A systematic quantitative literature review of pre-service teachers' sense of belonging during school-based experience

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Abstract

School-based experience—which features in many initial teacher education programs around the globe—is one of the most influential factors concerning pre-service teachers' professional development and learning. Furthermore, pre-service teachers' sense of belonging, which is context-specific and embedded in the social, cultural and professional conditions of the school-based experience, is a key aspect of this placement. Failure to resolve belonging tensions can have damaging consequences on pre-service teachers' development. In this review we set out to map the terrain by exploring the literature at the interface of pre-service teachers' sense of belonging and their school-based experience. Specifically, our aim was to explore what contemporary research reveals about pre-service teachers' sense of belonging during their school-based experience. We employed Systematic Quantitative Literature Review methodology to reveal 16 studies connected to the topic but just one study that focused specifically on pre-service teachers' sense of belonging during school-based experience. The review revealed the literature about pre-service teachers' sense of belonging during their school-based experience can be categorised under two broad concepts: the quality of the relationship that a pre-service teacher has with their supervising teacher; and, belonging to a teacher community. The key theme of belonging to a teacher community is intertwined with the features of quality relationships between the pre-service teacher and the supervising teacher. We conclude with some suggestions for future research and recommendations for initial teacher education.

KEYWORDS: SENSE OF BELONGING, PRE-SERVICE TEACHERS, CONNECTING, BELONGING TO A TEACHER COMMUNITY, RELATIONSHIPS ON PRACTICUM PLACEMENT

Introduction

To become a qualified teacher it is usual to engage in supervised teaching practice, commonly known as professional experience, in a school setting during initial teacher education (ITE). Indeed it is regarded to be a core feature of most teacher education programs around the world (Johnston, 2010) and is considered by some to be the most important aspect of the professional education of teachers (Le Cornu, 2015) with the potential to impact on the emergent sense of self as a teacher.

The Australian Institute of Teaching and School Leadership (AITSL) (2015) defines professional experience as:

> the component of an initial teacher education program in which pre-service teachers develop and demonstrate their skills in the classroom. Its purpose is to provide structured opportunities for pre-service teachers to consider and undertake in practice the work of teaching, to relate the practice to knowledge and understanding they are developing in their program, and to demonstrate a positive impact on student learning. (p. 2).

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However, each pre-service teacher undertaking professional experience will be immersed in a distinct school context with a culture and collegial relations that are unique to that individual. In addressing this variability of professional experiences Le Cornu's (2015) review of the literature revealed seven components that are essential for effective professional experiences: well-structured integrated ITE programs; well managed integrated ITE programs; well supported integrated ITE programs; high quality supervising teachers; high level commitment from school leadership; high quality school-university partnerships; and high quality systems based partnerships. Cementing these seven components together is the need for collegiate cultures that promote collaboration, trust, high morale and interpersonal familiarity (Le Cornu, 2015). It is in this space of pre-service teacher professional experience that an interest in sense of belonging is receiving growing attention and where a review of the literature has the potential to reveal more about this aspect of professional experience.

Subsequently, this Systematic Quantitative Literature Review (SQLR) focuses on research studies that have in some way explored pre-service teachers' sense of belonging on professional experience across a variety of schooling sectors and contexts. The review is framed within the practice-based education requirement inherent in many ITE programs across the globe, and the central role that these professional experiences play in immersing pre-service teachers into the life-worlds of practising teachers. Our guiding research question is: *What does contemporary research reveal about pre-service teachers' sense of belonging during their school-based experience?*

Sense of belonging

Studies with an interest in *belonging* and *sense of belonging* are of increasing interest and frequency since the turn of the century (Lahdesmaki et al., 2016) and are increasingly aligned with the concept of identity (Probyn, 1996) in a range of professions. Having a sense of *attachment* or *identification* underpins this connection, which points to its relevance for ITE and professional experience, where identity formation is typically a feature of that experience.

Yet, although belonging as a scholarly concept is receiving more attention, it is typically not clearly defined and there is a taken-for-grantedness about a shared understanding of the meaning (Lahdesmaki et al., 2016). This is true of the ITE literature with the predominant frameworks for discussing and framing belonging being offered by Lave and Wenger (1991) through the concept of *legitimate peripheral participation* and Wenger's (1998) *social concept of learning* which links to teacher professional identity.

Lave and Wenger's (1991) situated learning theory positions learning as part of social co-participation that focuses on the types of social interactions and contexts that enable learning to occur (Johnston, 2016; Laker, Laker & Lea, 2008; Passy, 2013). This theory is based on constructivist principles of learning; positing that learning does not happen in isolation but rather is an active and social process (Laker et al., 2008). Learning and actively participating in a practice-based learning environment can be framed as a process of *legitimate peripheral participation* (Lave & Wenger, 1991); where students contribute as "apprentices" (Johnston, 2016, p. 536), observed initially by their supervising teachers prior to taking a more active role in the classroom and the broader school community as they gain more confidence and more capacity to teach (Johnston, 2016). Becoming an active member of a teaching community and developing a teacher identity relating to this community are elements of legitimate peripheral participation (Lave & Wenger, 1991), staying on the periphery as a pre-service teacher while becoming a legitimate active member of the school (Timoštšuk & Ugaste, 2010).

To situate these two frameworks—legitimate peripheral participation, and the social concept of learning—within the context of this systematic quantitative literature review (SQLR), we were looking for a connection to sense of belonging and we found this within one of Wenger's (1998) intrinsic components of learning— "community, where learning as belonging: belonging to a social community in which our activities are recognised as valuable and competent" (p. 5). However, this element is intrinsically linked to the other three components of Wenger's social concept of learning and accordingly should not be explored in social isolation. The other three required components are explained by Timoštšuk & Ugaste (2010) as follows:

1.   Meaning—learning as experiencing: an ability to experience one's life and the surrounding world as meaningful

2.   Practice—learning as doing: joint action relying on common (shared) historical and social resources, background systems, and viewpoints

3.   Identity—learning as becoming (someone): an understanding of how learning, in the context of the community, affects and moulds us.

(Timoštšuk & Ugaste, 2010, p. 1565)

With a close and mutual connection and reliant on each other for definition (Timoštšuk & Ugaste, 2010), these components can be seen to intersect with having, or not having a sense of belonging.

With this limited definition of the term *sense of belonging* we were reliant on making intellectual connections across the studies based on our literature review search terms and the elements that we could identify as components that support the creation of a sense of belonging for pre-service teachers. This limited definition, and the subsequent framework for defining sense of belonging, suggests the focus in relation to the area of pre-service teachers undertaking professional experience, could be expected to be minimal, pointing to a substantial gap in research in this area.

The review

This SQLR was conducted at the interface of sense of belonging, pre-service teachers, and school-based professional experience and aimed to critically review the resulting literature, understand what the findings reveal, and consider how these might inform ITE. Our guiding research question was: *What does contemporary research reveal about pre-service teachers' sense of belonging during their school-based experience?*

An initial scan of published literature reviews and articles about sense of belonging, pre-service teachers, and school-based professional experience assisted in finding other relevant search terms in order to capture a more comprehensive range of articles reporting on research about the topic. This initial search revealed a variety of terms which refer to pre-service teachers and supervising teachers. While on the surface this may not appear to be problematic, as in most cases it was relatively straightforward to identify the roles that students learning to be teachers play and the role that qualified teachers play in mentoring and supervising pre-service teachers, there was a risk of missing relevant literature. In order to set boundaries for the literature and for consistency in reporting this study, we have selected the terms *supervising teacher* and *pre-service teacher* from the various terms available.

Supervising teacher

The term supervising teacher is used as representative of a range of terms evident in the literature, including: associate teachers; mentor teachers; host teachers; cooperating teachers; teacher tutors. We define a supervising teacher as a practising teacher who is already qualified, either through an undergraduate or a graduate education degree that qualifies that individual for teacher registration/accreditation in their context. The supervising teacher is responsible for mentoring and monitoring the pre-service teacher's practice during their school placement and in many cases is responsible for assessing their teaching ability.

