

# **The Sociocultural Contexts of Learning**

## **A Brief Literature Review**

**Minnesota Youth Development Research Group**

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### Acknowledgements

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# **The Sociocultural Contexts of Learning**

## **A Brief Literature Review**

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### **Introduction**

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Learning is a social activity, “involving the individual’s use of shared language, tools, norms and practices in interaction with his or her social context” (Shepard et al., 2018, p. 23). We acknowledge that social context is often culturally embedded, as individuals develop in culturally specific contexts. It is clear, from volumes of developmental research, that youth develop in multiple ways simultaneously.

We agree with the power of sociocultural theory to help us understand the role of context in learning. Sociocultural theory “goes further in acknowledging how it is that one’s cognitive development and social identity are jointly constituted through participation in multiple social worlds of family, community, and school” (Shepard et al., 2018, p. 23). This is closely consistent with the premises of positive youth development and an asset perspective on youth development, rather than the traditional deficit-oriented medical models used in risk-based orientations.

The main message is that learning does not occur in isolation of other aspects of development. To support learning, to maximize one’s learning potential, we must acknowledge and support other simultaneous aspects of development. We cannot expect successful cognitive development while ignoring the other contexts of development.

### **Purpose of this Review and the CZI Measures Mapping Project**

The Chan Zuckerberg Initiative (CZI) invited the Minnesota Youth Development Research Group to undertake a measures mapping project and associated literature review to address the definitions and roles of (a) asset-based protective factors, (b) relationship building, (c) belonging, (d) resilience, and (e) school climate. The first component of the project was to conduct a review of existing measures of these aspects of youth development, to provide guidance to schools looking for ways to address the sociocultural contexts of learning. The resulting measures map includes over 130 instruments, with information about the source of the instrument, the specific measures (constructs) included, respondents (youth, parents, teachers), grades of participants, language of instrument, and a series of codings regarding evidence of instrument quality, length, scoring, reporting, appropriateness for diverse settings, and others.

This brief literature is offered to provide some context in which these instruments and associated measures were developed and offered. Here we introduce prevailing definitions and approaches to the operationalization and use of these five broad arenas. This brief literature review provides a window into how researchers and practitioners have labelled, defined, and used concepts around the sociocultural contexts of learning to help promote youth success in school and beyond.

## Measurement Terminology

One of the challenges in the interpretation and use of the ideas and concepts regarding the sociocultural contexts of learning is the lack of consistency in terminology, definitions, and language. The inconsistency occurs at multiple levels. This begins with how we organize measures in this arena, from frameworks, to constructs, measures, and items. Here is a basic introduction to the levels of measurement in this arena.

1. **Frameworks** are the largest unit – the umbrella term that provides a qualitative structure for how constructs are proposed, defined, or operationalized. In these terms, frameworks that I know of include Developmental Assets, CASEL, Positive Youth Development, Personality Psychology (Big5), 21st Century Skills, Strive, and others.
2. **Constructs** are more specific traits – which in this arena are mostly latent traits. Constructs can include attitudes, behaviors, beliefs, values, and some aspects of knowledge, skills, and abilities. In these terms, examples of constructs include self-efficacy, emotional intelligence, self-regulation, positive identity, social-competence, and many, many others. Essentially, all proposed measures currently in the field are measures of constructs.
3. **Measures** are even more specific units – they are the operationalization of a given construct. A measure is a specific tool designed to measure the construct, given a specific definition of that construct - and we acknowledge that a single construct (self-awareness) can be defined differently by different people and measured in different ways. There are so many examples of measures, including the Developmental Asset Profile, the REACH survey, the California CORE measures, DESSA, SAYO, TESSERA, and many others. Each of these measures are composed of many items measuring multiple constructs.
4. **Items/tasks** are the most specific units, the building blocks of a given measure – the way we indirectly observe a person's position on the construct being measured. Items and tasks represent aspects of the construct providing ways for persons to respond, providing construct-relevant data. The person-item interaction provides evidence of a person's trait level.

There is a great deal of inconsistency in how researchers and practitioners use these terms. They lead to ambiguity in the role of context in learning. Here, we use these terms intentionally and purposefully.

## The Origins of *Social and Emotional Learning*

In addressing the measures in the field for the CZI effort to provide guidance to schools, we preface this work in the broadest context of positive youth development. This approach, consistent with asset-oriented approaches, moves us beyond the deficit-oriented approaches that form the basis for much of what we know about youth development – a very limited perspective. These approaches are consistent with the deeper sociocultural theoretic approaches that acknowledge the cultural specific contexts in which youth grow up.

The asset-based view of youth development is a framework introduced by the Search Institute in 1989 (see Scales & Leffert, 2004, for a research summary), supported by the call for positive psychology (Seligman & Csikszentmihalyi, 2000), and the positive youth development movement (see Benson et al., 2006, for a summary). In 1994, the Collaborative to Advance Social and Emotional Learning was created, facilitated through a meeting supported by the Fetzer Institute, establishing the term *social and emotional learning* (SEL) to encompass much of the work that preceded (currently named the Collaborative for Academic, Social, and Emotional Learning – CASEL).

Two decades later, a 28-member council of distinguished scientists endorsed a consensus statement regarding the evidence base for social, emotional, and academic development (Jones & Kahn, 2017). This council endorsed consensus statements of evidence, including assertions such as

1. social, emotional, and cognitive competencies are fundamentally intertwined;
2. develop throughout life and are essential to success in school, workplace, home, and community;
3. can be taught and developed throughout life;
4. are influenced by families, schools, communities and their institutions;
5. are essential parts of P-12 education, promoting 21st century skills; and
6. students from all backgrounds benefit from positive social and emotional development.

### **Positive Youth Development**

A broad umbrella approach to youth development is within the arena of positive youth development (PYD). Benson et al. (2006) identified five core characteristics common among numerous definitions of positive youth development:

- (a) developmental contexts (i.e., places, settings, ecologies, and relationships with the potential to generate supports, opportunities, and resources);
- (b) the nature of the child with accents on inherent capacity to grow and thrive (and actively engage with supportive contexts);
- (c) developmental strengths (attributes of the person, including skills, competencies, values, and dispositions important for successful engagement in the world); and two complimentary conceptualizations of developmental success;
- (d) the reduction of high-risk behavior; and
- (e) the promotion of thriving. (p. 896)

These definitional characteristics include a wide range of contexts, including family, school, neighborhoods, programs, congregations, peers, and workplace. These contexts interact with person characteristics (nature of the child and developmental strengths) and developmental success (less risk behaviors and more thriving). The National Research Council and Institute of Medicine (Eccles & Gootman, 2002) acknowledged the role of assets and argued that personal and social assets facilitate well-being and successful transition through adolescence into adulthood, also noting the importance of context, including experiences, settings, and people. Benson et al. (2006) also hypothesized that developmental skills and supports impact all youth.

Two related interpretive frameworks for SEL have been succinctly summarized by The Aspen Institute (2018):

- Social and emotional development comprises specific skills and competencies that people need in order to set goals, manage behavior, build relationships, and process and remember information. (p. 2)

And CASEL (2017) defines SEL as

the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

The overall position of The Aspen Institute is that social, emotional, and academic development can be integrated in ways to reinforce educational equity, which they define as a system where every student has access to the resources and educational rigor they need at the right moment in their education, irrespective of race, ethnicity, gender, sexual orientation, language, disability, family background, family income, citizenship, or tribal status. (p. 2)

Although there are a complex set of characteristics in the definitions present in the theoretical literature around positive youth development and associated SEL constructs, the practical (perhaps pragmatic) use of SEL measures regards their associations with behavior. The last two aspects of PYD definitions above include the reduction of high-risk behaviors and the promotion of thriving directly speak to behaviors – both positive and negative behaviors. As educators find making significant improvements in achievement to be very difficult, they are turning to SEL as a potential area for change.

This review provides a broad overview of the following SEL arenas:

1. Developmental Assets
2. Relationships
3. Belonging
4. Resilience
5. School Climate

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## DEVELOPMENTAL ASSETS

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Thirty years ago, Peter Benson (1990) published a report naming the “ingredients necessary for positive youth development” (p. 7). Based on nearly 50,000 students from 25 states, he attempted to create a profile of American youth. The developmental asset framework of the Search Institute was groundbreaking, turning the conversation among youth development researchers from risky behaviors, deficits, and interventions, “into an integrated view of the relationships, opportunities, and character strengths young people need to thrive” (Roehlkepartain, 2015, p. 1). The developmental assets were organized into four internal assets (commitment to learning, positive values, social competencies, positive identity) and four external assets (support, empowerment, boundaries & expectations, constructive use of time).

This work established a number of long-standing assertions (Roehlkepartain, 2015):

1. A focus on understanding and building assets - that families, schools, and communities can be asset builders.
2. There is power in the accumulation of assets.
3. Recognition that multiple arenas play a role and the promise of developmental assets is achieved when there is a shared vision across sectors, including education, government, business, service organizations, law enforcement, youth organizations, and religious organizations.

In the proposal and initial framing of this project, CZI offered a working definition of asset-based protective factors as “those factors external to the child that support the development and wellbeing of the child, and allow the child to navigate through challenges and hardships.” We do not disagree, but would expand that definition to include internal factors that function for the same purposes. We also note that this initial definition includes aspects of resilience (described in a later section) which is a process in the contexts of systems that support that navigation and thriving in the face of adversity. Similarly, internal and external assets encompass elements of relationships, belonging, and school climate (as well as family and community climate). In fact, the developmental assets framework is perhaps the broadest conceptualization of the sociocultural contexts of learning.

### **Assets and Protective Factors**

The Developmental Assets Framework is the most comprehensive set of assets and protective factors. These include the following:

#### **Support**

1. Family support—Family life provides high levels of love and support.
2. Positive family communication—Young person and her or his parent(s) communicate positively, and young person is willing to seek advice and counsel from parents.
4. Other adult relationships—Young person receives support from three or more nonparent adults.
5. Caring neighborhood—Young person experiences caring neighbors.
6. Caring school climate—School provides a caring, encouraging environment.
7. Parent involvement in schooling—Parent(s) are actively involved in helping young person succeed in school.

### **Empowerment**

8. Community values youth—Young person perceives that adults in the community value youth.
9. Youth as resources—Young people are given useful roles in the community.
10. Service to others—Young person serves in the community one hour or more per week.
11. Safety—Young person feels safe at home, school, and in the neighborhood.

