Chapter 6
A Multilevel Framework of School Belonging

Abstract Much of the literature that investigates school belonging has focused attention on individual factors. However, our review (Chap. 4) and meta-analysis (Chap. 5) suggest that school belonging is a complex multi-faceted construct that can be influenced by multiple levels and systems within a school. Synthesizing the themes apparent in our review of the literature, we present a multi-level framework to examine school belonging, that is, the bio-psycho-socio-ecological model (BPSEM) of school belonging. We present the BPSEM framework and unpack the different domains. The framework provides a foundation for application, which we turn to in proceeding chapters.

Keywords Socio-ecological · Belonging · School belonging · Framework

The last two chapters reviewed research on school belonging. We concluded that many factors matter, including aspects of the individual, relationships with peers, teachers, and parents and elements of the school. So how do we interpret these findings? In this chapter, we provide a framework for thinking about the factors that influence school belonging.

When we consider the various themes reviewed in Chaps. 4 and 5, we see that they incorporate various aspects of a student's life. This chapter presents a framework of school belonging that draws from the research reviewed in the past few chapters. Then, in the next section of this book, we turn to practical ways to put this framework into action, with the hope of helping our young people feel more connected to the school.

6.1 A Framework for School Belonging

When schools start to think about how to build school belonging, it can be hard to know where to begin. The findings that we reviewed in the last two chapters suggest several areas that have been examined and targeted across different studies.

But the findings from this body of research provide little guidance to school with respect to how they can foster school belonging. We suggest that a framework is needed, to help school systematically and strategically foster school belonging in their students.

Some frameworks do exist. The problem is that these frameworks have focused mostly at the student level, identifying things like motivation, individual characteristics and emotional stability (e.g., Brendtro, Brokenleg, & Van Bockern, 2002; Connell & Wellborn, 1991; Malti & Noam, 2009; Ryan & Deci, 2000). Such frameworks only focus on school belonging as an internal experience. They do not account for relational factors and broader aspects of the school environment. The last two chapters clearly indicate that these broader aspects of school belonging matter. These broader aspects also are what school may have a greater ability to control and change.

A framework is needed that presents school belonging as a multidimensional construct that exists within multiple layers. The framework should integrate the research literature and provide multiple layers in which a school may intervene to create effective, sustainable change.

We suggest that such a framework can arise when findings around school belonging are interpreted through the lens of Bronfenbrenner's (1994) bioecological model, with additional emphasis given to psychological and social aspects. We call this the **bio-psycho-socio-ecological model of school belonging** (**BPSEM**). That is certainly a mouthful. But let us breakdown the different parts. ***Bio*** refers to genetic and biologically based aspects of the students, which predispose the student to certain social and behavioural patterns of interacting with others and thinking about the world. ***Psycho*** refers to the psychological aspects of the student, such as their attitude, ways of thinking, personality, cognitive styles, and emotions. ***Socio*** captures the inherently interconnected character of school belonging—relationships with peers, teachers, and others within the school environment. ***Ecological*** refers to the broader school environment and the local community, policies, and cultural norms—all of the broader influences that influence a student's experience at school. Each of these influences dynamically interacts with one another to influence how a young person feels at any point in time.

Figure 6.1 provides a representation of the BPSEM. The different factors that we reviewed in the last two chapters of this book fall across various levels, starting with aspects of the student (including their biological predispositions), and moving out across multiple interconnected layers to the broader school, cultural, and temporal context.