Pre-service teacher

An initial scan of the literature revealed that there was no consistently used term for pre-service teachers across the globe, with varying terms used by authors in the same country. For example, in two separate studies undertaken in England, the authors use three differing terms—*pre-service teachers* (Laker et al., 2008), and *training teachers/beginning teachers* (Fox, Wilson & Deaney, 2011). Similarly, in two separate studies conducted in the United States of America (USA) the terms also vary—*pre-service teachers* (Jones, Kelsey, & Brown, 2014); and, *education students* (Maynard, La Paro, & Johnson, 2014). The word *trainee* is also used. For our study the term *pre-service teacher* is used to capture all of these variants.

Method

We have adopted the systematic quantitative literature review methodology as prescribed by Pickering and Byrne (2014) and Pickering, Grignon, Steven, Guitart and Byrne (2015), which provides

for an approach that is replicable and follows a step by step method to consider the literature. The process is visually summarised in Figure 1 and will be explained in the following section.

In order to review published empirical research searches were conducted across six main databases: Griffith University library journal database, ProQuest, ERIC, Web of Science -Social Science Citation Index, Informit, and ScienceDirect. These provide access to the major publishers internationally. The inclusion criteria were:

1. Empirical research-based and specified methodology—quantitative, qualitative or mixed methods;

2. Published in peer-reviewed journals with full-text available;

3. Published in English (or with a translation available);

4. Published from 2007–2017;

5. Focused on pre-service teachers' sense of belonging on professional experience as part of either an undergraduate qualification or a postgraduate teacher education qualification.

Articles were identified using the following methodology (see Figure 1):

1. Database searches for relevant articles which were added to our database (based on titles and scan of the abstracts);

2. As articles were identified, keywords from those studies were added to our initial list of search terms (e.g., connectedness; fitting in; feeling welcome);

3. Bibliographic branching (Hoffman et al., 2015) was used by reviewing the reference lists of articles we included in our database to see if there were any further studies that were relevant to our review. Three were initially found but on full reading excluded due to the criteria.

As presented in Figure 1, 44 studies were identified from the database searches and the following systematic method was then applied:

1. Abstracts of all 44 articles skim-read and included/excluded according to criteria;

2. 17 were excluded;

3. 27 studies were read in full;

4. A further 11 were excluded after this reading;

5. The remaining 16 were included in the review and also used for bibliographic branching;

6. A further three articles were identified but after close reading were excluded as they did not meet the inclusion criteria;

7. One article incorporated all elements of this review.

Studies were excluded that focused on one particular classroom subject (e.g., mathematics) if this was the only work that the pre-service teacher did in the school; studies were included if they focused on one subject but the pre-service teacher was teaching across subjects and/or involved in the school community/life (e.g., playground supervision) (e.g., English teachers, see Johnston, 2016). Studies were included if they specifically related to pre-service teachers' development of a sense of belonging, even if this term was not used we searched for related research findings and keywords (from our literature search) within the content of articles in order to locate all relevant studies (e.g., belonging to the school community). We were inclusive of all articles exploring pre-service teachers' sense of belonging on professional experience even if this was not a direct focus of each study—if there was mention of belonging on practicum placements we included the study in our review.
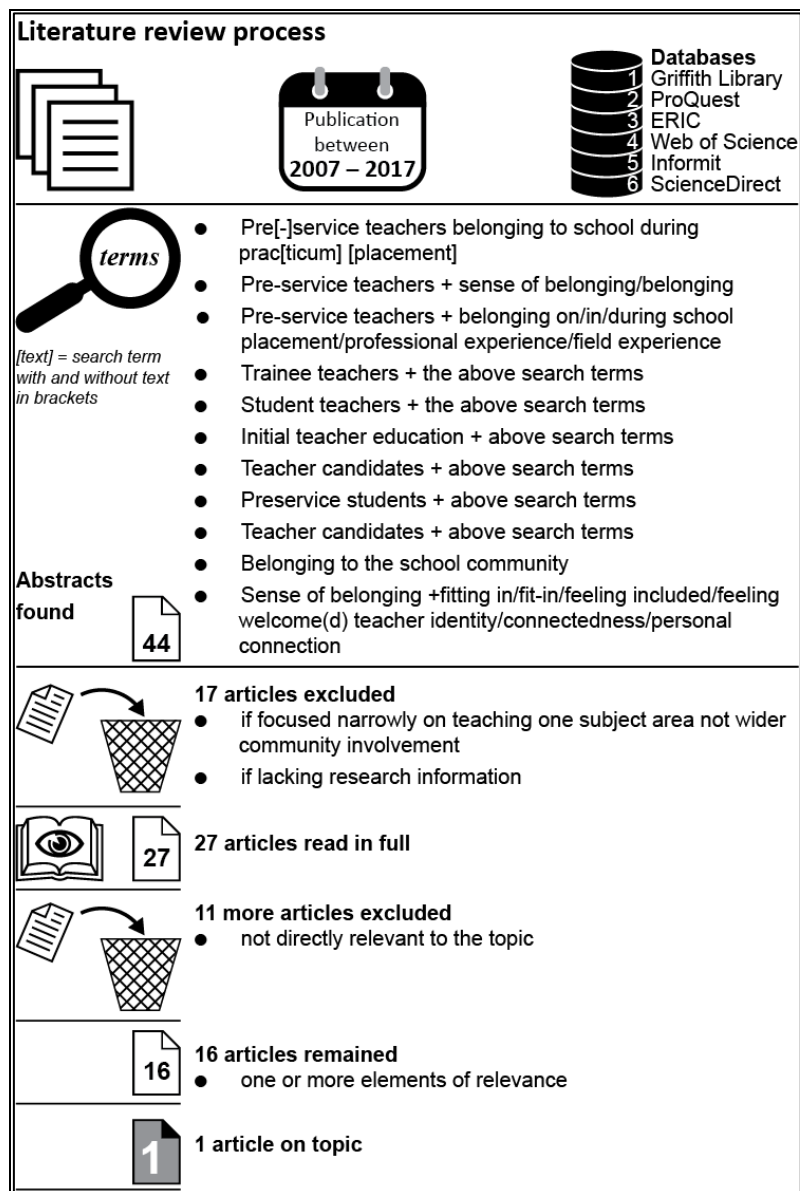
Figure 1: Summary of systematic quantitative literature review methodology

The features of the studies reported in each of the 16 articles identified in the SQLR are presented in Table 1. Details of the research reported including the country, schooling context, methodology, main focus of the study, and key findings are each presented.

Findings

Of the 16 peer-reviewed articles presented in Table 1, only one directly explored pre-service teachers' sense of belonging while on professional experience (i.e., Ussher, 2010). However, for the purposes of this review all 16 papers will be considered to provide insight into the broader contextual relationships related to the review topic in order to respond to our research question: *What does contemporary research reveal about pre-service teachers' sense of belonging during their school-based experience?*

Commentary about the demographic features of the studies and their aims and findings are first presented, and then a review of the papers follows.

