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Big Picture Thinking: Crosswalking Social-Emotional Learning and Academic Standards

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Abstract

Counselors and educators must re-imagine social-emotional wellness as an essential part of the academic curriculum. The authors present a collaborative, sustainable model that focuses both on academic rigor and emotional wellness. The authors outline how this model can be integrated in any academic content area and how school counselors and teachers can support each other to meet academic and social-emotional learning outcomes. The authors demonstrate how this model can be integrated into high school math.

Keywords: Social-emotional Learning; School Counseling; Academic Standards; Collaboration

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Social-emotional learning (SEL) is an integral component of K-12 mental and behavioral health and academic success. Hundreds of studies have demonstrated positive associations with SEL programs and academic, attitudinal, and behavioral outcomes (Durlak et al., 2011). Research indicates that students who engage in social-emotional learning activities have better relationships, improved grades and test scores, are more likely to graduate, and feel more connected to the school community (Greenberg et al., 2017; Mahoney et al., 2018; OECD, 2021; Taylor et al., 2017). Students who are socially and emotionally competent are more likely to be present in class and engage in their own learning and academic growth (Denham, 2006). Through SEL, students practice and acquire skills that will not only have dividends during childhood and adolescence but will assist them later in life as they navigate the many experiences and tasks of adulthood (Belfield, et al. 2015; Greenberg et al., 2003; Jones et al., 2015). Social-emotional learning improves emotional regulation, empathy, conflict mediation, interpersonal skills, suicide prevention, mental health awareness, academic engagement, and even future career adaptability (Parmentier et al., 2019).

SEL standards have been established within numerous educational contexts and professional frameworks. Many countries have recognized and embedded SEL concepts and competencies within their educational systems, including Canada, China, Colombia, Portugal, South Korea, and the United States (OECD, 2021). According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), as of 2022, 27 states in the United States have adopted SEL competencies and 44 states offer guidance for schools in implementing SEL (CASEL, 2022). Over two decades ago, the American School Counselor Association (ASCA) established student standards for academic success, college and career readiness, and social-emotional development (ASCA, 2004). The current version, *ASCA Student Standards: Mindsets and Behaviors for Student Success*, outlines learning strategies, self-management skills, social skills, and mindsets necessary for academic and social-emotional development. The Standards are "based on a survey of research and best practices in student achievement" (ASCA, 2021, p. 2).

In addition to SEL standards, many countries have established academic standards for primary and secondary educational systems. For example, the United States requires K-12 schools to adopt challenging standards in mathematics, reading or language arts, and science (Every Student Succeeds Act, 2015). Several states go further and recommend or require academic standards in other subject areas as well (Ballotpedia, 2023; New Jersey Department of Education, 2024; Pennsylvania State Board of Education, 2024; Washington Office of Superintendent of Public Instruction, 2024).

School systems are experiencing significant and ongoing shortages in resources (Leachman et al., 2017; Sutcher et al., 2016) due to increases in student emotional and behavioral problems (Centers for Disease Control and Prevention, 2023; Conley & You, 2021; Englander, 2021; Keyes et al., 2019; World Health Organization, 2022), educator shortages (U.S. Department of Education,



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2023; UNESCO, 2023), and test-based accountability systems (Saeki et al., 2018). Further, school counselors' assigned duties can vary greatly depending on school administration and district policies and practices, often resulting in a mismatch between school counselors' unique training, knowledge, and expertise when compared to their actual assigned duties (ASCA, n.d; Havlik et al., 2019; Neyland-Brown et al., 2019). It is imperative that school counselors and educators collaborate to find effective and efficient ways to integrate SEL throughout the curriculum. Research consistently and unsurprisingly shows that for SEL lessons to be effective, they cannot be delivered as stand-alone, one-time events; SEL content and practice must be systematically incorporated and reinforced over time (Greenberg, 2023). A frequent perceived obstacle is how to do so within existing school structures and resources.

