Network of Associate Deans of Learning and Teaching in the Discipline of Education (NADLATE). The two major elements of the scoping project were:
*   A comprehensive audit of current practices within initial teacher education in Australian universities that provide students with strategies and opportunities to teach in schools in low SES communities.
*   A literature review of the most recent research relating to the recruitment, development, support, retention and sustainability of teachers in schools in low SES communities. Three bodies of literature pertain to this as follows:
    (i)   Initial Teacher Education for low SES contexts;
    (ii)   Early Career Teacher experiences; and
    (iii)   Exemplary pedagogical practices in low SES contexts.

This report synthesises these two aspects to provide a summary of the current landscape. The report utilises *"Bright Spots methodology"* to highlight effective teacher preparation. "*Bright Spots methodology"* is based on Positive Deviance Methodology (also known as the PD Approach – refer http://www.positivedeviance.org/pdf/Field%20Guide/FINALguide10072010.pdf), which evaluates improvement in terms of capacity rather than deficiency. It also identifies gaps in existing levels of support for practicing teachers and opportunities for further research including collaborative partnerships to address such gaps. These include diffusion of knowledge and replication of effective practices aimed to break the cycle of social disadvantage to improve outcomes for students from low SES communities.

The backdrop to this report is the move towards a standards-based approach for all stages of a teacher's career and this places a range of new demands is being placed on teachers, higher education providers and education systems. In particular, the Australian Professional Standards for Teachers (see *Appendix A*) make explicit requirements for high quality teaching and graduates of teacher education programs across Australia are expected to demonstrate a repertoire of skills and knowledge and reach benchmarks in academic and professional standards as they transition to the profession as a graduate teacher. Providers of initial teacher education programs are now required to address and meet each standard to attain accreditation.

Standard 1 (*Know students and how they learn*) explicitly relates to the requirements for teaching in schools in disadvantaged and low SES communities. Standards 1.3 and 1.4 require graduates of initial teacher education programs to demonstrate respectively:

"Knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds"

"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".

Furthermore, graduates are required to demonstrate knowledge and to understand strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities (Standard 1.5).

2. METHODOLOGY

The scoping project undertook two methodological approaches: a survey and a literature review.

2.1 Survey

A survey (see *Appendix B*) sought information about the:
- Current strategies, programs and projects that support initial teacher education students to teach in schools in disadvantaged and low SES communities. The strategies include, but are not limited to, diverse approaches that include course development, research, professional experience, work integrated learning and external partnerships.
- Past practices in this area that were not sustainable due to lack of funding or other factors.
- Future programs and research directed at improving student learning outcomes in schools in disadvantaged and low SES communities.

The survey was sent via email to Deans/Heads and Associate Deans Learning and Teaching within faculties and schools of Education at all ACDE member institutions – a total of 41, including 4 private providers. It was anticipated that the survey would be completed in liaison with relevant staff within both the faculty/school and the wider university. The survey response was 78% or 32 of 41 institutions. The results were collated and analysed to provide a summary [see Section 3 of the report].

2.2 Literature Review

The literature review (see *Appendix C*) explored theoretical and empirical studies on the recruitment, development, support and retention of teachers in schools in disadvantaged and low SES communities. Studies published since 2012 were the focus of this project so as to build on *Educational Transformations* for SVA's *Growing Great Teachers* report and eleven case studies (2013). The review examined recent research, reports and other documents derived from practice and policy relevant to teachers working in low SES communities.

Studies varied in their emphasis on theory, praxis or empirical findings, although the review was sensitive to not placing a false binary between these domains. Reports and reviews written by independent organisations, government/policy documents, applied work written for professional audiences, and media texts were read as background, to contextualise the political and rhetorical climate in which recent research has been conducted.

Studies were categorised according to the following domains: initial *teacher education for low SES contexts*, *early career teacher experiences,* and *exemplary pedagogical practices in low SES contexts*. The findings and recommendations were analysed for:

- issues identified in attracting and retaining early career teachers in low SES school contexts
- effective strategies for attracting, supporting and retaining early career teachers in these settings.

From this review and systematic analysis, potential gaps were identified in relation to theoretical issues and methodological approaches to research on early career teachers in disadvantaged and low SES contexts. The themes and gaps (see Section 5) from the literature review were subsequently analysed alongside themes and gaps identified from the survey.

3. FINDINGS

3.1 Summary of Key Findings

This section discusses the key findings from the survey analysis and the literature review. The results of the survey clearly indicate that all providers of initial teacher education courses within Australia include some focus within their courses to prepare pre-service teachers to teach in disadvantaged contexts, including low SES environments. Such preparation is mandatory for students within 81% of responding institutions. For many providers this focus stems from their institutional missions, which centre on social justice and inclusive practice, although another key motive is an understanding of the communities in which their graduates are likely to teach, based on each institution's location and social context. Furthermore, as mentioned above, the move towards a national standards-based approach to teaching requires institutions to ensure that their courses prepare pre-service teachers to teach students from varied backgrounds across a wide range of environments, including disadvantaged and low SES contexts.

A major constraint in teacher education programs, particularly double degree programs, is the time available to achieve all elements of the Australian Professional Standards for Teachers, including the required emphases on the various components within the curriculum. The fact that this is achieved to some extent by all institutions responding to the survey, with regards to preparation to teach in schools in disadvantaged and low SES contexts, is commendable.

The following learning design approaches are used to prepare pre-service teachers to teach in low SES and disadvantaged contexts:
- discrete units (or subjects) focused on teaching in disadvantaged contexts
- embedded focus across units
- professional experience with more random than mandatory placements within schools in a disadvantaged or low SES context
- work integrated learning programs and partnerships with schools, government and external organisations to respond to the learning needs of young people in low SES and disadvantaged communities.

The reasons for adopting a specific ITE learning design approach include:
- developing theoretical and pedagogical knowledge
- presenting a particular disposition for pre-service teachers
- applying pedagogical knowledge through professional experience

- examining skills that engage students in disadvantaged contexts and enable their academic success
- systematically applying knowledge and skills for effective teaching practices.

Although most institutions use a combination of approaches, very few individual approaches include an explicit focus on all five of these components.

An evaluation of initial teacher education for preparing pre-service teachers to teach in schools in disadvantaged and low SES contexts, the survey found that:
- Most institutions evaluate course effectiveness through consultation with stakeholders, including sector principals and pre-service teachers
- Most cited student satisfaction through end-of-unit questionnaires as a measure of effectiveness
- Some institutions reported evaluation of programs through external advisory committees (or equivalent)
- Six institutions or 19% reported evaluating the effectiveness of programs or approaches by assessing outcomes for their pre-service teachers once graduated, with only one institution comprehensively evaluating its approaches by looking at the achievement of its graduate students. Some institutions evaluate their programs through external advisory groups whose membership ranges across the teaching profession and other universities. Many providers mentioned the poor response rate on more generic graduate surveys, the difficulty of tracking students post-graduation and access to employer data on early career teachers. These factors detract from large-scale evaluation of the transition from pre-service teaching to the profession.

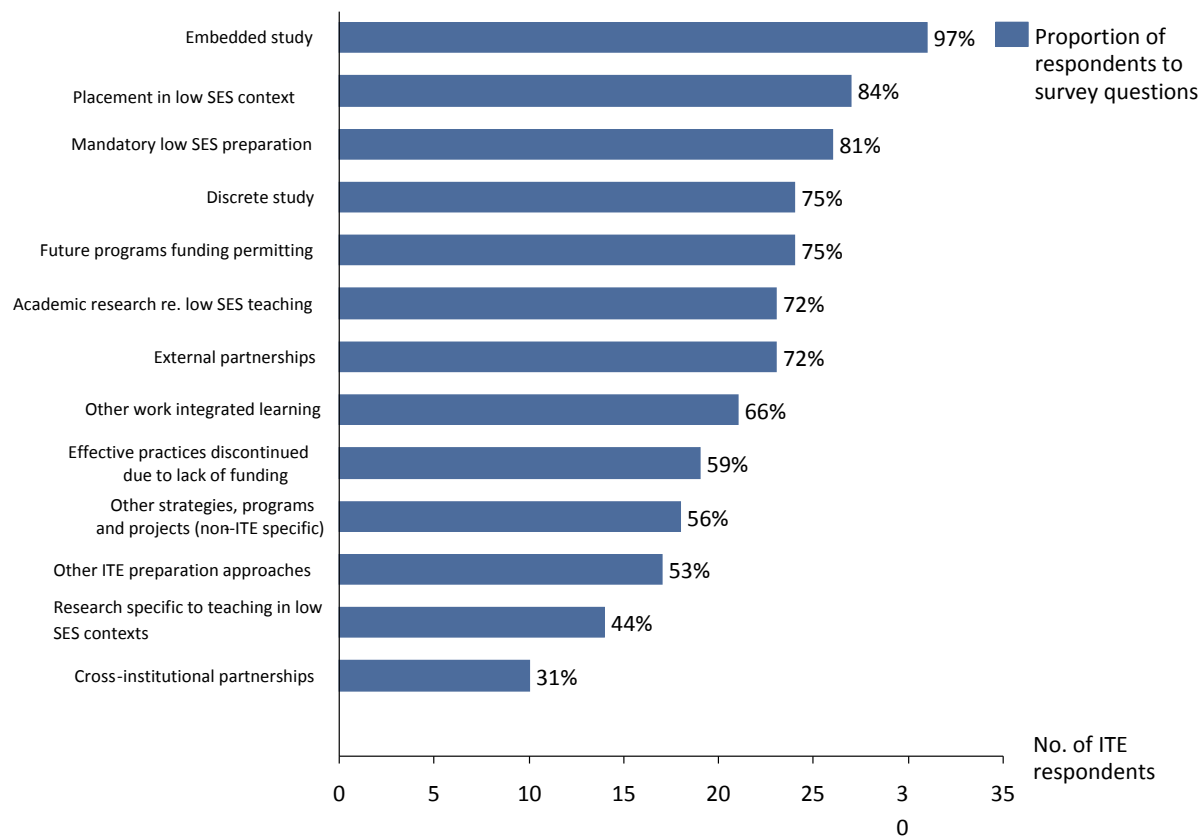Figure 1 below provides an overall summary of the survey results.

Figure 1: Summary of ITEP survey results

Findings of the literature review show that the inter-connected, processual and relational dimensions of teaching and learning in schools stress the importance of multiple factors in teacher retention, and a focus on quality teaching in school communities. A re-centering of research onto "pedagogy, not teachers" in isolation is required, to bring the teacher back into educational discourses, whilst simultaneously dispersing "responsibility for pedagogy" and acknowledging "that school structures, cultures and contexts affect pedagogical practices" (Lingard, Hayes, & Mills, 2003, p. 405). This research logic views teachers as continually in formation, growing professionally in relation to their students, colleagues and leaders, in particular socio-economic, political and spatial contexts. Individuals are viewed as part of communities (Freebody et al, 2012), not as set apart individuals who make rational choices in isolation from others.

Following the BERA report, this research trajectory advocates for collaborative, asset-based approaches to the challenge of supporting ECTs in low SES communities in "research-rich" schools which "are likely to have the greatest capacity for self-evaluation and self-improvement" (Furlong, 2014a, p. 4). According to these logics, "building a shared vision for learning involves engaging the many layers of the system" (Hayes, Mills, et al., 2006, p. 206). Such a multi-layered focus that engages individuals, schools, universities, systems at multiple times, with a deep awareness of the mediating significance of context, is required in addressing the challenges of supporting equity and excellence in the Australian educational system.

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3.2 Quantitative Overview of Intent and Approaches to Preparing Pre-service Teachers to Teach in Disadvantaged/low SES Contexts

Quantitative data from the surveys (see Figure 2) indicate a high level of commitment from providers of initial teacher education to prepare pre-service teachers to work in disadvantaged and low SES contexts. Important findings include:

- All respondents have some explicit focus on preparing pre-service teachers to teach in schools in disadvantaged and low SES communities. In terms of theoretical knowledge, this includes material embedded across the course, as well as specialised discrete units focused specifically on teaching in disadvantaged schools in low SES communities (see Figure 2). The majority (81%) of respondents have some mandatory preparation for preparing students to teach in schools in disadvantaged and low SES contexts.
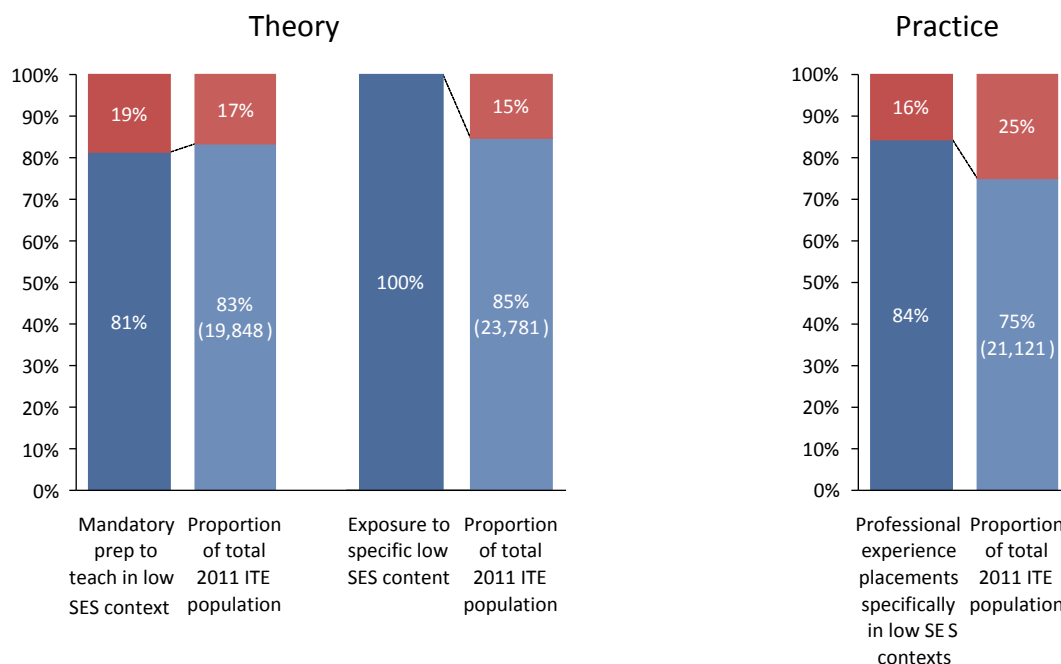
Figure 2: Exposure to content related to teaching in schools in disadvantaged and low SES communities through Theory and Practice

- Based on AITSL's 2011 data on student commencement in initial teacher education courses[4], a majority (85%) of pre-service teachers from responding institutions will encounter some specific content relating to teaching in disadvantaged and low SES contexts (see Figure 3).
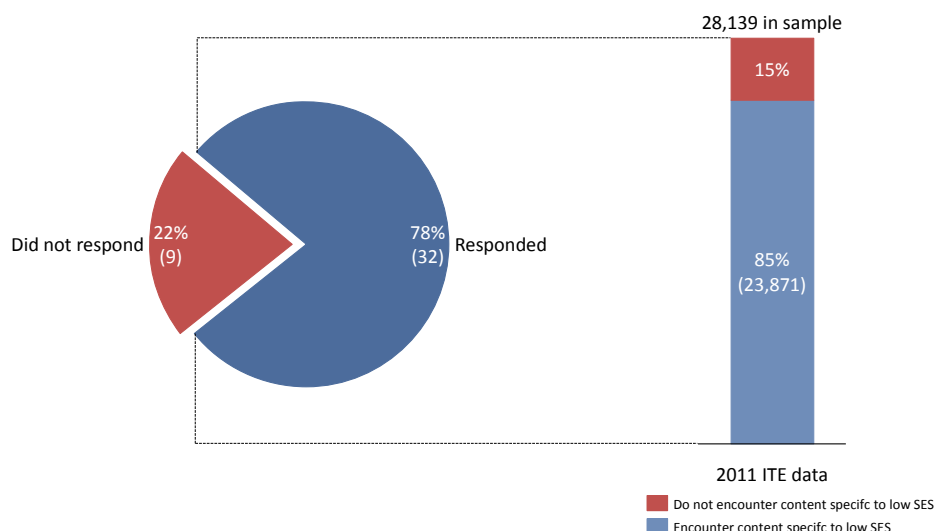
Figure 3: Exposure to specific content relating to teaching in disadvantaged and low SES contexts

- Using the same data sample (AITSL, 2013), three quarters of responding institutions provide initial teacher education students with an opportunity to undertake a professional experience placement within a school in a disadvantaged or low SES community (see Figure 4).
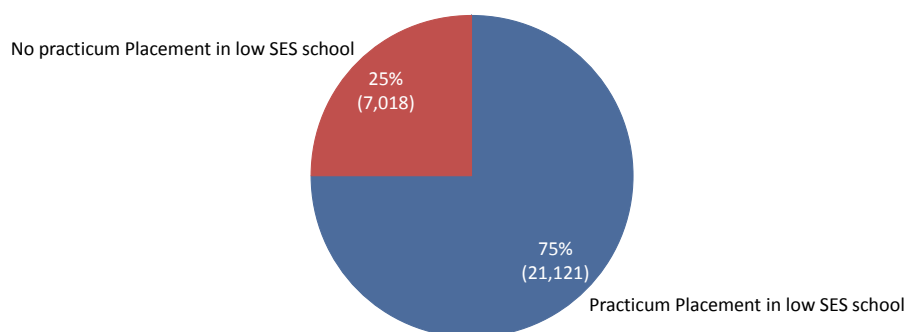
Figure 4: Opportunity for professional experience (practicum) placement in school in a disadvantaged and low SES community

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[4] AITSL Initial Teacher Education Data Report, 2013. This is the most recent publicly accessible data on initial teacher education enrolments at institutional level. This information has been used to draw approximations of what the ACDE survey responses mean as a proportion of the number of initial teacher education students in Australia.

3.3 Qualitative Analysis of ITE Programs and their Features

Analysis of qualitative data from the surveys reveals the following:

1. **Strong partnerships between universities and schools**

Strong connections between university coursework and school experiences in the preparation of pre-service teachers, especially when it embeds reflective practice, is most frequently reported to be the most effective approach for preparing initial teacher education students to teach in disadvantaged schools and low SES contexts. Professional experience placements in general are deemed to be critical opportunities for pre-service teachers, as they serve to forge explicit links between theory and practice. However, it is a combination of approaches across the entirety of the ITE course that is reported to be important to ensure that pre-service teachers develop as reflexive inquirers about diversity, their appreciation of inclusive practice and the need to engage all students, irrespective of socio-cultural-economic background. To cite one institution:

"preparing initial teacher education students for teaching needs to have intellectual and conceptual depth referring to theory and should not be just about teaching skills or 'teachers tips'."

When relevant content is embedded in core units, pre-service teachers become more aware of the impact of disadvantage, including low SES, on educational outcomes. Professional Experience placement opportunities and mentorship from teachers working in disadvantaged schools are invaluable because these experiences enable pre-service teachers to apply theory in authentic contexts.

While placements in disadvantaged school and early childhood contexts are important, explicit project work and research partnerships also help to build deeper levels of understanding for all stakeholders.

