

Conceptual and Methodological Issues in School Belonging Research

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Conceptualizations of Sense of School Belonging

There exists a wide range of sense of school belonging (SOSB) conceptualizations within educational literature; however, most definitions include a student's sense of connection, identification, support, and safety within their school environment (Cai et al., 2023; Green et al., 2016; Wagle et al., 2021). The construct typically captures the interplay between personal, social, and environmental factors that contribute to students' experiences of school belonging (Allen et al., 2021; Allen et al., 2022). Higher SOSB is associated with increased academic achievement (Ahmadi, 2020; Allen et al., 2018), better mental health outcomes (Shochet et al., 2011; Wagle et al., 2021), and greater perceived well-being in students (Allen & Boyle, 2018; Arslan, 2019), making it an important construct in educational research. Research has reported a gradual decline in students' SOSB both globally and within Canada, based on data collected from 38 countries between 2003 and 2018 (Organisation for Economic Co-operation and Development [OECD], 2017, 2019). This underscores the need for greater clarity and consistency in the conceptualizations and measurement tools of SOSB if we hope to improve student outcomes in this area.

Researchers typically consider early childhood as ranging from three to eight years old, middle childhood from nine to 11 years old, and adolescence from 12 to 18 years old (Balasundaram & Avulakunta, 2024). Across development, psychosocial and physiological changes occur, which have implications for SOSB throughout a student's education (Balasundaram & Avulakunta, 2024; Dyussenbayev, 2017). Currently, studies have often neglected to consider how SOSB varies depending on the developmental stage of participants and the school level in which they attend.

Early Childhood

Early childhood is a significant period in a child's development. It is a time when children are building independence in functional life skills, in addition to improving social skills, emotional regulation, and other cognitive capacities (Balasundaram & Avulakunta, 2024; Dyussenbayev, 2017). Early childhood is particularly important for SOSB research, as the need for adequate protection, and nurturing care provided by parents, family, and community is particularly crucial for this age to ensure its lifelong psychosocial benefits (Britto et al., 2021). Currently, little research on SOSB exists in students from kindergarten to grade three, making comparisons across conceptualizations during this developmental period difficult.

Research within this demographic tends to define school belonging as relational: encompassing a sense of social connection and inclusion within the school environment (Boldermo, 2019; Dyson, 2018; Karlsudd, 2021). In early childhood literature, researchers have often examined the process of transitioning to school as it relates to SOSB (e.g., Dyson, 2018; Joerdens, 2014). Investigating SOSB in this context is important, as starting school marks a significant transition in the lives of young children and their families. New social demands are placed on young students as they learn to navigate large numbers of children in the same class and find belonging within a new peer group (Mirkhil, 2010). Furthermore, successful transitions

to kindergarten are important for building children's positive attitudes towards future learning and academic self-efficacy—two personal factors that have been shown to predict SOSB (Joerdens, 2014; Wagle et al., 2021). Currently, there is a dearth of literature examining this topic in Canadian contexts. However, given that similar themes are identified across Norwegian (e.g., Boldermo, 2019), Australian (e.g., Joerdens, 2014), and United States populations (e.g., Dyson, 2018), it is likely that Canadian children may experience SOSB in comparable ways.

Middle Childhood

Middle childhood is a distinct period in a child's development, marked by shifts in motivation, cognition, and social behaviour (Berry & O'Connor, 2010; Halfon et al., 2018). During this time, children's awareness of social dynamics grows, which has implications for how students form healthy and secure bonds (Bosmans & Kerns, 2015). Social acceptance becomes more important, as friendships have the potential to offer more security and intimacy (Brown & Beran, 2007). Evidence suggests that secure social connections during this period help to develop children's social and emotional competence, build trust, and foster positive attachments (Bosmans & Kerns, 2015; Brown & Beran, 2007; Kesavelu, 2021).