### **Boundaries & Expectations**

12. Family boundaries—Family has clear rules and consequences and monitors the young person's whereabouts.
13. School Boundaries—School provides clear rules and consequences.
14. Neighborhood boundaries—Neighbors take responsibility for monitoring young people's behavior.
15. Adult role models—Parent(s) and other adults model positive, responsible behavior.
16. Positive peer influence—Young person's best friends model responsible behavior.
17. High expectations—Both parent(s) and teachers encourage the young person to do well.
18. Creative activities—Young person spends three or more hours per week in lessons or practice in music, theater, or other arts.

### **Constructive Use of Time**

19. Youth programs—Young person spends three or more hours per week in sports, clubs, or organizations at school and/or in the community.
20. Religious community—Young person spends one or more hours per week in activities in a religious institution.
21. Time at home—Young person is out with friends "with nothing special to do" two or fewer nights per week.

### **Commitment to Learning**

22. Achievement Motivation—Young person is motivated to do well in school.
23. School Engagement—Young person is actively engaged in learning.
24. Homework—Young person reports doing at least one hour of homework every school day.
25. Bonding to school—Young person cares about her or his school.
26. Reading for Pleasure—Young person reads for pleasure three or more hours per week.

### **Positive Values**

27. Caring—Young person places high value on helping other people.
28. Equality and social justice—Young person places high value on promoting equality and reducing hunger and poverty.
29. Integrity—Young person acts on convictions and stands up for her or his beliefs.
30. Honesty—Young person "tells the truth even when it is not easy."
31. Responsibility—Young person accepts and takes personal responsibility.
32. Restraint—Young person believes it is important not to be sexually active or to use alcohol or other drugs.

### **Social Competencies**

33. Planning and decision making—Young person knows how to plan ahead and make choices.
34. Interpersonal Competence—Young person has empathy, sensitivity, and friendship skills.
35. Cultural Competence—Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.



36. Resistance skills—Young person can resist negative peer pressure and dangerous situations.
37. Peaceful conflict resolution—Young person seeks to resolve conflict nonviolently.

### **Positive Identity**

38. Personal power—Young person feels he or she has control over “things that happen to me.”
39. Self-esteem—Young person reports having a high self-esteem.
40. Sense of purpose—Young person reports that “my life has a purpose.”
41. Positive view of personal future—Young person is optimistic about her or his personal future.

All 40 assets are measured by the Search Institute *Attitudes & Behaviors Survey*. A shorter version is available that measures the four external and four internal factors, the *Developmental Asset Profile*. Many other measures have been developed to measure assets, some with similar names as those in the *Developmental Asset Profile*, and many others that are similar constructs.

## **Using the Asset Framework in Schools and Communities**

Schools, afterschool programs, and communities have used the asset framework to become asset builders – to monitor and intentionally build assets in youth. In a study of African American and Latino/Latina parents in the United States, Roehlkepartain et al. (2004) reported that the vast majority of these parents “are working hard to raise strong, healthy, and successful children and adolescents, and most feel they are doing well as parents. Yet they are doing so in the face of multiple challenges in their communities and society. Furthermore, most have little support beyond their immediate family to help them as parents” (p. 4). In terms of building assets, parents reported to teach basic values including equality, honesty, and respect; to make sure their children know that they are good at something; and to address conflict without violence. Parents reported that they struggle building bridges with communities to help their children develop relationships and access community-based resources and opportunities.

In Asheville, North Carolina, out-of-school time programs collectively worked with support by the United Way, to assess the assets of youth in the community (Ready by 21, 2012). They found several important areas where youth lacked assets, including ways to address conflict resolution, managing frustration, and peer pressure. Through developing strategies to increase youth engagement in activity design and choice, and incorporating youth more directly in program development, they found substantial increases in these three areas of needs in just one year. They found that “building those assets requires improving the quality of services and supports” (p. 4).

In St. Louis Park, Minnesota, the school district measured student assets over time and connected those with school outcomes, including school grades, attendance, and engagement (Scales et al., 2006). Over a three-year period, students who stayed stable or increased their level of assets had substantially higher GPAs later in that period, promoting the argument that efforts to increase students’ assets contributes to greater academic success.

## Do Assets Make a Difference?

Do assets make a difference? This question has been addressed in a number of arenas. With data from the Minnesota Student Survey (MSS), a statewide, triennial, anonymous survey of students in grades 5, 8, 9, and 11, a body of evidence has been gathered, focused on the interpretation and use validity argument for several developmental skills and supports (assets).

The Minnesota Youth Development Research group has undertaken a program of psychometric and sociocultural modeling of data from the MSS for nearly two decades. That body of work includes unique aspects of developmental assets in various communities of youth, including American Indian, Black, Latino, Hmong, and Somali communities. They have also looked at asset profiles of students who identify as lesbian, gay, bisexual or queer; students who received special education services, students in foster care, and students who have experienced trauma. Topics investigated range from parent and peer influences, the role of afterschool activity participation with special attention to the role of sports participation, sense of safety, educational aspirations, the role of supports, belonging, and many others (a paper repository is available at the University of MN Digital Conservancy, <https://conservancy.umn.edu/handle/11299/194886>).

In terms of the interpretation and use argument (validity argument), the group reported a substantial level of evidence (Rodriguez et al., 2019). They produced a table that summarized the SEL interpretation and use argument via the MSS. This describes the outcomes associated with each SEL measure, as measured by the MSS. They provided evidence to support each of these associations, showing that the measures of developmental assets were positively associated with whether students had college aspirations, better school grades, participation in after-school activities with positive experiences and more. In addition, they showed that developmental skills were associated with lower levels of skipping school, being sent to the office for discipline, suspension, substance use, being bullied, mental distress, and others.

Hypothesized associations between SEL and other variables		
<i>SEL measure</i>	<i>Positive associations</i>	<i>Negative associations</i>
Commitment to learning	College aspirations, school grades	Skipped school, disciplined, suspended
Positive identity and outlook	College aspirations	Substance use, bullied (as a victim), mental distress
Social competence	Participation in after-school activities with positive experience	Bullying (as a perpetrator), disciplined in school, suspended, substance use, mental distress
Empowerment	Participation in after-school activities	Mental distress, housing instability
Family/community support	College aspirations, school grades, healthy diet, sleep 8 hours per school night	Family violence, housing instability, mental distress, substance use
Teacher/school support	College aspirations, school grades	Skipped school, mental distress

The research group was also able to demonstrate that these associations were consistent across youth from different racial and ethnic backgrounds. However, this was not true for the outcomes of skipping school, being sent to the office for discipline, or being suspended. For these outcomes, measures of SEL were more strongly predictive for White students than for American Indian, Black, or Latino students. They also reported that for these groups of students of color, the rates of skipping school, discipline, and suspension were much higher. For example, relative to White students, American Indian students were four times as likely to be suspended, Latino students were over three times as likely, and Black students were six times as likely. The effect of SEL on these outcomes within racial/ethnic group was a direct function of the incidence rate – whether SEL is associated with negative school outcomes depends on how often those negative outcomes occur within a specific group of youth. This is an indicator of differential prediction or invalidity.

The research group argued that school leaders and educators can address the SEL characteristics of students in their care, but unless the system is prepared to deliver programs equitably, interventions, supports, and the regular activities of instruction and learning, it will not make a difference. Systems, structures, policies, and practices must be designed to advance the promise of SEL in promoting educational opportunities, access, and outcomes for all students. To put it bluntly, when school systems produce significant differences in student discipline as a function of race and ethnicity, the positive effects of SEL will be blunted, regardless of whether students excel.

## **A Function of Individual Differences**

There is increasing interest in using SEL measures as indicators of school quality, to measure differences among schools. Due to the flexibility allowed in the *Every Student Succeeds Act* (ESSA, Public Law 114-95, Dec. 10, 2015), many states are investigating the possibility of using measures of SEL to help identify underperforming schools. ESSA requires the use of a non-academic indicator of school quality, but it must meet the same requirements as the academic achievement indicator – be measured annually with all students in grades 3-8 and high school, and be disaggregated to the student groups included in school accountability systems. The three measures of developmental skills (assets) from the MSS (Commitment to Learning, Positive Identity and Outlook, and Social Competence) were clearly indicators of individual differences with little variation between schools.

One region that has worked to include measures of SEL in school accountability includes the CORE districts in California (CORE, 2017), in partnership with PACE (Policy Analysis for California Education; Loeb et al., 2018). This partnership includes the Fresno, Garden Grove, Long Beach, Los Angeles, Oakland, Sacramento City, San Francisco, and Santa Ana unified school districts (see <https://edpolicyinca.org/projects/core-pace-research-partnership> for more information).

Variance can be partitioned into within-school and between-school variance. The between-school variance is referred to as the intraclass correlation (ICC), the proportion of variance that is accounted for by school differences. If, on a particular measure, schools vary substantially (relative to variation among students), then the ICC will be large. For example, Fahle and Reardon (2018) reported ICCs as large as .24 in state test scores (which they called a large ICC). Rodriguez and Nickodem (2018) reported ICCs of .12 to .19 in Minnesota state test scores. What these values indicate, is that up to 19% of the variance in student test score

performance is due to school differences – that is, due to the fact that some schools have lower or higher average test scores.

If schools were completely equitable, the ICCs in academic achievement would be zero (.00). This would be the case if students were randomly assigned to schools – individual differences among students would still exist within schools, but the average score between schools would be the same (within sampling error).

Regarding SEL ICCs, Loeb et al. (2018) reported ICCs of SEL measures between .03 and .10 (six of the eight values were .05 or below). Nickodem, Rodriguez, and Lamm (2019) reported ICCs of SEL measures between .02 and .06 (10 of the 12 values were below .05 or below). These suggest that very little variation in SEL measures exists between schools – schools do not differ on these SEL measures. The variation in SEL is among students, not schools. This suggests that students are not sorted among schools based on their SEL – SEL exists in a more equitable context.

Nickodem, Rodriguez, and Lamm (2019) argued the following:

As education policy makers and school district leaders search for new indicators of school quality, SEL measures will become more prominent. Their appropriateness will depend on the extent to which evidence supports such use, particularly regarding the ability of SEL measures to reliably distinguish schools meaningfully and fairly (AERA, APA, & NCME, 2014).