6.2 Biological Factors

The core of the BPSEM represents internal genetic, physical, physiological, and neurological factors. This is the level that schools, teachers, and students have little to no control over. It is imperative to consider how biological aspects of the child,
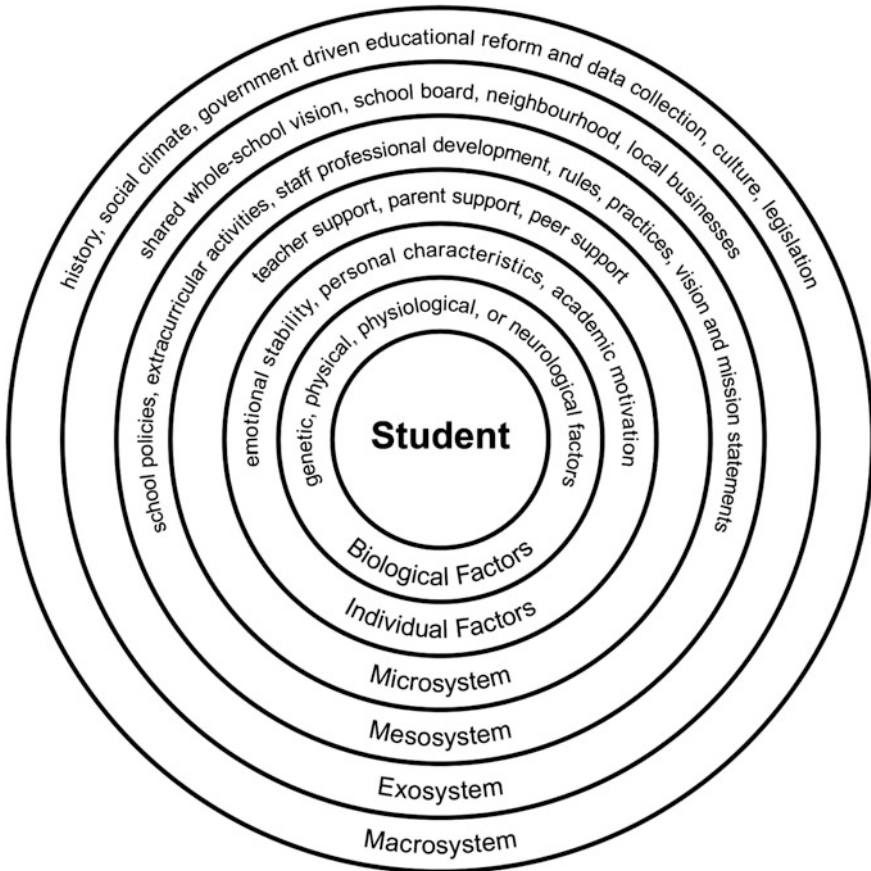
The circular diagram contains the following text, from the center outward:

Student

genetic, physical, physiological, or neurological factors

emotional stability, personal characteristics, academic motivation

teacher support, parent support, peer support

shared whole-school vision, school board, neighbourhood, rules, practices, local businesses

history, social climate, government driven educational reform and data collection, culture, legislation

school policies, extracurricular activities, staff professional development, vision and mission statements

Biological Factors

Individual Factors

Microsystem

Mesosystem

Exosystem

Macrosystem

Fig. 6.1 The bio-psycho-socio-ecological model of school belonging. The findings presented in the last two chapters are illustrated across the different interconnected layers

and their context, influence their school experience. Within natural constraints, some aspects can be changed and some cannot. Fortunately, while empirical evidence at this level is limited, the research that does exist indicates that these biological factors seemingly play a minimal role in a student's sense of school belonging.

6.3 Individual Factors

How a person perceives and experiences the world is impacted by numerous individual psychological factors. A great deal of the school belonging literature, and related frameworks, focus on personal characteristics of the student, such as his or her motivation, personality, optimism, self-efficacy, self-esteem, sociability, or

social skills (e.g., Connell & Wellborn, 1991; Samdal et al., 1998; Sirin & Rogers-Sirin, 2004; Uwah, McMahon, & Furlow, 2008). Although personality is relatively stable, it can and does change over time. Personality is particularly malleable in adolescence, and as such, the literature has identified three sets of individual factors that clearly relate to a sense of belonging: academic motivation, emotional stability, and positive personal characteristics.

Academic motivation is defined as the expectancy of academic success through goal setting and future aspirations, and concerns how motivated students are to learn and function well at school (Libbey, 2004). Emotional stability refers to a lack of maladaptive behaviour, psychopathology, mental illness, and persistent distress. Positive personal characteristics include coping skills, optimism, self-efficacy, self-esteem, and self-concept. A growing area of research is positive psychology aims to find ways to build mental well-being, positive personal qualities, and emotional stability—we will explore these strategies more in the next chapter.

A key thing to note is that the causal direction is unknown. Individual factors clearly relate to a sense of belonging, but does motivation influence belonging, belonging influence motivation, or a combination? Most likely, the direction is inconsequential, and by working on one aspect, the other follows.

6.4 Social Factors (Microsystem)

The individual student, with their unique biological and psychological makeup, functions within a social system of parents, peers, teachers, and others. Bronfenbrenner (1994) calls this the *microsystem*. Studies clearly indicate the importance of social relationships. Qualities such as teacher supportiveness and caring, the presence of good friends, positive relationships with parents, and academic and social support from peers and parents are all significant contributors to a sense of school belonging. Further, the individual influences and is influenced by those around them, in a dynamic, interrelated manner.

The importance of a student's relationship with parents, peers, and teachers has been illustrated through various models and frameworks. For example, the Self-System Process Model (Connell & Wellborn, 1991) incorporates relationship skills with peers and adults, self-awareness of feelings, emotional regulation, and conflict resolution skills.

Peers play an increasingly critical role in adolescent well-being, both in helping one another feel a sense of belonging, as well as providing academic support. As the young person searches for their personal identity and who they are in relation to others, they also influence their peers' social and personal identities, in a dynamic manner. Peers can be a source of great connection, but also can be detrimental to one's sense of self, especially in cases of bullying and victimisation.