Literature examining SOSB in middle childhood typically defines the construct as a student's level of perceived acceptance and support by peers and school staff (Bouchard & Berg, 2017; Dumas & Midgett, 2019; Palikara et al., 2021). Student perceptions of safety and respect are also commonly included in SOSB definitions (Tian et al., 2016; Wagle et al., 2021). Much research within this developmental stage is concerned with social bonding, as positive relationships with staff and peers have been reported as integral to SOSB in this population (Bouchard & Berg, 2017; McMahon & Wernsman, 2009). Research suggests that SOSB in middle childhood is associated with extra-curricular engagement (Bouchard & Berg, 2017), school climate (Dumas & Midgett, 2019), perceived well-being (Palikara et al., 2021; Tian et al., 2016), psychological distress (Wagle et al., 2021), and academic self-efficacy (McMahon & Wernsman, 2009). Conceptualizations of SOSB in middle childhood have been informed by Canadian studies (e.g., Bouchard & Berg, 2017) in addition to studies in other English-speaking countries such as England (e.g., Palikara et al., 2021) and the United States (e.g., Dumas & Midgett, 2019).

Adolescence

During adolescence, the onset of puberty begins, causing physical and hormonal changes that lead to sexual maturation (Lee & Styne, 2013). Significant evidence in the research also reports that executive functioning skills, including inhibitory control and emotion regulation, continue to mature into adolescence (Spear, 2013; Zelazo, 2004). Examining SOSB in this age group is valuable, as it is a time when students increasingly rely on social networks outside of the family home to explore who they are and where they belong (Goodenow, 1993b). In addition, this period marks transitions to both middle and high school, which are often accompanied by a range of changes, including a loss of peer groups, building new relationships, and adjustment to new environmental spaces which can result in social and emotional challenges that impact SOSB (Allen & Boyle, 2018).

Similar to other periods in a child's development, SOSB research in adolescents tends to conceptualize the phenomenon as the degree to which a student perceives themselves as accepted, valued, included, and supported by peers and school staff (Ahmadi et al., 2020; Sali,

2012; Shochet et al., 2011). However, what investigations are applied to this conceptualization differs within this age group. For example, research on adolescents often considers SOSB through negative social contexts, with a particular focus on the absence of healthy social bonding (e.g., Chen, 2023; Espelage et al., 2013; Wormington et al., 2016), racial discrimination (e.g., Montoro et al., 2021; Okoye et al., 2023), and substance abuse (e.g., Trucco, 2020). Unfortunately, most SOSB research in adolescent populations has been conducted in the United States (e.g., Allen et al., 2018; Niehaus, 2012). Similar research in Canadian contexts is required to confirm generalizability.

Challenges of SOSB as a Construct

SOSB is a broad and multidimensional construct and there is no clear consensus on the terminology, definition, or measurement tool best suited for inquiry (Allen et al., 2022; Palikara et al., 2021). Typically, conceptualizations reflect Goodenow's (1993a) seminal work on adolescent school belonging which defined the construct "as the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment" (p. 80). This definition is popular in much of the SOSB literature across child and adolescent development (e.g., Allen et al., 2022; Wagle et al., 2021). However, due to the interchangeable use of terms like student engagement, school membership, and school attachment, inconsistencies in conceptualization and measurement exist in the literature (Allen et al., 2022; Wagle et al., 2021). Even when using the same measurements, differences in terminology and definitions persist across studies (Allen et al., 2022). This lack of clarity contributes to inconsistency across research, complicating the operationalization and understanding of SOSB (Fredricks, 2016; Allen et al., 2021; Kuttner, 2023).

Variations in measurement tools and items across behavioral, contextual, and emotional domains also hinder comparability of findings as studies have found variations in results across different instruments (Fredricks, 2016; Korpershoek et al., 2020). While the Psychological Sense of School Membership Scale (PSSM) created by Goodenow (1993a) is the most widely used measure, adaptations to fit specific demographics or contexts, in addition to newly created measures by researchers, often lack a pilot phase, raising questions about validity and reliability (Dulock, 1993; Siedlecki, 2020). Lastly, a conceptual challenge arises in measuring SOSB either as a stable trait or a situation-specific variable (Allen et al., 2021).