The pedagogical model of service and work integrated learning provides a valuable framework for enhancing pedagogical practice and the opportunity to build relationships across education and community stakeholders. These outreach components of ITE programs assume reflexive inquiry and can be the catalyst for changes in perceptions and assumptions about the educational, social, cultural and economic well-being of local communities.

Discrete units that focus on teaching in disadvantaged and low SES schools and professional experience placements are underpinned by a common design rationale incorporating teaching

and learning approaches that scaffold pre-service teachers to engage cognitively, practically and affectively with discipline knowledge. These aspects of the initial teacher education programs aim to prepare students for their future roles through experiential learning that develops their understanding of social, economic and environmental injustices and personal biases that affect their own teaching practice and implementation of the curriculum in diverse classroom settings.

Most institutions offer their pre-service teachers the opportunity to complete sustained periods of professional experience and volunteer work in schools and communities characterised by diversity and disadvantage. Through these experiences they are positioned to acknowledge, appreciate and respond to the diversity that school students bring to a range of educational environments. The emphasis on culturally responsive teaching approaches enhances pre-service teachers' awareness and understanding of social contexts and local community knowledges, strengths and networks and lays a foundation for a sustained teaching career. One survey respondent reflected that this outcome is primarily achieved through students' reflection on experience, which in turn *"prompts their recognition of the opportunities that schools and teachers can provide for improving the social capital of groups characterised by disadvantage"*.

2.   Benefits gained through engaged learning, work-integrated learning and partnerships

Many institutions offer their students the opportunity to interact with children and young people from disadvantaged and low SES backgrounds outside of the formal educational context and cite the opportunity to "learn about students as people" as a valuable learning experience. These experiences, whilst mainly undertaken on a voluntary basis by pre-service teachers, often provide motivation for the latter to then either undertake a professional experience placement or seek employment in a school in a disadvantaged and low SES context. Participating pre-service teachers can directly observe the difference they make in such interaction. One example, a ten-year program called *Pathways to the Adult World* (*PAW*) is based at a regional secondary school, which aims at improving the emotional intelligence of students in Years 7-9. This program is described in more detail in Section 4: "Bright Spots" in Initial Teacher Education.

3.   Reasons for adopting specific learning design approaches

As mentioned in 3.1, five key reasons were cited by responding institutions for adopting a specific design approach to preparing pre-service teachers to effectively teach in disadvantaged/low SES schools, including:

i.   Developing theoretical and pedagogical knowledge about disadvantage and equity in equity in education, for example philosophies of education; broad pedagogical approaches;

child and/or adolescent psychology; psycho-social-cultural realities in disadvantaged communities and schools. Courses are delivered with a social justice orientation in a scaffolded and critically reflective way generally including practical engagement. One respondent commented that an initial teacher education program aimed to develop teachers *"who are interventionist practitioners"* with high-level analytical skills and the capability to use data and evidence to identify and address the learning needs of individual learners. This concept and approach was influenced by the Carnegie Corporation of New York's Teachers for a New Era (2001), in particular the move towards an ITE model that is 'research-informed clinical practice', which aim to integrate practical experience in schools with research-based knowledge. This challenge to the enduring 'apprenticeship' model of teacher education is increasing and confirmed by Furlong (2014b):

> *While extended placements in disadvantaged contexts are important, we find that explicit project work and research conducted within partnership initiatives help to build deeper levels of understanding. Formalised partnership initiatives involve teacher educators and experienced teachers working together to create rich ongoing experiences and research projects where students work closely with young people and teacher mentors in ongoing ways.* (Furlong, 2014b).

ii. Presenting a particular disposition to pre-service teachers which is about students, schools and communities, the individual and the social purpose of education. It is about viewing students as "children of promise" (Heath & Mangiola, 1991) rather than as 'at-risk' when pre-service teachers are in the midst of confronting the challenges of teaching and learning in low SES settings. The observation was made by a few respondents that some pre-service teachers had preconceived assumptions and beliefs about disadvantage. These existing beliefs were challenged, particularly via professional experience placements in schools in disadvantaged and low SES communities. Further to this, the comment was made that experiential learning has by far the most powerful effect on the knowledge and understanding of pre-service teachers. As one respondent stated:

> *"They* [the students] *learn to evaluate their own personal biases and the impact these attitudes can have on their professional roles in low SES settings and develop mindsets that are committed to promoting educational, social, cultural and economic well-being in local communities."*

iii. Applying theoretical knowledge through professional experience supports pre-service teachers to observe first-hand and learn about the social realities of students, families and communities with whom they engage. Experiential learning has been cited as having the most powerful effect on raising the knowledge and understanding of pre-service teachers during their iterative theory/ praxis cycles between the school and university in professional inquiry. One survey respondent observed that, *"professional experiences in low SES schools are the most effective and challenging. They enable students to experience injustice at the coal face."* And: *"Theoretical content knowledge is not always effective if all you know is white privileged schools and communities."*

iv. Examining skills that engage students in disadvantaged contexts and enable their academic success, including:
- generic skills for the teaching profession, for example communication, interpersonal, persuasion, organisation and time management
- practices specific to teaching e.g. making connections between students' learning and their life worlds, collaborative planning, pedagogical inquiry, providing appropriate feedback assessing students' achievement
- skills explicit to teaching in disadvantaged contexts such as empathy, self-awareness, inclusiveness, a social justice orientation, respond positively to difference and a desire to "make a difference"

v. systematically applying knowledge and skills of effective teaching practices related to low SES and disadvantaged contexts.

Most responding institutions placed different emphases on these approaches, with some ITE providers indicating an explicit focus on all five learning design approaches in their survey response. Only two described specific practices relating to the fifth component. However, it should be noted that this could be a limitation of the survey structure rather than an existing gap in institutional practice.

The rationale provided by responding institutions for adopting specific learning design approaches resonates with the findings of recent literature and research methods as outlined in *Appendix C*. Such rationales were often connected to core values and priorities of the institution in relation to diversity, social justice and improved outcomes for students from low SES communities.

3.4 Findings of the Literature Review

Key findings are outlined from the review of literature about Initial Teacher Education for low SES contexts; Early Career Teacher experiences; and exemplary pedagogical practices in low SES contexts. Recent research surrounding Initial Teacher Education for low SES contexts has critically examined the constitution of teacher education, compared teacher education programs, explored recruitment and selection of quality teachers, investigated pre-service teachers' motivations for choosing to teach, explored strategies to prepare students to teach students who are culturally and linguistically diverse, and reflected on strategies for enhancing the effectiveness of professional experiences, mentoring, and school/university partnerships. Research investigating Early Career Teacher experiences analyses issues and effective strategies in the induction, mentoring, and professional learning (including opportunities for practitioner research) of teachers. The body of recent research surrounding exemplary pedagogical practices in low SES contexts reveals implications for the support, retention and flourishing of early career teachers. Factors that contribute to attrition and retention of pre-service and early career teachers in low SES school communities are deeply complex, entwined and interconnected. The most recent relevant studies related to the issues surrounding early career teacher quality teaching in low SES school are the "push" and "hold" factors (Rice, 2014).

3.4.1 Factors contributing to the attrition of ECTs in low SES schools

The "push" factors contributing to the attrition of ECTs in low SES schools are:

- Workload is the single most important factor for departing teachers (Buchanan, 2010; Buchanan et al., 2013; Farber, 2010) and the 2008 Australian Education Union national survey of 1545 Early Career Teachers, 68.5% reported workload as a top concern.
- Differences between the backgrounds and values of ECTs and their students and school community are significant factors in teacher attrition as teachers from middle class backgrounds may experience difficulties reconciling their beliefs, experiences and aspirations with those of their students (Ferfolja, 2008a, p. 7). Student behaviour and concerns for personal safety lead teachers to leave schools when it impedes their ability to teach (Allensworth et al., 2009; Buchanan et al., 2013; S. M. Johnson, Berg, & Donaldson, 2005; Ladd, 2011; Marinell & Coca, 2013; McCormick & Barrett, 2011).
- Organisational factors affect teacher turnover in that poor working conditions in the most needy schools "explain away most, if not all, of the relationship between student characteristics and teacher attrition" (Simon and Johnson, 2013, p. 40). In particular, the role of the school leader/ principal in teacher retention is significant In Rice's study (2014)

where sixty per cent of the most effective secondary teachers rated inadequate support from the school leader as very important in a decision to leave a school (p. 322).

- Support, in the forms of mentoring, networks or leadership opportunities inclusion in decision-making, is another key factor in the retention/attrition of teachers.

3.4.2 Factors contributing to the retention of ECTs in low SES schools

The "hold" factors contributing to the retention of ECTs in low SES schools are:

- Strategies of initial teacher education and professional learning that build closer partnerships between universities and schools have been trialled and developed in different settings to enhance processes of "immersion, scaffolding and reflection" (Aubusson & Schuck, 2013, p. 328). In programs where there is more of an immersion model without a university partnership (for example, with a year-long internship and a cooperating teacher mentor), recent studies have ethnographically focused on the socialisation of interns to align more with the cooperating mentor teacher's beliefs and pedagogical practices (Rozelle & Wilson, 2012), potentially perpetuating a division between the knowledge learned in ITE and the 'realities' of teaching.
- Partnership strategies fostering close collaborations between university teacher educators, mentor teachers, and pre-service teachers support ECT transition. The final report of the BERA Inquiry into the Role of Research in Teacher Education strongly argues a case for teachers to have frequent opportunities for engagement *with* and *in* research and enquiry, for teacher researchers and the wider research community to "work in partnership, rather than in separate and sometimes competing universes" (Furlong, 2014a, p. 5).
- Strategies in schools that promote success and satisfaction are those that support ECTs' workload, support responding to difference, provide effective school leaders and positive school cultures of inquiry, and relational and pedagogical support.

4. "BRIGHT SPOTS" IN INITIAL TEACHER EDUCATION

SVA utilises a "Bright Spots" methodology that focuses on what is working in the system, rather than what isn't working. This asset-based approach looks at the practice of improvement from a place of empowerment and capacity rather than deficiency. It explores why particular practices have become successful and then shares and develops these insights to engage and inspire others.

The "Bright Spots" methodology is based on the following principles:
- communities – in the case of this scoping project – universities, already have the solutions to solve their problems
- communities self-organise and have the human resources and social assets to solve an agreed upon problem
- collective intelligence
- sustainability
- it is easier to change behaviour by practising it rather than knowing about it

As mentioned previously, all responding institutions do include a focus within their initial teacher education programs on teaching in disadvantaged/low SES contexts. In addition, this report identifies the "Bright Spots", which involve innovative and highly successful ITE programs and these are described below:
- National Exceptional Teachers for Disadvantaged Schools (NETDS) Program offered in partnership with the Queensland Department of Education, Training and Employment with key schools in low SES communities. This program began in 2009 within one institution and since 2013 has been extended nationally via external funding to four other faculties and schools of education as well as multiple schools. The program was specifically developed to address the significant social issue of educational disadvantage through a teacher education program that explicitly focused on the preparation of teacher graduates with high quality teaching capacity who are equipped to teach and encouraged to select employment in low SES school settings. Specific outcomes include
  - Approximately 90% of ETDS graduates have secured employment with schools below the Australian mean ICSEA level of 1000
  - Many graduates secure full-time employment in schools in low SES communities prior to their graduation
  - School partners have grown from 3 in 2009 to approximately 40 in 2013
  - Development of distinctive workshops focusing on 'real world' issues related to disadvantage
  The project received the 2013 AITSL Outstanding Contribution to the Profession of Teacher Education Award.

- Partnership with the non-profit organisation *Teach for Australia* (*TFA*) to offer an employment-based pathway to teaching. The university delivers the education component and mentor teacher development program within the postgraduate diploma in teaching. Graduates with non-teacher education qualifications – called *'Associates'* – are placed in a school in a disadvantaged or low SES community with a 0.8FTE teaching load and work as a teaching professional supported by a mentor teacher, academic staff from the university and staff from *TFA*. The Associates complete the graduate diploma via four face-to-face intensives at university and via distance education over 2 years.

- The *Beyond the Line* partnership involves pre-service teachers visiting remote and rural schools, schools in socially disadvantaged and low SES communities and includes the School of the Air. The experience gives students an insight into the diversity of needs and disadvantage experienced in rural and remote schools along with the positive elements of strong community support and the educational innovation being developed in rural regions.

- A *Clinical Praxis Exam* (CPE), which is an assessment task embedded into each stream of the initial teacher education program (in some streams multiple exams take place). Pre-service teachers are required to report on a series of interventions they have undertaken throughout in a sequence of lessons to address an individual students' learning need. One major variable of the assessment criteria assesses the pre-service teacher's understanding of their learning intervention on the impact of the students' learning, for example,
  - *What are the social and policy factors impacting on the student and what does the research say about these? How do these factors impact on your planning?*
  - *In implementing your plan, how did you take account of the social and policy factors impacting on the student in the context of the class?*
  - *How did you modify your plans and pedagogical practices in response to the students' learning? How were these modifications informed by relevant teaching and learning theories?*

- Affiliation between initial teacher education provider and the Morayfield Teacher Education Centre of Excellence (MTECE). MTECE is one of five Centres of Excellence established in Queensland as part of the improving teaching quality national partnership. The purpose of this Department of Education and Training initiative is to develop a new generation of highly skilled teachers and in turn enhances outcomes for students. The Centre partners with schools throughout Queensland, with a focus on schools in low SES settings. Pre-service teachers in their third year of study at a specific university are encouraged to apply for the program.

- The School Centres for Teaching Excellence (SCTE) Model in Victoria provides an effective model for preparing initial teacher education students for teaching in disadvantaged/low SES schools. This model has been developed by drawing on current research in initial teacher education and what has been developed from a successful SCTE piloted from 2010 to 2014. In particular, it has been informed by principles of expansive learning and activity

theory perspectives on initial teacher education. The model is fundamentally based on achieving improved alignment between initial teacher education and research-led school improvement programs relevant to localised school alliances.

It utilises large teams of pre-service teachers (i.e. 60 to 80) who undertake residency-based professional experience placements within an alliance of six to seven P-12 schools servicing the educational needs of a local community. The university gives particular priority to schools and communities experiencing high levels of educational and social disadvantage.

- The *Growing Our Own* (GOO) Indigenous Teacher Education initiative implemented in the Northern Territory (NT) over the period 2009-14. This involved community-based delivery of a four year degree in remote communities and had 22 graduates. Factors contributing to project success included:
  - strong employer authority support from the Catholic Education Office, NT
  - strong community support in several remote Indigenous communities in the centre and top end
  - buy-in from university staff who are committed to the program and the communities
  - customised delivery of degree program that leads to professional accreditation

- The *Fair Go* and *Teachers for a Fair Go* Projects researched teaching effectiveness in disadvantaged/low SES schools and promotes collegial development and a team approach to research and in-school research.
- The *Pathways to the Adult World* (*PAW*) program based at a regional secondary school aims at improving the emotional intelligence of students in Years 7-9. In this initiative pre-service teachers work with students, often one-to-one to help them to understand some of the key issues, changes and challenges faced during adolescence. The pre-service teachers also act as positive adult role models and assist the students with their literacy during journal writing activities. This program has been running for almost ten years.
- Professional experience placement in Vanuatu, which focuses on the use of mother tongue in linguistically diverse classrooms, is very effective for preparing students to work in schools in low SES communities with high diversity. This approach is derived from a large body of research within the area of Second Language Acquisition, for example, the work of researchers such as Cummins and Skutnabb-Kangas.
- Situating the school of education and initial teacher education program within a disadvantaged and low SES community in South Australia based on the premise that it is important to work with a community to understand it. The ensuing research, connections with schools and professional learning activities have been in a community of practice with teachers in South Australia.
- Programs that engage pre-service teachers as mentors to students in schools in low SES communities. These include *AIME* (Indigenous mentoring program) and the *Teachers as Tutors Project*, which provides informal work experience opportunities for students in schools in low SES communities. Several institutions have partnered with various

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organisations such as the Centre for Multicultural Youth, Catholic Care and The Smith Family to offer education support programs and homework clubs for migrant children recently arrived in Australia, with initial teacher education students providing tutoring and mentoring.

Most institutions also cited past practices or strategies that had been unable to be sustained due to lack of funding or other factors. The observation was made that the definition of "disadvantage" can change with different political and institutional commitment to the issue. Furthermore, programs addressing socioeconomic disadvantage often require a longitudinal implementation timeframe to evaluate impact. Often, funding and resources have finished before outcomes are evident. One survey respondent reported that the general reduction of funding for teacher education within universities has limited the opportunities within their institution to employ community-based guest lecturers or to engage low SES areas in effective school-university partnerships. Guest lecturers often have a personal and profound impact on pre-service teachers.

Three quarters of responding institutions noted that if additional funding was available, they would reinstate some of the programs that had been discontinued. They would also expand partnerships and existing programs with schools/early childhood settings, remote Indigenous communities and relevant external agencies to provide more opportunity for pre-service teachers to undertake cost sensitive professional experience and other relevant activities in disadvantaged and low SES communities.

A further relevant factor is that the success of partnership initiatives is often dependent on the staff within institutions who are passionate to keep them going and often commit significant personal resources to undertake the organisational and administrative work as well as lead the conceptual planning. When people move on, it is likely that initiatives will not continue unless someone new takes ownership and feels the same commitment. The increased focus for academics on administrative and managerial tasks sometimes means that there is less time for brainstorming and developing community-based programs reduces their time allocation for designing innovative programs for low SES communities.

5. GAPS AND OPPORTUNITIES FOR FUTURE RESEARCH AND PARTNERSHIPS

The scoping report identifies three key opportunities for future research and partnership:

1. **Longitudinal research study into curriculum design factors that shape ITE graduate standards for the transition and retention of early career teachers in schools in disadvantaged and low SES communities**

   The literature review suggests that the "transition experience" for new graduates has a significant longer-term impact on their teacher identity and their sustainability in the profession. Of particular importance is the building of a collaborative and asset-based profession with a focus on effective pedagogy, professional experience, induction into the profession and school culture, quality mentoring and school leader support.

   Theoretical gaps include the need for further examination of the discursive shift from 'quality teaching' to 'teacher quality' and further spatial-socio-material-affective theoretical understandings of the challenges facing early career teachers (cf. Smyth, McInerney, & Fish, 2013) and how their teacher preparation/support/development translates into practice. The methodological gaps include longitudinal research of labour trends, comparative work between professions and co-researching partnerships with teams of teachers, students, parents/community members, and school leaders. Thus, a longitudinal study into factors shaping the retention of early career teachers in schools in disadvantaged and low SES communities is timely. According to Hayes, Mills, et al (2006, p. 206) *"building a shared vision for learning involves engaging the many layers of the system"*. As such, a multi-layered longitudinal study of this type should engage early career teachers, schools, universities and other stakeholders (e.g. AITSL, State accreditation and registration authorities). Such a multi-layered focus is vital to address the challenges of supporting equity and excellence in the Australian educational system. This proposed study would be a national, comprehensive and iterative research project over a five year period into curriculum design that sustains the transition of pre-service teachers into their early careers in the teaching profession and related stakeholders. The study would examine discipline developments, graduate teacher standards, effective pedagogy and the spatial-socio-material-affective dimensions of teaching and learning in low SES contexts. The study would include a randomised control trial to compare evaluate any differences between those teaching in "mainstream" and low SES schools.

