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School-university partnerships in Australia: a systematic literature review

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School-university partnerships in Australia: a systematic literature review

Abstract

Across Australia and around the world, school-university partnerships have been advocated by researchers and policymakers as a means of bridging the perceived theory-practice divide for which teacher education programs have been criticised. A range of literature exists that explores school-university partnerships either from a theoretical perspective, or grounded in specific examples. As these pieces of research typically provide an overview of school-university partnerships in general, or rely on findings from one or two partnerships, a broad understanding of partnerships and the research gaps that remain can be difficult to ascertain. This paper presents a systematic literature review to provide collective evidence on the implementation of Australian school-university partnerships for the purpose of developing pre-service teachers. The review reports on 59 sources, providing insights into the range of school-university partnerships in existence. It also highlights the benefits and challenges encountered through partnership implementation and proposes opportunities for future research.

Keywords

systematic, australia:, review, partnerships, literature, school-university

Disciplines

Education | Social and Behavioral Sciences

Publication Details

Green, C. A., Tindall-Ford, S. K. & Eady, M. J. (2019). School-university partnerships in Australia: a systematic literature review. *Asia-Pacific Journal of Teacher Education*, online first 1-33.

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This paper presents a systematic literature review to provide collective evidence on the implementation of Australian school-university partnerships for the purpose of developing pre-service teachers. The review reports on 59 sources, providing insights into the range of school-university partnerships in existence. It also highlights the benefits and challenges encountered through partnership implementation and proposes opportunities for future research.

Keywords: school-university partnerships; systematic literature review; initial teacher education; theory-practice divide

The theory-practice divide has been a perennial issue within teacher training (Korthagen, Loughran, & Russell, 2006; Mayer, 2014) and its prevalence within initial teacher education (ITE) is well documented (Beck, Kosnik, & Rowsell, 2007; Darling-Hammond, 2006; Mason, 2013; Taylor, Klein, & Abrams, 2014). The impact of the theory-practice divide on pre-service teachers (PSTs) and the teaching workforce is similarly widely acknowledged (Jackson & Burch, 2016; McConney, Price, & Woods-McConney, 2012; Nahal, 2010). It is evident from the research that when theory and practice are not meaningfully connected within ITE programs, PSTs perceive their learning as irrelevant and isolated (Hynds & McDonald, 2010; Kennedy & Heineke, 2014; Korthagen, Loughran, & Russell, 2006). Upon graduation, they may experience a ‘reality shock’ during their first teaching positions (Adoniou, 2013; Nahal, 2010) leading to early career attrition (McConney, Price, & Woods-McConney, 2012; Nahal, 2010).

Internationally, school-university partnerships that capitalise on the expertise of both university academics and school teachers have been implemented to bridge the theory-practice divide within ITE programs (Forgasz, 2016; Mason, 2013). School-university partnerships serve a variety of purposes in capacity building for both universities and schools, including continuing professional development, curriculum development and research opportunities (Burns, Yendol-Hoppey, & Jacobs, 2015; Clary, Feez, Garvey, & Partridge, 2015; Parsons et al., 2016). This paper focusses on school-university partnerships that seek to develop PSTs through authentic learning experiences within ITE programs.

Governments both internationally and within Australia have advocated the implementation of school-university partnerships that support the development of PST (Jackson & Burch, 2016; National Council for Accreditation of Teacher Education (NCATE), 2010; Teacher Education Ministerial Advisory Group (TEMAG), 2014). Within Australia, the Australian Institute for Teaching and School Leadership (AITSL) (2015) and TEMAG

(2014) have recognised the value of collaboration between schools and ITE providers. TEMAG (2014) stated that, “close working relationships through effective partnerships between [ITE] providers and schools can produce mutually beneficial outcomes and facilitate a close connection between teaching practice and initial teacher education” (p. 25).

Third space

Collaborative school-university partnerships operate in what has been labelled the ‘third space’ (see Figure 1). While ‘third space’ can be an elusive term, researchers have used it to describe various situations in which established boundaries are crossed. For example, Soja (1996) employed third space as a socio-geographical theory to recognise the impact of space and time on society. He described the first space as the ‘real’, the second space as the ‘ideal’, and the third space as the ‘lived space’ where the first and second space could be resisted, subverted, and reimagined. Barton, Garvis and Ryan (2014) draw on Soja’s work in their educational research on curriculum development, identifying a third space in which both real (teacher-centred) and ideal (policymaker-centred) perspectives of curriculum implementation can be critiqued.

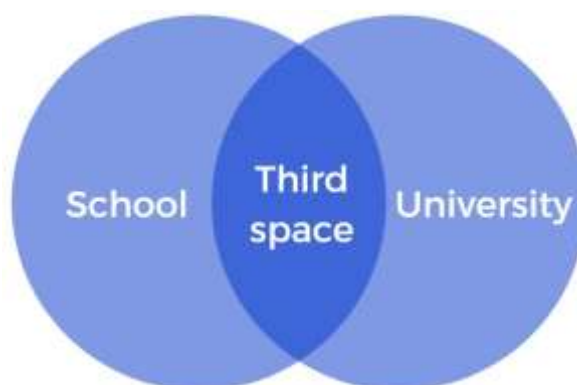


Figure 1: Visual representation of third space theory (Zeichner, 2010)

Conversely, Bhabha (1994) uses the term third space alongside hybridity in his discussion of cultural identities and post-colonial representations. Similar notions are picked up by

Gutierrez, Baquedano-Lopez, and Turner (1997) as well as Gutierrez, Baquedano-Lopez, and Tejeda (1999) with regards to cultural diversity in the classroom, creating bridges between home and school learning. In these studies, the third space enables the meeting of different cultures, and the formation of new meanings (Gutierrez, Baquedano-Lopez, & Tejeda, 1999; Tsui & Law, 2007). In both Soja's (1996) and Bhabha's (1994) usage, third space moves against binary reductions and instead facilitates a hybridised approach.

Within ITE, third space theory describes a non-hierarchical relationship between schools and universities where the roles and responsibilities of PSTs, in-service teachers (ISTs) and teacher educators (TEs) are transformed to create new learning opportunities (Robson & Mtika, 2017; Taylor, Klein, & Abrams, 2014; Zeichner, 2010). As presented by Zeichner (2010), this theory draws on the ideas presented by Bhabha (1994) and Soja (1996), and applies them to the ITE setting. It describes a symbolic space where boundary crossing becomes the norm and binary attitudes (such as teacher vs. student, or theory vs. practice) are abandoned (Allen, Singh, & Rowan, 2017; Grudnoff, Haigh, & Mackisack, 2017). This dynamic approach to teacher education aims to prepare PSTs for the teaching profession by making the most of the learning opportunities available in both the school and university contexts (Martin, Snow, & Franklin Torrez, 2011; Zeichner, Payne, & Brayko, 2015).

Within the current research base, school-university partnerships are viewed positively as opportunities for collaboration and mutual benefit (D. Lynch & Smith, 2012; White, Bloomfield, & Le Cornu, 2010). The types of partnerships reported in the literature vary, such as enhanced Professional Experience placements, or integration of teacher knowledge into the ITE program (Mason, 2013; Perry, Dockett, Kember, & Kuscher, 1999; Zeichner, 2010). The benefits associated with these partnerships include a "built-in support network" (Darling-Hammond, 2006, p. 110) for both PSTs and ISTs, enhanced learning opportunities for school students, and meaningful connections between theory and practice for PSTs

(Adoniou, 2013; Hobbs et al., 2015; Jackson & Burch, 2016; Kruger, Davies, Eckersley, Newell, & Cherednichenko, 2009). The challenges encountered when implementing school-university partnerships have also been illuminated in the research, such as the need for resources and the complexities inherent with cross-institutional work (Dresden, Blankenship, Capuozzo, Nealy, & Tavernier, 2016; Korthagen, Loughran, & Russell, 2006; Lewis & Walser, 2016). This paper builds on the existing literature through a systematic review of published accounts of such school-university partnerships within Australia.

The range of existing literature explores school-university partnerships either from a theoretical perspective, or grounded in specific examples. While publications that take a theoretical perspective (such as Hobbs et al., 2015; Zeichner, 2010) can provide insights into these partnerships, they remain disconnected from the realities of implementation (Darling-Hammond, 2006; Hynds & McDonald, 2010). Those that report on specific partnerships (such as North, Singer, & Neugebauer, 2014; Kitchen & Petrarca, 2016) typically (and appropriately) focus on just one or, at most, a small handful of related partnerships. Because of this case-based style of reporting on school-university partnerships, it can be difficult to establish a broad understanding of the key findings and the gaps that remain (Jesson, Matheson, & Lacey, 2011; Petticrew & Roberts, 2006).