The wide range of variables that create a student's SOSB presents difficulties to operationalization, as gaining an in-depth understanding of each of these components is beyond the scope of most research. Typically, SOSB literature focuses on a few key themes related to SOSB, such as social contexts (e.g., Anderman, 2003; Cai et al., 2023), or school climate (e.g., Baraldsnes et al., 2020; Kalkan & Dağlı, 2022). Other researchers have attempted to merge these findings to develop a comprehensive conceptualization (e.g., Allen, 2016; Allen & Boyle, 2018; Slaten et al., 2016), but variation in definition and operationalization across studies poses significant challenges to this task. In addition, with the predominant focus on the social aspects of SOSB, research often fails to adequately capture the cultural, temporal, and environmental nature of the phenomenon (Allen et al., 2021). Capturing the multifaceted elements contributing to students' SOSB demands significant resources, making such comprehensive studies rare in the literature.

Finally, due to the resource-intensive nature of longitudinal studies, most SOSB research is cross-sectional. This is problematic, as evidence suggests that SOSB is not a stable construct as it tends to decline during adolescence (Klik et al., 2023; Allen et al., 2023; Niehaus et al.,

2012). While such longitudinal research is rare, it is essential for capturing how the personal, social, and environmental factors related to SOSB change across time.

Directions for Future Research

Individuals with minority identities, including those with disabilities and diverse cultural, linguistic, sexual, and gender backgrounds, face unique barriers to developing a strong SOSB (Bell-Booth et al., 2014; Layton, 2023; OECD, 2024; Pesonen, 2016). These barriers include victimization, peer rejection, lack of individualization, and stigma, particularly for students with disabilities (Bell-Booth et al., 2014; Pesonen, 2016). Indigenous students in Canada experience marginalization and oppression, resulting in lower academic achievement, graduation rates, and post-secondary enrollment (Layton, 2023; Ministry of Education and Child Care, 2022). Additionally, significant disparities in SOSB exist between students in the highest and lowest socio-economic status quartiles, as evidenced by data from the Programme for International Student Assessment (PISA) (OECD, 2024). This underscores the need for future research to explore ways to promote SOSB among minority populations to address these inequities in Canadian schools.

School belonging is vital for predicting a range of academic and psychosocial outcomes. However, there is a significant gap in the literature examining the construct within early elementary contexts. Consequently, it would be beneficial for future research to focus on developing a conceptualization of SOSB that reflects the specific developmental period of early elementary children. Additionally, validated measures of SOSB in this population is greatly needed. Finally, more longitudinal research is needed that captures the multiple influential domains subsumed within SOSB to understand how these variables change over time across diverse populations.

Conclusion

SOSB is typically conceptualized as the extent to which students experience a sense of safety, inclusion, respect, acceptance, and social support within their school environment. However, inconsistencies across the research have resulted in a fragmented and diluted understanding of the phenomenon (Allen et al., 2018). Researchers also typically fail to consider the developmental period of students in their conceptualizations. Despite conceptual and operational challenges, SOSB has been extensively implicated in a variety of academic and psychosocial outcomes (Allen et al., 2016; Allen et al., 2018; Slaten et al., 2016), making it a worthwhile inquiry focus. Future research examining SOSB in early elementary contexts, in addition to longitudinal designs conducted with diverse populations, would be beneficial.