Table 1:   **Summary of studies reviewed in the systematic quantitative literature review**

Author(s)	Country	Schooling Context	Methodology	Main Focus of Study	Findings	Terms used to indicate sense of belonging/limited sense of belonging
Caires et al. (2010)	Portugal	Secondary	Quantitative	Socio-emotional experiences of pre-service teachers on placement (some focus on sense of belonging)	Main experiences and changes perceived by pre-service teachers: "Professional and institutional socialisation; socio-emotional aspects; vocational aspects; support-resources-supervisors; learning and professional development"; most pre-service teachers gradually achieved increasing levels of school belonging	"accomplished growing levels of school belonging, professional affiliation and approval"; "higher levels of satisfaction regarding the school's resources and overall support"
Caires et al. (2012)	Portugal	High school	Quantitative	Pre-service teachers experiences and perceptions of placement	Medium-high satisfaction levels of *professional and institutional socialisation*; perceptions concerning the *emotional and physical impact* indicate pressure and sense of vulnerability felt by pre-service teachers on placement	"warmth, acceptance and satisfactory conditions…determine their growing sense of 'belonging'"
Evelein et al. (2008)	The Netherlands	Not specified	Quantitative	Realisation of basic psychological needs of pre-service teachers during first placement	pre-service teachers basic needs fulfilment lower than experienced teachers in areas of competence, relatedness, and autonomy	"Relatedness—feeling of belonging"; "contact"; "positive connection"; "positive relationships"
Fajardo Castañeda (2014)	Colombia	Primary	Qualitative	pre-service teachers identity construction (some focus on sense of belonging)	Learning to teach is individual for each pre-service teacher and socially negotiated; choosing to become a teacher is suggested be a "foundational act of belonging to a teacher community"	"belonging to a teacher community" seen as part of identity formation for pre-service teachers
Ferrier-Kerr (2009)	New Zealand	Primary	Mixed methods	pre-service teachers and supervising teachers establishing professional relationships while on placement	Personal connections and understanding of roles were important in successful pre-service teachers and supervising teachers professional relationships	"personal connection"; "personal connectedness"; "establishing professional relationships"; "connecting"; "clicking"; "respect"; "trust"; "acknowledgement in the staff room"
Fox & Wilson (2015)	England	Secondary	Qualitative	How pre-service teachers building personal support networks while on placement	Pre-service teachers accessed offered support and also sought out support when needed, when a sense of belonging developed pre-service teachers confidence increased	"developing strong relationships"; "bonding across the school"; "developing a sense of belonging to school"
Izadinia (2015)	Australia	Secondary	Qualitative	Mentoring relationships on placement and pre-service teachers identity formation	Positive mentoring relationships on placement led to increased confidence levels for pre-service teachers; negative mentoring relationship on placement led to a decline in pre-service teachers feeling like	"lot of time and attention and resources"; "supportive relationship founded on mutual respect and professionalism"; "felt a strong sense of belonging"; "did not feel welcomed"; "lack of personal connection";

Author(s)	Country	Schooling Context	Methodology	Main Focus of Study	Findings	Terms used to indicate sense of belonging/limited sense of belonging
					teachers (one theme directly related to bonding across the school—developing a sense of belonging)	"lack of rapport"; "lack of personal connection"
Johnston (2010)	Scotland	Secondary (English)	Qualitative	pre-service teachers problematic experiences of school placement (some focus on sense of belonging through Lave & Wenger's (1991) "legitimate peripheral participation")	Pre-service teachers in some cases not able to assimilate on placement where pre-service teachers are seen as "peripheral participants" and do not attain "member status" of their school communities	"feel emotionally engaged in their practice and fully committed to the enterprise of their school community"; "welcoming community where they were recognised, valued and appreciated as having something worthwhile to offer"; "attempts at belonging"; "accepted member of the school team"; "marginal people"; "unwanted guests"; "positive student identities of belonging"; "inability to experience 'belongingness'"; "legitimate peripheral participation (Lave & Wenger, 1991)"; "not seen as legitimate by more experienced colleagues [supervising teachers]"
Jones et al. (2014)	USA	High school (agriculture)	Qualitative	Pre-service teachers experiences of mentoring relationships on placement	Three steps of successful mentoring relationships: personality, community and access, and trust and communication (sub-theme identified included feelings of belonging)	"community and access included feelings of belonging"; "belonging to the school and community"
Laker et al. (2008)	England	Secondary schools	Qualitative	Explored changes of support for pre-service teachers during placement	Sources of support for pre-service teachers were formal (college tutors and teacher tutors) and informal (other pre-service teachers, host families and other teachers)	"social connectedness—'habitus'"; "sense of belonging and common shared values or experiences"
Maynard et al. (2014)	USA	Early childhood	Qualitative	Pre-service teachers descriptions of their initial experiences on placement in early childhood classrooms	Pre-service teachers talked about their experiences as either belonging or not belonging in the classroom	"belong"; "'we' or 'they' language"; "communication, support and belonging"; "having a sense of belonging or not having a sense of belonging"; "lack of feeling of belonging"
Passy (2013)	UK	Primary	Qualitative	Investigate outstanding pre-service teachers strategies, attitudes, values and characteristics (focus on Lave & Wenger's "legitimate peripheral participation")	Pre-service teachers used strategies to fit-in: High awareness of how they presented themselves at the school (e.g., offering opinions); 2. show their willingness to learn (e.g., willingness to get "stuck in"); 3. proactively managing relationships (e.g., "getting staff on your side"); some participants showed a desire to develop a sense of belonging to the placement school	"Fitting in"; "a sense of belonging"; "avoiding confrontation"; "continuing need to fit-in"; "collegiality"; "relationships of trust and support"

Author(s)	Country	Schooling Context	Methodology	Main Focus of Study	Findings	Terms used to indicate sense of belonging/limited sense of belonging
Roberts & Graham (2008)	UK	Modern Languages and drama teachers	Qualitative	Explored the issue of pre-service teachers' ability for self-direction and their proactive social strategies	Three proactive strategies were identified: *tactical compliance*, personalising advice, and seeking out opportunities to exercise control	"Fitting in"; "win approval and acceptance"; "walk on eggshells"; "tactical compliance—win a degree of autonomy"
Timoštšuk & Ugaste (2010)	Estonia	Pre-service teachers in study programs for mathematics, physics, arts and a primary teacher	Qualitative	Pre-service teachers professional identity through Wenger's (1998) social concept of learning (learning, experiencing, doing and belonging)	Initial teacher education needs to develop the social side of learning to teach by supporting teacher identity formation	"Belonging to the teaching profession"; "expected to be accepted immediately as equal partners"; "learning as belonging"; "belonging to a social community"; "belonging to the teaching community"
Ussher (2010)	New Zealand	Primary	Qualitative	Pre-service teachers sense of belonging on placements	Placement enabled opportunities for pre-service teachers to be involved in learning communities; involving a range of other teachers, the principal and staff at the schools; pre-service teachers demonstrated more commitment to teaching when they felt they belonged to the school	"schools acted as 'villages of learning'"; developed sense of belonging, accomplishment and inclusion" at the placement school; Pre-service teachers "engage with professionals who made them feel like they belong"; "having a sense of belonging to the base school"; "felt motivation through belonging"; "having sound relationships with [ST]"
Yuan (2016)	Hong Kong	High school	Qualitative	Pre-service teachers identity formation on placement	Pre-service teachers identities are influenced by their mentor teachers; negative mentoring can hinder pre-service teachers' identity formation	"isolation status in the school without a sense of belonging"; "welcomed by school mentor"; "involvement" in teaching duties; "low status in the school"

Demographic features

Figure 2 shows the distribution of studies around the world. Just under one third of the studies (5) were conducted in the United Kingdom, with Portugal, United States of America and New Zealand each producing two relevant studies included in this review. The remaining countries each had one study of relevance to this project.
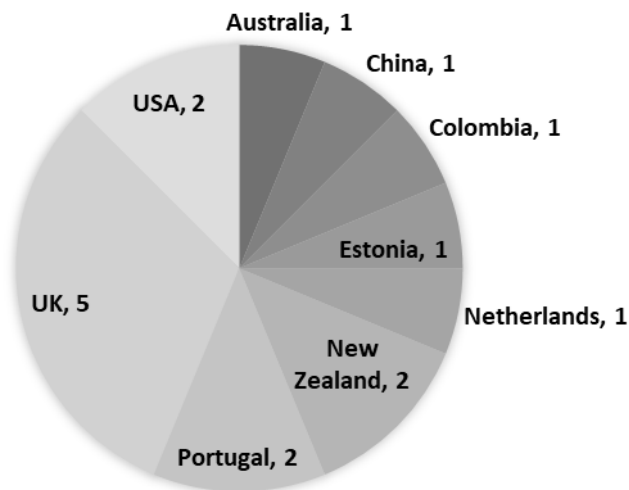