Regarding the possibility of using measures of SEL for school accountability, CASEL (2018a, 2018b), Learning Policy Institute (Melnick et al., 2017), and TransformEd (LaRocca & Bartolino Krachman, 2018) recommend using data from SEL measures for local information and continuous improvement efforts, but not school accountability. They suggest that measures such as suspension rates and chronic absenteeism may be more appropriate because they may be more directly influenced by school staff. Evidence from the present study concur with those recommendations. (p. 12)

### **A Recommendation for the Use of Asset and SEL Information**

We endorse the Minnesota approach to social and emotional learning (MN Department of Education, 2018): engagement in SEL should be intentional, implemented school wide, and imbedded in existing cycles of instruction and assessment. Regarding SEL assessment, it should be done in a way that protects student anonymity, as the purpose of assessment should support school-wide implementation. Assessment results should be reported in aggregate form only, perhaps by student group, to ensure that SEL efforts are working similarly among various groups. Measures of SEL should be used for formative purposes, to inform teaching and learning, but not at the individual level and not in a summative accountability system at the level of teachers or schools.

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## RELATIONSHIPS

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### A Long Standing Interest in Relationships

Relationships have long been an important component of youth development and the ability to develop and sustain healthy relationships is a core skill for success in family, peer groups, schooling, and on the job. The ability to work well in groups and participate in civil societies depends on the ability of individuals to marshal and maintain relationships (supported by the early work of John Dewey, Herbert Mead, and Kurt Lewin in the fields of sociology and social psychology). Relationships are an important context for successful cooperative learning (Johnson & Johnson, 1989). In the ecological context of youth development, relationships between peers, family, and teachers are important (Bronfenbrenner, 1986). In the developmental assets framework, relationships with family, other adults, and caring neighbors is a major component of support (Benson, 1990).

Researchers (Benson et al., 2006) in the broader field of positive youth development argue that

1. youth have the inherent capacity for positive development;
2. positive development is enabled through relationships, contexts, and environments that nurture development;
3. positive development is enhanced when youth participate in multiple meaningful relationships, contexts, and environments;
4. all youth benefit from these opportunities, the benefits of which generalize across gender, race, ethnicity, and family income;
5. community is a critical delivery system for positive youth development; and
6. youth themselves are major actors in their own development, serving as a central resource for creating the kinds of relationships, contexts, environments (ecologies), and communities that facilitate optimal development.

It should be clear from these six tenets that relationships are a core component of positive youth development, forming the sociocultural contexts for learning and thriving, enable youth to be their best selves.

### Operational Uses and Definitions of Relationships

In the ecological context of youth development, relationships between peers, family, and teachers are important. Relationships play an important role in developing social, emotional, and academic learning. One way of conceptualizing youth relationships as a facet of SEL is the ability to build and sustain meaningful and fulfilling ties with others. This was the definition offered by CZI in the proposal for this project, which encompasses the core concept of relationships. However, researchers do not agree on the definition of relationships or the skill of relationship building (Jones et al., 2019), as concepts of relationships intersect with many other constructs of SEL.

For instance, Orpinas (2010) defined social competence as “being able to form and maintain close relationships, and responding in adaptive ways in social settings.” Unfortunately, this definition is not commonly seen in the literature with respect to measuring or assessing relationship building. One study used the term *interpersonal skills* and they defined it as respecting, sharing, and showing empathy for other individuals (Lim et al., 2010). Social skills

or relationships skills was another term used to summarize relationship building. Social skills were defined as the learned socially acceptable behaviors that allow one to make connections possible with others (Totan et al., 2014), and relationship skills focused on the ease of making friends, the ease of liking other individuals, and the degree of trusting or caring about one's friends.

Relationships also have been defined in the context of connectedness. A definition of connectedness was provided by Karcher (2004) in his construction of a measure of youth connectedness, described as a reflection of the way youth interact in relationships. A broader definition of connectedness is the enduring and ubiquitous experience of the self in relation to the world where the agent and the connection to others is a lot more vague (Townsend & McWhirter, 2005). In another measure, researchers specified the number of meaningful relationships and the strength of those relationships in their definition of connectedness (Semanchin Jones & LaLiberte, 2013).

In other instances, the concept of relationship building was defined by whom the relationship is being built (i.e., teacher, parent, peer). In education, this was often seen as teacher-student relationships that are supportive, cooperative, and respectful (Brackett et al., 2019; Poulou, 2015; Trach et al., 2018). In another instance, one measure focused on peer relationships in adolescence and included items on friendship activities and positive social skills; however, the authors did not provide an operational definition for peer relationships (Whiteside et al., 2016).

Youth relationships encompass a variety of components. Having a grounded and operationalized definition of relationships is important to properly assess or measure relationships. Although the literature varies in defining or labelling relationships, common components include the ease of establishing relationships, quality of relationships, and being empathetic or supportive of other people. The way relationships are defined in measures is also linked to the use of the measure.

## **Relationships and Context**

In a synthesis of the knowledge base on the role of relationships and the contexts of human development, including poverty, racism, peers, schools, communities and families, Osher et al. (2020) used Developmental Systems Theories as an integrative theory. This theoretical approach has a simple underlying thesis: development always occurs in context and is shaped by all of the contexts children and youth experience (Goodnow & Lawrence, 2015; as cited in Osher et al. 2020). Although the authors also connect research about neural and brain development given the biological contexts, we focus on the social and cultural contexts where youth development occurs. For example,

Family resources, social supports, emotional climate, and stability, along with positive mental models and supportive caregiver-child interactions and relationships, are essential if families are to provide the bonding, connection, and safety necessary for healthy development (Bornstein, 2015; Patterson & Hastings, 2007). Insufficient space or privacy, environmental toxins, and housing insecurity are examples of resource-related factors that can affect the quality of social, emotional, and cognitive developmental context insecurity (e.g., Diette & Ribar, 2015) and can contribute to increases in student mobility, childhood stress, and self-regulation challenges (e.g., Herbers, Reynolds, & Chen, 2013; Rumberger, 2003). (Osher et al., 2020, p. 5)



In the context of schools, there are dynamic, multiple influences such as teachers, peers, classrooms, public spaces, cultures, policies, and individual's experiences, beliefs, and behaviors that all influence the other (Osher et al., 2020). "Schools support developmental relationships when they foster key conditions for learning: emotional, intellectual, and physical safety; connectedness; support; challenge; engagement; respect; and agency (e.g., Berkowitz, Moore, Astor, & Benbenishty, 2016)" (Osher et al., p. 7). Moreover, central to the experience of schooling is the role played by teachers. Positive relationships with teachers can improve student motivation, engagement, learning, behavior, sense of support, success-related skills, self-esteem, school satisfaction, attendance, and self-regulation; teacher-student relationships are important, especially for students with greater needs and students from underrepresented communities (Osher et al., 2020).

### **Developmental Relationships**

The most promising work in the arena of relationships is in the area of developmental relationships. In their review of research on the effectiveness of child-serving programs, practices, and policies, Li and Julian (2012) found that developmental relationships are the active ingredient. In fact, they argue "that the effectiveness of child-serving programs, practices, and policies is determined first and foremost by whether they strengthen or weaken developmental relationships" (p. 157). They cited the position of the National Scientific Council on the Developing Child (2004, p.1):

Stated simply, relationships are the active ingredients of the environment's influence on healthy human development. They incorporate the qualities that best promote competence and well-being.... Relationships engage children in the human community in ways that help them define who they are, what they can become, and how and why they are important to other people.

To Li and Julian (2012), developmental relationships are defined by four criteria, including attachment, reciprocity, progressive complexity, and balance of power. In these criteria, attachment includes emotional connections that are natural, positive, and context appropriate; reciprocity includes joint participation and connectedness and is not coercive; where activities and components of the relationship become more complex over time; and the balance of power shifts, as appropriate, from the adult to the developing youth.

Search Institute (Roehlkepartain et al., 2017) suggests that relationships are developmental "when they help young people: discover who they are; develop abilities to shape their own lives; and learn how to engage with and contribute to the world around them" (p. 3). They created the Developmental Relationships Framework (<https://www.search-institute.org/developmental-relationships/developmental-relationships-framework/>).

There are five propositions underlying the Developmental Relationships Framework (Roehlkepartain et al., 2017):

1. Relationships are two-way experiences and commitments.
2. Each element and action may be expressed and experienced in different ways.
3. Relationships are not all that matters.
4. The Developmental Relationships Framework builds on Search Institute's work on developmental assets.
5. The framework will continue to improve.

The Developmental Relationships Framework contains five elements and 20 actions (written in the perspective of the youth):

### **Express Care**

*Show me that I matter to you.*

- Be dependable—Be someone I can trust.
- Listen—Really pay attention when we are together.
- Believe in me—Make me feel known and valued.
- Be warm—Show me you enjoy being with me.
- Encourage—Praise me for my efforts and achievements.

### **Challenge Growth**

*Push me to keep getting better.*

- Expect my best—Expect me to live up to my potential.
- Stretch—Push me to go further.
- Hold me accountable—Insist I take responsibility for my actions.
- Reflect on failures—Help me learn from mistakes and setbacks.

### **Provide Support**

*Help me complete tasks and achieve goals.*

- Navigate—Guide me through hard situations and systems.
- Empower—Build my confidence to take charge of my life.
- Advocate—Stand up for me when I need it.
- Set boundaries—Put in place limits that keep me on track.

### **Share Power**

*Treat me with respect and give me a say.*

- Respect me—Take me seriously and treat me fairly.
- Include me—Involve me in decisions that affect me.
- Collaborate—Work with me to solve problems and reach goals.
- Let me lead—Create opportunities for me to take action and lead.

### **Expand Possibilities**

*Connect me with people and places that broaden my world.*

- Inspire—Inspire me to see possibilities for my future.
- Broaden horizons—Expose me to new ideas, experiences, and places.
- Connect—Introduce me to people who can help me grow.



The Developmental Relationships Framework is relatively recent, but has been used in schools and community-based programs across the country. Through a number of grant funded projects, including a grant from the Institute of Education Sciences in the U.S. Department of Education to engage in fundamental research in public schools, a number of things have been learned, including (Search Institute, 2020):

- Strong, positive relationships are critical across all parts of young people’s lives. Yet too few young people experience a strong web of relationships.
- Family relationships: Developmental relationships in families are a source of strength and resilience for many youth. However, they tend to decline through adolescence, and they appear to be more challenging to maintain for families dealing with financial stress.
- Student-teacher relationships: Strong student-teacher relationships can be catalytic for student motivation and success in school. Yet too few students experience strong relationships with their teachers.
- Relationships in youth programs: Youth programs provide important contexts where young people can develop trustworthy, lasting relationships with adults and peers. However, participating youth do not consistently experience all elements of developmental relationships with program leaders when they participate.
- Relationships with peers: Peer-to-peer relationships are a critical, sometimes overlooked resource, for young people’s learning and development.
- Reframing developmental relationships: Seeking new, broader understandings of—and investments in—the kinds of relationships young people need to thrive.