References

- Ahmadi, S., Hassani, M., & Ahmadi, F. (2020). Student- and school-level factors related to school belongingness among high school students. *International Journal of Adolescence and Youth*, 25(1), 741–752. <https://doi.org/10.1080/02673843.2020.1730200>
- Alesech, J., & Nayar, S. (2021). Teacher strategies for promoting acceptance and belonging in the classroom: A New Zealand study. *International Journal of Inclusive Education*, 25(10), 1140–1156. <https://doi.org/10.1080/13603116.2019.1600054>
- Allen, K.-A., & Boyle, C. (2018). *Pathways to belonging: Contemporary research in school belonging*. Brill.
- Allen, K.-A., Gallo Cordoba, B., Ryan, T., Arslan, G., Slaten, C. D., Ferguson, J. K., Bozoglan, B., Abdollahi, A., & Vella-Brodrick, D. (2023). Examining predictors of school belonging using a socio-ecological perspective. *Journal of Child and Family Studies*, 32(9), 2804–2819. <https://doi.org/10.1007/s10826-022-02305-1>
- Allen, K.-A., Jamshidi, N., Berger, E., Reupert, A., Wurf, G., & May, F. (2022). Impact of school-based interventions for building school belonging in adolescence: A systematic review. *Educational Psychology Review*, 34(1), 229–257. <https://doi.org/10.1007/s10648-021-09621-w>
- Allen, K.-A., Kern, M. L., Rozek, C., McInerney, D., & Slavich, G. (2021). Belonging: A review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology*, 73(1), 87–102.
- Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review*, 30(1), 1–34. <https://doi.org/10.1007/s10648-016-9389-8>
- Allen, K.-A., Vella-Brodrick, D., & Waters, L. (2016). Fostering school belonging in secondary schools using a socio-ecological framework. *The Educational and Developmental Psychologist*, 33(1), 97–121. <https://doi.org/10.1017/edp.2016.5>
- Al-Yagon, M., Kopelman-Rubin, D., Brunstein Klomek, A., & Mikulincer, M. (2016). Four-model approach to adolescent–parent attachment relationships and adolescents’ loneliness, school belonging, and teacher appraisal. *Personal Relationships*, 23(1), 141–158. <https://doi.org/10.1111/pere.12116>
- Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*, 94(4), 795–809. <https://doi.org/10.1037/0022-0663.94.4.795>
- Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students’ sense of school belonging. *The Journal of Experimental Education*, 72(1), 5–22. <https://doi.org/10.1080/00220970309600877>
- Arslan, G. (2019). School belonging in adolescents: Exploring the associations with school achievement and internalising and externalising problems. *Educational and Child Psychology*, 36(4), 22–33.
- Balasundaram, P., & Avulakunta, I. D. (2024). *Human growth and development*. StatPearls Publishing.
- Baraldsnes, D., Fandrem, H., & Strohmeier, D. (2020). Bullying prevention and school climate: Correlation between teacher bullying prevention efforts and their perceived school climate. *International Journal of Developmental Science*, 14(3/4), 85–95. <https://doi.org/10.3233/DEV-200286>

- Bell-Booth, R., Staton, S., & Thorpe, K. (2014). Getting there, being there, staying and belonging: A case study of two Indigenous Australian children's transition to school. *Children & Society, 28*(1), 15–29. <https://doi.org/10.1111/j.1099-0860.2012.00441.x>
- Berry, D., & O'Connor, E. (2010). Behavioral risk, teacher–child relationships, and social skill development across middle childhood: A child-by-environment analysis of change. *Journal of Applied Developmental Psychology, 31*(1), 1–14. <https://doi.org/10.1016/j.appdev.2009.05.001>
- Boldermo, S. (2019). Practicing belonging in kindergarten: children's use of places and artifacts. *Nordic Families, Children and Early Childhood Education, 61*–79. https://doi.org/10.1007/978-3-030-16866-7_4
- Bosmans, G., & Kerns, K. A. (2015). Attachment in middle childhood: Progress and prospects. *New Directions for Child and Adolescent Development, 2015*(148), 1–14. <https://doi.org/10.1002/cad.20100>
- Bouchard, K. L., & Berg, D. H. (2017). Students' school belonging: Juxtaposing the perspectives of teachers and students in the late elementary school years (Grades 4–8). *School Community Journal, 27*(1), 107–137.
- Bowlby, J. (1969). *Attachment and loss (Vol. 1)*. Basic Books.
- Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., Perez-Escamilla, R., Rao, N., Ip, P., Fernald, L. C. H., MacMillan, H., Hanson, M., Wachs, T. D., Yao, H., Yoshikawa, H., Cerezo, A., Leckman, J. F., & Bhutta, Z. A. (2017). Nurturing care: promoting early childhood development. *The Lancet, 389*(10064), 91–102. [https://doi.org/10.1016/S0140-6736\(16\)31390-3](https://doi.org/10.1016/S0140-6736(16)31390-3)
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen, G. H. J. Elder, & K. Luscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 619–647). American Psychological Association. <https://doi.org/10.1037/10176-018>
- Bronfenbrenner, U. (1999). Environments in developmental perspective: Theoretical and operational models. In S. L. Friedman & T. D. Wachs (Eds.), *Measuring environment across the life span: Emerging methods and concepts* (pp. 3–28). American Psychological Association. <https://doi.org/10.1037/10317-001>
- Brown, T., & Beran, M. (2007). Developmental stages of children. In R. Lueder & V. J. B. Rice (Eds.), *Ergonomics for children* (1st ed., pp. 29–54). CRC Press.
- Cai, Y., Yang, Y., Ge, Q., & Weng, H. (2023). The interplay between teacher empathy, students' sense of school belonging, and learning achievement. *European Journal of Psychology of Education, 38*(3), 1167–1183. <https://doi.org/10.1007/s10212-022-00637-6>
- Chen, I.-H., Gamble, J. H., & Lin, C.-Y. (2023). Peer victimization's impact on adolescent school belonging, truancy, and life satisfaction: A cross-cohort international comparison. *Current Psychology, 42*(2), 1402–1419. <https://doi.org/10.1007/s12144-021-01536-7>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed). Pearson.
- Cullinane, M. (2020). An exploration of the sense of belonging of students with special educational needs. *Journal of Inclusive Education in Ireland, 33*(1), 2–12.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. The University of Rochester Press.