A systematic literature review was therefore conducted to provide collective evidence of how and where school-university partnerships are being implemented in Australia, as well as the benefits, challenges, and elements of success described in the literature. This approach enabled all relevant publications to be identified and analysed to generate an evidence-based understanding of school-university partnerships (Konnerup & Kongsted, 2012; Petticrew & Roberts, 2006). Details of the systematic literature protocol are provided below.

Methodology

This systematic literature review explored the implementation of Australian school-university partnerships focussed on the development of PSTs. The literature review spanned from 2012-2017, a period of significant change in ITE in Australia. In 2010, the Australian Institute for Teaching and School Leadership (AITSL) was established to promote excellence in schooling around the nation (AITSL, 2010). This was followed by several other national reforms affecting schools and teacher education, including professional standards for teachers (AITSL, 2011), curriculum (Australian Curriculum, Assessment, and Reporting Authority (ACARA), 2012), and ITE accreditation (AITSL, 2015). Simultaneously, significant government attention was given to school-university partnerships as a means of enhancing ITE programs and providing quality learning opportunities for PSTs (AITSL, 2011, 2015; TEMAG, 2014; Ure et al., 2017).

The systematic literature review employed a comprehensive research protocol to ensure transparency and rigour (Jesson, Matheson, & Lacey, 2011; Petticrew & Roberts, 2006):

- Define the research question,
- Identify key words and databases,
- Conduct a comprehensive literature search,
- Apply exclusion and inclusion criteria,
- Critically appraise the quality of the sources, and;
- Synthesise the studies.

For this review, the topic of school-university partnerships was informed by Zeichner's (2010) description of the third space, where collaboration between school and university is paramount. This theoretical lens was important, given the frequent and varied use of the term

'partnership' in educational research literature (D. Lynch & Smith, 2012; White, Bloomfield, & Le Cornu, 2010). Within this review, third space school-university partnerships have been viewed as conscious collaborations between schools and universities involving "an equal and more dialectical relationship between academic and practitioner knowledge in support of [pre-service teacher] learning" (Zeichner, 2010, p. 92). These partnerships are distinct from the relationships that universities may have with schools to negotiate the logistics of placing PSTs in schools for the required Professional Experience placement. Instead, they involve deliberate action from both school and university personnel to cross boundaries and work alongside one another as part of the ITE program, sharing ideas and resources in the process (Grudnoff, Haigh, & Mackisack, 2017; Williams, 2014).

While such partnerships can achieve a variety of purposes, those that develop PSTs were the focus of this review. As such, the questions that guided the systematic literature review process were as follows:

- As represented by those reported in the literature, how are school-university partnerships that develop pre-service teachers implemented?
- What benefits and challenges of implementing these school-university partnerships are identified?
- What gaps exist in the current literature on this topic?

The following sections provide details of the process followed in conducting the systematic literature review.

Identification

The first step entailed developing keywords and identifying appropriate databases for the initial search. This occurred in consultation with an expert librarian to ensure the search was

sensitive, specific and efficient (Petticrew & Roberts, 2006). The keywords used were a combination of the following:

- “school-university partnership” (and derivatives, such as “university school partner*”, “professional development school”, or “cooperat*”)
- “teacher education” (and derivatives, such as “pre-service teacher” or “preservice teacher”)
- “third space”
- Sources cited in Zeichner (2010), or sources citing Zeichner (2010)

After an initial search of three databases (Informit, Scopus, and Web of Science) conducted in January 2017, further sources were identified through citation alerts and hand searching (Arksey & O'Malley, 2005; Petticrew & Roberts, 2006). A last check of evidence was undertaken in February 2018 (Willegems, Consuegra, Struyven, & Engels, 2017). This procedure identified 1410 initial sources (see Figure 2).

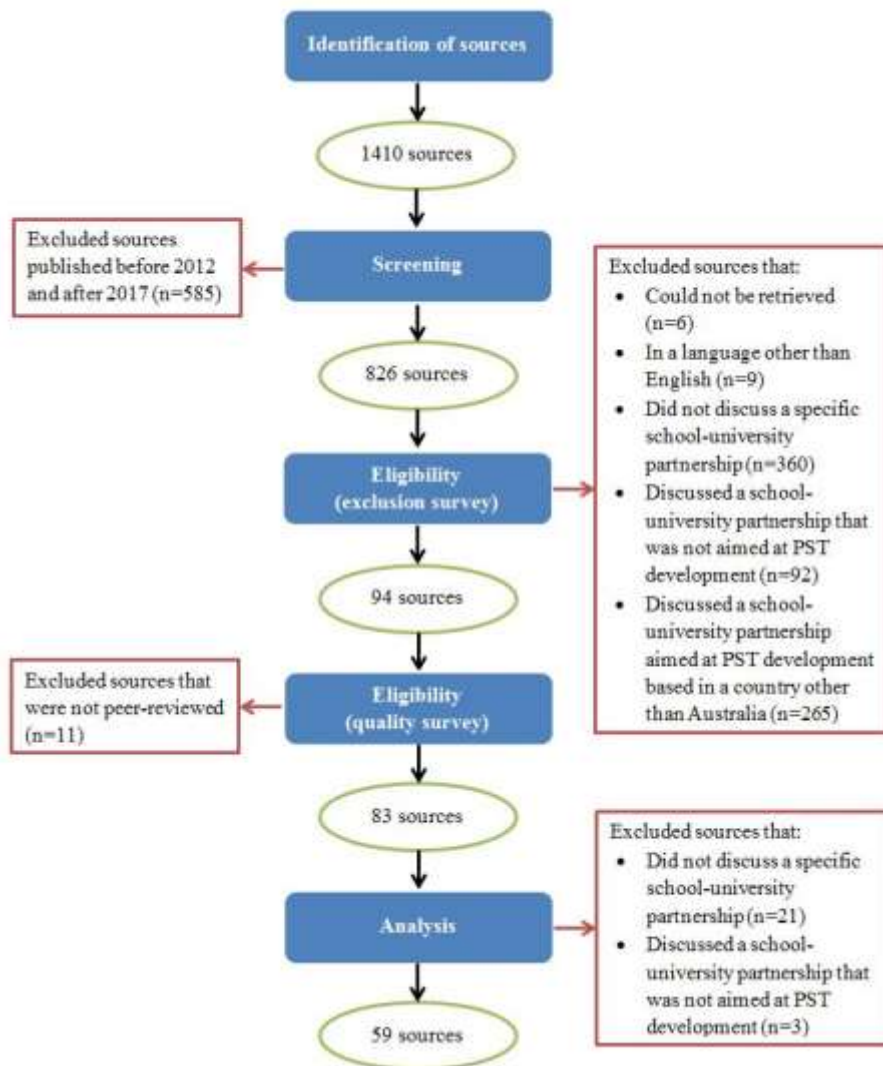


Figure 2: Systematic literature review process

Screening

These sources were subsequently screened to those published 2012-2017 inclusive (n=826). Initial teacher education in Australia has undergone rapid shifts during the period of 2012 to 2017 (AITSL, 2018a, Le Cornu, 2015; Ure et al., 2017). This has occurred alongside changes to teaching more broadly in Australia, as a result of recently introduced nationalised curriculums (ACARA, 2012) and professional standards for teachers (AITSL, 2011). These shifts have contributed to a renewed interest in school-university partnerships (Le Cornu, 2015).

The Teacher Education Ministerial Action Group report (TEMAG, 2014) is regarded as a pivotal document driving improvements to teacher quality (AITSL, 2018b). This report recommends a range of strategies to enhance initial teacher education, including advocating school-university partnerships that raise the quality of Professional Experience placements for pre-service teachers. This recommendation has been echoed by other government reports and recommendations (AITSL, 2015; Australian Government Department of Education and Training (AGDET), 2015; Hartsuyker et al., 2007; New South Wales Department of Education and Communities (NSW DEC), 2013). Thus, 2012-2017 has been a period of immense change within Australian teacher education and the implementation of school-university partnerships, and is thereby particularly pertinent for this study. Screening the sources to those published 2012-2017 (inclusive) ensures the review is focused on contemporary examples of school-university partnerships that are likely to have been impacted by the recent government initiatives (Ure et al., 2017).