It is often thought that parents play an increasingly diminished role throughout adolescence, as the young person establishes their own identity away from the family. Yet as our review indicated, parents do continue to play a significant role.

When parents provide support and show care, compassion, and encouragement towards academic endeavours, young people are more likely to exhibit greater connectedness to school (Benner et al., 2008; Brewster & Bowen, 2004; Carter, McGee, Taylor, & Williams, 2007; Wang & Eccles, 2012). Parental relationships are the first form of support a child typically receives, and parents provide their children person with encouragement and a safe place for making sense of their social and academic experiences at school.

In both our review and others, teachers play a pivotal role in developing and maintaining a sense of school belonging. Students feel supported when teachers are perceived as likeable, when they praise good behaviour and work, and when they are available for personal and academic support. Supportive teachers hold students at a high standard, expecting students to do their best, while scaffolding learning and providing encouragement and support along the way. They make it safe to try and fail, focusing on the learning process.

Brophy (2004) encourages educators to enhance students' positive dispositional traits such as initiative and self-perceived competence, which in turn contribute to strong relationships with adults and peers. When a school builds the personal characteristics of self-perceived competence (e.g., self-efficacy, self-esteem, and self-concept), this increases the students' relational skills, which in turn strengthen relationships throughout the microsystem. These relationships in turn feed back into the students' sense of self, and their perception of how they connect with the world around them, especially with their school.

6.5   Ecological Factors

Beyond the dyadic relationships that students share with their peers, teachers, and parents, broader ecological factors also play a role in shaping how the student functions and feels at school. Bronfenbrenner's (1994) model splits these ecological factors across several interconnected levels: the mesosystem, the exosystem, and the macrosystem.

First, the meso-level includes the climate, implicit and explicit culture, norms, and practices of the school. Schools create a climate that may be more or less supportive of student belonging. The culture of the school is either purposefully shaped, or will create itself, either in a healthy or unhealthy way. School structures and policies impact a sense of fairness, and how safe and secure a student may feel at school (CDC, 2009). For example, schools may promote a sense of safety through school rules and policies (Saab, 2009). Also related to the mesosystem, schools can provide various opportunities for extracurricular activities. These explicit structures and initiatives play a role in shaping the culture of the school and increasing or maintaining school belonging.

School vision and mission statements are another examples of a way that a school shapes the culture of the school. School vision and mission statements outline a school's purpose or they may provide a school with an opportunity to

create a shared vision in respect to how school belonging is prioritised. The importance of school belonging suggests that schools should include belonging in their vision and mission statements, making a clear commitment to helping students feel connected to school.

The meso-level is shaped through the explicit culture of the school—the mission statement, physical environment, norms around behaviour and dress, competencies of staff, and school rituals and traditions—as well as through the implicit or underlying culture—the underlying attitudes, beliefs, and behaviours of its members. It represents school processes, practices, policy, and pedagogy (Libbey, 2004; Saab, 2009), but also highlights the unique bidirectional interactions of the features within the microsystem layer.

Second, the exo-level encapsulates the broader educational community, including the shared vision of the school, the local community, and broader social relationships. These reflect the communities in which the school and student reside. Like the mesosystem, this layer is facilitated by the opportunities provided by schools that bring these groups together. Schools might connect with local businesses or other schools within the neighbourhood, or implement school activities that involve the broader school community and the extended families of its students. Also relevant to the exosystem, schools may connect with the services of local community partners (e.g., a visiting GP, nurse health checks, dental services) (CDC, 2009).

Third, at an even broader level lies the macrosystem—the broader context in which the school resides. This includes local, national, and international policies, norms and expectations around standardised testing, legislation and curriculum demands, and the culture, as well as the historical (e.g., past events, climate, collective attitudes, and conditions) and cultural (e.g., language, norms, customs, beliefs) context unique to each school. These are factors that lie outside of the school's control, but constantly shape decisions that are made.

The macrosystem can be influential in the processes of daily school practice, particularly on how schools orient their priorities and goals. One example can be seen in Australia, where the use of NAPLAN testing has been controversial and intertwined with debates around teacher effectiveness and performance pay. A teacher's ability to implement a curriculum or bolster the study scores of students is not reported in the literature as a concern for students, yet it can often be a pressing burden for teachers in modern-day schools (Roffey, 2012; Thompson, 2013). This is perhaps a reflection of the pressure by governments and legislation to prioritise academic outcomes, arguably above other important factors in the school system. Roffey's (2012) Wellbeing Australia Survey found that "The additional stress on teachers working in unrealistic performance-driven environments has a negative impact on them, which in turn must impact [on the] health and well-being of the students in their classrooms" (p. 4). Increased teacher stress may affect the student–teacher relationship found to be important for fostering school belonging in this paper. Therefore, schools should be mindful of the effect of government-driven initiatives and data collection on the socio-ecological layers common to schools, with concerted attention towards the members of the school community,

particularly staff and students. When a teacher reports a high sense of well-being and belonging to their school, they are in a better place to foster those factors in the students they teach.