Figure 2:   Location of studies reviewed in the systematic quantitative literature review

Figure 3 shows the methodological approaches used in the studies. Three quarters (12) of the studies were conducted employing qualitative research methods while three studies were quantitative in design and one was mixed method. This reveals that the majority of studies are qualitative in design and hence are likely to have limitations in their reliability and broader applicability beyond the context of the study.
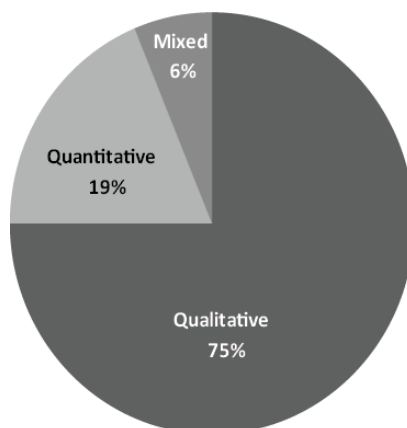

Figure 3: Methodological approaches of studies reviewed in the systematic quantitative literature review

Figure 4 shows the number of studies per year (between 2007 and 2017). This represents a very small number of studies globally on the topic and a pattern of fragmentary, small-scale attention over the decade of the study.

Figure 5 reveals the context of the studies in terms of the schooling sector within which the research was conducted. There is a clear contextual leaning towards secondary settings to conduct research bringing together professional experience, pre-service teachers and sense of belonging.
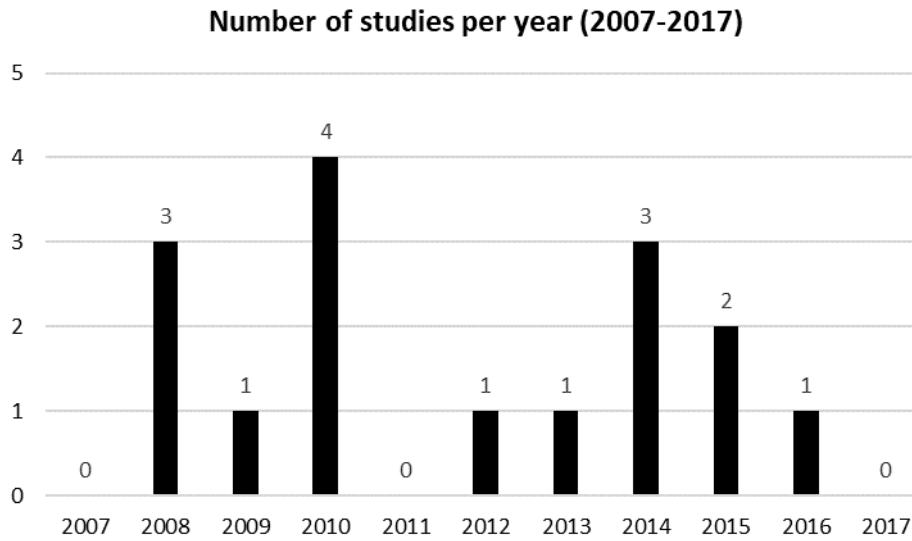
Number of studies per year (2007-2017)

Figure 4:   Number of studies per year (2007-2017) reviewed in the systematic quantitative literature review
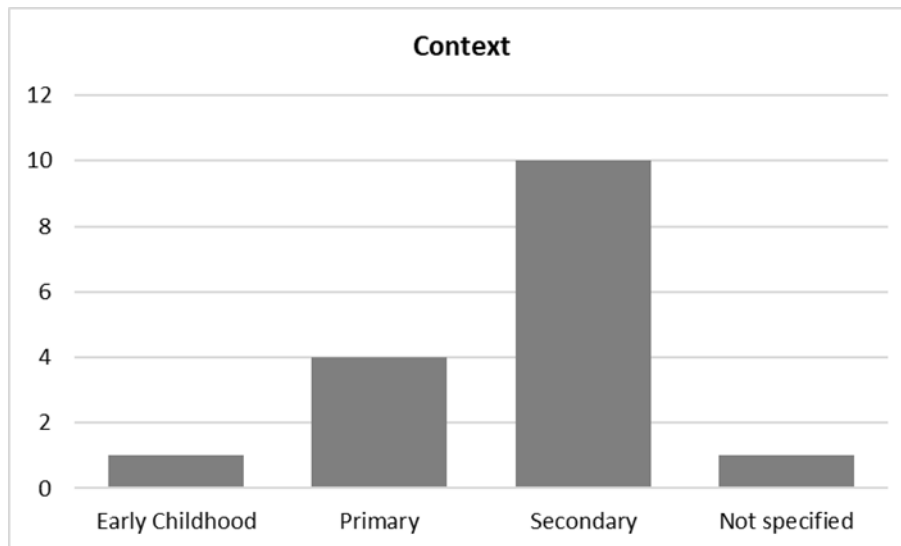

Figure 5:   Schooling Sector of studies reviewed in the systematic quantitative literature review

Aims and findings

Table 1 provides insights regarding the individual studies, presented alphabetically by author. While discussing the findings, referring back to Table 1 for elaborations enables a greater understanding of the comments made in this section. The key research undertaken by Ussher (2010) revealed that pre-service teachers demonstrated greater commitment to teaching when they felt they belonged to the school. Ussher's (2010) study was the only one identified through the SQLR that specifically focused on pre-service teachers' sense of belonging while on their professional experience placements. The remaining 15 studies had some relevance to the review topic, of which four studies had a tentative connection. The studies with an aim related to sense of belonging explored: socio-emotional experiences of pre-service teachers on placement (Caires, Almeida, & Martins, 2010); pre-service teachers' identity construction while participating in a teacher community (Fajardo Castañeda, 2014); pre-service teachers' understandings and descriptions of their teacher identity (Timoštšuk & Ugaste, 2010); pre-service teachers' problematic experiences of school placement (Johnston, 2010).

Findings of studies that had some relation to sense of belonging revealed the following: positive mentoring relationships on placement related to developing a sense of belonging, and negative relationships on placement leading to a decline in pre-service teachers feeling like teachers (Izadinia, 2015); to some extent the conditions of placements determine pre-service teachers growing sense of

belonging (Caires, Almeida, & Vieira, 2012); relatedness (Evelein, Korthagen, & Brekelmans, 2008)—the feeling of belonging to a group or community is important for pre-service teachers on placement (although this study focused more on relatedness between pre-service teachers and their students); bonding across the school (Fox & Wilson, 2015)—one of the findings from this study related to pre-service teachers bonding across the school and in this process developing a sense of belonging to their placement school; a sub-theme from the Jones et al. (2014) study related to feelings of belonging to the school and community; pre-service teachers talked about their initial teaching experiences in early childhood classrooms in terms of either belonging or not belonging in the classroom (Maynard et al., 2014); some of the pre-service teachers participants showed a desire to develop a sense of belonging to their placement school (Passy, 2013).