2. Repository of online resources about quality teaching in schools in disadvantaged and low SES communities

An opportunity is to develop a repository of online resources about teaching in schools in disadvantaged and low SES communities. This would include a research repository, "bright spots" case studies of ITE curriculum design and innovative pedagogical practices, other relevant resources, as well as the option for online commentary and feedback that respond to difficulties of teaching in disadvantaged/low SES contexts. This website would benefit pre-service teachers and for the ongoing professional learning by early career teachers. The Respect, Relationships and Reconciliation (3 Rs of Teaching) Project website could be used as a model. The 3Rs of Teaching is a joint initiative between MATSITI (More Aboriginal and Torres Strait islander Initiative) the University of South Australia and the ACDE. This digital series of online modules was developed in 2013 to support the provision of initial teacher education to improve teaching in Aboriginal and Torres Strait islander education (see www.rrr.edu.au).

This project would have national application. Furthermore, it would be a "living resource" that will manage modifications, incorporate information retrieval and topic-based searches. The definition of "disadvantage" is far-reaching and complex. It can include disadvantaged and low SES contexts, Indigenous people, students with disabilities, students living in rural and remote areas, refugees and victims of war, and migrants from non-English speaking backgrounds. Providers of initial teacher education programs are required to ensure that their graduates have the knowledge and practical skills to teach such "disadvantaged" groups in order to meet the Australian Professional Standards for Teachers (Standard 1). The proposed repository of online resources could include reference to these various categories of "disadvantage".

3. Mobilising a national community of practice for teachers in schools in disadvantaged and low SES communities

The survey has established that there are current projects that specifically focus on the preparation of teacher graduates with high quality teaching capacity to teach in schools in disadvantaged and low SES communities. Examples of these include the *National Exceptional Teachers for Disadvantaged Schools* that is now being offered on a national basis across several institutions; the partnerships with *Teach for Australia*; and the establishment of *School Centres for Teaching Excellence*.

It is recommended that the opportunity be explored to create a national community of practice for teachers in schools in disadvantaged and low SES communities. This school-

university partnership would provide ongoing opportunities for stakeholders to consult, reflect upon and analyse matters pertinent to inclusive teaching in schools in disadvantaged/low SES contexts, as well as providing a framework for the generation and sharing of knowledge, and proliferating practices that sustain a positive school culture with support to retain early career teachers. This may in turn lead to co-researching partnerships involving universities, schools, teachers (including early career teachers) and pre-service teachers fostering "reciprocal" approaches rather than a one-way "gaze" on teachers and schools (Lingard, Hayes, & Mills, 2003, p. 407), having the potential to proliferate innovative practices in schools and education systems where there is a high retention of ECTs.

6. CONCLUSION

The scoping report has identified the varying range of current research on educating, attracting and retaining a high quality teaching workforce in low SES communities as well as course designs by Australian ITE providers that address inter-connected, processual and relational dimensions of effective teaching and learning in schools and stress the importance of multiple factors in teacher retention, and a focus on quality teaching in school communities. It has also established that all institutions responding to the survey provide some focus within their courses to prepare pre-service teachers to teach in disadvantaged contexts, including low SES environments.

The "gaps", as supported by the literature, concern the transition from pre-service study to early career teaching. Replicating research between pre-service teachers and higher education researchers to partnerships that include early career teachers in an Australian context would go some way to closing this gap. Positioning pre-service teachers and ECTs as "producers of knowledge" (Lingard, Hayes, & Mills, 2003, p. 404) about pedagogy and school conditions, with other teachers and school leaders positioned to affirm their situated knowledge would serve to re-frame school discourses away from deficit, to asset models of teaching and learning at the level of both the classroom and staffroom. Some early career teachers struggle to make the impact to which they aspire – and which their students desperately require. The result is that such early career teachers move on from these schools as soon as they can, or leave the profession altogether. Darling-Hammond (2002, p. 6) has suggested that teachers can be supported to become "agents of social change" in supportive environments and relationships. There are thus a number of opportunities for the future including further research into strategies to support and retain early career teachers and innovative initiatives.

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Please also refer to the Literature Review (Appendix C) for further references.

THE AUSTRALIAN PROFESSIONAL STANDARDS FOR TEACHERS

Professional Knowledge

1 Know students and how they learn

1.1 Physical, social and intellectual development and characteristics of students

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning. Show Illustrations	Use teaching strategies based on knowledge of students' physical, social and intellectual development and characteristics to improve student learning. Show Illustrations	Select from a flexible and effective repertoire of teaching strategies to suit the physical, social and intellectual development and characteristics of students. Show Illustrations	Lead colleagues to select and develop teaching strategies to improve student learning using knowledge of the physical, social and intellectual development and characteristics of students.

1.2 Understand how students learn

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.	Structure teaching programs using research and collegial advice about how students learn. Show Illustrations	Expand understanding of how students learn using research and workplace knowledge. Show IllustrationsShow Evidence	Lead processes to evaluate the effectiveness of teaching programs using research and workplace knowledge about how students learn.

1.3 Students with diverse linguistic, cultural, religious and socioeconomic backgrounds

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds. Show Illustrations	Design and implement teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds. Show Illustrations	Support colleagues to develop effective teaching strategies that address the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds. Show Illustrations	Evaluate and revise school learning and teaching programs, using expert and community knowledge and experience, to meet the needs of students with diverse linguistic, cultural, religious and socioeconomic backgrounds.

1.4 Strategies for teaching Aboriginal and Torres Strait Islander students

Graduate	Proficient	Highly Accomplished	Lead
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.	Design and implement effective teaching strategies that are responsive to the local community and cultural setting, linguistic background and histories of Aboriginal and Torres Strait Islander students. Show Illustrations	Provide advice and support colleagues in the implementation of effective teaching strategies for Aboriginal and Torres Strait Islander students using knowledge of and support from community representatives. Show IllustrationsShow Evidence	Develop teaching programs that support equitable and ongoing participation of Aboriginal and Torres Strait Islander students by engaging in collaborative relationships with community representatives and parents/carers. Show Illustrations

1.5 Differentiate teaching to meet the specific learning needs of students across the full range of abilities

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities. Show Illustrations	Develop teaching activities that incorporate differentiated strategies to meet the specific learning needs of students across the full range of abilities. Show Illustrations	Evaluate learning and teaching programs, using student assessment data, that are differentiated for the specific learning needs of students across the full range of abilities.	Lead colleagues to evaluate the effectiveness of learning and teaching programs differentiated for the specific learning needs of students across the full range of abilities. Show Illustrations

1.6 Strategies to support full participation of students with disability

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate broad knowledge and understanding of legislative requirements and teaching strategies that support participation and learning of students with disability.	Design and implement teaching activities that support the participation and learning of students with disability and address relevant policy and legislative requirements. Show Illustrations	Work with colleagues to access specialist knowledge, and relevant policy and legislation, to develop teaching programs that support the participation and learning of students with disability. Show Illustrations	Initiate and lead the review of school policies to support the engagement and full participation of students with disability and ensure compliance with legislative and/or system policies. Show Illustrations

2 Know the content and how to teach it

2.1 Content and teaching strategies of the teaching area

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge and understanding of the concepts, substance and structure of the content and teaching strategies of the teaching area. Show Illustrations	Apply knowledge of the content and teaching strategies of the teaching area to develop engaging teaching activities. Show Illustrations	Support colleagues using current and comprehensive knowledge of content and teaching strategies to develop and implement engaging learning and teaching programs. Show IllustrationsShow Evidence	Lead initiatives within the school to evaluate and improve knowledge of content and teaching strategies and demonstrate exemplary teaching of subjects using effective, research-based learning and teaching programs. Show Illustrations

2.2 Content selection and organisation

Graduate	Proficient	Highly Accomplished	Lead
Organise content into an effective learning and teaching sequence. Show Illustrations	Organise content into coherent, well-sequenced learning and teaching programs. Show Illustrations	Exhibit innovative practice in the selection and organisation of content and delivery of learning and teaching programs. Show Illustrations	Lead initiatives that utilise comprehensive content knowledge to improve the selection and sequencing of content into coherently organised learning and teaching programs. Show Illustrations

2.3 Curriculum, assessment and reporting

Graduate	Proficient	Highly Accomplished	Lead
Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans. Show Illustrations	Design and implement learning and teaching programs using knowledge of curriculum, assessment and reporting requirements.	Support colleagues to plan and implement learning and teaching programs using contemporary knowledge and understanding of curriculum, assessment and reporting requirements.	Lead colleagues to develop learning and teaching programs using comprehensive knowledge of curriculum, assessment and reporting requirements. Show Illustrations

Graduate	Proficient	Highly Accomplished	Lead
		Show Illustrations	

2.4 Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages. Show Illustrations	Provide opportunities for students to develop understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages. Show Illustrations	Support colleagues with providing opportunities for students to develop understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages. Show Illustrations	Lead initiatives to assist colleagues with opportunities for students to develop understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages.

2.5 Literacy and numeracy strategies

Graduate	Proficient	Highly Accomplished	Lead
Know and understand literacy and numeracy teaching strategies and their application in teaching areas. Show Illustrations	Apply knowledge and understanding of effective teaching strategies to support students' literacy and numeracy achievement. Show Illustrations	Support colleagues to implement effective teaching strategies to improve students' literacy and numeracy achievement. Show Illustrations	Monitor and evaluate the implementation of teaching strategies within the school to improve students' achievement in literacy and numeracy using research-based knowledge and student data. Show Illustrations

2.6 Information and Communication Technology (ICT)

Graduate	Proficient	Highly Accomplished	Lead
Implement teaching strategies for using ICT to expand curriculum learning opportunities for students. Show Illustrations	Use effective teaching strategies to integrate ICT into learning and teaching programs to make selected content relevant and meaningful.	Model high-level teaching knowledge and skills and work with colleagues to use current ICT to improve their teaching practice and make content	Lead and support colleagues within the school to select and use ICT with effective teaching strategies to expand learning opportunities and

Graduate	Proficient	Highly Accomplished	Lead
	Show Illustrations	relevant and meaningful. Show Illustrations	content knowledge for all students. Show Illustrations

Professional Practice

3 Plan for and implement effective teaching and learning

3.1 Establish challenging learning goals

Graduate	Proficient	Highly Accomplished	Lead
Set learning goals that provide achievable challenges for students of varying abilities and characteristics. Show Illustrations	Set explicit, challenging and achievable learning goals for all students. Show Illustrations	Develop a culture of high expectations for all students by modelling and setting challenging learning goals. Show Illustrations	Demonstrate exemplary practice and high expectations and lead colleagues to encourage students to pursue challenging goals in all aspects of their education.

3.2 Plan, structure and sequence learning programs

Graduate	Proficient	Highly Accomplished	Lead
Plan lesson sequences using knowledge of student learning, content and effective teaching strategies. Show Illustrations	Plan and implement well-structured learning and teaching programs or lesson sequences that engage students and promote learning. Show Illustrations	Work with colleagues to plan, evaluate and modify learning and teaching programs to create productive learning environments that engage all students. Show IllustrationsShow Evidence	Exhibit exemplary practice and lead colleagues to plan, implement and review the effectiveness of their learning and teaching programs to develop students' knowledge, understanding and skills. Show Illustrations

3.3 Use teaching strategies

Graduate	Proficient	Highly Accomplished	Lead
Include a range of teaching strategies. Show Illustrations	Select and use relevant teaching strategies to develop knowledge, skills, problem solving and critical and creative thinking. Show Illustrations	Support colleagues to select and apply effective teaching strategies to develop knowledge, skills, problem solving and critical and creative thinking.	Work with colleagues to review, modify and expand their repertoire of teaching strategies to enable students to use knowledge, skills, problem solving and critical and creative

Graduate	Proficient	Highly Accomplished	Lead
		Show Illustrations	thinking.

3.4 Select and use resources

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning. Show Illustrations	Select and/or create and use a range of resources, including ICT, to engage students in their learning. Show Illustrations	Assist colleagues to create, select and use a wide range of resources, including ICT, to engage students in their learning. Show Illustrations	Model exemplary skills and lead colleagues in selecting, creating and evaluating resources, including ICT, for application by teachers within or beyond the school.

3.5 Use effective classroom communication

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate a range of verbal and non-verbal communication strategies to support student engagement.	Use effective verbal and non-verbal communication strategies to support student understanding, participation, engagement and achievement. Show Illustrations	Assist colleagues to select a wide range of verbal and non-verbal communication strategies to support students' understanding, engagement and achievement.	Demonstrate and lead by example inclusive verbal and non-verbal communication using collaborative strategies and contextual knowledge to support students' understanding, engagement and achievement. Show Illustrations

3.6 Evaluate and improve teaching programs

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.	Evaluate personal teaching and learning programs using evidence, including feedback from students and student assessment data, to	Work with colleagues to review current teaching and learning programs using student feedback, student assessment data, knowledge of	Conduct regular reviews of teaching and learning programs using multiple sources of evidence including: student assessment data, curriculum

Graduate	Proficient	Highly Accomplished	Lead
	inform planning. Show Illustrations	curriculum and workplace practices. Show IllustrationsShow Evidence	documents, teaching practices and feedback from parents/ carers, students and colleagues.

3.7 Engage parents/ carers in the educative process

Graduate	Proficient	Highly Accomplished	Lead
Describe a broad range of strategies for involving parents/carers in the educative process.	Plan for appropriate and contextually relevant opportunities for parents/ carers to be involved in their children's learning. Show Illustrations	Work with colleagues to provide appropriate and contextually relevant opportunities for parents/carers to be involved in their children's learning.	Initiate contextually relevant processes to establish programs that involve parents/carers in the education of their children and broader school priorities and activities. Show Illustrations

4 Create and maintain supportive and safe learning environments

4.1 Support student participation

Graduate	Proficient	Highly Accomplished	Lead
Identify strategies to support inclusive student participation and engagement in classroom activities. Show Illustrations	Establish and implement inclusive and positive interactions to engage and support all students in classroom activities. Show Illustrations	Model effective practice and support colleagues to implement inclusive strategies that engage and support all students. Show Illustrations	Demonstrate and lead by example the development of productive and inclusive learning environments across the school by reviewing inclusive strategies and exploring new approaches to engage and support all students.

4.2 Manage classroom activities

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate the capacity to organise classroom activities and provide clear directions. Show Illustrations	Establish and maintain orderly and workable routines to create an environment where student time is spent on learning tasks. Show Illustrations	Model and share with colleagues a flexible repertoire of strategies for classroom management to ensure all students are engaged in purposeful activities. Show Illustrations	Initiate strategies and lead colleagues to implement effective classroom management and promote student responsibility for learning. Show Illustrations

4.3 Manage challenging behaviour

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate knowledge of practical approaches to manage challenging behaviour.	Manage challenging behaviour by establishing and negotiating clear expectations with students and address discipline issues promptly, fairly and respectfully. Show Illustrations	Develop and share with colleagues a flexible repertoire of behaviour management strategies using expert knowledge and workplace experience. Show Illustrations	Lead and implement behaviour management initiatives to assist colleagues to broaden their range of strategies.

4.4 Maintain student safety

Graduate	Proficient	Highly Accomplished	Lead
Describe strategies that support students' wellbeing and safety working within school and/or system, curriculum and legislative requirements.	Ensure students' wellbeing and safety within school by implementing school and/ or system, curriculum and legislative requirements. Show Illustrations	Initiate and take responsibility for implementing current school and/or system, curriculum and legislative requirements to ensure student wellbeing and safety. Show Illustrations	Evaluate the effectiveness of student wellbeing policies and safe working practices using current school and/or system, curriculum and legislative requirements and assist colleagues to update their practices.

4.5 Use ICT safely, responsibly and ethically

Graduate	Proficient	Highly Accomplished	Lead
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.	Incorporate strategies to promote the safe, responsible and ethical use of ICT in learning and teaching.	Model, and support colleagues to develop, strategies to promote the safe, responsible and ethical use of ICT in learning and teaching. Show Illustrations	Review or implement new policies and strategies to ensure the safe, responsible and ethical use of ICT in learning and teaching.

5   Assess, provide feedback and report on student learning

5.1 Assess student learning

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning.	Develop, select and use informal and formal, diagnostic, formative and summative assessment strategies to assess student learning. Show Illustrations	Develop and apply a comprehensive range of assessment strategies to diagnose learning needs, comply with curriculum requirements and support colleagues to evaluate the effectiveness of their approaches to assessment. Show Illustrations	Evaluate school assessment policies and strategies to support colleagues with: using assessment data to diagnose learning needs, complying with curriculum, system and/or school assessment requirements and using a range of assessment strategies.

5.2 Provide feedback to students on their learning

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning.	Provide timely, effective and appropriate feedback to students about their achievement relative to their learning goals. Show Illustrations	Select from an effective range of strategies to provide targeted feedback based on informed and timely judgements of each student's current needs in order to progress learning. Show IllustrationsShow Evidence	Model exemplary practice and initiate programs to support colleagues in applying a range of timely, effective and appropriate feedback strategies.

5.3 Make consistent and comparable judgements

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning. Show Illustrations	Understand and participate in assessment moderation activities to support consistent and comparable judgements of student learning. Show Illustrations	Organise assessment moderation activities that support consistent and comparable judgements of student learning. Show Illustrations	Lead and evaluate moderation activities that ensure consistent and comparable judgements of student learning to meet curriculum and school or system requirements.

5.4 Interpret student data

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.	Use student assessment data to analyse and evaluate student understanding of subject/content, identifying interventions and modifying teaching practice. Show Illustrations	Work with colleagues to use data from internal and external student assessments for evaluating learning and teaching, identifying interventions and modifying teaching practice. Show IllustrationsShow Evidence	Co-ordinate student performance and program evaluation using internal and external student assessment data to improve teaching practice.

5.5 Report on student achievement

Graduate	Proficient	Highly Accomplished	Lead
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.	Report clearly, accurately and respectfully to students and parents/carers about student achievement, making use of accurate and reliable records.	Work with colleagues to construct accurate, informative and timely reports to students and parents/carers about student learning and achievement.	Evaluate and revise reporting and accountability mechanisms in the school to meet the needs of students, parents/carers and colleagues.

Professional Engagement

6   Engage in professional learning

6.1 Identify and plan professional learning needs

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate an understanding of the role of the Australian Professional Standards for Teachers in identifying professional learning needs. Show Illustrations	Use the Australian Professional Standards for Teachers and advice from colleagues to identify and plan professional learning needs. Show Illustrations	Analyse the Australian Professional Standards for Teachers to plan personal professional development goals, support colleagues to identify and achieve personal development goals and pre-service teachers to improve classroom practice. Show Illustrations	Use comprehensive knowledge of the Australian Professional Standards for Teachers to plan and lead the development of professional learning policies and programs that address the professional learning needs of colleagues and pre-service teachers. Show Illustrations

6.2 Engage in professional learning and improve practice

Graduate	Proficient	Highly Accomplished	Lead
Understand the relevant and appropriate sources of professional learning for teachers. Show Illustrations	Participate in learning to update knowledge and practice, targeted to professional needs and school and/or system priorities. Show Illustrations	Plan for professional learning by accessing and critiquing relevant research, engage in high quality targeted opportunities to improve practice and offer quality placements for pre-service teachers where applicable. Show Illustrations	Initiate collaborative relationships to expand professional learning opportunities, engage in research, and provide quality opportunities and placements for pre-service teachers.