Unless government bodies become aware of the growing pressure on schools and teachers from over-prioritising academic outcomes, schools may be reluctant to implement proactive interventions related to school belonging or other mental health areas (e.g., coping, resiliency, positive psychology) due to an already overcrowded curriculum (Thompson, 2013). Government bodies concerned with schools should therefore ensure that school belonging (and well-being more generally) is prioritised in major sources of information disseminated about schools. For example, a school belonging measure could be included on the Australian *My School* website.[1] How students perceive their sense of belonging to their school may be the information that parents wish to seek about a school in addition to academic scores. This is particularly relevant for addressing school dropout rates and student retention issues at a school.

Given that school life generally encompasses a diverse range of outcomes and experiences for students, it seems reasonable that a school's educational practices should not be reduced to a set of standardised scores based on one element of the school's performance (Hardy & Boyle, 2011). At the school level, schools must be mindful of these macrosystem level influences from government reform and policy. It is paramount that schools set realistic and inclusive expectations for academic outcomes for their students, while being mindful of the needs of teachers (Roffey, 2012).

Unfortunately, there is less empirical information available for the exosystem and macrosystem levels on school belonging, and we thus have provided only a limited overview of these systems. It can be difficult for educational researchers to examine these broader levels, especially through studies concerned with preventative interventions like school belonging. These layers do not have a direct association with the student (or individual) where most studies are focused (and where data is easiest to obtain). Studies at the exo- and macro-levels tend to occur in fields such as epidemiology and public health, which rarely intersect with psychosocial aspects of schools. Preventative interventions have traditionally engaged whole neighbourhoods, which costs considerable time and resources (Brown, Kirschman, & Karazsia, 2014). Furthermore, publically available data concerned with the exosystem are not available as they are for other systems (e.g., mesosystem, microsystem). Future research will benefit from interdisciplinary approaches that directly take into account the varying levels in an integrative manner.

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[1]*My School Website* (ACARA, 2009), which publishes the Australian National Assessment Program—Literacy and Numeracy (NAPLAN) results, a standardised measure of academic achievement, for all primary and secondary schools in the country.

6.6 The BPSEM in Context

The BPSEM is based on empirical evidence derived from a detailed synthesis of the literature on school belonging. The framework is designed to enable schools to consider where and how they might intervene to maintain or foster school belonging in their secondary school settings. The next few chapters draw on this framework to identify practical ways that schools can apply this framework.

While the BPSEM provides a way to organise the research and think about specific strategies that can be implemented at different levels, it also has some caveats and limitations that must be mentioned. While the framework itself has been developed from peer-reviewed empirical studies, the inclusion of mainly correlational findings means that the direction of the relationship between the themes found to be strongly correlated with school belonging requires further analysis. Thus, an important caveat is that the influence of themes associated with school belonging cannot be regarded as causal. Further investigation of the relationship between the broader school community, neighbourhoods, and extended families on the perceived sense of belonging by young people may be a source of further future research.

We hope that the BPSEM provides an organising framework for ongoing research to occur. For example, a case study could be used to refine the understanding of how context affects the practices that are implemented, how practices are implemented, and the success of such practices. A deeper understanding of what the model looks like in practice would be useful. Future research should incorporate longitudinal designs with objective measures (e.g., observation) for a more detailed understanding of school belonging.

Questions also remain about how school belonging may differ within specific populations. Research has mostly been conducted in the United States and Australia. Future research could add insight into the suitability of the framework for different countries. Further, how does the model apply to young people who do not belong? How does the framework apply to minority groups? While it is clear that social support is essential to improve belonging among students, this appears to be even more salient for minority groups (e.g., Aerts et al., 2012; McMahon et al., 2008). For these students, the acceptance of their peers, teachers, and parents has been found to be an important variable in developing prosocial behaviour and a positive attitude towards school (Galliher et al., 2004).

Empirical evaluation of the framework in different samples would allow identification of the direction of the relationships of the various individual, microsystem, mesosystem, exosystem, and macrosystem levels with school belonging, thus creating a clearly identified pathway for fostering this construct (e.g., what layers are interdependent, how are they weighted, and what combinations are especially important for school belonging to occur?). As a whole, the BPSEM provides a starting point, but further research is needed to empirically validate the framework and associated evidence-based school practices and further understand the

importance of school belonging and how to increase and/or maintain it in secondary school settings.

6.7   Conclusion

This chapter presented a framework of school belonging using an ecologically orientated perspective of schools. We hope that the framework will help schools think about how to prioritise and impact school belonging across multiple levels. What does that look like in practice? Using the BPSEM as a framework, the next section turns to practical strategies to foster school belonging at these different levels.