The remaining four studies had a tentative connection to pre-service teachers' sense of belonging on professional experience in that keywords or elements within the articles linked with those from the other studies reviewed. For example, Ferrier-Kerr (2009) referred to personal connectedness, revealing that pre-service teachers' use of terms such as *connecting* and *clicking* indicate connection with their supervising teachers, and also discussed other aspects of personal relationships, such as being greeted with a smile, and having informal time for talking with their supervising teachers. Although the article did not specifically mention sense of belonging, these elements are consistent with other literature which outlines the importance of the supervising teachers and pre-service teacher's relationship in developing a sense of belonging; social connectedness of *habitus* (Laker et al., 2008): pre-service teachers experiencing a sense of belonging and common shared values within the school; fitting-in (Roberts & Graham, 2008): pre-service teachers showing compliance in an attempt to affirm their supervising teachers' expectations and gain some autonomy in the classroom; isolation status in the school (Yuan, 2016) where participants shared elements of their placements that left them feeling isolated in the school without a sense of belonging.

Concepts identified from the literature review

The main concepts identified from the literature relevant to our research question—what does contemporary research reveal about pre-service teachers' sense of belonging during their school-based experience—can be categorised under two headings: 1. the quality of the relationship that a pre-service teacher has with their supervising teacher; and, 2. belonging to a teacher community.

Figure 6 shows these key concepts and related themes identified from the literature, and illustrates their connection to pre-service teachers' sense of belonging on professional experience. These are discussed in the following sections.
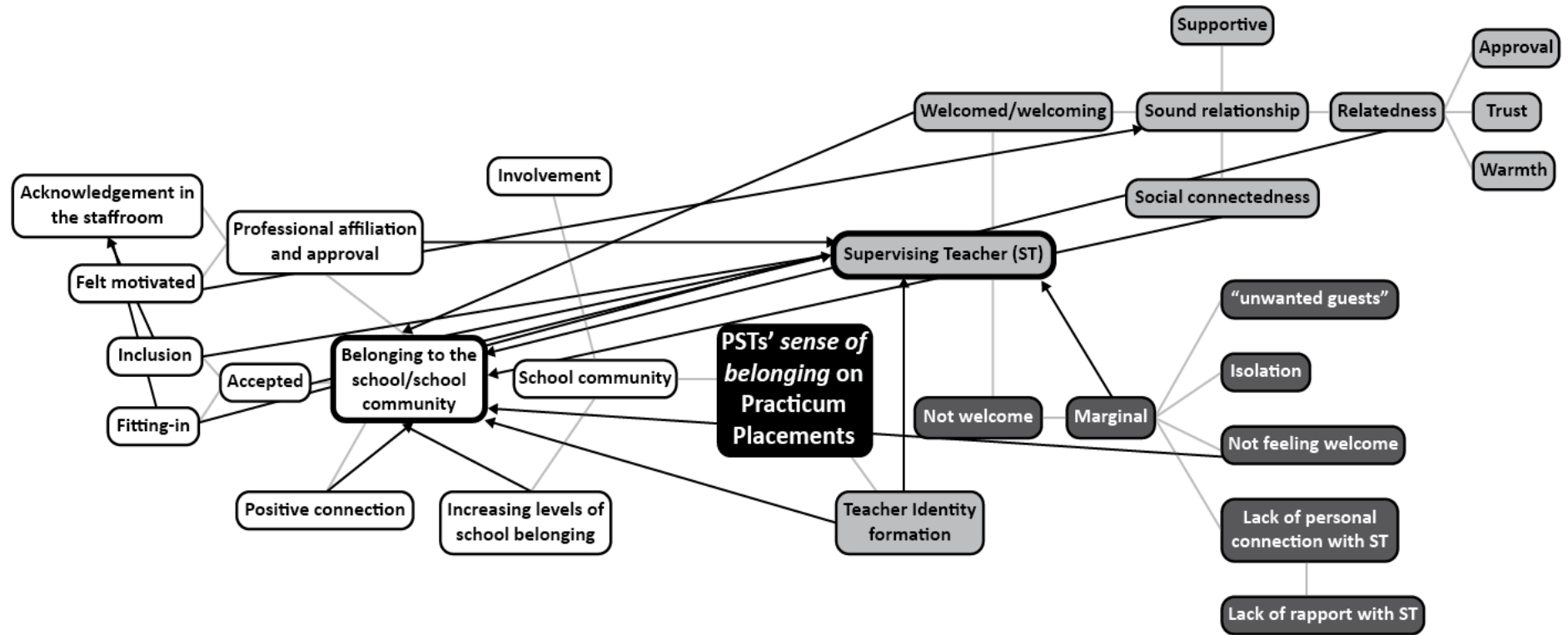
Figure 6:   Concept map of themes from the systematic quantitative literature review

Concept 1: Quality of the relationships with the supervising teacher

There is a plethora of research that has extensively covered the nexus of the relationships between pre-service teachers and supervising teachers (e.g., Izadinia, 2015; Leshem, 2012; Martin, Snow & Torrez, 2011). We focus here on where the current literature relates to a sense of belonging on professional experience and the quality of the relationship between supervising teachers and pre-service teacher in this respect.

Having a sense of belonging on placement relates quite emphatically to the quality of relationships that the pre-service teacher is able to establish while seconded to their placement school—particularly important is the *quality of the relationship with their supervising teacher*. This concept overlaps with the second concept identified in the literature, that of *belonging to a teacher community*. However, the quality of the pre-service teacher's and supervising teacher's relationship is the hour-by-hour, immediate relationship that the pre-service teacher has with their supervising teachers in (and out of) the classroom, which develops the pre-service teachers' sense of belonging on professional experience. Timoštšuk and Ugaste (2010) referred to *learning as belonging*, a concept that relates to the quality of learning that a pre-service teacher has while on placement. The quality of learning directly connects to the quality of the relationships between the pre-service teacher and supervising teacher and involves the pre-service teacher's teaching being recognised as a valued contribution made by a capable individual (Timoštšuk & Ugaste, 2010). Thus, within the broad concept of *quality of the relationship with the supervising teacher* we identified seven themes relating to the creation of high-quality relationships and hence, high quality learning as belonging:

1. Welcomed by supervising teacher;

2. Relatedness;

3. Connecting;

4. Supportive relationship;

5. Communication;

6. Trust;

7. Negative relationships.

These will now be discussed in turn.

Welcomed by supervising teacher

Feeling welcomed by the supervising teacher from the very start of placements has been identified as being essential for developing a pre-service teacher's sense of belonging on professional experience. Yuan's (2016) qualitative study set out to explore identity construction of two pre-service teachers through interactions with their supervising teachers on placements, and found that the initial feeling of being welcomed by the supervising teachers from the start of the placement was seen as an important element in creating an initial sense of belonging. Being given some initial responsibility for teaching (e.g., individual support for some students) also provided a sound foundation for setting up an initial feeling of belonging (Johnston, 2016).

Relatedness

Evelein et al. (2008) use the term *relatedness* in their study to denote one of the three basic psychological needs (the other two being *competence* and *autonomy*) that are essential to mental health, growth, intrinsic motivation, wellbeing, optimal functioning and self-actualisation of pre-service teachers. Evelein et al. (2008) identify the need for relatedness as "the longing for the experiencing of positive relations and for engagement with others" (p. 1138). Furthermore, the concept of relatedness is connected to feelings of "belonging to a group or community" (p. 1138) which directly speaks to the focus of our review in that pre-service teachers' *need to feel* high levels of relatedness so that they have positive connections and contact with their supervising teacher (and with their pupils) (Evelein et al., 2008) while on placement. Although Evelein et al.'s study was about pre-service teacher's relatedness to their pupils it does indicate the importance of this concept for

developing pre-service teachers' initial and ongoing sense of belonging with their supervising teacher and hence the wider school community.

Conversely, many of the studies reviewed suggest the importance of creating an environment where pre-service teachers and supervising teachers can develop sound relationships. For example, Ussher (2010) suggests that in order to establish such an environment pre-service teachers and supervising teachers "must be able to establish and maintain quality reciprocal relationships" (p. 104). There is a wealth of studies describing the importance of sound relationships in creating positive practicum experiences for pre-service teachers' learning (Ussher, 2010), and positive pre-service teachers and supervising teachers relationships are an intrinsic part of having a strong sense of belonging on professional experience.