Eligibility

Assessing the eligibility of the remaining sources involved two sequential online surveys. These surveys were developed to allow the researchers to interrogate each source in a systematic manner, document the process and maintain consistency over time (Jesson, Matheson, & Lacey, 2011; Pickering & Byrne, 2014). The first of these was an exclusion survey that evaluated each source based on surface-level features of the source itself, as well as of the school-university partnership it discussed (see Figure 3). Fifteen sources were excluded because the full text could not be retrieved despite extensive searching (n=6), or because they were published in a language other than English (n=9).

Systematic Literature Review - Exclusion survey

1 Article citation:

2 Year of publication

3 Type of source

4 Does the article discuss/explore a specific school-university partnership?
 Yes
 Maybe
 No
 Comment

5 What country is the school-university partnership based in?

 Other (please specify)

6 What type of site is involved?

 Comment

Figure 3: Excerpt of the exclusion survey

To be included in the dataset for this systematic literature review, each source needed to discuss a specific school-university partnership. These sources needed to demonstrate a clear and deliberate partnership between a school and a university, distinct from the relationships that may exist between schools and universities for the sole purpose of arranging Professional Experience placements (a requirement of all Australian ITE programs). As a result, 360 sources were excluded from the review to ensure the focus was on specific examples of school-university partnerships, rather than broad discussions of what could be possible.

A further 92 sources were excluded because they discussed a specific school-university partnership that was not aimed at developing PSTs' practice or understanding of the teaching profession. While the implementation of school-university partnerships for purposes other than PST development is of interest and value to the field, such sources were not the focus of this literature review.

More than half of the remaining sources described partnerships based in the United States of America (n=199) (see Figure 4). Focusing on the sources that discussed partnerships based in Australia (n=94) was deemed appropriate for this review given the current priorities of Australian government bodies (AITSL, 2015; AGDET, 2015; Hartsuyker et al., 2007; NSW DEC, 2013; TEMAG 2014). School-university partnerships have been explicitly recommended by these government bodies for the purpose of enhancing Professional Experience placements for PSTs, as well as other aspects of ITE (AGDET, 2015; Le Cornu, 2015; TEMAG, 2014).

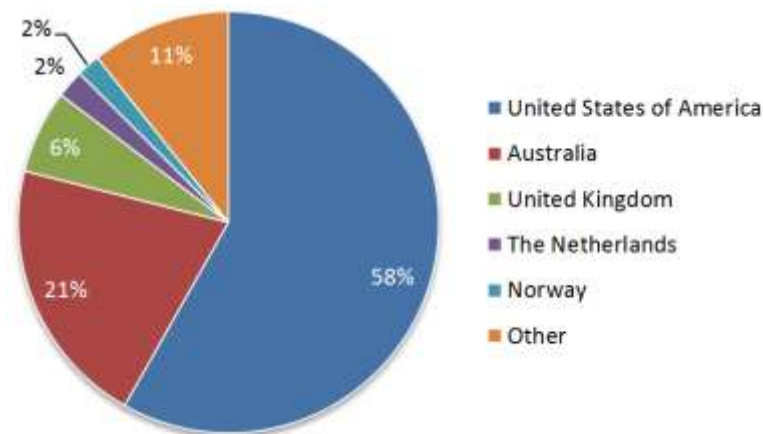


Figure 4: School-university partnership publications by country of partnership

The Australian-based sources were then subjected to a second survey that assessed the quality of each publication based on its currency, audience, authority, transparency and objectivity (Brick, Herke, & Wong, 2016; Peticrew & Roberts, 2006). It was determined that the review would be concerned only with peer-reviewed publications, although there may be other partnerships reported in grey literature such as conference presentations and government reports (Jesson, Matheson, & Lacey, 2011). As a result, 11 sources that were not peer-reviewed publications were excluded at this point.

Analysis

Analysis of the 83 remaining sources involved a third online survey to capture a summary of

the partnership discussed and the findings reported. In addition, in vivo coding was used to identify relevant quotes and specific examples from the sources within several broad categories: type of partnership, benefits, challenges, and elements of success (Saldaña, 2016). Within these categories, subthemes emerged from the codes generated (Creswell, 2014). Using both of these means of analysis enabled the researchers to focus on the particulars of each source without losing sight of the bigger picture. It also enabled a consistent approach to be maintained during the review process.

Throughout this iterative process, an increasing degree of scrutiny was applied to the sources. When closely examined for the specific nature of the school-university partnership discussed, it became clear that 24 sources should be excluded either because they did not discuss a specific school-university partnership (n=21), or because the partnership they discussed was not related to PST development (n=3).

Details of the partnerships discussed by the 59 sources that remained at the conclusion of this process can be found in Appendix A.

Results

The dataset examined in this systematic literature review provides collective evidence of the implementation of school-university partnerships in Australia. The findings of these sources are detailed below according to:

- context (primarily journal articles reporting on partnerships based on the east coast of Australia),
- type of partnership according to the categories in Zeichner (2010) (such as mediated instruction, or extended professional experience placements),
- benefits (mutual, as well as specifically for the university and for the school),
- challenges (related to being different to the norm, logistics, and not meeting intended

goals), and

- elements of success described (including shared understandings, relationships, and resources).

Context

Most of the final set of sources were journal articles (n=37), with over half of these published in Quartile 1 (n=8) or Quartile 2 (n=13) journals, representing the top 25% and top 25-50% respectively of Impact Factor distribution in the field of Education (Scimago Lab, 2017).

Nearly half of the sources were published in 2013 and 2016 (n=14 each) (see Figure 5).

While some sources did not detail a formal research project (n=10), those that did employed either qualitative methods (n=36) such as case studies or practitioner research, or mixed methods (n=13).

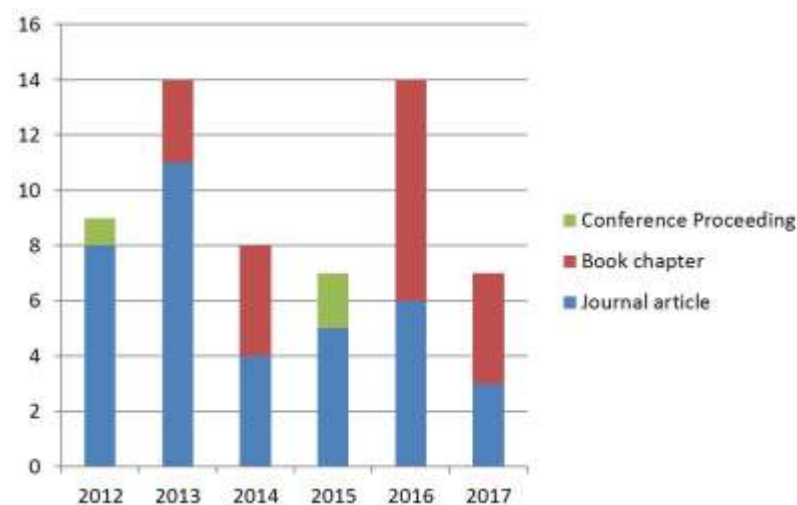


Figure 5: School-university partnership publications in the final dataset by year and type of publication

Across the 59 sources, there were 40 distinct partnerships detailed. The partnerships were primarily located in the eastern states of Australia (see Figure 6). Twenty-six of the partnerships involved PSTs in undergraduate degrees (such as a Bachelor of Education, or a Bachelor of Learning Management), and ten involved PST from a postgraduate degree (such as a Master of Teaching or a Graduate Diploma of Education). The remaining four

partnerships did not specify program in which the PSTs involved were enrolled.



Figure 6: Locations of school-university partnerships

While some partnerships existed between one school and one university (such as Miller, Haynes, & Pennington, 2015), others were between one university and multiple schools or a school district (such as Elsdon-Clifton, Jordan, & Carr, 2016). Another existed between multiple universities and schools (Broadley, Sharplin, & Ledger, 2013). Finally, some universities (such as Monash University, and the University of Tasmania) were involved in multiple distinct partnerships (see Appendix A).

Types of school-university partnerships

The types of school-university partnerships described in these sources were grouped into the following broad categories based on those discussed by Zeichner (2010): mediated instruction, extended placements in selected school settings, hybrid teacher educators, bringing school staff into the university setting, and community knowledge. It is worth noting that these categories are not distinct, with some partnerships falling into more than one category.