6.3 Engage with colleagues and improve practice

Graduate	Proficient	Highly Accomplished	Lead
Seek and apply constructive feedback from supervisors and teachers to improve teaching practices. Show Illustrations	Contribute to collegial discussions and apply constructive feedback from colleagues to improve professional knowledge and practice. Show Illustrations	Initiate and engage in professional discussions with colleagues in a range of forums to evaluate practice directed at improving professional knowledge and practice, and the educational outcomes of students. Show Illustrations	Implement professional dialogue within the school or professional learning network(s) that is informed by feedback, analysis of current research and practice to improve the educational outcomes of students. Show Illustrations

6.4 Apply professional learning and improve student learning

Graduate	Proficient	Highly Accomplished	Lead
Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning. Show Illustrations	Undertake professional learning programs designed to address identified student learning needs.	Engage with colleagues to evaluate the effectiveness of teacher professional learning activities to address student learning needs.	Advocate, participate in and lead strategies to support high-quality professional learning opportunities for colleagues that focus on improved student learning.

7 Engage professionally with colleagues, parents/carers and the community

7.1 Meet professional ethics and responsibilities

Graduate	Proficient	Highly Accomplished	Lead
Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.	Meet codes of ethics and conduct established by regulatory authorities, systems and schools.	Maintain high ethical standards and support colleagues to interpret codes of ethics and exercise sound judgement in all school and community contexts. Show Illustrations	Model exemplary ethical behaviour and exercise informed judgements in all professional dealings with students, colleagues and the community.

7.2 Comply with legislative, administrative and organisational requirements

Graduate	Proficient	Highly Accomplished	Lead
Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage.	Understand the implications of and comply with relevant legislative, administrative, organisational and professional requirements, policies and processes. Show Illustrations	Support colleagues to review and interpret legislative, administrative, and organisational requirements, policies and processes.	Initiate, develop and implement relevant policies and processes to support colleagues' compliance with and understanding of existing and new legislative, administrative, organisational and professional responsibilities.

7.3 Engage with the parents/carers

Graduate	Proficient	Highly Accomplished	Lead
Understand strategies for working effectively, sensitively and confidentially with parents/carers.	Establish and maintain respectful collaborative relationships with parents/ carers regarding their children's learning and wellbeing. Show Illustrations	Demonstrate responsiveness in all communications with parents/carers about their children's learning and wellbeing. Show Illustrations	Identify, initiate and build on opportunities that engage parents/carers in both the progress of their children's learning and in the educational priorities of the school. Show Illustrations

7.4 Engage with professional teaching networks and broader communities

Graduate	Proficient	Highly Accomplished	Lead
Understand the role of external professionals and community representatives in broadening teachers' professional knowledge and practice.	Participate in professional and community networks and forums to broaden knowledge and improve practice.	Contribute to professional networks and associations and build productive links with the wider community to improve teaching and learning. Show Illustrations	Take a leadership role in professional and community networks and support the involvement of colleagues in external learning opportunities.

SURVEY FOR NADLATE-SVA OLT PROJECT
TEACHERS MATTER: MODELS FOR EFFECTIVE TEACHING IN LOW SES SCHOOLS

SURVEY ADMINISTRATOR:

CONTACT DETAILS: Email   **Phone**

UNIVERSITY:

FACULTY/SCHOOL/UNIT:

1.   Which of the following approaches/programs does your Faculty/School <u>currently</u> utilise to develop Initial Teacher Education (ITE) students to effectively teach in disadvantaged/low SES schools? The Index of Community Socio-Educational Advantage (ICSEA) defines low SES as ICSEA below 1000. These schools may include:
   - Rural or remote locations
   - High Indigenous populations
   - High language background other than English (LBOTE) populations
   - Students with disabilities.

[Please tick <u>all</u> applicable options and also indicate whether these apply to undergraduate or postgraduate ITE courses or both:]

☐	Specialised discrete academic subjects/units/courses focusing primarily on teaching in disadvantaged/low SES schools
☐	Relevant content embedded in other subjects/units/courses
☐	Professional Experience placements specifically in disadvantaged/low SES schools
☐	Other outreach programs within disadvantaged/low SES schools
☐	Academic research relating to teaching within disadvantaged/low SES schools
☐	External partnerships that promote capacity building within disadvantaged/low SES schools
☐	Other strategies, programs and projects (e.g. scholarships) that develop ITE students to teach in disadvantaged/low SES schools
☐	Cross-institutional partnerships and programs with other universities aimed at developing ITE students to teach in disadvantaged/low SES schools

Could you please provide further information regarding these approaches in the table on page 2? If more than one person is involved in filling this out please feel free to submit several copies of the table within this document.

SURVEY FOR NADLATE-SVA OLT PROJECT
TEACHERS MATTER: MODELS FOR EFFECTIVE TEACHING IN LOW SES SCHOOLS

SURVEY ADMINISTRATOR:

CONTACT DETAILS: Email   **Phone**

UNIVERSITY:

FACULTY/SCHOOL/UNIT:

Current approaches/programs to develop Initial Teacher Education (ITE) students to effectively teach in disadvantaged/low SES schools	PROGRAM (e.g. ECE, Primary, Secondary)	START YEAR	FINISH YEAR (if relevant)	UNIVERSITY-BASED/ SITE-BASED/ COMMUNITY-BASED	SCHOOL/ FACULTY/ UNIVERSITY-WIDE
Specialised discrete academic subjects/units/courses					
Content embedded in other subjects/units/courses					
Professional Experience					
Outreach programs					
External partnerships					
Other strategies, programs and projects (e.g. scholarships)					

2.   Is preparation to teach in disadvantaged/low SES schools mandatory for all students in your ITE courses?

        ☐   Yes   ☐   No

        If not, how are students selected to participate in the approaches you undertake?

        What proportion of students are participating in this targeted preparation for teaching in disadvantaged/low SES schools.

3.   Who are the staff (academic and other) leading this work within your Faculty/School? Provide details about their governance roles, their research and their academic leadership.

4.   What is the rationale for selecting the approach(es) your Faculty/School is undertaking in this area, including any research underpinning these approaches?

5.   Which of these approaches do you believe are the most effective for preparing ITE students for teaching in disadvantaged/low SES schools and why?

6.   Which project/program/initiative has been most successful in your institution and why? Please describe the project/program/initiative in detail.

7.   Have there been effective <u>past</u> practices or strategies that were unable to be sustained due to lack of funding or other factors?

☐   Yes   ☐   No

If yes, please provide details below:

8.   Are there any programs or strategies planned for the future that your Faculty/School would implement if available resources, skills and funding were available?

☐   Yes   ☐   No

If yes, please provide details below:

9.   Has research within your Faculty/School or by others identified particular graduate competencies/dispositions that support students in adapting to working in disadvantaged/low SES schools?

☐   Yes   ☐   No

If yes, please provide details below:

10.   How do you evaluate the effectiveness of these programs within your Faculty/School?

In answering this question could you please comment on:

- What metrics you use in evaluation (e.g. student outcomes measured by assessment, student-teacher academic performance, pre-service teacher unit/subject/program satisfaction/feedback, rates of employment to disadvantaged/low SES schools, etc)?
- At what stage is the program evaluated (e.g. formative, summative, after the program)?
- Would you be prepared to share any public domain evaluations you have undertaken that are specific to preparing students for teaching in disadvantaged/low SES schools?

11. Are there any further strategies, programs or projects to support the development of ITE students in this area offered across <u>other sectors</u> of your university?

☐ Yes   ☐ No

If yes, please provide details below:

12. Any further comments/information you wish to provide?

- THANK YOU FOR COMPLETING THIS SURVEY –

PLEASE FORWARD TO ANNE SZADURA AT: projectmanager@acde.edu.au

LITERATURE REVIEW

Table of Contents

1. Introduction

a) The purpose of this literature review

This literature review synthesises recent research surrounding the recruitment, development, support, retention/sustainability of high-quality teachers in low socio-economic (SES) schools. It contributes to the scoping project that is a partnership between Social Ventures Australia (SVA) and Australian Council for Deans in Education (ACDE), funded through the Office for Teaching and Learning (OLT). The scoping project seeks to identify current practices within Australian universities to support effective teaching and build capacity to teach in low SES schools. The proposed SVA/ACDE project will identify effective practices throughout Australia and highlight opportunities for further research and collaboration, including diffusion of knowledge and replication and scaling of effective practices aimed at breaking the cycle of social disadvantage and improving outcomes in low SES school communities.

This literature review analyses recent research and other documents and reports derived from practice and policy that builds on the work of the SVA's *Growing Great Teachers* report and 11 case studies (December 2013). The aim is not to establish agreement on empirical truths or identify state-of-the-art forms of measurement. Instead, the landscape of the debates and tensions surrounding socio-economic status and schooling, Initial Teacher Education (ITE) and Early Career Teaching (ECT) are mapped. This literature review establishes that further work on the recruitment, development, support and retention/sustainability of teachers in low SES schools is worth undertaking, and recommends gaps in the research literature to be investigated.

b) Catalysts for the concern for effective teaching in low SES schools

i)   The purposes of education

The provision of "high quality and equitable education for all students" is the fundamental goal of Australian schooling (Council of Australian Governments (COAG), 2013, p. 6), so that "all young Australians become successful learners, confident and creative individuals, and active and informed citizens" (Ministerial Council on Education Employment Training and Youth Affairs [MCEETYA], 2008). A fair and inclusive education system is not only imperative for fostering a more equitable society, but also on human rights and economic grounds (Gonski et al., 2011, p. 108). Ensuring that children can have access to the best possible education and chance to realise their educational potential is described in the Gonski Review of Funding for Schools as the "moral imperative" of schooling (2011, p. 105).

A high quality education system leads to many benefits individuals and society, including higher rates of employment and incomes, and better health, innovation, tolerance and social cohesion (Gonski et al., 2011, p. xiii; Productivity Commission, 2012, p. 8). The education system builds Australia's "'human capital'"; "educational investments" (Gonski et al., 2011, p. 107) are integral to "the nation's economic and social futures" (Banks, 2012, p. iii).

ii) *The importance of quality teaching*

Quality teaching is vital in achieving the goals of quality and equity, alongside other structural and systemic reforms. Teachers play a central role in "promoting positive outcomes for students and the community generally" (Banks, 2012, p. iii). The quality of teachers is closely related to student engagement and achievement (Darling-Hammond, 2000b; Goodwin, 2010; Hanushek, 2011; Hattie, 2009; Levin, 2008; Rivkin, Hanushek, & Kain, 2005). Recent research has found strong evidence that the quality of teaching has an effect over and above a student's background and prior achievement, and results in substantial benefits for students from low socioeconomic backgrounds and Indigenous students (Ladwig, Gore, Amosa, & Griffiths, 2009). Quality teaching is particularly important in improving student outcomes in low SES school communities (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009).

iii) *The current situation*

The challenge to meet Australia's equity goals is great. In PISA[5] in 2009, approximately 25 per cent of students from low-SES backgrounds did not reach proficient levels of reading, mathematics or scientific literacy at age 15 (compared with 5 per cent from high SES backgrounds). About 40 per cent of students from low SES backgrounds do not reach Year 12 or attain equivalent vocational qualifications (compared with 20 per cent from high SES backgrounds) (Productivity Commission, 2012, p. 68). Australia was classified as a country achieving "only average equity", meaning that "the link between student background and educational outcome is more pronounced in Australia than in other comparable high-performing OECD countries" (Gonski et al., 2011, p. 106). This "unacceptable link between low levels of achievement and educational disadvantage, particularly among students from low socioeconomic and Indigenous backgrounds" necessitates close consideration of how to close these gaps, through both "[i]nvestment and high expectations" (Gonski et al., 2011, p. xiii).

While realising the goals of quality and equity in education relies on a high-quality teaching workforce, particularly in low SES school communities, the difficulty in attracting and retaining quality teachers is a global concern for policy-makers, educational leaders and researchers (Boyd et al., 2009; Darling-Hammond, 2003; Ewing & Manuel, 2005; Farber, 2010; OECD, 2009; Smethem, 2007; Watlington, Shockley, Guglielmino, & Felsher, 2010). With retirement and resignation rates predicted to increase by the Ministerial Council for Education Early Childhood Development and Youth Affairs, replacing the losses of teachers with quality teachers is a challenge (2004, p. 127). Reported attrition rates for teachers in low SES settings are a third higher than in non-disadvantaged schools (Ewing & Manuel, 2005). Disadvantaged schools report great difficulty in attracting quality teachers across OECD countries (cf. OECD, 2010, p. 124). These schools indeed are "running twice as hard" (Connell, White, & Johnson, 1991) to meet the needs of their students and to retain teachers.

c) International and national concerns for quality teaching

Education and the future of the teaching profession have been central concerns in recent international, national and state reports and initiatives. Recent international reports have focused on the attraction, development and retention of teachers in the OECD (2006), the U.S. (United States Department of

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[5] Assessing the performance of a nation's education system on the basis of PISA results is acknowledged to be problematic (see Lingard, 2011; Sellar & Lingard, 2013). These results are reported as an indicator only of some of the challenges facing Australia in achieving its goals for excellence and equity in education.

Education, 2011), and on building the capacity of the education system through research in the U.K. (Furlong, 2014a). Redefining teacher education is the focus of a report by the *International Alliance of Leading Education Institutes* (Gopinathan et al., 2008). A recent report published by the European Union (Redecker et al., 2011) argues for the need for a transformation of teaching and learning in the context of a changing world. These reports have all highlighted the challenge of continued under-achievement, particularly among minorities and marginalised populations, and the challenges of increasingly diverse classrooms as the primary drivers of reconceptualising teacher education and the attraction, support and retention of high-quality teachers.

In Australia, at a federal and state level, recent reports have explored the relationship between disadvantage and educational outcomes. The Vinson Reports (Vinson, 2002, 2007) highlighted the particularly strong link between intergenerational poverty and low educational attainment, while the Gonski Report (2011) furthered this analysis and called for changes to funding arrangements alongside a focus on high expectations, innovative school cultures, quality teaching and community connections (p. xix). Additional funding for low SES school community settings through the Low SES School Communities National Partnerships (Australian Government [DEEWR], National Partnership for Smarter Schools, & NSW Department of Education and Communities, 2012) has fostered innovative, context-based approaches to professional development and pedagogy (Gonski et al., 2011).

The focus has sharpened on to how to attract and develop quality teachers at a federal level with the Minister's review of Teacher Education (Pyne, 17 April, 2014). "Teacher quality" is a fundamental concern for the federal government in achieving quality education (Ministerial Advisory Group, 2014). Several state and territory governments have recently conducted their own enquiries and announced jurisdictional reforms relevant to teacher education and professional learning (Government of South Australia, 2013; NSW Department of Education and Communities, NSW Institute of Teachers, & NSW Board of Studies, 2013; Queensland Government [Department of Education, 2013; State of Victoria [Department of Education and Early Childhood Development], 2013). Attracting, developing and supporting the professional learning of teachers to grow in effectiveness are critical policy issues in these documents.

d) Why teacher attrition matters

While attraction of high-quality graduates to the teaching profession is a concern that will be discussed later, the high level of teacher attrition in low SES settings has been a recent concern for education systems globally. While a certain amount of attrition can benefit organisations, avoiding stagnation (Macdonald, 1999) and facilitating rejuvenation and innovation when "new blood" is infused (R. M. Ingersoll & Smith, 2003), a high level of attrition "may jeopardise the quality of teaching in schools" (Latifoglu, 2014, p. 1). In particular, the attrition of "'irreplaceable' teachers" – "those who have been so successful that they are nearly impossible to replace" (TNTP, 2012, p. 2) is particularly problematic. Attrition of teachers more broadly has been associated with loss of accumulated cultural, intellectual and human capital (Manuel & Hughes, 2006, p. 6; Simon & Johnson, 2013, p. 8; Stone, 2002). Chronic turnover has financial, organisational and instructional costs (Ronfeldt, Loeb, & Wyckoff, 2013; Simon & Johnson, 2013, p. 5). For the individual school, more financial and human resources need to be devoted to inducting and orientating new staff whenever a teacher leaves, which can impact on staff morale and

overall school effectiveness (National Commission on Teaching and America's Future [NCTAF], 2008). The long-term benefits of financial and human capital investments in departing ECTs are not actualised, impacting on the education system as a whole (Latifoglu, 2014, p. 227). Difficulties in attracting high quality graduates and attrition of quality teachers in particular areas like mathematics and science has the potential to have a long-term national economic impact (Hanushek, 2011). Disruption to teaching and learning occurs when a teacher leaves, impacting on coherency of instruction and student outcomes, and making it difficult for schools to build consistent practices and momentum in school improvement (Boyd et al., 2009; Gonski et al., 2011, p. 141; Manuel & Hughes, 2006).

Attrition of teachers also matters because evidence suggests that it is avoidable. Smithers and Robinson's (2005) UK-based research found that almost half of the teachers who had moved away from a school had said that they could have been induced to stay, while only one in 20 teachers had been offered any incentive (financial or professional) to stay. Similarly, Howes and Goodman-Delahunty (2014) assessed the reasons for the departures of the former teachers in their study to be reactive rather than proactive career plans, as "the only real choice available to them at the time" (p. 74). These findings suggest that retention and flourishing of ECTs in low SES schools might be enhanced through understanding what strategies and conditions support ECTs not only to "survive but also to flourish" (Latifoglu, 2014, p. 227).

e) Why quality teaching matters, especially in low SES communities

Meeting Australia's goals for quality and equity in education depends to a large degree on the increased outcomes and education of students, which depends in turn on the effectiveness of a contented teaching workforce (Fetherston & Lummis, 2012, p. 1). Research has demonstrated that retaining quality teachers and stability of staffing in low SES settings is essential for student achievement (Ronfeldt et al., 2013). In research based in the U.S., Ronfeldt and colleagues (2013) found that low-performing and black students are more negatively affected by teacher turnover than their higher performing, non-black peers. Yet, teacher attrition is higher in low SES school communities. In the U.S., teacher turnover rates in the U.S. are 50 per cent higher in low SES schools than in wealthier schools (R. M. Ingersoll, 2001), and the most effective teachers are the ones most likely to leave the profession (Allensworth, Ponisciak, & Mazzeo, 2009). High turnover of staff in low SES settings means that students in these schools are more likely to be taught by teachers teaching out of their field of expertise (R. M. Ingersoll, 2005, p. 176) or by ECTs teachers (Berry, 2004; Vickers, 2006) who, on average, are less effective than their more experienced colleagues (Ost, 2014). The quality of teaching in low SES school communities has profound implications for the outcomes of students, with staffing instability compounding the complexities already found in these contexts (Ferfolja, 2008b, p. 69).