A growing sense of belonging is determined not only by "warmth, acceptance and satisfactory conditions" (Caires et al., 2012, p. 172) on placements, but can also be partially accounted for by the pre-service teacher's sense of self-fulfilment, their growing sense of teacher identity (Caires et al., 2012). When pre-service teachers share similar values with their supervising teachers, in terms of teaching and learning practices, their satisfaction with being a pre-service teacher increases (Jones et al., 2014). This has immense implications for the *matching* of pre-service teachers with supervising teachers that have shared visions and values, helping to ensure genuine acceptance of the pre-service teacher, and creating conditions that actively encourage the development of a sense of belonging from the commencement of the placement.

Connecting

Across the literature *connecting* with the supervising teachers was seen as an essential element for pre-service teachers in developing a sense of belonging on professional experience. In a New Zealand mixed methods study, Ferrier-Kerr (2009) investigated the relationships between four pre-service teachers and their supervising teachers on placement, and found, in one of the themes that emerged from the study, that in order for the relationships to be successful both parties needed to be active in creating positive connections. This theme of personal connectedness stressed the significance of the personal, not just the professional, in terms of these relationships. While this study did not specifically use the term *belonging*, the words "connecting" and "clicking" (Ferrier-Kerr, 2009, p. 792) were frequently mentioned by participants indicating that both supervising teachers and pre-service teachers needed to make personal connections with each other. Moreover, Ferrier-Kerr found that connecting on a personal level with their supervising teachers was most important to pre-service teachers; where pre-service teachers identified the need for personal connections that created a sense of belonging, such as "being greeted with a smile, taking time out to talk informally, acknowledgement in the staffroom and getting to know 'things' about each other" (p. 792). This connectedness was described as "getting to know each other on a personal level" (Ferrier-Kerr, 2009, p. 792), what some participants referred to as the "click factor" (p. 792). It is vitally important that pre-service teachers are able to make a connection with their supervising teachers (Ferrier-Kerr, 2009; Izadinia, 2015). Connecting personally on placement leads to enhanced outcomes for pre-service teachers in terms of professional experiences, teaching competence and feelings of self-worth (Caires et al., 2012; Izadinia, 2015; Ussher, 2010).

Likewise, Laker et al.'s (2008) qualitative study conducted in England with 13 pre-service teachers reported on support structures which these participants drew upon while on their placements, finding that they especially valued direct professional support, guidance and connection with their supervising teachers and the social support afforded by this and other connections within the school. Furthermore, Laker et al. suggested that this demonstrates the importance of *habitus*, an area of social connectedness, wherein the pre-service teachers "were experiencing a sense of belonging and common shared values or experiences within a larger framework" (p. 134). Again, although this study by Laker et al. did not specifically explore pre-service teachers' sense of belonging on professional experience findings indicate the importance of connecting with their supervising teachers in developing a sense of belonging.

Izadinia (2015) explored the extent to which the mentoring relationship on placement supported seven secondary pre-service teachers' vocational identity formation. One of the participants stated that she "'felt a strong sense of belonging' and she 'grew enormously' during her first placement" (p. 5), and further, that the time, resources, frank feedback and the supportive relationship "founded

on mutual respect and professionalism" (p. 5) were a direct result of the connection she developed with her supervising teacher.

Belonging to a social community within the placement classroom (and wider school community), was a necessary component in developing a sense of *learning as belonging* (Timoštšuk & Ugaste, 2010). This means that in order to be in the best environment for learning on placement a pre-service teacher needs to have a sense of belonging in that environment, where their activities are recognised as valuable contributions made by a competent individual (Timoštšuk & Ugaste, 2010). This recognition usually comes first from the supervising teacher as part of the process of learning (e.g., development of teaching practice), establishing an initial connection by being welcomed, and then developing that connection through relatedness, supportive relationships based on quality connection, strong communication and trust.

Supportive relationships

There is a direct link between a pre-service teacher initially connecting with a supervising teacher and the development of supportive relationships (Ferrier-Kerr, 2009; Izadinia, 2015; Laker et al., 2008). Ussher's (2010) qualitative study, conducted with nine female pre-service teachers in New Zealand, revealed that relationships and a sense of inclusion were acknowledged as influencing the perceptions of the participants' placement experiences. These experiences directly connected to pre-service teachers' feelings of belonging, achievement and commitment to their placement school. It was fundamental to have good relationships with their supervising teacher. Furthermore, Ussher found that effective modelling of teaching practice by the supervising teacher and being given regular teaching opportunities all intertwined with having a sense of belonging to the placement school, along with opportunities to have collegial conversations with a range of staff members about teaching practices.

Similarly, Fox and Wilson (2015) focused on how pre-service teachers gained support on placement through a qualitative study with three secondary pre-service teachers. Findings from this study suggest that the many relationships which supported the development of the pre-service teachers' teaching practice "can be characterised differently to those which enhanced their sense of belonging to the profession" (p. 93). In other words the development of supportive relationships was dependent on the actions and attitudes of the pre-service teachers, their supervising teachers and others within the placement as a learning environment. As far as developing strong relationships, which were found to be important in developing pre-service teachers' sense of belonging to the teaching profession and to their teacher identity, pre-service teachers were found to be highly dependent on others, particularly their supervising teachers (Fox & Wilson, 2015) in developing these relationships. When pre-service teachers are fully supported on placement not only can they develop self-efficacy but they can also develop a sense of belonging, which is necessary in order to be able to commit to the teaching profession (Caires et al., 2010; Fox & Wilson, 2015).

Communication

Throughout many of the studies good communication is noted as vital in supporting pre-service teachers on placement. They felt supported when their supervising teachers communicated with them by "checking in" (Maynard et al., 2014, p. 253), integrating their ideas into classroom practices, and connecting on a personal level (Caires et al., 2010, 2012; Fox & Wilson, 2015; Maynard et al., 2014); all areas that are strongly linked to developing a sense of belonging. Maynard et al. (2014) identified three main types of communication—questions, feedback and advice. Availability of the supervising teachers was also deemed to be important in creating an environment for constructive communication. Pre-service teachers tended to feel more like they belonged when the process of communication with their supervising teacher was positive (e.g., being available to offer professional advice). Pre-service teachers' sense of belonging was encouraged through the communication process when they were "verbally encouraged to participate in specific activities" (Maynard et al., 2014, p. 259), when the supervising teacher checked-in to see how the pre-service teacher was progressing, answering questions and offering advice. Negative communication experiences appeared to inhibit the pre-service teachers' sense of belonging on their professional experience (Maynard et al., 2014). Maynard et al. posit that the process of creating a sense of belonging through communication may be "highly specific to the preferences of both the student and the supervising teacher" (p. 259), suggesting that further research is needed in this area to gain a greater understanding of the phenomenon of pre-service teachers' belonging in the classroom.

Trust

The concept of *trust* was identified in two studies (Ferrier-Kerr, 2009 and Ussher, 2010) as potentially being important in developing pre-service teachers' sense of belonging on professional experience. Ussher (2010) suggested that schools which showed "reciprocal trust" (p. 112) encouraged the pre-service teachers to feel that they were accepted and connected to their placement school. Furthermore, this sense of trust came from the school culture which had a direct influence on how pre-service teachers were accepted into the school's teaching community (for further discussion on this point see the section on *Belonging to a teacher community*). Being accepted and being connected are both terms that relate to feeling a sense of belonging. Likewise, Ferrier-Kerr (2009) suggested that by developing trust, respect and rapport through effective communication with each other, pre-service teachers and supervising teachers were able to enhance their professional relationship. Jones et al. (2014) described findings relating to trust and communication, where the supervising teacher genuinely supported the pre-service teacher in assuming the role of classroom teacher, stating that trust could only be achieved by having an approachable supervising teacher. According to Jones et al. trust was modelled through friendship and acceptance, and conveyed through "actions, feelings, and reflections on the relationship" (p. 41) between the supervising teacher and pre-service teacher.