Mediated instruction

Mediated instruction involves placing some or all of a university subject within the school setting (Zeichner, 2010). Importantly, “the site-based context is not designed to simply deliver university classes on a school site. It is about a genuine collaboration to improve practice while better understanding teaching-learning theory” (Neal & Eckersley, 2014, p. 45) and strategically connecting theory with practice. This was the largest category, with 24 partnerships incorporating mediated instruction. Burrige, Hooley, and Neal (2016) reported on a partnership typical of this category, with PSTs placed in schools two days per week to work in classrooms and attend site-based tutorials. These tutorials were “flexible and responded to the rhythm of the schools and to the PSTs’ experiences and learning needs” (p. 163) to connect the academic content to the school experience. This allowed PSTs to capitalise on the unique position they were in and immediately connect theory with practice (Anderson & Scamporlino, 2013; McGraw, 2014; White & Murray, 2016).

Extended placements in selected school settings

Partnerships within this category (n=18) involved PSTs spending significant periods of time in selected partner schools. As discussed above, these arrangements demonstrated a clear and conscious connection between school and university that made it distinct from typical Professional Experience placements. While this form of third space partnership is not described by Zeichner (2010), it was a clear category within the data.

Such partnerships include the community/cohort approach described by Forgasz (2016) where TEs and ISTs would operate as a “community of mentors... [to] collectively mentor a cohort of pre-service teachers within a single school site” (p. 103). Another example of a partnership within this category is the School-Community Integrated Learning pathway

reported by Hudson and Hudson (2013) and Hudson, Hudson, and Adie (2015), where PSTs attended a local school for a full school year while they completed their final year of studies.

Other types of partnerships

A collection of other types of third space partnerships described by Zeichner (2010) were present in the dataset. These partnerships involved hybrid teacher educators (n=8), incorporated community knowledge within the ITE program (n=4), and invited school staff to contribute to ITE within the university setting (n=3).

Hybrid teacher educators are individuals who are on staff both at the school and at the university, and were involved in eight of the analysed partnerships. This unique position enabled these individuals to “act as intermediaries between the university and school” (McLean Davies et al., 2015, p. 521), providing support to both PSTs and ISTs (Allen & Turner, 2012; McDonough, 2014; van Gelderen, 2017).

Four partnerships incorporated community knowledge into the ITE program, meaning that they “strategically [utilised] the expertise that exists in the broader community to educate prospective teachers about how to be successful teachers in their communities” (Zeichner, 2010, p. 95). The partnerships described by Carter (2012) and Winslade (2016) achieve this through rural placement programs where PSTs “live in the village where [the] schools were located, thus immersing themselves in the day-to-day cultural aspects of the community” (Winslade, 2016, p. 7). Naidoo (2012) and Ryan, Butler, Kostogriz, and Nailer (2016) describe partnerships that incorporate service learning within the community, which again grants PSTs the opportunity to “know about their school community before undergoing formal teaching experience at the schools” (Ryan et al., 2016, p. 188).

Finally, in three of the partnerships, school staff attended the university campus to contribute to the ITE program in two different ways. Teachers were integrated into university

classes and gave lectures (Ryan et al., 2016; Ward & Hart, 2013), or were invited alongside parents as visiting guests to provide specific information about the topic of gifted students (Watters, Hudson, & Hudson, 2013).

Benefits

All 59 sources illuminated the benefits associated with school-university partnerships. Some of these were mutually beneficial to both the school and the university, such as the development of a shared community of practice or taking advantage of the new opportunities a partnership offers. Other benefits more specifically targeted PSTs and TEs through the provision of an authentic learning experience that prepares PSTs for the realities of the teaching profession. Additional benefits existed for the school, through professional learning opportunities for ISTs, and the provision of high quality programs for school students.

Mutual benefits

School-university partnerships were recognised to have added value to both the schools and universities involved in a number of ways. A sense of community was established between stakeholders, leading to a shared understanding of their goals. Additionally, being involved in the partnership gave rise to new opportunities that had not previously been possible.

More than two thirds of the sources (n=40) noted that the partnership had established a sense of community between and amongst PSTs, ISTs, and TEs. In some cases, such as Forgasz (2016), a community approach where ISTs and TEs worked together to mentor a group of PSTs was pursued in an effort to reduce workloads and improve PST's experience. Regardless of whether developing a community was a key goal of the partnership, the collaborative tasks and long-term relationships involved often resulted in a community. Situations where PSTs and ISTs were learning alongside one another (Bentley-Williams, Grima-Farrell, Long, & Laws, 2017; Lang, Neal, Karvouni, & Chandler, 2015), where ISTs

and TEs held complementary roles (Cavanagh & Garvey, 2012; Elsdon-Clifton & Jordan, 2016), and where the expertise of PSTs was valued (Elsden-Clifton & Jordan, 2015; Kertesz & Downing, 2016) contributed to this sense of community with unique relationships between learners.

Across a range of partnerships, participants indicated that they were comfortable with, and encouraged to, approach PSTs, ISTs and TEs for information and professional advice. Pre-service teachers in Neal and Eckersley (2014) commented on how they could discuss a topic with both their lecturers and teachers and thereby “get four or five opinions literally within the space of ten minutes” (p. 41). Similarly, PSTs in Grima-Farrell’s (2015) study reported that “We could... access feedback from both school and uni staff while it was still fresh and relevant” (p. 261). Miller, Haynes, and Pennington (2015) reported that the partnership encouraged ISTs to “consistently look at new and engaging pedagogies, as well as providing the stimulus to question traditional methods” (p. 63) of teaching. Importantly, they found that the community approach has facilitated the kind of collaboration between ISTs and TEs that “is essential for high quality teacher education” (p. 145).

As a result of the community approach and rich relationships the partnerships facilitated, those involved had a shared understanding and vision for the experience (Allen & Turner, 2012; McLean Davies et al., 2017). As Watters, Hudson, and Hudson (2013) acknowledge, the stakeholders in the partnership had a common goal of “achieving opportunities for both staff and pre-service students to benefit” (p. 42) and was “grounded in a mutual interest” (p. 42). Allen, Howells, and Radford (2013) reported on the evolving nature of this shared understanding over a period of three years through explicit communication strategies. The metalanguage developed through the partnership detailed in McLean Davies et al. (2013) allowed ISTs and TEs to have a “common lens for

systematically supporting” (p. 103) PSTs as well as providing a “framework for professional development programs” (p. 98) for ISTs.

Through their involvement in these partnerships, schools and universities were able to partake in new opportunities that had not previously been possible. These included being a part of a class from the beginning of the school year (Allen, Howells, & Radford, 2013; Hudson, Hudson, & Adie, 2015), peer support and learning opportunities (Cavanagh & Garvey, 2012; Edwards-Groves, 2016), supported rural placements (Carter, 2012; van Gelderen, 2017), and explicitly learning from and with students, rather than about them (Cahill et al., 2016). The partnerships gave PSTs access to elements of school life and teacher development that are not ordinarily available during their Professional Experience placements.

Importantly, from the perspective of the third space, the partnerships addressed existing binaries such as teacher vs. student and school vs. university knowledge to share responsibility for learning and integrate theory with practice (Cahill, 2012; Elsdon-Clifton & Jordan, 2016). As Forgasz (2016) commented, “the in-between-ness of that third space enabled the pre-service teachers to inhabit simultaneously their student and teacher identities” (p. 110). Arnold, Edwards, Hooley, and Williams (2012) summarised it succinctly by stating that the activities that can take place in these partnerships “are usually not characteristic of pre-service teacher education, or indeed the teaching profession” (p. 76).

Benefits for universities

In addition to the mutual benefits for all stakeholders in the partnership, there were benefits specifically for those associated with the university, and those associated with the school. For the university, the main benefit of being involved in a school-university partnership was the high quality ITE program it enabled them to provide. Through these partnerships, universities

could offer PSTs a program where theory and practice are meaningfully connected, and where PSTs are adequately prepared for the teaching profession.

Four-fifths of the sources (n=48) mentioned integrating theory with practice and providing authentic contexts for PST learning as a benefit of engaging in school-university partnerships. This was achieved through assessment tasks that were linked to classroom experiences (D. Lynch & Smith, 2012; Jones, 2017; Pressick-Kilborn & Prescott, 2017), focused observations (Burrige, Hooley, & Neal, 2016; McLean Davies et al., 2017; Reid, 2014), and reflection activities (Cavanagh & Garvey, 2012; Edwards-Groves & Hoare, 2012; McGraw, 2014). By connecting learning to the authentic context of the school setting, school-university partnerships provided “first-hand experience” (Jones et al., 2016, p. 112) that “made learning more relevant to PSTs” (Elsden-Clifton & Jordan, 2015, p. 6) and “facilitated and expedited” (Watters, Hudson, & Hudson, 2013, p. 42) changes in PST beliefs regarding the teaching profession.