In contrast, high-achieving and high-equity schooling systems typically invest in attracting, developing and retaining high quality teachers, and ensure skilled teachers serve students of all socioeconomic backgrounds (Auguste, Kihn, & Miller, 2010; Gonski et al., 2011, p. 107). Indeed, the quality of an education system depends on the quality of its teachers (Barber & Mourshed, 2007), and the quality of a schooling system can be judged by the experiences of the most vulnerable in it (Teese, 2006). It is vital that we understand how to attract and retain high quality teachers in low SES school communities.

f) An opportunity to reconceptualise teacher education, quality teaching, and schooling

Nationally and internationally, recent calls to reconceptualise teacher education present an opportunity for a thorough reconsideration on the purposes of education in a rapidly changing world. Indeed, the EU report *The Future of Learning* has argued that a "fundamental shift in the learning paradigm for the 21st century digital world and economy" is urgently needed (Redecker et al, p. 81). The paradigm proposed in the EU report envisages personalisation, collaboration, and informal learning to be at the "core of learning" (Redecker et al., 2011, p. 10), requiring a fundamental reconceptualisation of the learner, the teacher, the school, and teacher education. Examining and attempting to address the issues surrounding teacher quality "at every key point of potential influence or 'leverage'" (Dinham, 2013, p. 98) might open new possibilities for teacher education, teacher professional learning, and student learning and outcomes. "Research rich" schooling systems, where teachers engage both *with* and *in* research and inquiry (Furlong, 2014a), might improve the "knowledge base for teacher policy" and "introduce new information and ideas to schools" (OECD, 2005, p. 15). This paradigm shift in education is necessary for increased social cohesion, socio-economic inclusion and economic growth (Redecker et al., 2011, p. 9).

2. An historical overview of landmark research in quality teaching and low SES

Before synthesising the most recent international research into the factors surrounding the recruitment, development, support and retention of teachers in low SES schools, it is important to *contextualise this research* in light of **landmark and recent research** related to classroom practice[6] in Australia. While not all of this landmark research is explicitly related to teaching and learning in low SES schools, implications for pedagogy in all settings are drawn. Below, this landmark research is reviewed chronologically, foregrounding concerns to recognise and collaboratively explore students'[7] and teachers' knowledge in considerations of how to improve the quality of teaching and learning.

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[6] These landmark studies are examined for their implications for exploring recent literature on quality teaching in low SES school settings. It is beyond the scope of this review to also discuss historically important reviews of the structure of funding and programs in low SES school communities, including Connell, Johnson and White's review of the Disadvantaged Schools Program (1991) and Groundwater-Smith & Kemmis' review of the Priority Schools Program (2004). A wealth of literature also focuses on alternative schooling and approaches to pedagogy and education for engagement of marginalised groups of students (e.g. Mills & McGregor, 2014; te Riele, 2006). The current overview of landmark research focuses on mainstream schooling.

[7] It is beyond the scope of this review to focus on the wealth of recent literature that focuses on the needs, development, aspirations, marginalisation and assets of particular groups within low socio-economic school communities, including Indigenous students, students with refugee experience, a disability, or who have experienced marginalisation because of gender, sexuality, race or religion. It is also beyond the scope of the review to discuss the range of initiatives that are intended to build career awareness and aspirations for students in low socio-economic areas, and pedagogies that foster engaging messages about students' capacities. Current examples of these projects (see http://www.bridges.nsw.edu.au/projects/how_we_are_working_with_schools_and_communities) include the *School of Education Aspiration* project at the University of South Australia (http://www.cred.unisa.edu.au/SEAP/index.htm), the *Fair Go Bridges to Higher Education* project at the University of Western Sydney (http://samluws.clients.squiz.net/cer/research/current_research/equity) and the Compass program at the University of Sydney (http://sydney.edu.au/compass/).

Connell, Ashenden, Kessler and Dowsett's (1982) empirical sociological research in ***Making the Difference*** is an exemplar of early Australian research that challenged the generation and reproduction of inequality through the interconnections of social class, gender, and the schooling system, with some suggestions for what teachers and schools could achieve given these social inequalities. While the relationship between schools and social inequality has been complicated since this early research (Thrupp, 1999, 2002), more recent research has continued to examine this relationship, and the possibilities of different forms of pedagogical relations and outcomes. Twenty years after Connell et al's study, Thomson's ***Schooling the Rustbelt Kids*** (2002) further explored the inextricable connections between educational and social disadvantages, outlining a pedagogical approach that builds from students' "virtual schoolbags" and communities' and schools' knowledge, whilst emphasising the particularity of local geography in the enactment of responsive forms of pedagogy.

Building from a desire to further develop "positive thes[es]" of what can be achieved through pedagogical and school practices (Lingard, Hayes, & Mills, 2003, p. 402), the ***Queensland School Reform Longitudinal Study*** (2001), also known as the ***Productive Pedagogies*** research (Hayes, Mills, Christie, & Lingard, 2006; Lingard, Hayes, Mills, & Christie, 2003), identified twenty classroom practices that support enhanced student academic and social outcomes. Through structured observations of over one thousand Queensland primary and secondary classroom and conceptual analysis of the literature, this research further articulated the dimensions of "intellectual quality", "connectedness", "supportive classroom environment" and "working with and valuing difference" and the classroom practices and outcomes associated with these dimensions (Hayes, Mills, et al., 2006). Extending the research in the US by Newmann & Associates (1996), this research also examined the features of school organisational capacity and the external supports that encourage professional learning communities and engender productive pedagogies (Hayes, Mills, et al., 2006).

The mapping of engaging classroom practices that make connections with students' knowledge in the Productive Pedagogies research has been complemented by the ***Systemic Implications of Pedagogy and Achievement in NSW public schools*** (SIPA) study (2004-2007, NSW Department of Education and Training and University of Newcastle). This four-year longitudinal study examined the links between teachers' professional learning, pedagogy and student achievement, and found that tasks of rich intellectual quality resulted in substantial benefits for students from low socio-economic backgrounds and for Indigenous students (Amosa & Ladwig, 2004; Gore, Griffiths, & Ladwig, 2004). This research included development of the New South Wales Quality Teaching model (Ladwig, 2005; New South Wales Department of Education and Training, 2003).

Australian educational research related to pedagogy in low SES settings has become increasingly **collaborative in methodology**, in a desire to view and position teachers as producers of knowledge rather than as recipients of research (Lingard, Hayes, & Mills, 2003, p. 404), in "negotiated" methodological forms (Hayes, 2011). While the academic-teacher divide has a long history and is fortified by entrenched discourses and structures surrounding power and knowledge (Gore & Gitlin, 2004, p. 56), it has been argued that researching *with* teachers can serve to develop more useful formulations of the problem of improving practice (Hayes, 2011, p. 108). The work sparked through collaborations responds to Teese's call for low SES school communities to be the "laboratories of teaching and learning," "engines of innovation" and "sources of systemic renovation aimed at fundamental improvements in quality of learning on behalf of the system as a whole" (Teese, 2006, p. 159). The research partnership between

university-based academics and personnel in the Equity Programs section of the NSW Department of Education and Training in ***Changing Schools in Changing Times*** inquired into the possibilities of sustainable whole school change that improves students' learning outcomes in schools located within communities with deep needs (Hayes, 2004; Hayes, Johnston, & King, 2006). Producing daily recounts of classroom experiences, the research team and teachers worked together to compose recounts, reflect on classroom practice, and interrogate taken for granted "logics of practice" established in each school in order to imagine and create different practices (Hayes, Johnston, et al., 2006). The three-year longitudinal study ***Teachers Investigate Unequal Literacy Outcomes: Cross-Generational Perspectives*** (Comber, 2005; Comber & Kamler, 2005; Kamler & Comber, 2005) project inquired into and fostered pedagogical and practitioner inquiry practices. Alongside two networks of cross-generational teacher-researchers in Victoria and South Australia, the study not only explored pedagogies that 'turn around' low-SES students' engagement and outcomes, but also inquiry practices that transform the ways in which teachers view their students and each other cross-generationally.

The 'turnaround' pedagogies produced in this early study were further explored in South Australian research including ***Redesigning Pedagogies in the North***, a three year action-research collaboration between a University of South Australia academic team and three teachers each from 10 public secondary schools, with a total of over one thousand participants (Prosser, Lucas, & Reid, 2010). The project aimed to develop a university-school professional learning community to collaboratively build knowledge and practice surrounding curriculum and pedagogy that "both *engages* students and *enables academic success*" of middle-years learners (Zipin, Sellar, & Hattam, 2012, p. 182, emphasis theirs). The working assumption of the project was that "teachers are best positioned" to make sense, through inquiry, of the challenges in their schools, classrooms and communities, and that the university researchers would support teachers to position their students "as ethnographers in their lives" (Lucas, Prosser, & Reid, 2011, p. 4). Teachers were understood, following Darling-Hammond (2000a), as "people who learn *from* teaching rather than as people who have finished learning how to teach" (Lucas et al., 2011, p. 11). With a similar aim to work with teachers, researchers in the ***Teachers Researching Communities*** project collaboratively planned interventions with teachers in nine schools aimed at enhancing school-community relations (Freebody, Freebody, Maney, & NSW Department of Education and Communities, 2011).

A **teachers-as-researchers methodology** was also employed in the ***Fair Go*** (Fair Go Team, 2006) and ***Teachers for a Fair Go*** (Munns, Cole, Sawyer, & Fair Go Team, 2013) project in New South Wales. In the *Teachers for a Fair Go* project, the 28 case study exemplary teachers (teaching in diverse low socio-economic settings, stages of schooling, and at different stages of their careers) were positioned as co-researchers, in order to co-construct accounts of the relationship between exemplary teaching practices and student engagement in low SES school communities (Munns & Sawyer, 2013). This research further developed the Fair Go research's (2006) network of message systems at work in classrooms and schools that foster students' engagement through learning experiences that are high cognitive, high affective and high operative. This framework and a teachers-as-researchers methodology was also used in the ***Engaging Middle Years Boys in Rural Educational Settings*** project (B. Cole et al., 2010), in order to explore the implications for the engagement and motivation of boys from Indigenous, low socio-economic, rural and isolated backgrounds (Munns et al., 2006).

These more recent research projects have often been conducted in **partnership** with state education departments, and have worked not only to **produce** conventional academic research products (e.g. Hattam & Zipin, 2009; Munns, Zammit, & Woodward, 2008) but also summative reports with recommendations (e.g. B. Cole et al., 2010; Freebody et al., 2011), and resources for teachers (e.g. Freebody & Freebody, 2012; A.-M. Morgan, Comber, Freebody, & Nixon, 2014). Teachers have been co-authors on a number of these research products (e.g. Fair Go Team, 2006; Prosser et al., 2010).

These studies have sought to view students' and teachers' previous experiences and background resources as **assets** rather than as deficits, and to situate students and teachers in the immediate socio-economic and political-discursive **contexts** in which they learn and teach. While these landmark recent research studies acknowledge the importance of pedagogy for student outcomes and are optimistic about 'making a difference' in students' lives through schooling, they also simultaneously critique the weakening of social justice policy frames and the shift to educational policies that emphasise individual responsibility, private contributions to school funding, and market approaches to school choice (Hayes, Mills, et al., 2006; Lingard, 2013). These policy and structural "contextual pressures" (Lingard, Hayes, & Mills, 2003, p. 400) that threaten the valuing, support and of teachers and their work are in continual view. Across these diverse school settings and research initiatives, there has been a continued call for the "operations of educational bureaucracies" to be "consistent with inquiry" in order to reinforce rather than undermine reform aspirations (Lucas et al., 2011, p. 15). In turning to analyse the more recent research surrounding the attraction, attrition, retention and support of Early Career Teachers in low SES school communities, these **nuanced approaches, sensitivity to context and desire to work alongside teachers in reforming and revisioning education** should serve as **examples of ethical and productive approaches** to the issue of teacher quality in low SES school communities.

3. Key definitions (in alphabetical order)

- **Disadvantage** – The definition of disadvantage in this literature review follows the definition used in the Productivity Commission Staff Working Paper *Deep and Persistent Disadvantage in Australia* (McLachlan, Gilfillan, & Gordon, 2013). Disadvantage is a "multi-dimensional concept" that is about "'impoverished lives'" (including lack of opportunity), not only low income. Disadvantage has "its roots in a complex interplay of factors" that, "when combined", may have "a compounding effect", including personal capabilities and family circumstances, support received, community, life events, and broader and social environment (p. 2). It is difficult "to disentangle how the various factors interact and to establish causality" for disadvantage (2013, p. 13).

- **Early career teacher** – For the purposes of this review, an Early Career Teacher (ECT) is a teacher who is in the first three years of teaching. In other jurisdictions, states and nations, and in different bodies of literature, ECTs are sometimes referred to as 'novice' teachers, 'beginning' teachers, or 'neophyte' teachers, and the length of ECT sometimes is defined to extend to the first five years of teaching. It must be acknowledged that Early Career Teachers are a heterogeneous group of people, including teachers who enter the profession from undergraduate paths, as well as post-graduate/ alternatively certified teachers who may be entering teaching after previous career-path(s). Where particular groups within this broad group are the focus of investigation in a research study, this will be specified.

- **Equity** and **equality** – Equity is defined, following the OECD (2006), Gonski (2011) and the Productivity Commission (2012) reports to mean, "that all students must have access to an acceptable international standard of education, regardless of where they live or the school they attend" (Gonski, 2011, p. 105; Productivity Commission, 2012, p. 9). A focus on equity strives to ensure that "differences in educational outcomes are not the result of differences in wealth, income, power or possessions" (Gonski, 2011, p. 105). 'Equity' is preferred to 'equality', since 'equity' is a "flexible measure" that allows "for equivalency while not demanding sameness", while 'equality' "can be converted into a mathematical measure in which equal parts are identical in size or number" (Guy & McCandless, 2012, p. 5). With this definition, care must be taken not to conflate the language of quality with the language of equity in a manner that is in danger of narrowing the goals of equity and masking fundamental issues surrounding contextual educational differences (Gillies, 2008)

- **Initial teacher education** – Initial Teacher Education (ITE) is the broad term for teacher education programs. These programs cater to a diverse range of pre-service teachers and are offered at undergraduate and postgraduate levels.

- **Low SES** – 'Low SES' is a very broad term for that encompasses a range of settings where socio-economic disadvantage impacts on communities, including rural/remote communities impacted by geographic isolation, outer suburban communities with high concentrations of cultural and linguistic diversity (CALD) communities, and 'urban'/inner city settings. Individuals in a low SES community may be disadvantaged across a range of intersectional axes, including socioeconomic status, Indigeneity, English language proficiency, and disability, as well as other factors including marginalisation because of disability, sexuality, religious beliefs and gender. New marginalisations relating to globalisation and new economic, spatial and social configurations have recently emerged and are not yet fully explored in relation to education (Hayes, 2004, p. 2). Not all members of "traditional equity groups" are equally disadvantaged in an equity sense", and multiple factors may "compound disadvantage" (Gonski et al., 2011, p. 111). In different jurisdictions, states and nations, and in different bodies of literature, different terms are used, and terminology has changed over time (e.g. disadvantaged, poverty, urban, schools 'facing challenging circumstances', 'hard-to-staff' schools, 'at-risk' schools, 'high opportunity, difficult-to-staff' schools). Where particular studies have used alternative terms to denote a particular setting/ community facing challenges (e.g. urban, rural, ESL), the review has kept the term used by the authors of the study. Otherwise, 'low SES' is used as the general term.

- **Pre-service teacher** – A pre-service teacher is a student from an Initial Teacher Education institution who has not completed their teaching qualifications and is undertaking teaching practice requirements and professional education courses.

- *Professional learning* – While what is commonly understood to be professional learning varies across contexts and systems (P. Cole, 2012), this review follows the expanded definition of Professional Learning that encompasses development and learning offered by Day and Sachs: professional learning is "all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute […] to the quality of education in the classroom" (2004, p. 34). The term 'learning' is preferred over the developmental assumptions and conceptual baggage surrounding 'development' (see Mayer & Lloyd, 2011 for a review of the debates over 'development' and 'learning' in the research literature).

- *Teacher attrition/turnover* – *Attrition* refers to the gradual reduction of the teaching workforce caused by teachers leaving the profession as a result of retirement, as well as career changes. 'Burnout' is another term used in the literature. In the U.S. literature, attrition is also referred to using the term '*turnover'*, which refers to school-based teacher mobility, where teachers may leave the profession, or may migrate to another school but remain in the profession, or transfer to a different teaching specialty. In this literature review, the terms used by the authors of each article will be used to retain a sense of their distinct focus.

- *Teacher retention* – Retention refers to teachers remaining as teachers at their schools.

- *Teacher quality* – While teacher quality is acknowledged as the most likely policy direction to lead to substantial gains in school performance (OECD, 2006, p. 23), the indicators or correlates of teacher quality are more contentious (OECD, 2006, p. 26). Most research examines the relationships between measures of student performance (most commonly on standardised tests) and "readily measurable teacher characteristics" such as qualifications, teaching experience and indicators of academic ability or subject matter knowledge, (OECD, 2006, p. 26). However, it has been widely acknowledged that "there are many important aspects of teacher quality that are not captured by the commonly used indicators" (OECD, 2006, p. 27). These other characteristics that are more difficult to measure include the ability to convey ideas in clear and engaging ways; to foster productive teacher-student relationships; enthusiasm and creativity; and the ability to work collaboratively and create effective learning environments for diverse learners (OECD, 2006, p. 27). Even among teachers with similar, readily measured characteristics, there is substantial variation in effectiveness (OECD, 2006, p. 27). As the Productivity Commission has acknowledged, "[f]ully understanding what constitutes quality teaching remains an ongoing policy challenge", partly because of the "diverse ways that individual students learn" and the complexity of mapping "the professional dimension (content and pedagogy) and personal capability dimensions of teaching" (2012, p. 9).

4. Methods for searching the literature and criteria for inclusion and exclusion

Theoretical and empirical studies that explore the recruitment, development, support and retention of teachers in low SES schools were sought in developing the literature review. In particular, research studies published since 2012 are the focus of the literature review, in order to update the VSA Growing Great Teachers Literature Review. While the development and retention of teachers in low SES schools was the focus of the literature search, recent research related to equality in schooling in general, funding, engagement of low SES students, recent policy initiatives and their political backdrop were also examined, as relevant background.

The search involved scanning the ERIC electronic database using the **keywords** listed below, and searching high impact, peer reviewed Australian and international journals related to educational research in general, pedagogy, initial teacher education, teacher professional learning and school improvement. The **contents pages of these relevant journals** were searched for issues from 2012 to the present, including Online First articles. Additionally, **author searches** of key Australian scholars who

research in the area of teacher preparation and development and low SES schooling were made to gather research published during or since 2012. Other relevant studies were also gathered through **consulting the list of references** in articles found. Only studies published in English and peer-reviewed publications were reviewed for inclusion in the literature review. Studies varied in their emphasis on theory or 'praxis' or empirical findings, although we were wary not to place a false binary between these domains. Reports/reviews written by independent organisations, government/ policy documents, applied work written for professional audiences, and media texts were read as background, to contextualise the political/rhetorical climate in which recent research has been conducted.