Search Institute (2020) provides a summary of research on each of these topics and a programmatic set of resources and materials for schools and organizations to enhance developmental relationships.

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## BELONGING

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### Introduction

The CZI (in the objectives offered for this project) initially defined sense of belonging as a “child’s ability to feel ownership within their community and feel as though they have a meaningful place as a co-existing and co-relating member of that community. In a school context, a sense that one has a rightful place in a given academic setting and can claim full membership in a classroom community.” Researchers in the fields of education and psychology lend support to this definition, and especially the use of the notions around meaningful and rightful place; however, particular to the Kindergarten to 12<sup>th</sup> grade context (K-12), the construct of belonging is more nuanced and concerns certain relational experiences that are intrapsychic and interpersonal. For the belongingness section of this literature review, we elucidate this nuance by elaborating how K-12 educators, including researchers and practitioners, further conceptualize students’ perceived belongingness through addressing several points: belongingness as conceptualized in a K-12 setting, belongingness as susceptible to the jingle-jangle fallacy, and belongingness as context-dependent.

### Defining Sense of Belonging in K-12

In the social-psychological literature, the most prominent and widely used conceptualization of a sense of belonging is from the seminal work of Baumeister and Leary (1995). These researchers posit that a sense of belonging is a fundamental need to form and maintain a minimum quantity of interpersonal relationships, where the relationships are marked by frequent contact, positive affective concern, and stability. The intended use of their conceptualization is to facilitate a greater understanding of psychological phenomena, including emotional and behavioral problems and relationship patterns, as well as to foster an understanding beyond immediate psychological functioning for how individuals navigate structures of society while motivated by a need to belong.

Researchers such as Chhuon and LeBaron Wallace (2014) have used Baumeister and Leary’s (1995) conceptualization as a starting point to formulate their own understanding of high-school students’ perceived belonging. Using qualitative-research methods, Chhuon and LeBaron Wallace (2014) found that students contextualized their perceived belongingness as a state of being known by various adults within a school setting; that is, the state of being known refers to the extent to which high-school students perceive receiving support, care, and hope from the supporting actors (e.g., teachers) in their school environment. Slaten, Rose, Bonifay, and Ferguson (2019) have also used Baumeister and Leary’s (1995) conceptualization to extend their understanding of students’ sense of belonging as well. The researchers defined belongingness as a perceived experience of consistent interaction and care from others, that may look different in various life domains, such as school, peer, and family. Slaten et al. (2019) posited that perceiving belongingness in each domain all notably contributes to youths’ well-being.

Aside from the work by researchers such as Chhuon and LeBaron Wallace (2014) and Slaten et al. (2019), the use of Baumeister and Leary’s (1995) sense-of-belonging conceptualization in an educational setting have been sparse. K-12 educational researchers (Allen, 2003; Anderman, 2003; Feinauer Whiting, Everson, & Feinauer, 2018; Huges, Im, & Allee, 2015; Ma, 2003) have

more frequently used Goodenow's (1993) conceptualization of belongingness, or the psychological sense of school membership (PSSM), as the researcher provided detailed validity evidence from diverse samples of students in middle school (Goodenow & Grady, 1993) to support their proposed definition of belonging and subsequent scale development. Goodenow (1993) defines sense of belonging as the extent to which students feel personally accepted, respected, included, and supported by others in a school setting. The 18-item measure developed by Goodenow also reflects this definition, asking students if they feel accepted, respected, and included within their school environment while also additionally asking students whether they felt liked by others. The intended, and current, use for Goodenow's definition and measure of PSSM (sense of belonging) is for research and planning interventions at the individual and group level. Within a school context, this means developing training to enhance social skills, cooperative learning and peer tutoring, as well as to facilitate the development of inclusive school activities.

More recently, Arslan and Duru (2017) developed a measure of school belonging for Turkish youths, from which their conceptualization of school belonging is similar to and consistent with Goodenow's (1993) definition of sense of belonging. Arslan and Duru (2017) refer to the sense of school belonging as students' perceptions of themselves as meaningful, important, and valuable parts of their respective schools. For those in the educational sector, including researchers and practitioners, students' perceived sense of belonging appears to reflect intrapsychic and interpersonal concerns of being valued and recognized by important others within the school environment.

### **Belongingness and the Jingle-Jangle Fallacy**

The jingle-jangle fallacy refers to the notion that identical or almost identical constructs are different because they are labeled differently. Belongingness as a construct is susceptible to this fallacy as well, for researchers (within and outside of K-12 settings) that investigate sense of belonging, or aspects similar or consistent with sense of belonging, have referred to it as sense of community (Sanchez, Colon, & Esparza, 2005), connectedness (Niehaus, Moritz Rudasill, & Rakes, 2012), and/or sense of relatedness (Anderson-Butcher & Conroy, 2002; Furrer & Skinner, 2003) among other terms.

On the one hand, these different terminologies may be helpful because they may offer more nuance into what belongingness may truly mean for students, especially for students from diverse backgrounds (see *being known*, Chhuon & LeBaron Wallace, 2014). On the other hand, inconsistent terminology may serve to make opaque the conceptualizations of belonging across cognitive, affective, and behavioral domains, as well as also convolute the positive associations that [school] belonging may have with academic and social variables, such as achievement, retention, and well-being.

Not only is a clear and consistent definition therefore important for the use and interpretation of a sense-of-belonging construct and sense-of-belonging measures, but recognizing that there may be different terminologies used to describe in essence, a sense of belonging, may be helpful for the formation of a consistent construct-related definition of sense-of-belonging in research and implementation in applied settings.

## Belongingness as Context Dependent

Often, measures of sense of belonging inquire whether students feel like they belong(ed) without directly asking students about the context or setting to which they are attributing their score or response. There may be many reasons for why students are reporting a sense of belonging, which could obfuscate the development of subsequent belonging interventions when the sense-of-belonging items/measures do not specify context or setting. For example, Slaten et al. (2019) identified family, peers, and school domains as crucial areas within a school environment that all contribute to students' sense of belonging, such that students may be reporting a higher sense of belonging as a result of any combination of positive peer, student-teacher, or familial relations. As belongingness is context dependent, a clear and consistent definition for a sense of belonging must both distinguish the setting in which belongingness is being framed (e.g., general belonging vs. school belonging), as well as specify the various contexts that may be facilitating students' sense of belonging, such as family, peer, school, or other group involvement.

### Summary

CZI specifies that belongingness encompasses perceptions of presence, in which an individual perceives having ownership and meaningful presence in their community. Within a specific school context, that presence is signified by rightful membership in an academic setting. Social-psychological and educational researchers support this definition, but also provide more nuance for K-12 educational settings. A general sense of belonging refers to the perception that one has a sufficient number of high quality (stability, frequency, and positive affective concern) interpersonal relationships (Baumeister & Leary, 1995). Within a school setting, a sense of belonging or school belonging is focused on the availability of interpersonal relationships; however, quality is additionally marked by students' perception that they are valued, appreciated, respected, accepted/included, and supported by others, including peers, teachers, and other supportive actors. If students perceive having interpersonal relationships with others who value, appreciate, respect, and accept/include, and support them, then they are likely to also perceive that their presence is meaningful, and thus perceive belonging.

Two important considerations that researchers and practitioners should be cognizant of, however, due to the widespread use of belongingness conceptualizations within-and-outside of K-12 context, is the extent to which belongingness as a construct is situation-specific and/or represented as other social-psychological constructs. Allen et al. (2018), in a recent meta-analysis, support these considerations by suggesting that researchers who study belonging in educational contexts (e.g., school belonging) tend to posit fairly related operational aspects, such as the availability of school-based and student-teacher relationships, and students' general feelings about school as a whole.

In conclusion, a sense of belonging within a school context does encompass meaningful and rightful membership and presence; however, in order for students to perceive their presence as meaningful, and thereby belong, students also have to perceive a climate where there are supportive others who value, appreciate, respect, accept/include, and support them. Researchers and practitioners who use this conceptualization in K-12 contexts must thereby also understand students' sense of belonging from perspectives that are context-dependent, intrapsychic, and interpersonal.

### **A Final Note**

It is in this conceptualization of students' belonging, or the extent to which they feel valued, appreciated, respected, accepted/included, and supported by others in their environment, that the positive youth development framework is emphasized. It is not whether students have or do not have assets that is important to educators that study and implement practices to bolster students' sense of belonging, but rather whether the environment (and subsequent supportive actors in that environment) in which students are situated are equipped to and actively foster students' perceptions that they belong. Therefore, with respect to the use of students' belongingness scores in a K-12 educational context, the scores should be (and are traditionally) used to inform organizational changes (e.g., classroom and school environment) rather than any changes in a students' disposition.

As a side note, several search terms were used to gather literature for this brief review, including: Sense of belonging, school belonging, belongingness, youth belonging, belonging scales, connectedness, school connectedness, social connectedness, sense of belonging in education, sense of belonging and sociology, sense of belonging and psychology, sense of belonging and social psychology, and sense of belonging for underrepresented students. Google Scholar was used to conduct the search.

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## RESILIENCE

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### Introduction

In the proposal for this project, CZI offered a thoughtful working definition of resilience:

Positive adaptation during or following exposure to adversities that have the potential to harm development: (a) developing well in the context of high cumulative risk for developmental problems (beating the odds, better than predicted development), (b) functioning well under currently-adverse conditions (stress-resistance, coping), and (c) recovery to normal functioning after catastrophic adversity (bouncing back, self-righting) or severe deprivation (normalization).

Interestingly, this initial definition encompasses the notion of processes – positive adaptation, which forms the core element of resilience. The research of Dr. Ann Masten focuses on individual and family resilience which is used in this review to provide the strongest basis for a working definition of resilience. According to Masten (2014), resilience is not a trait; instead, resilience emerges from multiple processes. In simple terms, resilience is the capacity to adapt under difficult circumstances (Minnpost, 2014).