- Doumas, D. M., & Midgett, A. (2019). The effects of students' perceptions of teachers' antibullying behavior on bullying victimization: Is sense of school belonging a mediator? *Journal of Applied School Psychology, 35*(1), 37–51. <https://doi.org/10.1080/15377903.2018.1479911>
- Dulock, H. L. (1993). Research design: Descriptive research. *Journal of Pediatric Oncology Nursing, 10*(4), 154–157. <https://doi.org/10.1177/104345429301000406>
- Dyson, A. H. (2018). A sense of belonging: Writing (righting) inclusion and equity in a child's transition to school. *Research in the Teaching of English, 52*(3), 236–261.
- Dyussenbayev, A. (2017). Age periods of human life. *Advances in Social Sciences Research Journal, 4*(6), Article 6. <https://doi.org/10.14738/assrj.46.2924>
- Einarsdóttir, J. (2007). Research with children: Methodological and ethical challenges. *European early childhood education research journal, 15*(2), 197–211.
- El Zaatari, W., & Maalouf, I. (2022). How the Bronfenbrenner bio-ecological system theory explains the development of students' sense of belonging to school? *SAGE Open, 12*(4), 215824402211340. <https://doi.org/10.1177/21582440221134089>
- Espelage, D. L., Hong, J. S., Rao, M. A., & Low, S. (2013). Associations between peer victimization and academic performance. *Theory into practice, 52*(4), 233–240.
- Fong Lam, U., Chen, W.-W., Zhang, J., & Liang, T. (2015). It feels good to learn where I belong: School belonging, academic emotions, and academic achievement in adolescents. *School Psychology International, 36*(4), 393–409. <https://doi.org/10.1177/0143034315589649>
- Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and instruction, 43*, 1–4.
- Gilmour, A. F., Fuchs, D., & Wehby, J. H. (2019). Are students with disabilities accessing the curriculum? A meta-analysis of the reading achievement gap between students with and without disabilities. *Exceptional Children, 85*(3), 329–346. <https://doi.org/10.1177/0014402918795830>
- Goodenow, C. (1993a). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*(1), 79–90. [https://doi.org/10.1002/1520-6807\(199301\)30:1<79::AID-PITS2310300113>3.0.CO;2-X](https://doi.org/10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X)
- Goodenow, C. (1993b). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *The Journal of Early Adolescence, 13*(1), 21–43.
- Gottfredson, G. (1984). *Effective school battery*. Psychological Assessment Resources. <https://docplayer.net/14321278-The-effective-school-battery.html>
- Graham, S., Kogachi, K., & Morales-Chicas, J. (2022). Do I fit in: Race/ethnicity and feelings of belonging in school. *Educational Psychology Review, 34*(4), 2015–2042. <https://doi.org/10.1007/s10648-022-09709-x>
- Green, M., Emery, A., Sanders, M., & Anderman, L. H. (2016). Another path to belonging: A case study of middle school students' perspectives. *The Educational and Developmental Psychologist, 33*(1), 85–96. <https://doi.org/10.1017/edp.2016.4>
- Halfon, N., Forrest, C. B., Lerner, R. M., & Faustman, E. M. (Eds.). (2018). *Handbook of Life Course Health Development*. Springer International Publishing. <https://doi.org/10.1007/978-3-319-47143-3>