These genuine interactions with schools, ISTs and students, and the connections between theory and practice they facilitated, developed PSTs’ skills, understanding and beliefs about the teaching profession (Anderson & Scamporlino, 2013; Dinham, 2013; Oerlemans, 2017). A teacher educator in Burrige, Hooley & Neal’s (2016) study noted that, because they participated in a range of school activities over the course of a full school year, the PSTs “really have some insight into how schools operate... They have a reasonable idea of what a school is about and what’s expected of them as teachers” (p. 166). In other partnerships, PSTs were encouraged to consider their professional learning needs into the future, preparing them for the life-long learning required of the teaching profession (Arnold et al., 2012; Jervis-Tracey & Finger, 2016). Participating in these partnerships also provided networking opportunities for PSTs, some of whom were able to gain employment in schools as a result of the relationships they had formed (Neal & Eckersley, 2014; Ryan et al., 2016).

Benefits for schools

The most frequently mentioned benefits for the schools were the professional learning opportunities that ISTs could engage in, and the enhanced school programs and contribution to student learning that the partnerships afforded.

In-service teachers benefitted from a range of professional learning experiences through the partnerships in a range of settings. This frequently involved informal reflections by ISTs on their own teaching and that of PSTs (Kenny et al., 2014; Miller, Haynes & Pennington, 2015). Ward and Hart (2013) reported that working with the PSTs “encouraged [ISTs] to look much more closely at their own teaching and reflect on the way that they structure their own lessons and engage students” (p. 130). There were also more formal professional learning sessions where ISTs learned alongside PSTs (such as Hudson & Hudson, 2013), or collaboratively developed ITE programs with TEs (such as Elsdon-Clifton & Jordan, 2016) or school programs with PSTs (such as Arnold et al., 2012).

By partnering with universities, schools had the opportunity to provide high quality programs for their students. These programs were evidence-based and led to transformed school practices (Arnold, Edwards, Hooley, & Williams, 2013; Jones et al., 2016; McLean Davies et al., 2013). The connection with the university in the development and implementation of these programs was reported to “give a certain presence, authority and accountability to what is being offered in the school curriculum” (Miller, Haynes, & Pennington, 2015, p. 64). Through the partnerships, schools were able to offer unique opportunities such as a Science-based Design and Make day (Pressick-Kilborn & Prescott, 2017), literacy and numeracy tutoring for students from refugee backgrounds (Naidoo, 2012), and a university-based workshop where visiting students were considered experts (Cahill, 2017; Cahill & Coffey, 2013). T. Lynch (2016) reported on practical workshops for PSTs that “enabled the provision of quality [swimming] lessons over three weeks at no cost for local

primary school children... who otherwise would not have received swimming lessons” (p. 7).

In this way, school students were also the beneficiaries of the school-university partnerships (McLean Davies et al., 2017; Neal & Eckersley, 2014).

Challenges

The challenges and barriers faced when implementing school-university partnerships were detailed by 37 sources. The drastic differences between involvement in a school-university partnership with regards to roles, expectations, and communication, as compared to previous school-university interactions, caused some difficulties for stakeholders in these partnerships. The logistics of sharing space within the partnership, and the time and resources that are required, also strained some partnerships. Finally, a few partnerships struggled to meet their intended goals of integrating theory and practice, and operating as equals between school and university.

Different to the norm

The partnerships that schools and universities engaged in represented a significant change from their previous interactions (Edwards-Groves & Hoare, 2012; Kertesz & Downing, 2016; Lang et al., 2015). These necessitated a change in mindset from all involved, “away from the perceptions of a traditional practicum with set university requirements to a co-teacher approach with interns [PSTs] and mentors [ISTs] negotiating the commitments of the intern around the school context and the interns’ capacity” (Broadley, Sharplin, & Ledger, 2013, p. 102). Given that working in the third space afforded a blending of expertise and knowledge, the roles and expectations of ISTs, PSTs and TEs tended to shift towards collaboration between and among participants (Forgasz, 2016; Jervis-Tracey & Finger, 2016).

The role of ISTs across the partnerships reported primarily changed from that of a single expert training a PST to one of multiple mentors in a community of learners working

together to develop quality teachers. For some individuals, such as one teacher highlighted by Forgasz (2016), this change “created a confusing shift in role perception” (p. 107) with the author noting: “No less significant than the shift in mindset is the sense of how challenging it is for mentors to make this leap” (p. 107). PSTs were expected to engage in complex activities within the partnerships, such as learning to interact with students while also participating in teacher conversations and simultaneously developing professional discourse to describe and reflect upon their experiences (Edwards-Groves, 2014). These activities frequently required a deeper level of engagement and discussion from PSTs than they may have been expecting from a traditional school placement (Jervis-Tracey & Finger, 2016; Pressick-Kilborn & Prescott, 2017). For TEs, particularly those operating in hybrid roles, an unfamiliar role and hybrid identity “caused me to experience shifting, and at times, conflicting emotions about who I was loyal to, who I would advocate for, and who I was obliged to act with or for” (McDonough, 2014, p. 215).

Communication issues and a lack of shared understandings exacerbated the impact of these unfamiliar roles and expectations of participants in school-university partnerships (Oerlemans, 2017). Ryan et al. (2016) noted that communication breakdown at times interrupted relationships and participant satisfaction with the partnership, with “the biggest challenge with communication [occurring] in relation to the Community Engagement experience” (p. 186) given its departure from the standard placement format. Mediating these new circumstances required participants to engage in constant communication across various systems, to be willing to have difficult conversations with one another, and to see the situation from another person’s perspective (McDonough, 2014; Neal & Eckersley, 2014; Ryan et al., 2016).

Logistics

Fourteen of the sources explicitly noted that difficulties in acquiring the resources (e.g. time and funds) required for the school-university partnership presented a challenge to its implementation and development. Significant investments of time were required from all stakeholders to build the “relationships based on trust, mutuality and reciprocity” (Jones et al., 2016, p. 119) that lie at the heart of third space school-university partnerships. For the Western Australian Combined Universities Training School (WACUTS) project reported in Broadley, Sharplin, and Ledger (2013), a lack of time afforded to the planning phase of the partnership forced certain decisions that “compromised some aspects of intended best practice” (p. 102). While funding was granted in some cases to support partnership activities (Lang et al., 2015; McLean Davies et al., 2013), multiple partnerships found that this resource was either not available or insecure (Allen, Howells, & Radford, 2013; Ryan et al., 2016). This caused difficulties for the provision of certain activities and personnel, and cast a shadow on the future of the partnerships (Grima-Farrell, 2015; T. Lynch, 2013a; Ryan et al., 2016).

Pre-service teachers were noted as being particularly affected by the logistics of being involved in the partnerships. In many cases, PSTs’ involvement added to their workload, as “despite being required to spend significantly longer time in schools and to engage in other program activities, [PSTs involved in the partnership] still study the same amount of courses and complete the same number of assessment tasks as others studying [the same degree]” (Allen, Howells, & Radford, 2013, p. 108). PSTs needed to “juggle and balance the commitments of both school and university” (Broadley, Sharplin, & Ledger, 2013, p. 103), and some were forced to give up part-time work, leading to financial stress (Lang et al., 2015). Additional concerns for PSTs related to the structure of the partnership activities,

particularly assessable tasks that were completed in pairs (Elsden-Clifton, Jordan, & Carr, 2016; Moran, 2014).

The logistics of sustaining a partnership, and growing it to a larger scale, were discussed in fourteen of the sources. T. Lynch (2013b) warned that the greatest threat to the sustainability of partnerships resided in the systems employed by the institutions involved, which were largely uncontrollable by the partnership participants. Others identified partnerships' "vulnerability to changes in personnel" (Ryan et al., 2016, p. 187) as a potentially catastrophic flaw (Miller, Haynes, & Pennington, 2015). The aforementioned insecurity of funding may also have a significant impact on the sustainability and scalability of various school-university partnerships (T. Lynch, 2016; Oerlemans, 2017; Ryan et al., 2016).

Not meeting intended goals

In eleven sources, participants expressed their beliefs that the partnership did not adequately integrate theory and practice as had been intended. This was variously due to restricted opportunities for debriefing following school-based experiences (BurrIDGE, Hooley, & Neal, 2016; Moran, 2014), assessment tasks that were not closely aligned with school-based experiences or were not academically rigorous (Allen, Ambrosetti, & Turner, 2013; Allen, Howells, & Radford, 2013), or the inclusion of practical experiences that did not clearly demonstrate the theory in focus (Kitchen & Petrarca, 2016; Moran, 2014).