### Conceptualizing Resilience

The pioneers of resilience (such as Norman Garmezy, Emmy Werner, and Sir Michael Rutter, just to name a few) began their work by studying mental illness and children exposed to high risk adversity (e.g., children experiencing war zones). Early on, resilience researchers focused on the deficit model (e.g., the more risk factors, such as poverty, the child experienced the further behind the child tended to be on the trajectory of normal development); however, researchers then adopted an asset based model, asking the question: What promotes resilience? Resilience researchers have worked to find adaptive systems that promote resilience. These adaptive systems may include family, attachment relationships, neurocognitive control systems, a learning and thinking brain, reward systems, spiritually, culture, education systems, and community. These systems act as protective factors that can lead to positive developmental trajectories even after exposure to traumatic experiences.

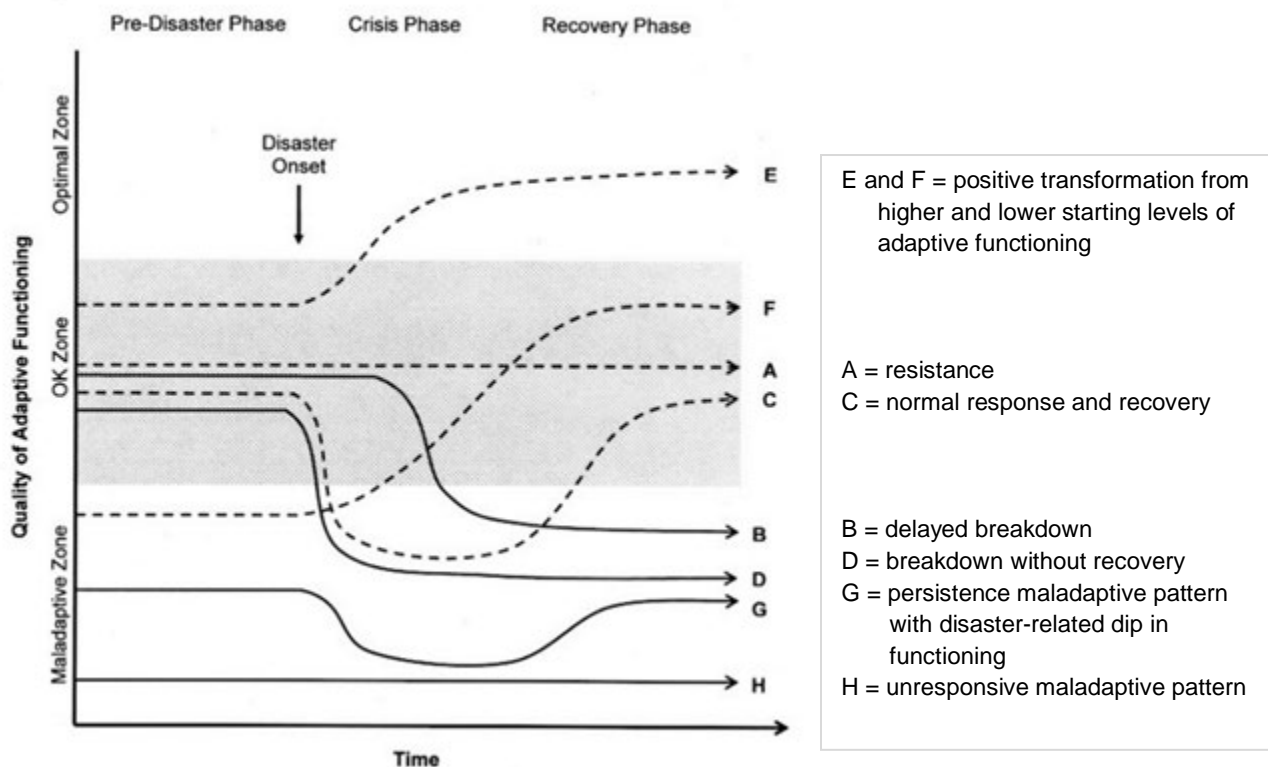
Resilience promoting adaptive systems need to work together for an individual to be resilient. Researchers argue that these systems can be protective in the lives of children (protective factors). This leads to the question of what interventions build strengths and protective factors? Strategies for interventions may include: reduce risk exposure (risk-focused), increase resources or access to resources (asset-focused), and nurture/restore the most important system (process-focused). Timing matters; for example, pre-school is a window during which children form executive function skills that are important to succeed in school.

Resilience is strengthened by multilevel dynamics – the interaction of ordinary human adaptation systems working together that promote a positive outcome. These adaptation systems are described as ordinary magic (Masten, 2001). Resilience is a phenomenon characterized “by good outcomes in spite of serious threats to adaption or developments” where resilience “aims to understand the processes that account for these good outcomes” (Masten, 2001, p. 228).

## Pathways of Resilience

Masten et al. (1990) describe individual resilience as the patterns of positive adaptation during or after exposure to adverse events or experiences that may disrupt individual development. There are many pathways to resilience as seen in Figure 1. The optimal zone is the adaptive pattern where an individual continues to function well during or after the crisis. The OK zone is where the individual is doing just fine, but not thriving optimally. The maladaptive zone is where the individual is poorly functioning. The timeframe in Figure 1 represents timing of exposure to significant adversity or risk (e.g., disaster onset) with three main phases: the function of the individual before (pre-disaster phase), during (crisis phase), and after (recovery phase) the crisis happens.

**Figure 1**  
*Pathways to Resilience*



Pathway A is the stress resistance pathway where although the individual experiences an acute stressor, the individual's functioning remains the same. Pattern C represents an individual who falls apart after experiencing trauma (adverse event), but then recovers from the crisis perhaps through an intervention. Pathway E is the posttraumatic growth pathway, rarely seen in children. Pattern F reflects where the individual starts with immense traumatic experiences with poor development (e.g., child abuse), where there is a dramatic improvement in the development of the individual (e.g., find a safe and loving family) and resilience emerges over time. Other explanations of patterns can be found in Masten and Obradovic (2008).



## Interventions

The most effective interventions prevent risk, promote resources, and assist in restoring adaptive systems. The studies and projects below are example of interventions that operate on action to a resiliency pathway (Yates, Tyrell, & Masten, 2015).

- [Seattle Social Development Program](#) promotes positive change in children's bonding to school and family (Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005). [Raising Healthy Children](#) is a curriculum and program, based on this model, that incorporates school, family, and individual programs to promote key elements that researchers have shown are critical for creating strong connections and bonds that children need to succeed in school and life; addressing opportunities, skills, and recognition.
- The [4Rs Program](#) (reading, writing, respect, and resolution) engages the imagination and creativity of children in grades PreK-5 to help develop critical skills including empathy, community building, and conflict resolution (Aber, Brown, Jones, Berg, & Torrente, 2011).
- Individual interventions develop and maintain healthy relationships with parents, peers, and partners (Hawkins et al., 2005).
- Individual intervention can focus on strengthening executive and regulatory functions (Blair & Diamond, 2010).
- Neighborhood resilience can be addressed to promote residential stability and neighborly connections (Zautra et al., 2008).
- Clinical research continues to promote executive functioning skills (Casey et al., 2014).

## Final Note

Although there are surveys that are labeled as measuring resilience, according to leading researchers, resilience is not a construct (trait) but a system of processes. Resilience is seen through a dynamic model that looks at the associations of risks, assets, and positive outcome(s). Furthermore, resilience is supported through adaptive systems that may include family, school-based environment, neighborhood community, and global community. Caution is advised when using surveys intended to measure resilience since researchers suggest resilience is not a trait. Instead, evidence of resilience is seen through dynamic models and the larger ecosystems in which children and youth develop and live.



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## SCHOOL CLIMATE

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### Overview

A vast literature exists in the broad arena of school climate, including social and cultural aspects of school contexts – perhaps school climate is the ultimate sociocultural context, where the individual sociocultural contexts of youth and adults interact, often in high-stakes ways. The goal of this brief review was to summarize how school climate has been defined and used in research and practice to create more engaging, more supportive, and safer K-12 schools. This review examined over 100 articles from 22 countries. Sources of information to inform our understanding of school climate through these articles included students, parents, prospective teachers, teachers, principals, school psychologists, and other school staff. This work reflects existing literature reviews and quantitative, qualitative, and mix-method studies, as well as conceptual and theoretical frameworks. Studies related to the validation of interpretations and uses of specific measures are excluded from this review, since that work is already presented in the CZI measure map (and is quite limited).

Furthermore, researchers have studied school climate from different perspectives depending on the purpose of a study. For instance, researchers have examined indicators of school climate as outcomes, predictors, covariates, or correlational variables. For simplicity, the work on school climate is discussed in this review in terms of having associations or links with other variables or factors, since we argue that school climate is relevant to the extent that it reflects the sociocultural context of learning and impacts important educational outcomes. Because of the extensiveness of this review, the articles cited below are not included in the Reference list, but are available in the accompanying [School Climate Literature Review](#) worksheet, which details the author(s), year of publication, country of study, age group, area of focus, definition of school climate, how school climate was used, and a brief summary of findings from the study.

### Methodology

The search platforms, databases, and websites used to identify the reviewed articles included: Google Scholar, ScienceDirect, ERIC, the Teachers College Record, CASEL, the National Center on Safe Supportive Learning Environment website, and the National School Climate Center website. Given the vast amount of articles and reports available on the topic, the search was limited to articles and reports published since the year 2000. The search concluded when new articles and reports found covered a topic or an approach already found in the search. The key terms used for the search of school climate and related work included: *school climate*, *school culture*, *school environment*, *school ethos*, *conditions for learning*, *contexts for learning*, *social contexts for learning*, *school safety*, and *school learning environments*.

### Definitions of School Climate

The definition initially offered by CZI (in the project proposal) highlights or implies the different components included in the broad conceptualization of school climate. CZI defined school climate and culture as, “the degree to which a child’s learning environment facilitates high expectations, bonding within the school, caring relationships among children and adults, and appropriate opportunities for choice-making within boundaries or limits.”