Early in the review process, the studies were categorised according to the **domain** explored in the study: *teacher education*, *early career teacher experiences*, and *exemplary pedagogy* in low SES contexts. The findings/recommendations were then analysed for what they suggest about the *issues in attracting/retaining ECTs* in low SES schools contexts, and *effective strategies* for attracting, supporting and retaining ECTs in these settings. These findings were further analysed for the issues and strategies explored at the zone of the *individual*, the *school organization*, and *society,* with a view towards looking at the inter-connected nature of these zones. From this review and systematic analysis, **gaps** were identified. Gaps were identified in relation to *theoretical* issues, and *methodological* approaches to research on ECT teachers in low SES contexts, including stakeholder *participants* in research on ECTs in low SES schools.

5. Review of the literature

a) Methodological overview

Recent literature surrounding the attraction, attrition and retention of quality teachers in low SES schools includes *statistical/ quantitative* analyses, *qualitative empirical* work employing a range of ethnographic, narrative and case study methodological modes, and *theoretical interrogations* of key terms, assumptions and approaches to socioeconomic disadvantage and education, initial teacher education, and ECT attraction and retention. The empirical literature sometimes explicitly states a theoretical orientation, while at other times epistemological assumptions are implicit.

Three **bodies of literature** pertain to the attraction, development, attrition and retention of quality teachers in low SES school communities. These bodies of literature are:

1. *Initial Teacher Education for low SES contexts*
2. *Early Career Teacher experiences*
3. *Exemplary pedagogical practices in low SES contexts*

Recent research surrounding ***Initial Teacher Education for low SES contexts*** has critically examined the constitution of teacher education, compared teacher education programs, explored recruitment and selection of quality teachers, investigated pre-service teachers' motivations for choosing to teach, explored strategies to prepare students to teach students who are culturally and linguistically diverse,

and reflected on strategies for enhancing the effectiveness of professional experience, mentoring, and school/university partnerships.

Research investigating *Early Career Teacher experiences* has analysed issues and effective strategies in the induction, mentoring, and professional learning (including opportunities for practitioner research) of teachers. Other research has focused on resilience and the needs of mentors alongside ECTs.

The body of recent research surrounding *exemplary pedagogical practices in low SES contexts* was also explored, with a view to examine the place of ECTs in these studies. While these studies do not always explicitly focus on ECTs, the positioning of ECTs in these practitioner inquiry and exemplary pedagogy studies is examined for implications for the support, retention and flourishing of ECTs.

It must be acknowledged that there are significant tensions in the literature on effective teaching in low SES settings between studies that stress the inter-connectedness between in-school factors and broader structural forces at work in educational disadvantage and use the term 'school improvement', and studies that focus on teacher and school effects as constants, often from within the School or Teacher Effectiveness literature (Flessa, 2007). Hattie's (2009) *Visible Learning* is a comprehensive meta-analysis of the in-school factors, and in particular teacher practices, that significantly impact on student learning. While Hattie acknowledges that other contextual factors influence student learning outcomes, including socio-economic status, and that these contextual factors might have greater effects than in school factors, he notes that he is not dealing with these factors in the book. A number of educational researchers have analysed how his book has been read and mis-read to bolster a policy stance that all that matters is individual teacher quality, often dissociated from pedagogies (Dinham, 2013, pp. 92-94; Lingard, 2013, p. xii). Others have also interrogated the epistemological assumptions of teacher effectiveness research (Skourdoumbis, 2013; Skourdoumbis & Gale, 2013; Wrigley, 2013). The present literature review examines literature from studies that focus on teacher effectiveness as well as those that critically contextualise teacher quality with factors beyond the school.

It is clear from the literature that there are issues in attracting and retaining teachers in low SES settings across national and international contexts. However, depending on the reasons stressed for why some pre-service/ECTs are reluctant to teach in these settings, a corresponding range of strategies/approaches is recommended. Below, the factors that have been highlighted as contributing to the challenges of attracting and retaining teachers are examined. The research and policy directions taken from the attraction/attrition research will then be mapped, before discussion of the factors and strategies that have been discussed in the literature surrounding the attraction, development and retention of high-quality teachers in low SES school communities.

b) Factors contributing to the attrition of ECTs in low SES schools

Factors that contribute to attrition and retention of pre-service and early career teachers in low SES school communities are deeply complex, entwined and interconnected. These factors have been explored

through a range of quantitative and qualitative methodologies asking teachers about their reasons to join, stay or leave the profession and low SES school communities in particular. The most recent relevant studies related to the issues surrounding ECT quality teaching in low SES school are introduced below.

i)   *Introduction to key studies*

Large scale quantitative and qualitative studies have explored issues surrounding attraction, attrition and retention of ECTs. **Rice's** (2014) large scale quantitative survey study (n = 919) of full-time and part-time teaching staff in three demographically contrasting regions in Victoria, Australia examined differences in the importance given by more and less effective teachers to particular factors that might hold them in a school or cause them to leave. This study built on earlier research (Rice, 2010) that found that professional autonomy, opportunities for advancement and their perception of the school's commitment to innovation were more valued by more effective teachers in choosing to stay at a school than their less effective peers. Rice (2014) found that promotion opportunities and improved professional learning were more important to more effective teachers, and poor support from the principal a good reason to leave a school. In contrast, less effective teachers valued a more selective intake of students to remain at a school, and gave greater emphasis on poor student behaviour as a reason to leave a school.

The **Harvard Graduate School of Education's Project on the Next Generation of Teachers**, directed by Susan Moore Johnson, has examined a range of issues related to attracting, supporting, and retaining skilled, committed, and effective teachers in U.S. public schools. Research from this work has found that the social context of schools, including teachers' perceptions of their principal, colleagues and school culture, are strong predictors of professional satisfaction, career plans and student achievement (S. M. Johnson, Kraft, & Papay, 2012). Recently published working papers have included a meta-analysis of six large-scale quantitative studies of "teacher turnover in high poverty schools" in the U.S. (Simon & Johnson, 2013). Synthesising the findings of these studies using organisational theory, Simon & Johnson (2013) argue that teachers who leave high poverty schools "are not fleeing their students, but rather the poor working conditions that make it difficult for them to teach and their students to learn" (p. 1). The working conditions valued by teachers were found to include school leadership, collegial relationships, and elements of school culture. Another qualitative study in the Harvard Project on the Next Generation of Teachers examined interview data from 95 teachers and school administrators in six high poverty schools culminated in two working papers: "Teachers' Experiences of Teacher Evaluation in Six High-Poverty Urban Schools" (Reinhorn, 2013) and "Reading to Lead, but How? Teachers' Experiences in High-poverty Urban Schools" (S. M. Johnson et al., 2013). This project has not only looked at the factors that develop individual teachers' effectiveness, but also the organisational dimensions that enable or constrain teacher professional growth.

The **Early Career Teacher Resilience** project (2008-2012), a collaborative project between the University of South Australia, Murdoch University, Edith Cowan University and eight stakeholder organisations, was a longitudinal study that aimed to better understand the range of challenging circumstances that put ECTs 'at risk' of leaving the profession and "the dynamic and complex interplay between individual, relational and contextual conditions that operate over time to promote teacher resilience" (B. Johnson et al., 2010, p. 1). Additionally, the project developed a framework that includes

policies and practices, teachers' work, school culture, relationships and teacher identity that promote ECT resilience (B. Johnson et al., 2012, p. 5). Drawing on the qualitative traditions of narrative inquiry and critical ethnography, the project investigated the lives of 60 ECTs in a range of geographic and socioeconomic areas in Western Australia and South Australia. This project took a more "systemic and structural perspective to explain early career teacher stress and burnout" to "avoid the pitfalls of individualistic explanations" that shift "responsibility for human wellbeing from social institutions and culture to the individual" (B. Johnson et al., 2012, p. 6). Some members of the team from this project are continuing to explore these issues in a current ARC Linkage Grant (2013-2016) "Keeping the best: How school leaders engage and retain high quality early career teachers" (www.rqt.edu.au), working with school leaders as co-researchers of what works at the school level to keep high quality teachers (those recruited through a scholarship scheme) in the profession.

A number of recent **qualitative studies** have also provided rich descriptions of the factors shaping teachers' experiences in low SES school communities. **Latifoglu** (2014) interviewed 41 ECTs in various forms of employment (full-time, part-time, casual) in 10 different school sites, and 9 principals, to examine the relationship between ECT's career progression and their forms of employment. He found that ECTs in full-time permanent positions enjoyed better working conditions, collegiality and support than their peers on fixed-term contracts and in casual employment. **Buchanan et al's** (Buchanan, Prescott, Schuck, Aubusson, & Burke, 2013) large-scale (n = 42) longitudinal qualitative study of the experiences of ECTs' decisions to remain in or leave the profession was conducted over a four-year period. They found that collegiality and support, student engagement and behavior management, working conditions and teaching resources, professional learning, workload and isolation were significant in ECTs' experiences. They characterise the teachers as either "'supported stayers'" or "'resilient stayers'" (Buchanan et al., 2013, p. 124). Recommendations drawn from the study are individualised rather than organisational or structural in focus, including teacher educators' developing pre-service teachers' capacity for resilience and empowerment, and a "teacher 'helpline'" (p. 126). **Howes and Goodman-Delahunty** (2014) have explored the experiences of career change of 15 former school teachers and 9 police officers using life course history interviews. They found that feeling undervalued was common across all recounts of "ruptures" that preceded voluntary career change. Analysing qualitative data from interviews with 11 recently resigned secondary teachers and three senior level administrators, **Fetherston and Lummis** (2012) explore the reasons behind teacher attrition in Western Australia and place these in a critical social theory framework. **Ado** (2013) emphasises that factors shaping teachers' experiences of teaching in urban schools "intersect differently for each individual teacher" (p.136). With this intersectional perspective, Ado examines the specificity of three (representative) individual ECT's experiences and decisions about staying or leaving urban schools and the teaching profession in her qualitative case study of retention/attrition of ECTs in a 'successful' urban school.

ii)   *Factors contributing to challenges to attract and retain teachers*

Research about the "push" factors (Rice, 2014) for ECTs leaving teaching are summarised below. This is followed by an exploration of how researchers have made sense of ECT voices, before examining the "hold" factors (Rice, 2014) in greater depth.

Workload has been identified as the single most important factor for departing teachers (Buchanan, 2010; Buchanan et al., 2013; Farber, 2010). In the 2008 Australian Education Union national survey of 1545 Early Career Teachers, 68.5% reported workload as a top concern. In more recent research, "unaudited human resource expectations" continue to be acknowledged as a factor affecting teacher wellbeing (Fetherston & Lummis, 2012, p. 12). In Latifoglu's study (2014), 51 per cent of ECTs reported that their working life was out of balance with their personal life (p. 211), although Latifoglu also noted the difference in responses about workload between particular schools. "[M]icro-politics intertwined" with workload in Latifoglu's research, with some participants describing how their work efforts were exploited by higher-ranking experienced teachers or school administration (2014, p. 208). In Howes & Goodman-Delahunty's study (2014), some former teachers described how other careers enabled them to find a better balance between personal responsibilities and work commitments than they had experienced in teaching (pp.76-77).

The **differences between the backgrounds and values** of ECTs and their students and school community have been discussed as significant factors in teacher attrition. Teachers from middle class backgrounds may experience difficulties reconciling their beliefs, experiences and aspirations with those of their students (Ferfolja, 2008a, p. 7). **Student behaviour** and concerns for personal safety lead teachers to leave schools when it impedes their ability to teach (Allensworth et al., 2009; Buchanan et al., 2013; S. M. Johnson, Berg, & Donaldson, 2005; Ladd, 2011; Marinell & Coca, 2013; McCormick & Barrett, 2011). This finding is stronger in low SES schools (Allensworth et al., 2009; Latifoglu, 2014, p. 224) Latifoglu, 2014, p. 224), for white teachers (R.M. Ingersoll & May, 2011), and for teachers who are employed on a casual basis (Latifoglu, 2014, p. 224). Teacher stress is also compounded by the frequent practice in low SES schools of streaming students displaying confronting behaviours into one class (Fetherston & Lummis, 2012, p. 9). Behaviour, apathy or disengagement have been linked in other studies with a need to feel a '**sense of success'** with students in their work, with these studies tracking how teachers will change school locations or roles to meet this affective need (S. M. Johnson & Birkeland, 2003; S. M. Johnson & The Project on the Next Generation of Teachers, 2004). Teachers' struggle to find "satisfaction" (Grayson & Alvarez, 2008) when working with students whose attitudes to schooling differ from their experiences highlight the differences in cultural capital between teachers and students (Lampert, Burnett, & Davie, 2012, p. 71). However, only a minority of the research articles summarising the relationship between student behaviour, teacher affect and teacher attrition sociologically contextualise or theorise student 'behaviour' in low SES schools, and the close relationship between staffing instability and behaviour (e.g. Cortesão, 2011; Ferfolja, 2008a; Fetherston & Lummis, 2012; Marinell & Coca, 2013).

Organisational factors contributing towards teacher attrition are a central concern of more recent research. Indeed, Simon and Johnson (2013) argue in their analysis of teacher turnover studies that poor working conditions common in the most needy schools "explain away most, if not all, of the relationship between student characteristics and teacher attrition" (p. 40). In particular, the role of the **school leader/principal** in teacher retention has come under the microscope. In Rice's study (2014), sixty per cent of the most effective secondary teachers rated inadequate support from the school leader as very important in a decision to leave a school (p. 322). Simon & Johnson (2013) synthesise previous research to find that teachers' perceptions of their school leader are among the most important in teachers' career decisions (p. 14). In particular, "problematic power relations" (Achinstein & Ogawa, 2011, p. 72) among

teachers and school leadership "often drive teachers to leave" (Simon & Johnson, 2013, p. 26). Peters and Pearce (2011) examine, using portraits of two ECTs, the significance of school leaders in influencing teachers' feelings of personal and professional wellbeing. Similar findings about the importance of school leaders to ECTs' experiences are reported by Fetherston and Lummis (2012), Schliecher for the OECD (2012), and Furlong (2014) in the BERA Report.

Closely related to findings that stress the importance of school leadership in retention is work that highlights the importance of **school culture** for ECT career decisions, since the structures, supports and the 'tone' of a school are strongly influenced by the school leadership. School culture is somewhat intangible and difficult to disentangle from other elements of the school context, as the "ephemeral, taken for granted aspect of school" (Deal & Peterson, 2009, p. 7). It includes the prevailing normal and values expressed through the practices and behaviours of the individuals within the school. School climate and organisation was found to explain over 75 per cent of the difference in teacher stability rates among elementary schools and nearly all the variation among high schools in Allensworth et al.'s study (2009, p. 25).

Support, in the forms of mentoring, networks or leadership opportunities/inclusion in decision-making, is another key factor in the retention/attrition of teachers. Teachers may face a range of personal, relational and financial challenges, particularly in the first few years of teaching. Specific personal and family challenges may include relocation, personal illness or injury or caring responsibilities, personal relationship breakdowns and death in the family (Howes & Goodman-Delahunty, 2014, pp. 74-75). For ECTs without permanent or temporary jobs, movement into other jobs may be necessary to meet financial responsibilities and increase job security (Howes & Goodman-Delahunty, 2014, p. 74). This instability of employment was also closely linked to teachers' affective states in Latifoglu's study, where fixed-term contract teachers were perplexed and disheartened when developing school curricula for the future when their ongoing employment "remained uncertain, leading to a sense of "commitment imbalance" (2014, p.208).

Despite these challenges, emotional and other resources of existing teachers were likely to be "more scarce and unavailable to the newcomer" in "'demanding'" schools in Buchanan et al's study (2013, p. 123). Poor mentoring or poor matching of mentor and ECT has been linked with attrition (Hobson, Ashby, Malderez, & Tomlinson, 2009; Long et al., 2012), particularly for casual teachers or teachers in rural/remote communities (Latifoglu, 2014). Latifoglu has posited that there is an unacknowledged "hierarchy of support" for ECTs, with full-time permanent ECTs feeling most supported, then individuals on fixed-term contracts, and casual teachers most likely to feel unsupported (p. 224). He observes that it is "ironic that [casual] ECTs who are the most vulnerable to critical incidents receive the least support from their school administration" (2014, p. 224). A 'sink or swim' mentality (Howe, 2006) and a greater likelihood for ECTs to be given more difficult classes and extracurricular responsibilities also impacts on ECTs (Gehrke, 2007). The impact of weak support of teachers is described as accumulating in 'little things' rather than big events. Howes and Goodman-Delahunty (2014) synthesise the experiences of participants who left teaching as being the culmination of smaller issues, with a "rupturing incident" or a final "'straw that broke the camel's back'" (p. 71; cf. Fetherston & Lummis, 2012, p. 4). These ruptures may include perception of unfair treatment of self or others by the hierarchy, particularly in response to illness or injury. Howes and Goodman-Delahunty (2014) synthesise these reasons to argue that "rupturing incidents" all attacked "the need to be valued" directly or indirectly, "through attacking the

need to feel supported, the need to have one's contribution recognised, or the need to do meaningful work" (p. 72). On the other side of the spectrum, other ECTs seek more support in the form of leadership opportunities and inclusion in decision-making (Johnson et al 2013), and greater professional autonomy (Latifoglu, 2014, p. 220).

iii)   Research and policy directions taken from the attraction/attrition research

Before considering the "hold" factors (Rice, 2014) that teachers have reported and researchers have recommended from quantitative and qualitative studies, it is worth pausing to consider the range of ways in which these researchers and policy makers have drawn different implications and research and policy directions from these asserted reasons for leaving or considering leaving. It is also worth noting that, while these types of studies focus directly on the experiences and views of ITE students/EC teachers themselves, the majority of the studies do not involve teachers in critical investigation of these beliefs/experiences and the conditions shaping these experiences. Recent research has sought to understand ECTs' reactions to entering the profession in ways that focus on the individual, the organisation and social/structural dimensions. While each focus has been distinguished for the purpose of this review, it must be acknowledged that other dimensions are discussed in the majority of these studies.

i.   Research and policy directions that focus on the individual (and critiques of this focus)

A range of research attempts to ascertain and understand how individual teachers' **prior academic achievements/expectations/beliefs/attributes** impact on their early experiences as teachers and their responses to them. Policy strategies have attempted to attract individuals with subject-specific excellence to the profession. Recruitment initiatives currently aim to target and attract the best quality teachers in specific subject areas (e.g., math, science, special education, design & technology) in response to subject-specific shortages (Productivity Commission, 2012). This labour market approach focuses on the "'front-end' components of the attraction-recruitment-retention triad (e.g., scholarships, financial incentives, offers of permanent employment)" (University of South Australia, 2013a) and at the factors likely to attract individual high quality graduates to the teaching profession.

Recent studies draw connections between teachers' career decision-making and personal attributes and aspirations (Olsen & Anderson, 2007; Quartz, Barraza-Lyons, & Thomas, 2005; Rinke, 2011). Often, from a psychological frame, the concept of 'resilience' has focused on the individual's ECT's self-efficacy, beliefs and emotions in order to attempt to understand the similarities or differences between 'leavers' and 'stayers' (e.g. Hong, 2012). This type of research into teachers' motivations has focused more on psychological variables and less on "social/contextual support and barrier systems" (Richardson & Watt, 2010, p. 167). More recently, the FIT-Choice project has sought to "illuminate" the support structures that sustain teachers, how and why teachers become disengaged and "map the factors that predict job burnout versus psychological and physiological wellbeing" (Watt & Richardson, 2011, p. 32), beginning to broaden the focus beyond the individual teacher. There is a danger of an atomised and reductionistic

view of 'resilience' and 'motivation' in some of these research directions from ECT experiences that focus on the individual (cf. B. Johnson & Down, 2012).