Negative relationships

We have explored the first six concepts we identified from the literature pertaining to high-quality pre-service teacher and supervising teachers relationships and pre-service teachers' sense of belonging on professional experience under the concept of *quality relationships with the supervising teacher*. Within these concepts explored hereto, the following areas relate to negative relationships, the antithesis of those six concepts—lack of: feeling welcomed by supervising teachers; relatedness; connection; supportive relationships; and, trust. We now turn to exploring the two themes we identified under the seventh theme of *negative relationships*: *not feeling welcome* and *isolation status within the school*.

Not feeling welcome

For some participants in Izadinia's (2015) Australian study exploring mentoring relationships, pre-service teachers' relationships with their supervising teacher were perceived as somewhat negative, as a result of this their confidence levels deteriorated. Evidence presented by the participants related to not feeling welcome, where one pre-service teacher described her supervising teacher as "distant" (Izadinia, 2015, p. 5), suggesting a level of exclusion where she stated she "did not feel welcomed" (p. 5). As we explored earlier, feeling welcomed by the supervising teacher is important for developing pre-service teachers' sense of belonging on professional experience. Izadinia encapsulates this view in terms of the sense of belonging on professional experience in that pre-service teachers' "lack real power in the classroom" (p. 7). This observation is at the core of the concept of sense of belonging on professional experience placements for pre-service teachers who are expected to take on the role of *teacher*, however are not yet categorised as a *teacher*.

Similarly, a 2016 Scottish study (Johnston, 2016) explored the problematic placement experiences of 14 secondary teachers, offering a nuanced exploration of the difficulties these participants had in becoming *legitimate peripheral participants* (Lave & Wenger, 1991) in their placement schools. This "position on the periphery" (Johnston, 2016, p. 545) suggests a marginalisation of the role of the pre-service teacher and as both Johnston (2010) and Caires et al. (2012) postulate, these feelings of being an "unwanted guest" (Johnston, 2016, p. 545) occur simultaneously with "a strong competing need to feel a rapidly developing sense of belonging to a welcoming community" (Johnston, 2016, p. 545). As a result of not feeling welcomed pre-service teachers' motivation decreased, which in turn affected their learning (Johnston, 2016) on their placements. A perceived inability to develop a sense of belonging on professional experience with the supervising teachers and with the wider school community, underscores the connection between affect and cognition in the development of pre-service teachers' practices (Johnston, 2016). In other words having a strong sense of belonging on placement is vital in order for pre-service teachers to learn the skills needed from their professional experience placements to become successful teachers.

Isolation status in the school

Without a sense of belonging, pre-service teachers lack connections, supportive relationships and have a limited bond with the wider school community and the teaching profession (Johnston, 2016;

Maynard et al., 2014; Yuan, 2016). Yuan (2016) explored the identity construction of two fourth-year pre-service teachers in Hong Kong and found that negative mentoring experiences "dismantled the student teachers' ideal identities . . . which impinged on their professional learning and growth" (p. 188). One participant was expected to teach without any autonomy and as a result felt isolated within the school without a sense of belonging. Another participant felt "forced to comply with the mentor's instructions due to his low status in the school" (p. 195) as a pre-service teacher.

In Maynard et al.'s (2014) research there was a dichotomy in the way that pre-service teachers spoke of their placement experiences—in terms of belonging or not belonging. Communication, support and belonging were cited as reasons why their placement experiences went well, but also why they did not. Pre-service teachers were divided in their preference for direct guidance in working out the classroom (and school) culture that they needed to adapt to, and those pre-service teachers who preferred to work this out for themselves (Maynard et al., 2014). Again, the importance of interactions and relationships with supervising teachers was highlighted as being an important element of belonging, or in some cases not belonging. Failure to resolve these belonging tensions can have damaging consequences on student teachers' development and growth (Dewhurst, 2013).

Concept 2: Belonging to a teacher community

The key concept of *belonging to a teacher community* (and the school community) is inextricably intertwined with the features of quality relationships between the pre-service teacher and supervising teacher as a number of studies have indicated (Fox & Wilson, 2015; Izadinia, 2015; Johnston, 2010; Jones et al., 2014; Timoštšuk & Ugaste, 2010). We have identified from our review that belonging to the teacher community is a key feature relating to pre-service teachers' feeling a sense of belonging on professional experience (Caires et al., 2010; Fox & Wilson, 2015; Jones et al., 2014). This concept relates to being accepted and belonging to the wider professional community of the school (e.g., staffroom, other teachers, administration, principal, parents, pupils etc.) and is discussed through the literature as an intrinsic part of pre-service teachers' identity formation. Two key themes were identified under this concept; *establishing professional relationships* and *fitting-in*, we now explore each of these in turn.

Establishing professional relationships

A qualitative study (Jones et al., 2014) conducted in the USA elucidated how three pre-service teachers experienced the relationships with their supervising teacher, and the influence this had on their subsequent placement experiences. Findings support the notion of belonging to the school community, where pre-service teachers' credibility and self-confidence was enhanced, as Jones et al. affirmed "in order to climb the stairs to a successful mentoring experience, the [pre-service teachers] experienced feelings of belonging to the school and community, and had open access to their cooperating teachers" (p. 41). One participant in Jones et al.'s study was able to successfully integrate into the school community by assuming all teacher duties (such as "lunch duty and monitoring and supervising homeroom", p. 41) which gave her prominence and familiarity with other teachers and staff at the school—all leading to an increased sense of belonging to the school.

Correspondingly, a participant in Fox and Wilson's (2015) study developed a sense of belonging to his placement school by developing solid relationships with a range of teachers and support staff, which also benefited the development of his teaching practice. Belonging to a teacher community and establishing professional relationships was identified by Fajardo Castañeda (2014) as part of the process of identity construction for pre-service teachers, by exploring how pre-service teachers build their professional identities from the interaction between participating in a teacher community and their knowledge systems and beliefs. In endeavouring to explore how belonging to a teacher community shapes and transforms professional identity, Fajardo Castañeda revealed that the process of learning, although individually constructed on placement, is "socially negotiated" (p. 49). Indeed the first act of developing a sense of belonging to a teacher community is choosing to become a teacher (Fajardo Castañeda, 2014). The "nature of belonging to a teacher community . . . is fundamentally connected to the daily experience of teachers' work and lives," however, "far from being a harmonious process, belonging to a teacher community may also result in tensions of power and dependence" (Fajardo Castañeda, 2014, p. 57). This therefore requires the pre-service teacher to negotiate power and dependence with the supervising teacher, and with the wider teaching community of the school. Likewise, the concept of professional and institutional socialisation was

found to be paramount in accomplishing "growing levels of school belonging, professional affiliation and approval" while on placement (Caires et al., 2010).

Seemingly simple acts from the teaching community, such as acknowledgement in the staffroom, led to a growing sense of belonging for pre-service teachers (Ferrier-Kerr, 2009). This type of recognition shows pre-service teachers being accepted as members of the school teaching team (Johnston, 2010), where schools act as "villages of learning" (Ussher, 2010, p. 113) and this helped to develop a sense of belonging for pre-service teachers as they could engage with other teachers who made them feel like they belonged, were included, and were able to contribute to and be part of the whole school community (Ussher, 2010). Where pre-service teachers were included in "a village for learning" (Ussher, 2010, p. 113) (where pre-service teachers are included in the wider school community and social contexts of their placement school), they were able to become a valuable part of the "social, professional and cultural milieu of the school" (p. 113). Ussher further suggests that this sense of belonging created by a village for learning encouraged pre-service teachers to dedicate more time and effort to their placements. In a sense this would also place the pre-service teacher in a sound position for enhancing connections with other teachers and staff at the school, thereby increasing their sense of belonging. Findings emphasise the value of pre-service teachers forming relationships with other teachers at their placement school, suggesting that connecting with other staff enhances the success of the placement, and of the pre-service teacher's learning in that placement setting (Ussher, 2010). All of the pre-service teachers in the study felt increased motivation in learning on their placements through having a sense of belonging, and as a result put more effort into their teaching practices (Ussher, 2010). Participants reported working hard to produce results, thus encouraging "other 'villagers' to reciprocate" (Ussher, 2010, p. 112) consequently, creating an increased sense of belonging for others as well. Fox and Wilson (2015) concur, emphasising that "bonding across the school" (p. 99) is important in developing a sense of belonging for pre-service teachers on their placements. Again, the connection between pre-service teacher learning and having a sense of belonging is evident.