This definition is consistent with the prevailing views of school climate, as it is a multilevel and multifaceted concept with more than 100 years of research (Cohen, McCabe, Michelli, & Pickeral, 2009; Kohl, Recchia, & Steffgen, 2013). Currently, there is no consensus on a particular definition for school climate in the literature. However, the definition adopted by the National School Climate Center (NSCC, 2020) is generally referenced in research articles. NSCC (2020) defined school climate as:

the quality and character of school life. School climate is based on patterns of students', parents' and school personnel's experience of school life; it also reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributory, and satisfying life in a democratic society. A positive school climate includes:

- Norms, values, and expectations that support people feeling socially, emotionally and physically safe
- People are engaged and respected
- Students, families, and educators work together to develop and contribute to a shared school vision
- Educators model and nurture attitudes that emphasize the benefits and satisfaction gained from learning
- Each person contributes to the operations of the school and the care of the physical environment

Most of the operational definitions of school climate used in empirical research tend to be narrower versions of the broader concept. These narrower operational definitions are guided by the intended research question(s) and purpose(s) of each researcher. For instance, Adams, Forsyth, Dollarhide, Miskell, and Ware (2015) used the concept of *self-regulatory climate* and define it as “a social feature of schools, built through trustworthy, cooperative, and academically focused teacher-student interactions.”

Other researchers used related conceptualizations of school climate such as, school culture (e.g., Watt, Huerta, and Mills, 2010), school ethos (e.g., Veiga Simao, Costa Ferreira, Caetano, Martins, and Vieira, 2017), ecological perspectives (e.g., Steffgen, Recchia, and Viechtbauer, 2013), safety (e.g., Sebastian and Allensworth, 2019), authoritative perspectives (e.g., Konold and Cornell, 2015), and school connectedness (e.g., Rowe and Stewart, 2011). Furthermore, other researchers simply describe school contexts and/or enabling environments (e.g., Perez-Felkner, 2015; Van Eck, Johnson, Bettencourt, & Lindstrom Johnson, 2017). The [School Climate Lit Review](#) document provides a list of various definitions introduced by researchers.

### **Operational Uses of School Climate in Research and Applied Settings**

There are several literature reviews and meta-analyses available, where researchers examined different aspects of school climate research. For instance, Cohen et al., (2009) and Thapa et al., (2013) presented comprehensive reviews on the current knowledge and findings that contribute to five essential dimensions of school climate: safety relationships, teaching and learning, the physical environment, and school improvement process. Other reviewers focused on examining the links between school climate and risky behaviors/unsafe environments, such as problem behaviors (Reaves, McMahon, Duffy, & Ruiz, 2018), violence in schools (Steffgen et

al., 2013), and absenteeism (Ekstrand, 2015). Some reviewers addressed the associations with positive learning environments and student outcomes, such as factors that promote high school graduation (Zaff, Donlan, Gunning, Anderson, McDermott, & Sedaca, 2017), positive student outcomes in low and middle income countries (Larson, Nguyen, Orozco Solis, Humphreys, Bradshaw, & Lindstrom Johnson, 2020), and creating inclusive environments for LGBTQ parents families in early childhood education (Liang & Cohrsen, 2019).

This work summarizes the findings from the meta-analyses and literature reviews discussed above as well as information from other articles and reports. Given the objective of the CZI project, the information collected on school climate is organized into six areas to categorize the use and interpretation of the cited studies from an applied perspective;

1. positive learning environments and outcomes;
2. deficit-oriented approaches;
3. specific populations;
4. macro-system studies;
5. measurement, evaluation and methodology; and
6. current challenges and future directions.

Each area below presents selected articles to highlight the type of studies being conducted in these areas.

### **1. Positive Learning Environments and Outcomes**

This section falls under the positive youth development framework. The work here aims to promote, build, or enhance students' immediate learning environments (e.g., classroom, school) and/or learning outcomes (e.g., achievement, graduation). Some articles are not articulated under a positive youth development perspective explicitly; however, and given the nature of the studies and their findings, these articles are placed under the positive youth development umbrella. Several aspects of school climates have been found to have a positive impact on the learning environments of students including:

#### *Teacher and classroom support*

- Teacher supports and student motivation and learning (Anderman et al., 2011)
- Teacher learning and development (Drago-Severson, 2012)
- Teacher support (Cohen et al., 2009; Thapa et al., 2013)

#### *Teacher collaborations and collective positive impact*

- Teacher perceptions of school climate given collegial support, unity of purpose and professional development, and discipline referrals (Barkley et al., 2014)
- School climate and person-school value fit on teacher perspectives regarding their career futures (Beurden et al., 2017)
- A whole-school approach to support child well-being and create positive school climate (Elfrink et al., 2016)

#### *Relationships*

- Self-regulatory climate and achievement (Adams et al., 2015; Adams et al., 2017; Cohen, 2009)

#### *Architectural design and physical environment*

- Architectural design and the learning environment (Gislason, 2010)
- Design enhances engagement (Jones, 2020)
- The role of the physical environment in enacting school change (Wooler et al., 2018)

- The place-making practices of school girls in the informal spaces of their high school (Fataar et al., 2019)

#### *Wellbeing*

- School climate and adolescent mental health and wellbeing (Aldridge et al., 2018)
- Classroom climate and children's academic and psychological wellbeing (Wang et al., 2020)

#### *Curriculum and Instruction*

- Pedagogic culture of creative play in early education (Arnott et al., 2019)
- Creating a culture of respect through the implicit curriculum (Inlay, 2016)

#### *School culture*

- College-going culture (Knight et al., 2020)
- Strength-based focus improves school climate (Tschannen-Moran et al., 2011)
- Trust culture and prejudices in primary schools (Erdogan, 2016)
- Constructing non-violent cultures in schools (Erickson et al., 2004)

#### *Others*

- Factors that promote high school graduation (Zaff et al., 2017)
- Effects of school climate and culture on student achievement (MacNeil et al., 2009)
- Physical activity and the interplay of school culture, adolescent challenges, and athletic elitism (MacQuarrie et al., 2008)
- Links between school climate, pre-K school quality and pre-K child gains in receptive vocabulary and executive function (Rochester et al., 2019)

## **2. Deficit-Oriented Approaches**

Articles found in this section are characterized by work that focuses on the prevention and mitigation of problem behaviors as well as findings that look to expand the knowledge associated with developmental risks and deficits. We note that although the positive youth development framing is more consistent with a sociocultural contexts of learning approach, significant amounts of work continue to be deficit-oriented approach, from which we may also learn (although somewhat less so because of the nature of that deficit orientation).

#### *School violence and safety*

- Positive school climate and culture lowers levels of school violence (Barnes et al., 2012)
- School climate factors contribute to school safety (Bosworth et al., 2009)
- Student disorder negatively affects achievement mediated by attendance (Chen, 2007)
- Improving school climate to reduce school violence (Lindstrom Johnson, 2009)
- Role of school climate in school-based violence among homeless and non-homeless students (Moore et al., 2020)
- Links between school climate and violence in schools (Steffgen et al., 2013)

#### *Bullying and victimization*

- School climate and bullying (Beaudoin et al., 2014; Brodin Laftman et al., 2017; Farina, 2019; Yang et al., 2020)
- Preventing school bullying from an authoritative school discipline approach (Gerlinger et al., 2016)
- Teacher safety and teacher victimization (Gregory et al., 2012)
- Cyber-victimization (Holfeld et al., 2017; Kashy-Rosenbaum et al., 2020; Veiga Simao et al., 2017)

- Associations of unfairness, hostility, and victimization with engagement and achievement (Ripski et al., 2009)
- School climate and physical adolescent relationship abuse (Jain et al., 2018)

#### *Risky behaviors and delinquency*

- Anti-school culture (Jonsson, 2014)
- Authoritative model of school climate and aggression (Konold et al., 2015)
- School climate and adolescent aggression, a moderated model involving deviant peer affiliation and sensation seeking (Wang et al., 2017)
- School climate and delinquency among adolescent Chinese students (Zhang et al., 2020)
- School climate and problematic internet use among adolescents, roles of school belonging and depressive symptoms (Zhai et al., 2020)

#### *Discipline, suspension, and attendance*

- Capacity building and youth-adult leadership in addressing discipline (Brasof, 2019)
- Safe schools, discipline, and the school-to-prison pipeline (Gonsoulin et al., 2012)
- Disciplinary exclusion and the influence of school ethos (Hatton, 2013)
- Drop-out among gifted students (Gifted Child Today, 2017)
- Attendance (Ekstrand, 2015; Van Eck et al., 2017)
- School suspensions (Huang et al., 2018)

#### *Social justice and restorative culture*

- School climate as a foundation for culturally responsive trauma-informed approaches for urban schools (Blitz et al., 2020)
- Theories on prejudice and how they inform an understanding of bullying, conflict, and violence in schools (Dessel, 2010)
- Restorative school culture (Macready, 2009)

#### *Mental health*

- Associations between school climate and adolescent mental health and wellbeing (Aldridge et al., 2018)
- Depression (Shim-Pelayo et al., 2018)
- School climate and bullying, a moderated model of moral disengagement and peers' defending (Yang et al., 2020)

### **3. Specific Populations**

This section highlights researchers who focus their study of school climate on specific, underrepresented, and diverse populations. Work from these researchers includes descriptive studies to better understand how different aspects of school climate affect members of these communities. Some researchers offer suggestions on how to address specific challenges faced in these communities and create learning environments that are more inclusive and welcoming.

- LGBT inclusive and welcoming environments (Bishop et al., 2015; Frank, 2009; Liang et al., 2020; Steck et al., 2018; Tunac De Pedro, 2016)
- Students with special education needs and inclusive environments (Buli-Homberg et al., 2019, Shogren et al., 2015)
- Latino/Hispanic students (Perez-Gualdrón et al., 2017; Sabrin, 2020)
- African American student school climate, academic coping, and achievement (Amemiya et al., 2018)
- Gifted students and dropping out (Gifted Child Today, 2017)

- Indigenous students (McIntosh et al., 2014)
- Homeless and non-homeless students, role of school climate in school-based violence (Moore et al., 2020)
- Perceptions of resilience in underrepresented student pathways to college (Perez-Felkner, 2015)

#### **4. Macro System Studies**

This section consists of school climate researchers that examine the broader associations of settings, political systems, and social structures that indirectly influence developing youth.