- He, J., & Van de Vijver, F. J. (2013). Methodological issues in cross-cultural studies in educational psychology. In G. A. D. Liem & A. B. I. Bernardo (Eds.), *Advancing cross-cultural perspectives on educational psychology* (pp. 39–56).
- Hughes, J. N., Im, M. H., & Allee, P. J. (2015). Effect of school belonging trajectories in grades 6–8 on achievement: Gender and ethnic differences. *Journal of School Psychology, 53*(6), 493–507. <https://doi.org/10.1016/j.jsp.2015.08.001>
- Hunt, S. M., Radliff, K. R., Acton, C., Bible, A., & Joseph, L. M. (2023). Students with disabilities' perceptions of school climate: A systematic review. *School Psychology International, 01430343231194732*. <https://doi.org/10.1177/01430343231194732>
- Jennings, G. (2003). An exploration of meaningful participation and caring relationships as contexts for school engagement. *California School Psychologist, 8*, 43–52.
- Joerdens, S. H. (2014). 'Belonging means you can go in': Children's perspectives and experiences of membership of kindergarten. *Australasian Journal of Early Childhood, 39*(1), 12–21. <https://doi.org/10.1177/183693911403900103>
- Johnson, L. S. (2009). School contexts and student belonging: A mixed methods study of an innovative high school. *The School Community Journal, 19*(1), 99–118.
- Kalkan, F., & Dağlı, E. (2022). The relationships between school climate, school belonging and school burnout in secondary school students. *International Journal of Contemporary Educational Research, 8*(4), 59–79. <https://doi.org/10.33200/ijcer.878682>
- Kanwar, P. (2020). Pubertal development and problem behaviours in Indian adolescents. *International Journal of Adolescence and Youth, 25*(1), 753–764. <https://doi.org/10.1080/02673843.2020.1739089>
- Karlsudd, P. (2021). Promoting diversity and belonging: Preschool Staff's perspective on inclusive factors in the Swedish preschool. *Education Sciences, 11*(3), 104. <https://doi.org/10.3390/educsci11030104>
- Kesavelu, D., Sheela, K., & Abraham, P. (2021). Stages of psychological development of child-an overview. *International Journal of Current Research and Review, 13*(13), 74–78.
- Kiefer, S. M., Alley, K. M., & Ellerbrock, C. R. (2015). Teacher and peer support for young adolescents' motivation, engagement, and school belonging. *RMLE Online, 38*(8), 1–18. <https://doi.org/10.1080/19404476.2015.11641184>
- Klik, K. A., Cárdenas, D., & Reynolds, K. J. (2023). School climate, school identification and student outcomes: A longitudinal investigation of student well-being. *British Journal of Educational Psychology, 93*(3), 806–824. <https://doi.org/10.1111/bjep.12597>
- Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & De Boer, H. (2020). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A meta-analytic review. *Research Papers in Education, 35*(6), 641–680. <https://doi.org/10.1080/02671522.2019.1615116>
- Kuttner, P. (2023). The right to belong in school: A critical, transdisciplinary conceptualization of school belonging. *AERA Open, 9*(1), 1–12. <https://doi.org/10.1177/23328584231183407>
- LaGuardia, J., Ryan, R., Couchman, C., & Deci, E. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*, 367–384.
- Layton, J. (2023). *First Nations youth: Experiences and outcomes in secondary and postsecondary learning* (Report No. 81-599-X – No. 18). Statistics Canada.