Three sources indicated that a truly equal partnership between school and university was difficult to achieve. Allen, Howells, and Radford (2013) and Oerlemans (2017) acknowledged that teacher expertise and knowledge was, at times, devalued and marginalised as "the assumption prevailed that university ideas and theories would take precedence over those of the school" (Oerlemans, 2017, p. 135). Issues of power, decision making, and

financial contribution could also inhibit a sense of equality within school-university partnerships (Oerlemans, 2017; Ryan et al., 2016).

Elements of a successful school-university partnership

Just under three quarters of the sources (n=42) identified the elements of successful partnerships based on their experiences. For some, such as Knight, Turner, and Dekkers (2013) and Redman (2014), these elements emerged from a recognition of why their partnership was successful. For others, such as Broadley, Sharplin, and Ledger (2013) and T. Lynch (2013b), the elements arose from an acknowledgement of the challenges they faced and the key issues these revealed. The principles identified here represent the main elements of successful partnerships as discussed in 42 of the 59 sources. They fall into three broad categories: shared understandings regarding the partnership, relationships between stakeholders, and the provision of resources within the partnership.

Shared understandings

Ensuring that a common vision for the partnership exists between TEs, ISTs and PSTs was determined to be critically important to the success of a school-university partnership by 26 sources (Allen & Turner, 2012; Hudson, Hudson, & Adie, 2015; Jervis-Tracey & Finger, 2016; Knight, Turner, & Dekkers, 2013; McLean Davies et al., 2017). This may be achieved by designing the main features of the partnership in collaboration, maintaining consistent communication, and employing appropriate technology tools (Allen, Ambrosetti, & Turner, 2013; Cavanagh & Garvey, 2012; Jordan & Elsdon-Clifton, 2015). A shared understanding regarding the equality of participants is particularly pertinent when working in the third space. According to these sources, this involves developing complementary roles between school and university personnel (Jones et al., 2016; White & Murray, 2016) as well as collaboration between PSTs and ISTs (Kenny, 2012; Pressick-Kilborn & Prescott, 2017).

Closely tied to the requirement for shared understandings is the need for clear communication between partnership participants. Jordan and Elsdon-Clifton (2015) noted that “having this shared expectation and open communication between the first space of university and the second space of schools was an important aspect of a third space [partnership]” (pp. 257-258). Such communication was found to form stronger bonds between participants (Grima-Farrell, 2015; Neal & Eckersley, 2014; Redman, 2014), make expectations and roles clear (Cavanagh & Garvey, 2012; Kenny, 2012), and address issues that arose in the course of partnership activities (Hudson, Hudson, & Adie, 2015; Jones et al., 2016; Oerlemans, 2017).

Relationships

Relationships that develop over an extended period of time between school and university personnel were identified as crucial in 30 sources. The relationships between PSTs and their peers, ISTs, and TEs were highly valued by participants and contributed to their learning (Jordan & Elsdon-Clifton, 2015). However, more significant were the relationships that “evolved over time” (Jones et al., 2016, p. 113) between staff at the school and at the university (Kertesz & Downing, 2016; McLean Davies et al., 2017; Neal & Eckersley, 2014; Watters, Hudson, & Hudson, 2013). These were seen to be pivotal to the success of the partnership, and require “time, understanding, effort, personable attributes and belief” (T. Lynch, 2013b, p. 263) for their development.

Certain key personnel were understood to be the main brokers of these relationships – namely, the university co-ordinator and the in-school co-ordinator. These people were “considered the essential link between school and university and pivotal to the success of the partnership” (Broadley, Sharplin, & Ledger, 2013, p. 102) for a number of partnerships (Allen, Ambrosetti, & Turner, 2013; Knight, Turner, & Dekkers, 2013; Miller, Haynes, &

Pennington, 2015; Oerlemans, 2017). Their positions in the midst of the third space provided clarity and support to other participants and promoted inter-sector communication (Allen, Ambrosetti, & Turner, 2013; Grima-Farrell, 2015). The relationship that existed between the two people in these key roles was declared by Knight, Turner, and Dekkers (2013) to be “a conduit between the university program and the activity of the teaching school” (p. 73) and was therefore the most important relationship within the partnership.

Resources

The importance of making resources available to support the partnership was noted by 17 sources. It is clear that significant investments of time are required from all stakeholders, with Broadley, Sharplin, and Ledger (2013) advocating a recognition of the “amount and intensity of time that is required to develop and maintain effective partnerships” (p. 103). Funding, whether provided by the school, the university, or an external body, can be used to release personnel from their regular duties or pay for professional development qualifications that support the work taking place within the partnership (Lang et al., 2015; T. Lynch, 2013b; McLean Davies et al., 2013). Using available resources judiciously also requires consideration of the school infrastructure according to Cavanagh and Garvey (2012) and Neal and Eckersley (2014), who encourage considering the capacity of the school and spreading large cohorts of PSTs over multiple classrooms or schools if appropriate. The provision and use of such resources is indicative of the “resilient commitment” (Miller, Haynes, & Pennington, 2015, p. 68) of those involved, and denotes a sustainable partnership (Allen, Ambrosetti, & Turner, 2013; Jones et al., 2016; Naidoo, 2012).

Discussion

This systematic literature review has revealed how school-university partnerships are implemented within Australia (according to those published 2012-2017). The publications

included in the dataset have described the context of these partnerships, as well as the benefits, challenges, and elements of success associated with the partnerships. The findings of this review mirror the broader literature base, and provide a balanced view through their collective nature (Feak & Swales, 2009; Jesson, Matheson, & Lacey, 2011). However, it is evident that further research is needed within this field, to better understand the motivations of those involved and explore the sustainability of these school-university partnerships (Hallinger, 2013).

Given the ongoing interest of Australian policymakers and researchers in school-university partnerships, understanding how they are currently being implemented within Australia is important (AITSL, 2015; AGDET, 2015; AITSL, 2018b; Hartsuyker et al., 2007; NSW DEC, 2013; TEMAG 2014). The AITSL (2018a) report that evaluated the execution of the TEMAG recommendations regarding school-university partnerships is evidence of this governmental priority. The report acknowledges that the foundations have been set, particularly with regards to school-university partnerships for the purpose of enhancing Professional Experience placements, as “progress is being made with partnership agreements and opening communication channels” (p. 4). This too is clear through the systematic literature review, with 40 partnerships around Australia identified. The AITSL (2018a) report also encourages further work in this space, including capacity building, improved communication, and role clarification. It advocates “collective action” (p. 7), with stakeholders working together for subsequent implementation. By illuminating the ways that school-university partnerships are currently implemented in Australia, and reported on in the literature, this review provides a solid background for researchers and policymakers engaging in this future work.

The majority of the partnerships described by the final dataset can be grouped by type into two main categories: mediated instruction (24 partnerships) and extended placements in

selected schools (18 partnerships). This shows that the ways schools and universities are collaborating is primarily site-based, as has been recognised internationally by Burns, Jacobs, Baker, and Donahue (2016), and Snow, Flynn, Whisenand, and Mohr (2016). The finding that the partnerships are primarily associated with mediated instruction deviates slightly from the governmental recommendations that focus on implementing school-university partnerships to enhance Professional Experience placements (AITSL, 2015; TEMAG, 2014). This suggests that the current understanding of school-university partnerships from a political standpoint may need to be broadened to match what is being enacted by schools and universities (AITSL, 2018a).

Elements of successful partnerships were identified by 42 sources in the dataset. The need for a common vision for the partnership and clear communication between stakeholders was recognised by various sources in the dataset (Cavanagh & Garvey, 2012; D. Lynch & Smith, 2012; McDonough, 2014) and echoes the assertions of Burns et al. (2016) and Baum and Korth (2013) in the wider literature. The importance of genuine relationships and the pivotal roles that certain personnel play within the partnership is similarly evident in both the dataset (Allen & Turner, 2012; Jones et al., 2016; Miller, Haynes, & Pennington, 2015) and other research literature (Dresden, Blankenship, Capuozzo, Nealy, & Tavernier, 2016; Grudnoff, Haigh & Mackisack, 2017; Rosenberg et al., 2009). Finally, Kruger et al. (2009) acknowledged that “institutional resources are evident in partnerships which endure over time” (p. 10), as indicated by this review (Lang et al., 2015; T. Lynch, 2013b). This demonstrates that the main elements of successful school-university partnerships identified through this review – shared understandings, relationships, and resources – are aligned with the broader literature base.