##### *Policy related*

- Implementing legal strategies for creating safe and supportive environments (Cole, 2014)
- Variations of school climate between schools (Eos Trinidad et al., 2020)
- The influence of school context on school improvement policy enactment (Heffernan, 2018)
- The transformation of schools' social networks during data-based decision-making reform (Keuning et al., 2016)
- Transforming schools in low-resourced communities into enabling environments by adjusting the curriculum (Themane, 2019)

##### *Holistic approaches*

- A whole school approach to support child well-being and create positive school climate (Elfrink et al., 2017)
- Finnish children's views on the ideal school and learning environment (Kangas, 2010)
- The culture of independent progressive schools (Kloss, 2018)
- School climate in effective alternative programs (Magee Quinn et al., 2006)
- Social network structures and innovative climates in Dutch schools (Moolenaar et al., 2011)
- The inquiry nature of primary schools and student self-directed learning (Van Deur et al., 2005)
- Constructing non-violent cultures in schools (Erickson et al., 2004)

##### *School climate programs*

- Elementary-school based programs theorized to support social development, prevent violence, and promote positive school climate (Flay et al., 2009)
- Associations between the impact of Advancement via Individual Determination (AVID) and perceptions of school climate and culture among teachers (Watt et al., 2010)
- How schools of excellence are promoting and supporting both academic excellence and systemic equity for all students (Brown et al., 2011)

##### *School principals, teachers, and other staff*

- Multicultural leadership and sustainable total school environment (Alison Yeung et al., 2006).
- Art integration as a school culture change: a cultural ecosystem approach to faculty development (Latta et al., 2011)
- Principal leadership and organizational growth and student achievement (Sebastian et al., 2019)
- Collective pedagogical teacher culture and teacher satisfaction (Stearns et al., 2015)
- Teacher retention (Cohen et al., 2009)



- School climate, teacher efficacy in behavior management on job satisfaction and burnout (Malinen et al., 2016)

#### *Community-based and larger ecosystems*

- Community engagement and youth-led school-community partnerships in school climate improvement (Ice et al., 2015)
- Home and school discourses among Latino students (Sabrin, 2020)
- The role of the physical environment in enacting school change (Wooler et al., 2018)
- Effective schools, school segregation, and the link with school achievement (Saminathen et al., 2018)
- The everyday ways that school ecologies facilitate resilience (Theron, 2016)

## **5. Measurement, Evaluation, and Conceptual Frameworks**

This section highlights researchers that investigate different aspects of measurement, evaluation, and conceptual frameworks of school climate.

#### *Measurement*

- Overview of school climate measurement scales (Kohl et al., 2013)
- Guidance for measuring and using school climate data (National Association of School Psychologists, 2019)
- Commentaries on the National School Climate Standards (National School Climate Center, 2010)
- How data affect stakeholder knowledge and perceptions of school quality (Schneider et al., 2018)

#### *Program, school, and teacher evaluation*

- Student school climate perceptions as a measure of school district goal attainment (Stichter, 2008)

#### *Conceptual frameworks*

- Systems view of school climate, a theoretical framework for research (Moritz Rudasill et al., 2018)
- A longitudinal model of school climate, social justice, and academic outcomes among Latino students (Perez-Gualdrón et al., 2017)
- A new model of school culture, a response to a call for conceptual clarity (Tefy Schoen et al., 2008)

## **6. Current Challenges and Future Directions**

This section includes areas in which researchers have identified gaps in the literature and highlighted the need for more work.

- A gap between research findings and school climate policy, practice guidelines, and teacher education and preparation (Cohen et al., 2009)
- Lack of consensus among researchers on how to measure school climate (Aldridge et al., 2018; Larson et al., 2020; Thapa et al., 2013; Zullig et al., 2010)
- Further investigation of the roles of school safety and the psychosocial academic environment on adolescent mental health (Aldrich et al., 2018)
- The need for the development of well-defined and research-based school climate modes (Thapa et al., 2013)

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## REFERENCES

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- Aber, L., Brown, J.L., Jones, S.M., Berg, J., & Torrente, C. (2011). School-based strategies to prevent violence, trauma, and psychopathology: The challenges of going to scale. *Development and Psychopathology, 23*, 411–421.
- Allen, J.B. (2003). Social motivation in youth sport. *Journal of Sport and Exercise Psychology, 25*, 551-567.
- Allen, K., Kern, M.L., Vella-Brodick, D., Hattie, J., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review, 30*, 1-34.
- American Educational Research Association, American Psychological Association, & National Council of Measurement in Education. (2014). *Standards for educational and psychological testing*. AERA.
- 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*, 5-22.
- Anderson-Butcher, D., & Conroy, D.E. (2002). Factorial and criterion validity of scores of a measure of belonging in youth development programs. *Educational and Psychological Measurement, 62*, 857-876.
- Arslan, G., & Duru, E. (2017). Initial development and validation of the school belongingness scale. *Child Indicators Research, 10*, 1043-1058.
- Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.
- Benson, P.L. (1990). *The troubled journey: A portrait of 6th to 12th grade youth*. Search Institute. <http://pub.search-institute.org/file/archive/1990-Benson-Troubled-Journey.pdf>
- Benson, P.L., Scales, P.C., Hamilton, S.F., & Sesma, A. (2006). Positive youth development: Theory, research, and applications. In W. Damon & R.M. Lerner (Eds.), *Handbook of child psychology: Vol. 1* (6th ed., pp. 894-941). John Wiley & Sons.
- Berkowitz, R., Moore, H., Astor, R.A., & Benbenishty, R. (2016). A research synthesis of the associations between socioeconomic background, inequality, school climate, and academic achievement. *Review of Educational Research, 87*(2), 425–469.
- Blair, C., & Diamond, A. (2010). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology, 20*(3), 899.
- Bornstein, M.H. (2015). Children's parents. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science: Vol. 4. Ecological settings and processes* (7th ed., pp. 55–132). Wiley.
- Brackett, M.A., Bailey, C.S., Hoffmann, J.D., & Simmons, D N. (2019). RULER: A theory-driven, systemic approach to social, emotional, and academic learning. *Educational Psychologist, 54*(3), 144–161.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-742.
- CASEL. (2017). *Measuring SEL. Using data to inspire practice*. A weekly blog on challenges and solutions to SEL assessment, including links to many other resources and a comprehensive assessment guide. <http://measuringSEL.casel.org/>
- CASEL. (2018a). *Collaborative for academic, social, and emotional learning*. [Website]. <https://casel.org/>
- CASEL. (2018b). *What is SEL?* [Website]. <https://casel.org/what-is-sel/>
- Casey, E.C., Finsaas, M., Carlson, S.M., Zelazo, P.D., Murphy, B., Durkin, F., & Masten, A.S. (2014). Promoting resilience through executive function training for homeless and highly mobile



- preschoolers. In S. Prince-Embury & D.H. Saklofske (Eds.), *Resilience interventions for youth in diverse populations* (pp. 133-158). Springer.
- Chhuon, V., & LeBaron Wallace, T. (2014). Creating connectedness through being known: Fulfilling the need to belong in U.S. high schools. *Youth & Society, 46*, 379-401.
- CORE. (2017). *CORE districts: Collaborating to improve student outcomes*. [Website]. <https://coredistricts.org/>
- Diette, T.M., & Ribar, D.C. (2015). *A longitudinal analysis of violence and housing insecurity* (SSRN Scholarly Paper No. ID 2678794). Social Science Research Network. <https://papers.ssrn.com/abstract=2678794>
- Dobia, B., Parada, R.H., Roffey, S., & Smith, M. (2019). Social and emotional learning: From individual skills to class cohesion. *Educational & Child Psychology, 36*(2), 78–90.
- Eccles, J., & Gootman, J.A. (Eds.). (2002). *Community programs to promote youth development*. National Academies Press. [https://www.nap.edu/login.php?record\\_id=10022&page=https%3A%2F%2Fwww.nap.edu%2Fdownload%2F10022](https://www.nap.edu/login.php?record_id=10022&page=https%3A%2F%2Fwww.nap.edu%2Fdownload%2F10022)
- ESSA. (2015). Every Student Succeeds Act of 2015, Pub. L. No. 114-95 § 114 Stat. 1177 (2015-2016).
- Fahle, E.M., & Reardon, S.F. (2018). How much do test scores vary among school districts? New estimates using population data, 2009-2015. *Educational Researcher, 47*(4), 221-234.
- Feinauer Whiting, E., Everson, K.C., & Feinauer, E. (2018). The simple school belonging scale: Working toward a unidimensional measure of student belonging. *Measurement and Evaluation in Counseling and Development, 51*, 163-178.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*, 148-162.
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in Schools, 30*, 79-90.
- Goodenow, C., & Gordy, K.E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education, 62*(1), 60-71.
- Goodnow, J.J., & Lawrence, J.A. (2015). Children and cultural context. In R.M. Lerner (Ed.), *Handbook of child psychology and developmental science: Vol. 4. Ecological settings and processes* (7th ed., pp. 746–788). Wiley.
- Hawkins, J.D., Kosterman, R., Catalano, R.F., Hill, K.G., & Abbott, R.D. (2005). Promoting positive adult functioning through social development intervention in childhood: Long-term effects from the Seattle Social Development Project. *Archives of Pediatrics & Adolescent Medicine, 159*(1), 25.
- Herbers, J.E., Reynolds, A.J., & Chen, C.C. (2013). School mobility and developmental outcomes in young adulthood. *Development and Psychopathology, 25*(2), 501–515.
- 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*, 493-507.
- Johnson D.W., & Johnson, R. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company. <http://www.co-operation.org/what-is-cooperative-learning>
- Jones, S.M., & Kahn, J. (2017). *The evidence base for how we learn: Supporting students' social, emotional, and academic development. (Consensus statements of evidence from the council of distinguished scientists)*. National Commission on Social, Emotional, and Academic Development, The Aspen Institute. [https://assets.aspeninstitute.org/content/uploads/2018/03/FINAL\\_CDS-Evidence-Base.pdf](https://assets.aspeninstitute.org/content/uploads/2018/03/FINAL_CDS-Evidence-Base.pdf)