- Lee, Y., & Styne, D. (2013). Influences on the onset and tempo of puberty in human beings and implications for adolescent psychological development. *Hormones and Behavior*, *64*(2), 250–261. <https://doi.org/10.1016/j.yhbeh.2013.03.014>
- Loue, S. (Ed.). (2009). *Sexualities and identities of minority women*. Springer New York. <https://doi.org/10.1007/978-0-387-75657-8>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. <https://doi.org/10.1037/h0054346>
- McMahon, S. D., & Wernsman, J. (2009). The relation of classroom environment and school belonging to academic self-efficacy among urban fourth- and fifth-grade students. *The Elementary School Journal*, *109*(3), 267–281. <https://doi.org/10.1086/592307>
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of school health*, *72*(4), 138–146.
- Mediha. (2012). Sense of school belonging among elementary school students. *C. U. Faculty of Education Journal*, *41*(1), 1–11.
- Mihić, J., Skinner, M., Novak, M., Ferić, M., & Kranželić, V. (2022). The importance of family and school protective factors in preventing the risk behaviors of youth. *International Journal of Environmental Research and Public Health*, *19*(3), 1630. <https://doi.org/10.3390/ijerph19031630>
- Ministry of Education and Child Care. (2022). *Aboriginal report: How are we doing? 2021/2022*. <https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/reports/ab-hawd/ab-hawd-school-district-public.pdf>
- Mirkhil, M. (2010). Important ingredients for a successful transition to school. *International Research in Early Childhood Education*, *1*(1), 60–70.
- Montoro, J. P., Kilday, J. E., Rivas-Drake, D., Ryan, A. M., & Umaña-Taylor, A. J. (2021). Coping with discrimination from peers and adults: Implications for adolescents' school belonging. *Journal of Youth and Adolescence*, *50*(1), 126–143. <https://doi.org/10.1007/s10964-020-01360-5>
- National Center for Educational Statistics. (1988). *National education longitudinal study of 1988 (NELS:88)*. <https://nces.ed.gov/surveys/nels88/design.asp>
- Nichols, S. L. (2008). An exploration of students' belongingness beliefs in one middle school. *The Journal of Experimental Education*, *76*(2), 145–169. <https://doi.org/10.3200/JEXE.76.2.145-169>
- Niehaus, K., Rudasill, K. M., & Rakes, C. R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology*, *50*(4), 443–460. <https://doi.org/10.1016/j.jsp.2012.03.002>
- Organisation for Economic Co-operation and Development. (2017). *PISA 2015 results (volume III): Students' sense of belonging at school and their relations with teachers*. OECD Publishing. <https://doi.org/10.1787/9789264273856-11-en>
- Organisation for Economic Co-operation and Development. (2019). *PISA 2018 results (volume III): What school life means for students' lives*. OECD Publishing. <https://doi.org/10.1787/acd78851-en>
- Organisation for Economic Co-operation and Development. (2024). *Canada student performance (PISA 2022)*. OECD Publishing. <https://gpseducation.oecd.org/CountryProfile?primaryCountry=CAN&treshold=10&topic=PI>