The recent Australian ECT Resilience study (B. Johnson et al., 2012) sought "to reinvigorate traditional psychologised approaches to resilience because they proffered overly individualistic, depoliticised and decontextualised explanations divorced from the broader social and institutional context of teachers' work" (p. 6). In this "socially critically orientation to teacher resilience", these researchers argue that considerations of teacher resilience "must engage with the institutional and social structures of schooling, not merely the preparation of early career teachers to 'fit in'" (B. Johnson et al., 2012, p. 6). They critique a focus on the problems that face the individual teacher as failing to take account of social and geographic contexts and possible structural, pedagogical and cultural interventions, presuming that ECTs lack agency and competency, and adopting a "deficit perspective" that fixates on "problematic behavior rather than enabling behaviour" (B. Johnson & Down, 2012, pp. 703-704). These researchers re-conceptualise resilience, drawing on critical theory (B. Johnson & Down, 2012) and ecological theory to avoid focusing on resilience as an individual rather than as a collective concern (Papatraianou, Sullivan, & Johnson, 2009; Sullivan & Johnson, 2012, p. 103). The research directions taken in this project and later work of researchers from this project in the current Retaining Quality Teachers study (www.rqt.edu.au) surround shifting the focus from the 'front-end' of attraction to the school-level factors affecting teacher retention. Below, institutional/organisational approaches to the issue of teacher attrition are explored further.

ii.   Research and policy directions that focus on the institution (university and school)

The challenges of retaining high quality teachers in low SES schools has been approached from an organisational level, in considering what might be done to support teachers to remain in the profession. These research and policy directions have been variously directed at what might be done at the level of the **university** during Initial Teacher Education, and how **partnerships** between the school and university might support ECTs, and what further supports might be developed in the **school** organisation.

In current policy/research/practice discussions of how to approach the issue of **Initial Teacher Preparation** to support ECTs to teach and remain teachers in/for low SES settings, there are epistemological debates over what forms of knowledge pre-service and ECTs 'need', who transmits/constructs this knowledge, and when/how this knowledge should be transmitted/constructed (Aubusson & Schuck, 2013, p. 327). A great diversity of ITE programs operate within states, and across nations and globally, with three major models that have operated in different historical eras and settings and that overlap, co-exist and inter-penetrate: as 'apprenticeship,' as 'training', and as 'disciplinary' study (Aldrich, 2006). Different teacher education courses have drawn from these models in distinct ways in conceptualising the relationship between theory and practice (see Reid, 2011 for a historical discussion).

Landmark recent projects have increasingly focused on **partnerships** between institutions where pre-service teachers are simultaneously immersed in theory/praxis networks between the university and the school, in order to foster reflexive inquiry, cultural responsiveness and the ability to respond flexibly to

contingent circumstances, diversity and uncertainty. These types of programs consider that some of the "praxis shock" (Kelchtermans & Ballet, 2002) and issues associated with the transition between ITE and teaching might be addressed through closer links between institutions and learning experiences. These strategies and landmark initiatives will be discussed further in the next section.

Other research responding to the challenges surrounding retention of quality teachers in low SES schools has sought to identify and strengthen the **school-based** conditions that support the retention of quality teachers. Studies have analysed and reported the positive conditions that have strengthened teacher retention. These findings will be explored in more detail below. DeAngelis and Presley's (2010) finding that school-level attrition variation is substantially greater *within* school type than across school type indicates that what happens within schools impacts more on teachers' decisions to stay or leave than the location and socio-economic level of the school. The Retaining Quality Teaching project is currently working alongside school leaders to understand the micro-political dimensions of retention (University of South Australia, 2013b). This focus brings together not only the attraction of high quality individuals through quality selection processes, scholarships and incentive schemes, but also the relational and political elements of retaining quality teachers. Thus, the school site has become a prominent focus of recent research directions.

iii.   Research and policy directions that focus on social/structural/discursive dimensions

Notwithstanding approaches to the issue of the attraction and retention of quality teachers in low SES schools through recruitment, development of resilience, and organisational strategies, a broader focus on the social, structural and discursive dimensions shaping the issues facing quality teaching in low SES schools has been maintained as significant in some research and policy directions.

Researchers analysing global policy trends and their histories and contexts critique the reconstitution of education in market-oriented terms (see Brown, Halsey, Lauder, & Wells, 1997; Grek, 2009; Rizvi & Lingard, 2009; Sellar & Lingard, 2013; Zeichner, 2010 for critical discussion of global education reform logics). The prominence of discourses surrounding comparison and competition, choice and the emergence of new inequalities in education has been a central concern of many education researchers. While gesturing towards the global policy trends and socio-economic-political factors shaping disadvantage within the Australian schooling system, the Gonski Report (2011) highlights Australia's high concentration of disadvantaged students in certain schools (p. 108), the increasing socio-economic stratification of Australia's schooling system (p.111), and argues the need for targeted funding to the schools most in need of support (p. 109). Privileging of economic efficiency and market-driven templates to address social issues have been critiqued as sidelining democratic equality (Ball, 2008; Clarke, 2012). Concerns to retain quality teachers in low SES schools must be contextualised within this policy setting.

The constitution of global education as **competition**, and in particular, the increasing prominence of standardised testing, has been linked by some researchers to the issue of the retention of quality teachers in low SES school communities. Downey et al argue (Downey, Paul, & Hughes, 2008), based on their analysis of a large scale (n = 992 schools) testing of students at different points of the school year, against the current measures of school effectiveness in the U.S., and assert that this "substantially flawed" system

of measurement "may actually undermine the [No Child Left Behind] goal of reducing racial/ethnic and socioeconomic gaps in performance", since teachers and administrators may respond to such a "biased scale" "with frustration, reduced effort, and attrition" (p. 260). Rhetoric surrounding school **choice**, and who benefits from choice in socio-economic terms, has also been examined (Campbell, Proctor, & Sherington, 2009; R. Morgan & Blackmore, 2012). Other research has analysed the **mediatisation** of education policy (Hattam, Prosser, & Brady, 2009; Lingard & Rawolle, 2004; Mockler, 2013; Smyth, 2007). The media discourses in circulation surrounding teachers' work, learning and schooling, as well as stereotypical representations of low SES communities have implications for the rhetoric/discourses swirling around teachers as they enter the profession and attempt to make sense of their experiences. 'Choice' and competition discourses may have impacts not only on how families choose schools, but on how teachers choose schools and plan their careers.

Therefore, research directions from the issues raised surrounding the attraction and retention of quality teachers in low SES school communities have spiraled outwards in a range of directions that choose different groups of individuals, settings and discourses as their point of focus. In the following section, the strategies for retention of quality ECTs from these research studies are mapped.

iv)   *Factors contributing to the retention of ECTs in low SES schools*

The strategies explored or recommended for how to retain, grow and support 'quality teaching' in low SES schools vary depending on what elements of the challenge, which individuals, and which institutions or discourses are placed under focus. Below, we explore the strategies that have been argued to be effective in Initial Teacher Education, in partnerships between universities and schools, and within schools.

i.   Strategies in ITE

Increasingly, it has been argued that the preparation of individual pre-service teachers to adopt a reflexive inquiry stance, out of the context of the school, is insufficient, and that closer relationships must be developed between schools and universities in preparing, mentoring and supporting teachers' professional learning. Furlong has argued in the BERA report (2014a) for "an end to the false dichotomy between [Higher Education] and school-based approaches to initial teacher education" (p. 5). Forms of teacher preparation and professional learning that build closer partnerships between universities and schools have been trialed and developed in different settings to enhance processes of "immersion, scaffolding and reflection" (Aubusson & Schuck, 2013, p. 328). In programs where there is more of an **immersion model without a university partnership** (for example, with a year long internship and a cooperating teacher mentor), recent studies have ethnographically focused on the socialisation of interns to align more with the cooperating mentor teacher's beliefs and pedagogical practices (Rozelle & Wilson, 2012), potentially perpetuating a division between the knowledge learned in ITE and the 'realities' of teaching. **Study abroad or service learning** approaches are used in some ITE programs, where pre-service teachers spend time in either a foreign country (e.g. Cruickshank & Westbrook, 2013), or an 'urban' setting for a short period of time e.g. (e.g. Rinke, 2011). One notable approach for the purpose of

this review is the mutual learning experiences and "shared ownership" fostered in school-university partnerships when pre-service teachers and school students work together to collaboratively design and implement interactive curricula (Rinke, 2011, p. 102). These approaches are frequently framed as providing pre-service teachers with opportunities to transcend passive learning practices, develop a commitment to social justice, examine their own personal prejudices and understand diversity (Baldwin, Buchanan, & Rudisill, 2007). At the same time, short-term immersion experiences have been critiqued for their isolation from the 'reality' of the pre-service teacher's first job in their home country and their alignment with economic approaches to governing that sideline broader questions about the structures supporting ongoing inequalities (Sidhu & Taylor, 2007).

ii. Partnership strategies for ECT transition

Programs where there have been close collaborations between university teacher educators, mentor teachers, and student teachers, and where reciprocity of learning and teaching has been emphasised, have been argued to be more effective in fostering and sustaining reflective practice. The final report of the BERA Inquiry into the Role of Research in Teacher Education strongly argues a case for teachers to have frequent opportunities for engagement *with* and *in* research and enquiry, for teacher researchers and the wider research community to "work in partnership, rather than in separate and sometimes competing universes" (Furlong, 2014a, p. 5). Paper 4 (Burn & Mutton, 2014) of the BERA's Interim Report (Furlong, 2014b) examines the findings of a small number of innovative and influential ITE models based in part on a medical model of 'research-informed clinical practice', which aim to integrate practical experience in schools with research-based knowledge. In a U.S. context, Klein et al have described such models as creating a "hybrid" or "third space" (Klein, Taylor, Onore, Strom, & Abrams, 2013). In Australia, two recent examples of programs that have exemplified the type of integrated approach advocated in the BERA Report. These two programs are examined below.

Researchers and practitioners have argued that that pre-service teachers and ECTs are more receptive to reading research surrounding low SES students' "funds of knowledge" (Gonzalez, Moll, & Amanti, 2005), "virtual school-bags" (Thomson, 2002, p. 1), family resources (McNaughton, 2002), students' investments in popular culture (Dyson, 2013), and viewing students as "children of promise" (Heath & Mangiola, 1991) rather than as 'at-risk' when they are in the midst of confronting the challenges of teaching and learning in low SES settings, both during their ITE in iterative theory/praxis cycles between the school and university and as ECTs in professional inquiry. The *Classmates* initiative at the University of Western Sydney, and the *Exceptional Teachers for Disadvantaged Schools* program at Queensland University of Technology have both sought to establish such theory/praxis networks.

The *Classmates* initiative was premised on previous research findings (Glennie, Coble, & Allen, 2004) that ECTs will remain in low SES school communities "if their initial preparation is better matched to the complexities of the contexts they enter, if they have sufficient knowledge and skills to help all students learn, and if expert teachers are available to serve as leaders and mentors" (Ferfolja, 2008a, p. 7). Acknowledging growing socio-cultural inequalities, the *Classmates* initiative sought to build pre-service "teacher capital", which includes knowledge about students, knowledge about teaching and the institution, and knowledge about professional networks (Ferfolja, 2008b). The initiative was based on "continuous" professional experience, where pre-service teachers attended their host school (in the

South-West Sydney region) for three days a week for four months, alongside evening lectures/tutorials, intensives, day classes and weekend workshops. A later professional experience also provided opportunities for students to provide study skills to senior students and enhance school-community relations through work with other teachers, parents and students from non-English speaking backgrounds (Ferfolja, 2008a, p. 8). The intimate relationship between theory and practice in this mode of delivery as curriculum that related directly to pre-service teachers' experiences (Ferfolja, 2008b, p. 72) also extended to teaching staff at the host schools, who were invited to attend *Classmates* workshops (Ferfolja, 2008a, p. 9). Support and professional networks were not only built in these regional seminars, but also through co-counseling workshops where pre-service teachers learned strategies to support each other (Ferfolja, 2008b, p. 72). Alongside the *Classmates* project, the Refugee Action Support (RAS) initiative involved training secondary pre-service teachers as literacy tutors to assist refugee students in their transitions from Intensive English Centres (IECs) to mainstream classrooms (Ferfolja & Vickers, 2010). This initiative promoted "reciprocal learning", where students developed academic skills and sociocultural understandings while "simultaneously, pre-service teachers gained an appreciation of the complex dynamics related to teaching, students and diversity" (Ferfolja, 2009, p. 395).

The *Exceptional Teachers for Disadvantaged Schools* (ETDS) program focuses on the preparation of high quality teachers for the disadvantaged school sector. Selectively targeting pre-service teachers with a proven academic performance over the first two years of their four-year Bachelor of Education degree, a modified curriculum is taught in their third year that focuses on a theory-based understanding of poverty and the dynamics of the low SES schooling sector (Burnett & Lampert, 2011). Like the *Classmates* initiative, ETDS pre-service teachers are placed in low SES schools with active mentoring, with opportunities to "re-think, re-consider and re-learn in ways that may address rather than cause educational disadvantage" (Burnett, Lampert, & Crilly, 2013). With partner schools, ETDS later helps to place the graduates within schools that needs them, and is longitudinally tracking their progress.

iii.   Strategies in schools

The school site is where ECTs primarily "achieve success and find satisfaction" (S. M. Johnson & Birkeland, 2003, p. 606). Rather than relying on ECTs' individual resilience, which only exacerbates attrition issues (Sullivan & Johnson, 2012, p. 102), recent research has described a number of effective support mechanisms for ECTs. Returning to the "push" factors (Rice, 2014) discussed earlier, these "hold" factors will be similarly categorised in response: strategies supporting ECTs' **workload**, supporting responding to **difference**, features of effective **school leaders** and positive **school cultures of inquiry**, and relational and pedagogical **support**. These factors are inter-twined and overlap.

A range of strategies designed to improve the teaching environment and issues surrounding **workload** have been recommended. Previous reports calling for a release from full teaching load for ECTs (e.g. Manuel, 2003) have been implemented in some jurisdictions and found to be effective. Johnson and Birkeland report (2003), based on interviews with fifty ECTs over four years of teaching, that those who stayed through their third year of teaching benefitted from modified working conditions including reduced teaching or administrative requirements (p. 605). Ladd (2011) similarly found that elementary and middle school teachers were less likely to say that they intended to leave the school when they

reported having time in their schedules for collaboration and planning. Ost (2014) has recently argued for the potential of giving ECTs repeated grade-specific experience for improved student outcomes, allowing the teacher to develop their "grade-specific human capital" (Ost, 2014, p. 149). Opportunities to further cement programs and pedagogical strategies in the first few years of teaching may also build confidence and reduce workload.

Approaches that support ECTs to respond to the challenges of **difference** include those related to practitioner inquiry, emotional support and positive and consistent school culture. When ECTs are encouraged by those surrounding them to view their students and communities with respect, according to their assets rather than deficits, they are more likely to persevere in practices that create engaging learning environments (B. Johnson et al., 2012). Encouragement to investigate the mismatch between their expectations and reality in a stance of inquiry (B. Johnson et al., 2012, p. 12) might lead ECTs to engage in forms of "identity work" (Lampert et al., 2012, p. 71) that lead to deep shifts in understandings of and relationships between ECTs and their students. Given the intensity of the emotional work and investment of self in teaching, particularly when relationships shift and change each lesson in classrooms, Johnson et al stress the importance of encouraging staff relationships and emotional support for ECTs (2012, p. 59), with staff taking "collective ownership of students' wellbeing and behaviour" (B. Johnson et al., 2012, p. 32). Prioritising pedagogy over behaviour management and "'sharing power' with students in reciprocal relationships" (B. Johnson et al., 2012, p. 64) while "making authentic connections between students' learning and their lifeworlds" (p. 32) has also been advocated. These strategies relate to the approaches taken by the ECT to difference in classrooms, the ways in which they might build relationship with students, and ways in which colleagues might support them.

Shifting the focus beyond the individual ECT's classroom however, studies have also shown the importance of schools with **school-wide norms** for behaviour and consistent discipline policies for ECTs (S. M. Johnson & Birkeland, 2003; Kraft et al., 2012; Marinell & Coca, 2013). In particular, Positive Behaviour for Learning, an approach that aims to teach and reinforce identified target positive behaviours alongside a focus on quality teaching, has been adopted in the NSW Department of Education and Communities Western Sydney Region (adapted from the U.S. Positive Behaviour Interventions and Support approach) (Yeung, Barker, Tracey, & Mooney, 2013). This approach has been found to have positive effects on students' views of school behaviour and motivation for learning (Yeung et al., 2013, p. 8), although correlations with increased teacher self-efficacy are less clear (Barker, Yeung, Dobia, & Mooney, 2009). Yet, considering earlier research that suggests the need for early career teachers to feel a "sense of success" (S. M. Johnson & Birkeland, 2003) in the classroom, consistent positive whole-school approaches to behaviour and learning might support ECTs' sense of achievement, supporting retention.

Effective school **leadership** is repeatedly highlighted as fundamental in fostering positive school cultures where ECTs feel supported. The qualities of school leaders sought by ECTs include: effective management skills, fair and encouraging leadership, instructional support, and inclusive decision-making (Simon & Johnson, 2013, p. 37). At the personal level, ECT resilience is enhanced when leaders "take a personal interest" in ECTs' welfare and development, "actively participate" in their employment and induction, "model and foster" trusting and respectful relationships, and "take a 'humanistic' approach to mentoring which acknowledges the importance of building self esteem while also developing professional knowledge and skills" (Peters & Pearce, 2011, p. 260). Peters and Pearce call for increased support for school leaders, recognising their important role in the retention of ECTs (2011, p. 260).

At the organisational level, both Rice's (2014) study and the recent Harvard Next Generation studies recommend a shift in institutional **leadership**, towards increased opportunities for teacher participation in school decision-making. Johnson et al (2013) found that when teachers believed that their school leader took an inclusive approach to leadership, welcoming their participation in school improvement efforts, teachers were energised and engaged, but were more likely to express frustration and withdraw to their classroom when a more "instrumental approach" to leadership was taken, where staff were expected to comply with fixed plans or "passively endorse" administrative decisions (p. 8). The Early Career Teacher Resilience study also points to the importance of "dialogic decision-making" and "teacher agency and voice" in fostering ECT resilience (B. Johnson et al., 2010, p. 10). Schools where teachers reported high levels of influence over school decisions, "a strong instructional leader" and trust in their school leader had higher stability rates in Allensworth et al.'s study (2009). Collective decision-making and autonomy in the classroom are especially important for minority teachers (R.M. Ingersoll & May, 2011). Simon and Johnson (2013) recommend preparation and professional development programs for school leaders to focus on the "managerial, social, instructional and political skills that school leaders will need to succeed" in low SES schools (p. 37), considering their influential place in the experience of ECTs. Furthermore, other studies have highlighted the importance of flexible hiring practices to enable school leaders, working alongside parents, teachers and students, to hire teachers with expectations and commitments that align with the school's ethos (Ado, 2013, p. 149; Simon & Johnson, 2013, p. 24).