- Jones, S.M., McGarrah, M.W., & Kahn, J. (2019). Social and emotional learning: A principled science of human development in context. *Educational Psychologist*, 54(3), 129–143.
- Karcher, M.J. (2004). Connectedness and school violence: A framework for developmental interventions. In E. Gerler (Ed.), *Handbook of school violence* (pp. 7-42). Haworth Press.
- LaRocca, B., & Bartolino Krachman, S. (2018). *A data-informed approach to social-emotional learning: Policy recommendations for state and local leaders*. Transforming Education. <https://www.transformingeducation.org/a-data-informed-approach-to-social-emotional-learning/>
- Li, J., & Julian, M.M. (2012). Developmental relationships as the active ingredient: A unifying working hypothesis of “what works” across intervention settings. *American Journal of Orthopsychiatry*, 82(2), 157-166.
- Lim, S.M., Rodger, S., & Brown, T. (2010). Assessments of learning-related skills and interpersonal skills constructs within early childhood environments in Singapore. *Infant & Child Development*, 19(4), 366–384.
- Loeb, S., Christian, M.S., Hough, H.J., Meyer, R.H., Rice, A.B., & West, M.R. (2018). *School-effects on social-emotional learning: Findings from the first large-scale panel survey of students*. Policy Analysis for California Education, Stanford University. <http://www.edpolicyinca.org/publications/sel-school-effects>
- Ma, X. (2003). Sense of belonging to school: Can schools make a difference? *The Journal of Educational Research*, 96, 340-349.
- Masten, A.S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227–238.
- Masten, A.S. (2014). Global Perspectives on Resilience in Children and Youth. *Child Development*, 85(1), 6-20.
- Masten, A.S., Best, K.M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425-444.
- Masten, A.S., & Obradović, J. (2008). Disaster Preparation and Recovery: Lessons from Research on Resilience in Human Development. *Ecology and Society*, 13(1), 9.
- Melnick, H., Cook-Harvey, C.M., & Darling-Hammond, L. (2017). *Encouraging social and emotional learning in the context of new accountability*. Learning Policy Institute. <http://learningpolicyinstitute.org/product/sel-new-accountability>
- MinnPost. (September 28, 2014). *Ann Masten: Children’s natural resilience nurtured through ‘ordinary magic’*. <https://www.minnpost.com/mental-health-addiction/2014/09/ann-masten-children-s-natural-resilience-nurtured-through-ordinary-m/>
- MN Department of Education. (2018). *SEL implementation guidance*. <https://education.mn.gov/MDE/dse/safe/clim/social/imp/>
- Nickodem, K., Rodriguez, M.C., & Lamm, R. (2019, April). *Social and emotional learning ICCs and associations with school composition and achievement* [Paper presentation]. National Council on Education in Measurement Annual Meeting, Toronto, Canada. <https://sites.google.com/view/mnydrq/research>
- Niehaus, K., Moritz Rudasill, K., Rakes, C.R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology*, 50, 443-460.
- Orpinas, P. (2010). Social competence. In I.B. Weiner & W.E. Craighead (Eds.), *The Corsini Encyclopedia of Psychology*. Wiley & Sons.
- Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2020). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, 24(1), 6-36.

- Patterson, C.J., & Hastings, P.D. (2007). Socialization in the context of family diversity. In J.E. Grusec, & P.D. Hastings (Eds.), *Handbook of socialization* (pp. 328–351). Guilford Press.
- Poulou, M. (2015). Teacher-student relationships, social and emotional skills, and emotional and behavioural difficulties. *International Journal of Educational Psychology*, 4(1), 84-108.
- Ready by 21. (2012). *Focus on quality ignites a movement to build youth assets: Asheville, North Carolina*. Forum for Youth Investment. <https://www.search-institute.org/wp-content/uploads/2017/11/DAP-Asheville-Case-Study.pdf>
- Rodriguez, M.C., Dosedel, M., & Kang, Y. (2019, April). *Interpretation and Use Validation of Social and Emotional Learning Measures in Inequitable Settings* [Paper presentation]. National Council on Measurement in Education Annual Meeting, Toronto, Canada. <https://sites.google.com/view/mnydrq/research>
- Rodriguez, M.C., & Nickodem, K. (2018, April). *Comprehensive partitioning of student achievement variance to inform equitable policy design* [Paper presentation]. National Council on Measurement in Education Annual Meeting, New York, NY. <https://sites.google.com/view/mnydrq/research>
- Roehlkepartain, E.C. (2015). *25 years of developmental assets: Personal reflections (and a little data)*. Search Institute. Search Institute. <https://www.search-institute.org/wp-content/uploads/2017/12/2015-Roehlkepartain-25-years-of-assets.pdf>
- Roehlkepartain, E.C., Mannes, M., Scales, P.C., Lewis, S., & Bolstrom, B. (2004). *Building strong families 2004: A study of African American and Latino/Latina parents in the United States*. YMCA and Search Institute. <https://www.search-institute.org/wp-content/uploads/2018/02/BSF2004-Report.pdf>
- Roehlkepartain, E.C., Pekel, K., Syvertsen, A., Sethi, J., Sullivan, T., & Scales, P. (2017). *Relationships first: Connections that help young people thrive*. Search Institute. <http://www.search-institute.org/what-we-study/developmental-relationships>
- Rumberger, R.W. (2003). The causes and consequences of student mobility. *Journal of Negro Education*, 72(1), 6–21.
- Sanchez, B., Colon, Y., & Esparza, P. (2005). The role of sense of school belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence*, 34, 619-628.
- Scales, P.C., Benson, P.L., Roehlkepartain, E.C., Sesma Jr., A., & van Dulman, M. (2006). The role of developmental assets in predicting academic achievement: A longitudinal study. *Journal of Adolescence*, 29, 691-708.
- Scales, P.C., & Leffert, N. (2004). *Developmental assets: A synthesis of the scientific research* (2nd ed.). Search Institute.
- Search Institute. (2006). *40 developmental assets for adolescents*. <https://www.search-institute.org/our-research/development-assets/developmental-assets-framework/>
- Search Institute. (2020). *What we're learning about developmental relationships*. <https://www.search-institute.org/developmental-relationships/learning-developmental-relationships/>
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Semanchin Jones, A., & LaLiberte, T. (2013). Measuring youth connections: A component of relational permanence for foster youth. *Children and Youth Services Review*, 35(3), 509–517.
- Shepard, L.A., Penuel, W.R., & Pellegrino, J.W. (2018). Using learning and motivation theories to coherently link formative assessment, grading practices, and large-scale assessment. *Educational Measurement: Issues and Practice*, 37(1), 21-34.

- Slaten, C.D., Rose, C.A., Bonifay, W., & Ferguson, J.K. (2019). The Milwaukee youth belongingness scale (MYBS): Development and validation of the scale utilizing item response theory. *School Psychology, 34*, 296-306.
- The Aspen Institute. (2018). *Pursuing social and emotional development through a racial equity lens: A call to action*. <https://www.aspeninstitute.org/publications/>
- Totan, T., Özyeşil, Z., Deniz, M.E., & Kiyar, F. (2014). The importance of rural, township, and urban life in the interaction between social and emotional learning and social behaviors. *Educational Sciences: Theory & Practice, 14*(1), 41–52.
- Townsend, K.C., & McWhirter, B.T. (2005). Connectedness: A review of the literature with implications for counseling, assessment, and research. *Journal of Counseling & Development, 83*(2), 191–201.
- Trach, J., Lee, M., & Hymel, S. (2018). A social-ecological approach to addressing emotional and behavioral problems in schools: Focusing on group processes and social dynamics. *Journal of Emotional and Behavioral Disorders, 26*(1), 11–20.
- White, N., La Salle, T., Ashby, J.S., & Meyers, J. (2014). A brief measure of adolescent perceptions of school climate. *School Psychology Quarterly, 29*(3), 349–359.
- Whiteside, S., McCarthy, D., Sim, L., Biggs, B., Petrikin, J., & Mellon, M. (2016). Development of the Friendships and Social Skills Test (FASST): A parent report measure. *Journal of Child & Family Studies, 25*(6), 1777–1788.
- Wilkins, J. (2014). The development of a scale to explore the multidimensional components of good student-teacher relationships. *Education Research & Perspectives, 41*(1), 154–172.
- Yates, T.M., Tyrell, F.A., & Masten, A.S. (2015). Resilience Theory and the Practice of Positive Psychology From Individuals to Societies. In *Positive Psychology in Practice* (pp. 773-788). John Wiley & Sons.
- Zautra, A., Hall, J., & Murray, K. (2008). Community development and community resilience: An integrative approach. *Community Development, 39*(3), 130-147.

## Additional Resources

- American Institutes for Research (AIR). (2015). *Are you ready to assess social and emotional development?* A toolkit to prepare for SEL assessment, with links to other resources. <https://www.air.org/resource/are-you-ready-assess-social-and-emotional-development/>
- American Psychological Association, Coalition for Psychology in Schools and Education. (2015). *Top 20 principles from psychology for preK-12 teaching and learning*. <http://www.apa.org/ed/schools/cpse/top-twenty-principles.pdf>
- CASEL. (2018). *Collaborative for academic, social, and emotional learning*. <https://casel.org/>
- CASEL. (2018). *Measuring SEL. SEL assessment guide*. An interactive tool to help practitioners select and effectively use available assessments of students' SEL competencies. <http://measuringcel.casel.org/assessment-guide/>
- CASEL. (2018). *What is SEL?* <https://casel.org/what-is-sel/>
- CASEL. (2020). *Reunite, renew, and Thrive: Social and emotional (SEL) roadmap for reopening school*. In response to COVID-19 challenges, CASEL released this roadmap, with the support of stakeholders, to provide guidance around four critical practices for schools. <https://casel.org/reopening-with-sel/>
- Center on Great Teachers & Leaders (AIR). (2018). *Self-assessing social and emotional instruction and competencies: A tool for teachers*. A toolkit for teachers to support reflection and assessment of how instructional practices support student SEL. <https://gtlcenter.org/products-resources/self-assessing-social-and-emotional-instruction-and-competencies-tool-teachers/>
- Minnesota Department of Education. (2018). *SEL assessment guidance*. This is a state-specific assessment guidance document associated with the MN SEL Competencies and Benchmarks, along with implementation and professional development guidance. <https://education.mn.gov/MDE/dse/safe/clim/social/imp/>
- Haggerty, K., Elgin, J., & Woolley, A. (2011). *Social-emotional learning assessment measures for middle-school youth*. Raikes Foundation. This report contains a review of 10 SEL assessments that met basic criteria for inclusion, out of 73 instruments initially reviewed. <https://www.search-institute.org/wp-content/uploads/2017/11/DAP-Raikes-Foundation-Review.pdf>
- Transforming Education. (2018). *Measuring MESH* (mindsets, essential skills, and habits). A set of documents, tool kits, and assessments developed in partnership with California's CORE districts. <https://www.transformingeducation.org/measuring-mesh/>

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