All 59 sources celebrated the benefits associated with the partnership in question. These included mutual benefits (development of an inter-sector community; articulation of

shared goals; provision of new opportunities not previously possible), as well as those directed at the university (ITE programs that connect theory and practice) and the school (professional learning opportunities for ISTs; high quality programs for students) more specifically. Each of these benefits has similarly been recognised in the broader literature base (Burns, Yendol-Hoppey, & Jacobs, 2015; Kruger et al., 2009; Maheady, Magiera, & Simmons, 2016; Parsons et al., 2016).

Fewer sources (n=37) discussed the challenges that were faced in implementing and sustaining these school-university partnerships. The challenges that were explored included adjusting to a partnership that required different approaches and interactions to what had been the norm, the logistics associated with the implementation of the partnership, and the complex task of achieving the intended goals. Importantly, while the challenges presented did affect the partnerships, the sources did not report that a partnership failed as a result of dealing with these difficulties – with two exceptions. T. Lynch (2016) identified a lack of funds as part of what “eventually led to the demise of the [partnership] program” (p. 14), while Oerlemans (2017) declared that the partnership program “was very successful and only stopped when funding was discontinued” (p. 142). Other researchers have similarly described the impact of a lack of funding on partnerships (Lewis & Walser, 2016; Rosenberg et al., 2009).

Even so, with regards to the majority of the barriers that emerge within a partnership, it is “important to acknowledge that tensions and challenges do arise when creating third spaces. However, it is also important to acknowledge in moving forward, these tensions may be an important part of the learning process for PSTs, teacher mentors and teacher educators” (Elsden-Clifton & Jordan, 2015, p. 7). Grima-Farrell (2015) similarly recognised that “although balancing school and university expectations...presented challenges, the strengths of the project outweighed these challenges for participants” (p. 265). By considering the

reported challenges across the dataset, it is clear that the partnerships were strengthened by stakeholders recognising potential barriers and working to “address the issues together” (Jones et al., 2016, p. 116).

Limitations

The decision to include only peer-reviewed publications places some limitations on this review’s findings, as publication bias may have skewed the broad understanding of school-university partnerships in Australia it has sought to generate (Jesson, Matheson, & Lacey, 2011; Petticrew & Roberts, 2006). Future investigations may include reports (Carr, 2015; Rowley, Weldon, Kleinhenz, & Ingvarson, 2013), theses (Carabott, 2014; Nguyen, 2015), and conference papers (Eady & Green, 2016; Broadley & Ledger, 2012) that have not been peer-reviewed to provide a more comprehensive picture.

Additionally, the generalisability of the findings may be impeded by the focus of this review on Australian-based school-university partnerships. It is unclear whether similar results would be found in other contexts, such as in the United States where system-wide approaches to school-university partnerships have been implemented for more than three decades (Holmes Group, 1986; NCATE, 2001; Wilson, Clark, & Heckman, 1989).

Opportunities for complementary systematic literature reviews conducted in these contexts (or from a global standpoint) remain.

Future research opportunities

The commonalities between the sources – that is, their discussion of the benefits, challenges, and elements of successful school-university partnerships – is indicative of the relative infancy of this field of knowledge. The research currently published, as evidenced by the analysed dataset, seeks to prove that school-university partnerships can be successful, and to depict how they can be implemented and the benefits associated with them. While this is

appropriate initially, there is now an opportunity to move beyond these surface-level studies and explore the deeper aspects of school-university partnerships (Mason, 2013; Zeichner, Payne, & Brayko, 2015).

For example, the motivating factors that drive stakeholders' involvement in these partnerships has been touched on by some within this dataset (Lang et al., 2015; Moran, 2014) and beyond it (Hynds & McDonald, 2010; Mason, 2013), but has not yet been explicitly explored. Similarly, PST's perceptions of what supports their own success within and beyond their involvement in a school-university partnership would be a valuable area of future research. Investigating the motivations of key personnel would extend our understanding of school-university partnerships beyond their structure and the benefits of their implementation.

Given the concerns of sustainability mentioned by some of the sources in this review (T. Lynch, 2013b, 2016; Miller, Haynes, & Pennington, 2015; Ryan et al., 2016; Watters, Hudson, & Hudson, 2013), deeper knowledge of how and why partnerships may be successful could enhance existing partnerships and inform the development of future partnerships. Le Cornu's (2015) allegation that increasing complexities have resulted in "a breaking down of school-university partnerships, at the very time that there is a renewed interest in how schools and universities will work together to support teacher education" (p. 5), gives further credence to this future work (AITSL, 2018a).

Conclusion

In Australia, school-university partnerships have been established to meaningfully connect theory and practice for PSTs by utilising and connecting the expertise of ISTs and TEs. This systematic literature review has identified forty partnerships around Australia documented in the literature (2012-2017), with most of these providing site-based experiences for PSTs

through mediated instruction (n=24) or extended placements within partner schools (n=18). Importantly, it provided a balanced view by making clear the many benefits of partnerships while also acknowledging the challenges that may be encountered in their implementation. It has also presented a collective understanding of the key elements of successful partnerships.

However, this review has highlighted that the underlying factors responsible for the success and sustainability of school-university partnerships have not been explored in depth. These factors include what motivates key personnel to be involved, the impact of institutional directives on the partnership formation and implementation in the long term, and the protective elements that can allow a partnership to continue even when key personnel or funding is no longer available. The range of benefits associated with these partnerships, as well as the directives issued by government bodies regarding their use in ITE, gives impetus for future research.

Continuing to deepen our understanding in this way can enhance the use of school-university partnerships within ITE to bridge the gap between theory and practice and prepare PSTs for the realities of the teaching profession.

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Appendix A

The sources in the final dataset (n=59) are listed below, grouped by partnership and ordered by host university and state. Note that some sources, such as Jones et al. (2016), Kenny et al. (2014) and Watters, Hudson, and Hudson (2013), appear more than once as they each described more than one school-university partnership.

University	Description of the school-university partnership	Source(s) reporting the partnership
School-university partnerships based in Victoria		
Australian Catholic University	PSTs planned a Science unit that they co-taught with peers in primary classrooms over a five week period. Part of the Science Teacher Education Partnerships with Schools (STEPS) project.	Jones (2017); Jones et al. (2016); Kenny et al. (2014)
	PSTs visit three different schools for 3 hours each, participating in 'School Innovation Rounds' where they observe and discuss an innovation that the school has implemented.	Moran (2014)
	As a joint venture between the university, Catholic school principal, and local schools, selected PSTs are immersed in Catholic schools throughout their degree. Certain aspects of the degree are situated within the school site.	Ryan et al. (2016)
Deakin University	PSTs spend 3 hours/week participating in school-based workshops incorporating a tutorial, teaching time, and reflective discussion. In pairs, PSTs developed units of work that they taught to small groups of students over 6-8 lessons. Part of the Science Teacher Education Partnerships with Schools (STEPS) project.	Jones et al. (2016); Kenny et al. (2014)
Federation University	A hybrid teacher educator created third space for mentoring and supporting PSTs, connecting theory and practice. PSTs and ISTs collaborate on a curriculum design project, and participate in weekly group mentoring sessions.	McDonough (2014)

University	Description of the school-university partnership	Source(s) reporting the partnership
Federation University	University subjects are conducted within knowledge communities, and based in local schools. PSTs engage with teachers and school leaders in classroom intensives, and study in shared spaces within the school grounds.	McGraw (2014)
La Trobe University	Teaching School Model: PSTs are placed in pairs in one of three schools in regional and metropolitan areas. PSTs spend 2 days/week in the school for a period of one semester to one year. An interview process is followed to select PSTs for the program.	Lang et al. (2015)
Monash University	A community/cohort approach to mentoring was implemented by university and school staff, with a group of mentors responsible for PSTs completing a structure Professional Experience placement. ISTs held whole-group information sessions based on their expertise.	Forgasz (2016)
	PSTs taught PDHPE lessons in swimming and water safety to students from selected local schools in low socio-economic areas. Time within a university subject was devoted to planning lessons, and reflecting on experiences.	T. Lynch (2013a, 2013b, 2016)
	PSTs taught PDHPE lessons in sports skills to students from selected local schools in low socio-economic areas. The lesson units were developed within a university subject.	T. Lynch (2013a, 2016)
	The university's Early Years Literacy curriculum was matched to the daily literacy routines of a local school so that PSTs could learn by working alongside teachers and students. PSTs also participated in research-based workshops held on the school site, taught by a university academic.	White and Murray (2016)
Royal Melbourne Institute of Technology	Hybrid teacher educators deliver university subjects to PSTs within several school sites, within a Distributed Open Collaborative Course approach. Course content was developed by ISTs and teacher educators, and uploaded to a Google Site. Hybrid teacher educators participated in professional learning prior to program commencement.	Elsden-Clifton and Jordan (2015, 2016)
	A first year subject is delivered in a blended approach, with content taught at university, online, and in schools. PSTs participate in a 2 week block in partner schools, and during this time, hybrid teacher educators facilitate 5 tutorials.	Elsden-Clifton, Jordan, and Carr (2016); Jordan and Elsdon-Clifton (2015)