The immediate **school culture** that ECTs interact with is critical in either "fostering or frustrating a reflexive stance toward teaching" (Conway & Clark, 2003, p. 478). Where school leaders conceptualise all teachers as learners with ongoing professional learning needs (Cochran-Smith et al., 2012) and where norms of collaboration are "deliberately constructed" (Simon & Johnson, 2013, p. 25) by school leaders, both ECTs and more experienced teachers benefit from this "integrated professional culture" (Kardos, Johnson, Peske, Kauffman, & Liu, 2001, p. 250). Respect, openness, a sense of community, mutual trust and commitment to student achievement are components of a positive school culture (Johnson et al, 2012). Working in a respectful, inclusive environment where people are viewed as inter-dependent is important to teachers (Achinstein & Ogawa, 2011; Simon & Johnson, 2013, p. 27). Indeed, in Allensworth et al.'s study (2009), schools where teachers reported "a strong sense of collective responsibility" – a "shared commitment" among staff to "improve the school so that all students can learn" (p. 25), one-year stability rates were 4-5 percentage points higher than in other schools with comparable demographics.

In these forms of "research-rich" (Furlong, 2014a) **school cultures**, ECTs have opportunities to collaborate, network and explore shared dilemmas with peers **across experience levels**. When ECTs engage in professional learning with colleagues that is less hierarchical and more based on a model of "knowledge exchange" (Redecker et al., 2011, p. 71) p. 71) or communities of practice "that blur the lines between new and veteran teachers" (Gschwend & Moir, 2007, p. 23)p. 23), it seems that this learning is sustained. In Kamler & Comber's work (2005), where teachers worked cross-generationally (with pairs of ECT and late career teachers), each teacher was positioned as knowledgeable as they investigated their students' and their families' previously "invisible" knowledge and resources (p.123). In doing so, these teachers were "'turning around'", "as a process […] moving to see the child and their families in different contexts with a new lens" (2005, p.125), whilst simultaneously 'turning around' to view each other differently in "mutually satisfying, reciprocal research enterprises" (p.130), fostering "sustainable school improvement" (p. 129) (Ado, 2013, p. 149). Kardos et al (2001) also found that where teachers' work

responsibilities were "deliberately arranged to intersect" (p. 277) in exchanges that drew on cross-generational strengths, teachers reported greater satisfaction with their schools than did teachers at schools where professional learning focused on ECTs. These forms of professional learning cultures acknowledge the assets that ECTs bring with them rather than fixating on their deficits (B. Johnson et al., 2012). Rice (2014) recommends that these assets be recognised among ECTs through the opportunities for leadership roles in order to retain quality teachers (p.323). Rice also suggests facilitating career development and clear career pathways for quality ECTs (p. 323), funding additional promotion positions in the least desirable schools, attaching scholarships for further study to positions in disadvantaged schools, and further innovation in disadvantaged settings (p. 324, cf. Teese, 2006). At the same time, however, encouragement to participate in practitioner research or placing ECTs in leadership positions has associated dangers. The BERA report (2014a) stresses that the expectation that teachers might engage with and in research must not become "a burden on a profession that sometimes struggles with the weight of the various demands rightly or wrongly placed upon it" (p.6), and Latifoglu (2014) warns that the additional pressures of leadership on ECTs can lead to burnout (p. 210). Encouragement of ECTs to exercise their skills must happen in a supportive work environment.

Alongside a collective focus on professional learning, **supportive professional relationships** are also important for ECTs, including **mentors** and less formal support networks. Well-designed mentoring and induction programs have been linked to teacher retention (Cochran-Smith et al., 2012), particularly when a "community of mentors" provide "a multifaceted appraisal of accomplishments" (Tillema, 2009, p. 155). Feedback from colleagues is most helpful to ECTs when it is "specific, constructive and timely", and "accompanied by explicit affirmation and acknowledgement" (B. Johnson et al., 2012, p. 5). Benefits of mentoring do not only extend to the ECTs, but also the professional growth of mentors (Hudson, 2013). Additionally, support networks established through ITE programs (e.g. the *Classmates Club,* see Ferfolja, 2008b, p. 72), or online through online mentoring programs (Clift, Hebert, Cheng, Moore, & Clouse, 2010; Lee & Mcloughlin, 2010) or networks established informally through social networking sites including Twitter (Smith Risser, 2013) have been found to support ECTs' professional growth. It has been argued that ECTs may find it easier to be emotionally vulnerable with colleagues outside of their school who have no role in their formal evaluation (Schuck, 2003), although it has not been established whether these benefits help retain ECTs in the profession (Smith Risser, 2013, p. 31).

In addition to formal and informal mentoring and support networks, the face-to-face **relationships** and opportunities for **therapeutic support** are also vital for retention. The Early Career Teacher Resilience project team recommends ECTs "prioritise time to stay in touch with family, friends and peers" and to "be open" about concerns and difficulties (B. Johnson et al., 2012, p. 62). Howes and Goodman-Delahunty advocate that teachers are made aware of the availability of compassionate leave and support services and helped to access it in times of need (2014, p. 80; cf. B. Johnson et al., 2012, p. 62).

c) Discussion of the literature

Before considering the gaps in the literature worth further research, the logics at work in previous research should be examined. As discussed earlier, certain approaches to research have previously approached the issues surrounding the attraction and attrition of ECTs in low SES schools by locating effectiveness at the level of the **individual** teacher, or the reasons for attrition as located in other

individuals, including students or school leaders. Research trajectories following these logics have focused on beliefs systems or personal attributes of ECTs, as if these were static, natural or innate, and as if individuals were set apart from others. Other research has shown the ongoing growth of teachers in the profession, suggesting that teachers can be supported to become "agents of social change" (Darling-Hammond, 2002, p. 6), in supportive environments and relationships. Even some 'best practice' approaches are based on the logic that there are skills and behavior that can be identified, isolated and replicated across diverse schools and contexts. Qualitative studies have shown how problematic such approaches are, given that "early career teachers' expectations will intersect with contextual factors differently" (Ado, 2013, p. 148). Approaches to the challenges to attracting and retaining teachers in low SES who support student achievement that focus on the individual in isolation are problematic and in danger of perpetuating **deficit** understandings of certain teachers, students and communities.

In contrast, studies that focus on the **inter-connected, processual** and **relational** dimensions of teaching and learning in schools stress the importance of **multiple factors** in teacher retention, and a focus on **quality teaching** in **school communities**. A re-centring of research onto "pedagogy, not teachers" in isolation is needed, to bring the teacher back into educational discourses, whilst simultaneously dispersing "responsibility for pedagogy" and acknowledging "that school structures, cultures and contexts affect pedagogical practices" (Lingard, Hayes, & Mills, 2003, p. 405). This research logic views teachers as continually in formation, growing professionally in relation to their students, colleagues and leaders, in particular socio-economic, political and spatial contexts. Individuals are viewed as part of communities (Freebody et al, 2012), not as set apart individuals who make rational choices in isolation from others. Following the BERA report, this research trajectory advocates for **collaborative, asset-based approaches** to the challenge of supporting ECTs in low SES communities in "research-rich" schools which "are likely to have the greatest capacity for self-evaluation and self-improvement" (Furlong, 2014a, p. 4). According to these logics, "[b]uilding a shared vision for learning involves engaging the many layers of the system" (Hayes, Mills, et al., 2006, p. 206). Such a multi-layered focus that engages individuals, schools, universities, systems at multiple times, with a deep awareness of the mediating significance of context, is vital in addressing the challenges of supporting equity and excellence in the Australian educational system.

6.   Gaps identified from evaluating existing literature

A number of areas for further research are discussed below. There are *theoretical* and *methodological* gaps in the research related to the attraction, training, and retention of ECTs in low SES schools. Theoretical and methodological approaches to these issues need to be complex in vision and framing, examining the relationships between subjective experiences in schools, institutional and socio/economic/political dimensions, and the inter-connections between these dimensions. The issues surrounding attracting, training and retaining ECTs must to be examined and addressed "at every key point of potential influence or 'leverage'" (Dinham, 2013, p. 98). *Theoretical* gaps include the need for interrogation of the discursive shift from 'quality teaching' to 'teacher quality' and further spatial-socio-material-affective theoretical understandings of the challenges facing early career teachers. The *methodological* gaps include work at the macro-level into longitudinal funding and labour trends and comparative work between professions, and co-researching partnerships with teams of teachers, students, parents/ community members, and school leaders.

a)   Theoretical gaps

At a broader level, **discursive analyses** of the shift from a discussion of '**quality teaching**' to '**teacher quality**' in recent political/rhetorical documents and their implications for both research and practice are needed. These shifts in discursive patterns that constitute thinking and action surrounding teacher preparation/ support/development need to be analysed alongside historical, social and political events/circumstances (Reid, 2011, p. 295). This analysis is important since the policy narratives constructed to explain the complex web of interrelated causes, correlations and effects of social disadvantage fundamentally shape policy and organisational responses to the attraction, retention and support given to ECTs in these settings.

At the institutional level, further conceptual work needs to be done in extending the work done by other researchers into the inter-connectedness of people, spaces, emotions, materials and policies in schools and educational bureaucracies, and how these impact on ECT career decisions. Considering the importance placed on teacher conditions and the specific conditions of individual schools in recent literature, there is a need for research that does not focus on human subjects alone, but on the **spatial-socio-material-affective dimensions** of pedagogy and the work of ECTs (cf. Smyth, McInerney, & Fish, 2013). Drawing on recent theoretical work in other disciples (e.g. Barad, 2007; Gregg & Seigworth, 2010; Massey, 2005) might enable examination of the complex web of human and non-human actors, relations and conditions in which ECTs teach and learn. This theoretical work has recently been applied to examine the socio-material processes of learning and affect in embodied relationships in classrooms (Mulcahy, 2012, p. 10). This work might be extended to examine the socio-material-affective processes of teaching in low SES settings, and more intangible factors that support retention, including "trust" (Simon & Johnson, 2013, p. 27).

This conceptual work may also have **implications for ITE**, in fostering **responses to uncertainty, contingency** and ever-shifting conditions of who, what and where the ECT will teach. Recognition of the need for and research surrounding pedagogies of uncertainty/ pedagogies for contingencies might foster further consideration of that "excessive dimension of pedagogy that cannot be made recognisable through habit or social-scientific method" (Sellar, 2009, p. 358). This orientation to contingency and difference might serve to further develop the concepts and pedagogical practices of 'differentiation' or 'personalised learning' that have been advocated recently by government reports (e.g. Redecker et al., 2011). This type of work is fundamentally hopeful and has pedagogical implications, as the school institution is viewed not as closed, but as "always under construction in terms of social relations that must be continuously negotiated" (Comber, 2013, p. 363).

b)   Methodological gaps

i)   Methodological approaches

At the macro-level, further work is necessary to examine broader **funding and labour trends** shaping school conditions and the career trajectories and challenges facing ECTs. In light of the evidence "that some parts of the schooling system are becoming increasingly stratified according to socioeconomic

status" (Gonski et al., 2011, p. 111), and that "concentrations of disadvantage at the school level accentuate underperformance" (Gonski et al., 2011, p. 124), the **impacts of long-term funding trends and 'school choice' discourses** (in the primary, secondary and tertiary sectors) on low SES schools within the system require exploration. In particular, the implications of the recent uncapping of Commonwealth-funded places for teacher education candidates, and the deregulation of university fees on attracting high quality teachers to ITE and to low SES schools need to be mapped. Longitudinal approaches to research might track the SES backgrounds of pre-service teachers, in order to see the implications of increasing fees and entry ATARs to the demographics of teacher education courses. There is the potential of a widening gap between the SES backgrounds of tertiary students who study education and the SES backgrounds of the students who they will potentially serve, with possible widening "praxis shock" (Kelchtermans & Ballet, 2002), because of increasing informal socio-economic segregation in schooling and tertiary settings. The relationships between pre-service teachers' SES, their own educational experiences and exposure to diverse educational settings, and their attitudes towards teaching in low SES communities, are worthy of further investigation through quantitative and qualitative measures. Shifts in the demographics of those undertaking ITE might necessitate shifts in pedagogical approaches taken in ITE, and the need for deeper partnerships between ITE providers and low SES schools.

Beyond a focus on education alone, there is a need for research that **compares labour trends in education to other sectors**. The OECD report *Teachers Matter* (2006) points out that there is a particular lack of research that compares teachers' working conditions and careers with those in other professions (p. 15). The Productivity Commission has also identified a need for specific investigation of "targeted workforce-related measures" that are "most effective for overcoming educational disadvantage" (Productivity Commission, 2012, p. 67).

ii) Co-researching partnerships

Alongside discursive analyses of political/ rhetorical documents and longitudinal analyses of funding trends and their implications, **co-researching partnerships** with ECTs, other teachers, and students and parents in school communities might provide insights into the factors shaping the retention of quality teachers in low SES school communities. Researchers have called for further research investigating the attributes and practices of schools and education systems where there is high retention of ECTs (Latifoglu, 2014, p. 227; OECD, 2005, p. 15). While these analyses might be systematically conducted by university-based researchers, co-researching partnerships may be lead to more "reciprocal" approaches than a one-way "gaze" on teachers and schools (Lingard, Hayes, & Mills, 2003, p. 407), having the potential to proliferate these innovative practices. Furthermore, the Teachers Researching Communities project found a desire among teachers and communities for initiatives that "work to clarify and build more authentic and realistic relations between schools and their communities" (Freebody et al., 2011, p. 71), which might provide further insights into how to retain quality ECTs and sustain improved student achievement.

Following on from the move towards increasingly collaborative methodologies in research landmark in low SES school communities, the potential benefits of involving other **stakeholders** in the community in research into **proliferating practices that sustain a positive school culture and retain quality ECTs** are great. The shift in methodological control in landmark Australian research in low SES settings, from research conducted *on* schools and teaching, to research conducted *with* teachers and parents co-researching pedagogies, might be further enriched by research partnerships that further involve **students as co-researchers**. There are only a few examples where students (e.g. Comber, 2013) and parents/community members (e.g. Freebody & Freebody, 2012) are also positioned to share their knowledge about the school community's history, pedagogies, student achievement, what constitutes a 'quality' teacher, and the strategies used to promote retention of quality teachers. While a select number of successful partnerships between school students and pre-service teachers are exemplified in U.S. ITE programs (Cook-Sather, 2010; Rinke, 2011), and in partnerships between undergraduates and higher education researchers (Cook-Sather, 2011, 2013, 2014), there are not examples of these types of partnerships at the ECT stage, and these partnerships have not been substantially integrated in Australian research. These types of partnerships, where students are also involved in supporting teachers and in improving teaching/learning environments, might be extended into co-research that involves teachers, students and school leaders. Positioning students and ECTs as "producers of knowledge" (Lingard, Hayes, & Mills, 2003, p. 404) about pedagogy and school conditions, with other teachers and school leaders positioned to not just support students and ECTs, but also to learn from them, might honour their situated knowledge, and also serve to re-frame school discourses away from deficit, to asset models of teaching and learning at the level of both the classroom and staffroom. As an example, a collaborative exploration of challenging behaviour between students and teachers might re-orient previously combative student-teacher relationships to more productive partnerships. Below, a number of other possibilities for what might be explored in these co-researching partnerships are explored.

Collaborative research surrounding the retention of quality ECTs in low SES schools might also include **partnerships between professional experience supervisor teachers or ECT mentor teachers and pre-service teachers and ECTs.** While further work into how mentor/cooperating teachers teach has been called for by researchers, "as it matters a great deal to who student teachers become" (Rozelle &

Wilson, 2012, p. 1204), examining these pedagogies collaboratively, between levels of experience, has the potential to benefit both parties. Research has also been called for into mentor/cooperating teachers' needs, how mentors perceive the needs of pre-service and ECTs, and detailed examples of effective collaborative partnerships between school-based mentors, university mentors, and ECTs (Aubusson & Schuck, 2013, p. 328).

Co-researching partnerships might be located in schools where student achievement is high and attrition of quality ECTs is low, with co-researcher teachers and students exploring the **practices/strategies/initiatives that support ECTs** to feel a sense of commitment to the school community. These partnerships might be in the form of extended case studies or participatory action research, as groups of teachers/students/ leaders continue to develop these effective strategies/initiatives. Co-researching partnerships might explore and re-conceptualise **leadership, collegial relationships and school culture.** Simon & Johnson (2013) have recently called for closer, qualitative analysis of "*what* it is about school leadership that matters, *why* teachers care who their colleagues are, and *whether* some elements of school culture (variously defined) drive teachers' decisions more strongly than others" (p. 21, emphasis theirs). Collaborative reconceptualisations of 'leadership' might lead school communities to examine the process by which leadership "emerges" in dynamic interactions and relationships in schools, and what supports and hinders leadership (S. M. Johnson et al., 2013, p. 10; Ogawa & Bossert, 1995). Considering the BERA report's finding that some teachers found it difficult to pursue inquiry research because of inhospitable leadership (Furlong, 2014a), it appears that further work might be done on how school leaders conceptualise and enact support for ECTs to inquire into their own teaching practices and conditions. In a context where school leaders are subject to increasing bureaucratic and administrative demands, school leaders' perspectives on how they desire to support ECTs, their perceptions of practitioner research, and their enactment of these desires, is important and has implications for how the work and support and growth of ECTs is framed. In partnerships where ECTs and other teachers and school leaders explore what would be required to ensure that ECTs remained in the profession, the contextual pressures and constraints on the work of teachers in low SES schools (Lingard, Hayes, & Mills, 2003, pp. 419, 400), and the accountability pressures that might lead school leaders to "transfer the same piston-like pressure to their teachers" (S. M. Johnson et al., 2013, p. 45), might be able to be further mapped and more productive professional relationships forged. These dynamic relations between federal, state, school and classroom discourses surrounding accountability, performance and achievement, explored through collaborative research, are worthy of examination.

c)   Questions for future research

The questions below summarise these possible research directions:

- *What **social, economic and political factors** have contributed to a current focus on '**teacher quality**'? What **historical, social and political events/ circumstances** preceded a shift in Australian education policy narratives?*

- *How do **spatial-socio-material-affective dimensions** of teaching and learning in low SES contexts shape the **experiences and career decisions** of ECTs?*

- *What **approaches to ITE and what transitional experiences** might foster productive and flexible pedagogical responses to uncertainty and contingency?*

- *How are **broader educational funding trends and labour trends** shaping **school conditions and the career trajectories and challenges** facing ECTs?*

- *How do the **labour trends in education** compare with labour trends in **other sectors**?*

- *How might **collaborative research partnerships** between ECTs, students, other teachers and school leaders engender productive conversations about teaching and learning, asset-driven positionings of ECTs, engaging and innovative pedagogical practices in classrooms, supportive cultures of inquiry in schools, and the engagement and achievement of students in low SES school communities?*

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