In some instances, pre-service teachers expected to be accepted immediately as part of the teacher community in their placement school "as equal partners" (Timoštšuk & Ugaste, 2010, p. 1567). When this did not occur the pre-service teachers felt somewhat disillusioned. This qualitative study of 45 pre-service teachers conducted in Estonia explored the development of pre-service teachers' teacher identity (Timoštšuk & Ugaste, 2010), and one of the main findings related to pre-service teachers' sense of belonging to the teacher community. However, only some of the participants saw themselves as belonging to the teacher community, the researchers found that for some it was the opposite—when pre-service teachers' "motives for becoming a teacher were questioned, [they] felt as if teachers had no faith in them" (Timoštšuk & Ugaste, 2010, p.1567) and took this personally, rather than as part of a developmental process and as an evolving part of belonging to the teacher community. One of the participants noted that if they were not supported in engaging with the wider teacher community by the supervising teacher then they "were treated like a stranger" (p. 1567). Timoštšuk and Ugaste concluded that more emphasis should be placed on the social aspects of learning to teach in ITE, instead of the current emphasis on self-reflection, questioning the productiveness of focusing on the self as a developing teacher in many ITE programs.

Fitting-in

Along with establishing professional relationships as part of belonging to a teacher community, a number of studies highlighted the importance of fitting-in during professional experience. For example, a qualitative study (Passy, 2013) exploring the characteristics of highly successful pre-service teachers conducted in the United Kingdom (UK), with 18 primary school pre-service teachers, found that these students needed to feel that they *fitted-in* with the fundamental values of their school. This reinforces the importance of the schooling context in developing and supporting the commitment of pre-service teachers to the teaching profession (Passy, 2013) and in developing their sense of belonging, not only to their placement school, but also to a teacher community.

In Passy's (2013) study the pre-service teachers proactively engaged a range of strategies in endeavouring to fit-in with the school, and consequently actively established opportunities for learning. Passy identified three such strategies that highly successful pre-service teachers were employing to increase their sense of belonging:

1.   Being highly aware of the way in which they were presenting themselves in school (e.g., thinking about what they said; being careful in offering opinions);

2.   Giving a practical demonstration of their desire to learn and to contribute (e.g., always doing what was asked; being ready to help in any way);

3.   Proactive management of their relationships within the classroom and school (e.g., "getting staff on your side", "getting on with everyone" (p. 1069) and avoiding confrontation to earn the trust and confidence of staff members).

Other studies discussed ways that pre-service teachers endeavoured to fit-in with the prevailing values in their placement schools (Caires et al., 2010; Fajardo Castañeda, 2014; Roberts & Graham, 2008), seeking to "win approval and acceptance" and "walking on eggshells" (Roberts & Graham, 2008, p. 1405). Roberts and Graham's (2008) qualitative study investigated 32 pre-service teachers' capabilities in using proactive social strategies while on placement. Findings from the study suggest that pre-service teachers use such strategies as "fitting in as tactical compliance" (p. 1405) during the early period of their placements in order to gain acceptance and approval. Tactical compliance as fitting in is a "prerequisite" to gaining more independence (Roberts & Graham, 2008, p. 1405). There was an immense need for pre-service teachers to be careful at the beginning of their placement in working out "how to behave to best personal advantage" (p. 1405). The need to fit-in was viewed as both "an unfortunate necessity when dealing with a very controlling mentor" (p. 1406), and as a way of gaining more autonomy in the long term, constituting "a period of watchfulness, the avoidance of *faux pas* [emphasis in original]" (p. 1408); seen as an indispensable approach for individuals entering an existing group as a prospective group member (Roberts & Graham, 2008). This early period of tactical compliance varied in duration in relation to differences in individuals. Pre-service teachers then sought more opportunities to exercise control and try-out teaching practices (Roberts & Graham, 2008). Therefore, fitting-in can be seen as an early approach to assimilating into the placement classroom and prevailing culture of both class, staff and wider school community; all vital elements in creating a sense of belonging on placement.

Conclusion

This systematic quantitative literature review set out to explore empirical studies that had a focus on pre-service teachers' sense of belonging on professional experience. Specifically, it aimed to address the following research question: *What does contemporary research reveal about pre-service teachers' sense of belonging during their school-based experience?*

Of the initial 44 studies identified, only 16 were found to have some relation to sense of belonging, with 11 studies having some relevant findings connected to the aims of this review, and four of these having a relatively tentative connection. Our review has clearly demonstrated a significant gap in the field in relation to research that specifically focuses on this area, with only one study identified that had a direct focus on pre-service teachers' sense of belonging on professional experience—that of Ussher (2010). We have attempted to draw from the studies concepts that present a preliminary review of this area from the limited research available. We are left with no doubt that there is a need for quality research in the area of pre-service teachers' sense of belonging whilst on professional experience, especially given the expectations placed on this aspect of development of ITE students as they form their identity as a teacher.

The literature examined in this review establishes that two key factors need to be in place in order for pre-service teachers to have a strong sense of belonging to their professional experience school and to their supervising teacher, and indeed their pupils and the classroom(s) where they teach: *quality of relationship with their supervising teacher* and with the school community (e.g., other staff and students); having a strong sense of *belonging to a teacher community* (e.g., schools acting as a "village of learning", Ussher, 2010, p. 103). When conditions such as being welcomed, relatedness, connecting, supportive relationships and trust are developed between the supervising teacher and the pre-service teacher, there is considerable growth in the pre-service teacher's identity development as a teacher and their learning to become a teacher. Warmth, acceptance and satisfactory conditions determine their growing sense of belonging (Caires et al., 2012) where pre-service teachers feel motivated (Ussher, 2010) to do well through this sense of belonging and involvement in teaching duties (Yuan, 2016) that have a degree of responsibility, and support basic psychological needs of competence, relatedness and autonomy (Evelein et al., 2008).

An important observation from the literature relates to the term *feeling*, pre-service teachers *feeling* that they had a sense of belonging on placement, which is a relatively subjective term. Given the literature review findings, although *feeling* a sense of belonging during professional experience is subjective, the key actions taken by the school, the school staff, the supervising teacher, and the pre-service teacher can enhance or deny this *feeling* of belonging. Findings from Izadinia (2015) suggest that ITE programs should evaluate supervising teachers in relation to their character, attitudes, beliefs, teaching competence, experience, interpersonal skills and communication, and specifically train supervising teachers for their roles.

We have revealed from the literature the importance of developing a sense of belonging during professional experience for pre-service teachers, and we have emphasised the significance of having a sense of belonging for learning and success. Moreover, we have outlined some ways that demonstrate how pre-service teachers can be supported to feel that they belong, and are a valued part of their professional experience classrooms and school communities. However, as only one study was identified that specifically focused on this phenomenon, it must be recognised that there is a paucity of research in this area. Hence, this review reveals an imperative for further quality research to explore pre-service teachers' sense of belonging on professional experience as an important contribution to the evolving field of initial teacher education.

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