University	Description of the school-university partnership	Source(s) reporting the partnership
Royal Melbourne Institute of Technology	Groups of PSTs design a science unit based on the content needs of a partner school. At the end of the semester, PSTs teach their lessons to a primary class. Part of the Science Teacher Education Partnerships with Schools (STEPS) project.	Jones et al. (2016); Kenny et al. (2014)
University of Melbourne	PSTs spend 3 days/week at university and 2 days/week in partner schools. While in schools, they are supported by their peers, a teaching fellow (hybrid teacher educator) and clinical specialist (university academic). Fortnightly seminars are held at the schools for PSTs and ISTs. PSTs complete the Clinical Praxis Exam as a holistic assessment of their developing teacher practice.	Anderson and Scamporlino (2013); Dinham (2013); McLean Davies et al. (2013); McLean Davies et al. (2017); McLean Davies et al. (2015); Redman (2014)
	Learning Partnerships program: School students visit the university to participate in reciprocal learning workshops with PSTs about student wellbeing and communication. The intention is to learn with and from, rather than just about, young people.	Cahill (2012, 2017); Cahill and Coffey (2013); Cahill et al. (2016)
	PSTs work with ISTs to develop and implement a science unit, spending 2 hours/week in schools and 4 hours/week in university-based lectures and tutorials. PSTs were supported by hybrid teacher educators in schools. Part of the Science Teacher Education Partnerships with Schools (STEPS) project.	Jones et al. (2016); Kenny et al. (2014)
Victoria University	Praxis Inquiry Protocol: PSTs spend 2 days/week in schools teaching, implementing Applied Curriculum Projects, and participating in tutorials held on-site and led by teacher educators.	Arnold et al. (2012, 2013); Burridge, Hooley, and Neal (2016); Neal and Eckersley (2014)
School-university partnerships based in New South Wales		
Australian Catholic University	The Special Education Immersion Project: Final year PSTs are paid to support classroom teachers during the literacy and numeracy session (2 hours/day, 4 days/week) over a full school year in inclusive mainstream settings.	Bentley-Williams et al. (2017); Grima-Farrell (2015)
Charles Sturt University	Talking to learn project: PSTs are placed in pairs in classrooms for 2 hours/week to focus on the role of talk in the classroom. ISTs were provided with professional learning by the university prior to PSTs visits.	Edwards-Groves (2014, 2016); Edwards-Groves and Hoare (2012)
	Study of Teaching program: PSTs and ISTs participate in a weekly 2 hour workshop focused on teaching practices, with opportunities for skill development and the application of theory learned in other subjects.	Reid (2014)

University	Description of the school-university partnership	Source(s) reporting the partnership
Charles Sturt University	PSTs developed and facilitated sports-based PDHPE programs in partner schools. Professional learning was provided for PSTs by sports organisations.	Winslade (2016)
Macquarie University	A small group of PSTs visited a local school fortnightly for a year, observing and co-teaching problem solving lessons to a Year 8 class. The program was a collaboration between school and university staff, with a learning community was established between the PSTs and IST involved.	Cavanagh and Garvey (2012)
Southern Cross University	Partner schools and the university pool their resources and undertake joint program development, operational management and program review with equal voice. PSTs are hosted by the schools on a long term basis, with assessment tasks connected to classroom experiences.	D. Lynch and Smith (2012)
	The school and university share a site and facility as a Centre for Excellence in Teaching. ISTs lecture within the ITE program, and PSTs can shadow and be mentored by ISTs within the classroom setting.	Ward and Hart (2013)
University of New England	ISTs and teacher educators collaboratively designed a PDHPE program that provided remediation for identified students. PSTs worked in pairs to implement the program and progress the movement skills of a student over a period of 6 weeks.	Miller, Haynes, and Pennington (2015)
University of Newcastle	PSTs work with one school over the four years of their degree, with assessment tasks connected to the school experiences. Social justice is a focus both at the university and within the partner schools.	Kitchen and Petrarca (2016)
University of Technology Sydney	PSTs developed Science lesson content through university-based workshops. Lessons were delivered at a whole-school Design and Make Day, conceived of by ISTs and teacher educators but led and facilitated by PSTs.	Pressick-Kilborn and Prescott (2017)
University of Western Sydney	Refugee Action Support Program: PSTs spend 3 hours/week in schools for 12 weeks providing tutoring in literacy and numeracy to students from refugee backgrounds. Professional learning is provided for PSTs prior to program commencement.	Naidoo (2012)

University	Description of the school-university partnership	Source(s) reporting the partnership
School-university partnerships based in Queensland		
Central Queensland University	Teaching School Model: Based on the concept of a 'teaching hospital', staff from the school and university jointly developed the ITE program. PSTs spend 1 day/week in school, completing 'portal tasks' that connect theory with practice.	Allen, Ambrosetti, and Turner (2013); Allen and Turner (2012); Knight, Turner, and Dekkers (2013)
Griffith University	The Griffith Education Internship: A capstone experience for PSTs co-designed by school and university staff. PSTs work with a teacher in a local school to develop an Internship Action Plan that they implement over a six week co-teaching placement.	Jervis-Tracey and Finger (2016)
Queensland University of Technology	School-Community Integrated Learning Pathway: PSTs placed in local schools in low socio-economic areas for 1-3 days/week for a full school year.	Hudson and Hudson (2013); Hudson, Hudson, and Adie (2015)
	As part of an elective subject, PSTs study gifted education in university-based workshops, and then visit a local school in mid-semester to participate in a workshop, examine student work, interview students, and converse with parents. The program content was collaboratively developed by a teacher and teacher educator.	Watters, Hudson, and Hudson (2013)
	PSTs participate in a series of university-based workshops and lectures, and then spend 1 hour/week for 6 weeks teaching a gifted student in a local school within a cluster network. School staff gave direction for the program focus. At the conclusion of the program, PST and student work is showcased to parents and teachers.	Watters, Hudson, and Hudson (2013)
School-university partnerships based in Tasmania		
University of Tasmania	Partnership in Teaching Excellence (PiTE): Selected PSTs are placed in partner schools from low socio-economic areas for 1-2 days/week over a school year. The PSTs become involved in teaching, professional development, and other school activities. Funding from the Federal government provides for professional learning for ISTs and scholarships for PSTs.	Allen, Howells, and Radford (2013); Oerlemans (2017)
	PSTs collaborate with ISTs to develop and implement a 6 week Science unit within a classroom. Part of the Science Teacher Education Partnerships with Schools (STEPS) project.	Jones et al. (2016); Kenny (2012); Kenny et al. (2014)

University	Description of the school-university partnership	Source(s) reporting the partnership
University of Tasmania	PSTs within the Bachelor of Education (Applied Learning) degree are typically TAFE or VET teachers seeking further qualifications. For their Professional Experience, partner school needs are matched with PST experience. Negotiated attendance within the Professional Experience placement provides flexibility for PSTs and ISTs.	Kertesz and Downing (2016)
School-university partnerships based in Northern Territory		
Charles Darwin University	Indigenous PSTs remain in their rural communities, working 3 days/week in school as 'Assistant Teachers'. A teacher at the school is given 2 days/week release time to support the PSTs in their studies, and lecturers travel to the community to deliver content fortnightly.	van Gelderen (2017)
School-university partnerships based in South Australia		
University of South Australia	Metropolitan PSTs work with partner schools in one of three regional areas to complete their first Professional Experience. PSTs are immersed within the broader community in a 'community of practice' model.	Carter (2012)
School-university partnerships based in Western Australia		
Murdoch University, University of Western Australia, and Curtin University	Western Australia Combined University Training School (WACUTS): Three universities combined resources to provide quality PST placements in local schools. Selected PSTs spent 1-2 days/week from the beginning of the school year with highly effective teachers. Professional development was provided with and for ISTs, and an online platform connected all involved.	Broadley, Sharplin, and Ledger (2013)