- Okoye, H., Ojukwu, E., Coronel Villalobos, M., & Saewyc, E. (2023). Racism as a social determinant of health: Link to school-related psychosocial stressors in a population-based sample of African adolescents in Canada. *Journal of Advanced Nursing*, 79(9), 3498–3512.
- Palikara, O., Castro-Kemp, S., Gaona, C., & Eirinaki, V. (2021). The mediating role of school belonging in the relationship between socioemotional well-being and loneliness in primary school age children. *Australian Journal of Psychology*, 73(1), 24–34. <https://doi.org/10.1080/00049530.2021.1882270>
- Pesonen, H. (2016). *Sense of belonging for students with intensive special education needs: An exploration of students' belonging and teachers' role in implementing support* (Report No. 380). University of Helsinki. <http://hdl.handle.net/10138/159852>
- Pittman, L. D., & Richmond, A. (2007). Academic and Psychological functioning in late adolescence: The importance of school belonging. *The Journal of Experimental Education*, 75(4), 270–290. <https://doi.org/10.3200/JEXE.75.4.270-292>
- Sali, L. J., Osiesi, M. P., & Blignaut, S. (2023). Exploring learners' sense of belonging in Port Elizabeth low-income primary schools in South Africa: A narrative inquiry. *Education 3-13*, 1–14. <https://doi.org/10.1080/03004279.2023.2233529>
- Shochet, I. M., Smith, C. L., Furlong, M. J., & Homel, R. (2011). A prospective study investigating the impact of school belonging factors on negative affect in adolescents. *Journal of Clinical Child & Adolescent Psychology*, 40(4), 586–595. <https://doi.org/10.1080/15374416.2011.581616>
- Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), 8–12. <https://doi.org/10.1097/NUR.0000000000000493>
- Slaten, C. D., Ferguson, J. K., Allen, K.-A., Brodrick, D.-V., & Waters, L. (2016). School belonging: A review of the history, current trends, and future directions. *The Educational and Developmental Psychologist*, 33(1), 1–15. <https://doi.org/10.1017/edp.2016.6>
- Spear, L. P. (2013). Adolescent neurodevelopment. *Journal of Adolescent Health*, 52(2), S7–S13. <https://doi.org/10.1016/j.jadohealth.2012.05.006>
- Thomson, K. C., Oberle, E., Gadermann, A. M., Guhn, M., Rowcliffe, P., & Schonert-Reichl, K. A. (2018). Measuring social-emotional development in middle childhood: The middle years development instrument. *Journal of Applied Developmental Psychology*, 55, 107–118. <https://doi.org/10.1016/j.appdev.2017.03.005>
- Tian, L., Zhang, L., Huebner, E. S., Zheng, X., & Liu, W. (2016). The longitudinal relationship between school belonging and subjective well-being in school among elementary school students. *Applied Research in Quality of Life*, 11(4), 1269–1285. <https://doi.org/10.1007/s11482-015-9436-5>
- Trucco, E. M. (2020). A review of psychosocial factors linked to adolescent substance use. *Pharmacology, Biochemistry and Behavior*, 196, 172969–172969. <https://doi.org/10.1016/j.pbb.2020.172969>
- Wagle, R., Dowdy, E., Nylund-Gibson, K., Sharkey, J. D., Carter, D., & Furlong, M. J. (2021). School belonging constellations considering complete mental health in primary schools. *Educational and Developmental Psychologist*, 38(2), 173–185. <https://doi.org/10.1080/20590776.2021.1964071>
- Wagle, R., Dowdy, E., Yang, C., Palikara, O., Castro, S., NylundGibson, K., & Furlong, M. J. (2018). Preliminary investigation of the Psychological Sense of School Membership scale

- with primary school students in a cross-cultural context. *School Psychology International*, 39(6), 568–586. <https://doi.org/10.1177/0143034318803670>
- Wang, M. T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, 83(3), 877–895. <https://doi.org/10.1111/j.1467-8624.2012.01745.x>
- Wilson, M., Bejar, I., Scalise, K., Templin, J., Wiliam, D., & Irribarra, D. T. (2012). Perspectives on methodological issues. *Assessment and teaching of 21st century skills*, 67–141.
- Wormington, S. V., Anderson, K. G., Schneider, A., Tomlinson, K. L., & Brown, S. A. (2016). Peer victimization and adolescent adjustment: Does school belonging matter? *Journal of School Violence*, 15(1), 1–21. <https://doi.org/10.1080/15388220.2014.922472>.
- Zelazo, P. D., Craik, F. I. M., & Booth, L. (2004). Executive function across the life span. *Acta Psychologica*, 115(2), 167–183. <https://doi.org/10.1016/j.actpsy.2003.12.005>