While SEL is an integral part of comprehensive school counseling programs (CSCPs; ASCA, 2019), locating time to cover all SEL and content area standards within school schedules can present challenges. The model introduced in this paper recommends that SEL be re-envisioned as an integral part of the overall school experience and curricular arc rather than as a standalone unit or discipline. Doing so facilitates learners' ability to make meaningful and lasting connections with SEL throughout their education instead of viewing SEL, wellness, and mental health as categorically separate from academic development. A recent review of meta-analyses have shown that "developing a shared vision that prioritizes fully integrating SEL with academic learning for all students" is a critical best practice for successful and sustainable SEL implementation (Greenberg, 2023, p. vii). From a resource management perspective, integrating SEL concepts within academic lessons can potentially result in up to a 50% reduction in the total time it would take to deliver both content areas through separate lessons. Further, collaborative work with educator colleagues often increases teacher effectiveness, motivation, and sense of belonging – all protective factors for safeguarding against teacher burnout and improving teacher retention (UNESCO, 2023).

Teacher burnout and dissatisfaction have increased over the past several decades and were greatly exacerbated by the COVID-19 pandemic (Cooper et al., 2023; Marken & Agrawal, 2022; MetLife, 2012). Strategies to prevent burnout, reduce stress, and increase teacher job satisfaction have been shown to improve student achievement (Greenberg et al., 2016; Herman et al., 2018; Klusman et al., 2016). Studies have shown that teachers who implement social-emotional learning curriculum in their classrooms can experience positive impacts on their own social-emotional wellness, improving teacher retention and resulting in more positive student educational outcomes (Domitrovich et al., 2016, Soutter, 2023).

In this article, the authors present a framework that provides K-12 educators and school counselors with an example of how to effectively crosswalk academic standards and learning objectives with SEL standards. The authors demonstrate how such an integration can be utilized within a subject that may not be the first place that people consider for connections to SEL: math. So much has been learned over the past few decades regarding the reciprocal effects of emotions such as anxiety on math performance (Caviola et al., 2022) and the social-cognitive impacts such as stereotype threat on students' identity development (Bedyńska et al., 2018; Lu et al., 2015; Luttenberger et al., 2018). Given this, math is an ideal subject area through which the authors can



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demonstrate how to crosswalk SEL and academic standards, identify SEL access points within existing curriculum, and provide educators with a model for incorporating this integrative and feasible approach within K-12 schools.

SEL and Mathematics

Mathematics is a subject that often elicits many strong emotional reactions from students. These reactions can include math anxiety, which can negatively impact student learning as early as the second grade (Jameson, 2014; Ramirez et al., 2013). Core SEL skills such as learning to manage strong emotions; reframing negative self-talk; challenging fixed mindsets; and improving self-esteem, self-efficacy, and persistence can be linked directly to math concepts in many ways, resulting in improved outcomes in both math and social-emotional learning.

Math skills development is impacted by both cognitive and non-cognitive factors (Egalite et al., 2016). Related non-cognitive factors include optimism, resilience, adaptability, and conscientiousness. Related cognitive processes include attention, long-term and working memory, and decision-making. Working memory is impacted by cognitive load, which is often negatively impacted by math anxiety (Morsanyi et al., 2014; Ramirez et al., 2016). For those students who struggle with math, this results in a vicious cycle – one that can be successfully interrupted and improved through the combination of psychoeducation and cognitive and social-emotional skills development.

Stereotype threat is a phenomenon that frequently accompanies math anxiety. Stereotype threat "is a situational experience, in which a member of a stigmatized group feels vulnerable and pressured by the possibility of confirming, or being judged by, a negative stereotype" (Lu et al., 2015, p. 538). A common example of stereotype threat is the statement that girls are "bad at math." Stereotype threat can negatively impact working memory, attention, effort, and motivation, which in turn influence math performance (Beilock et al., 2007; Schmader & Johns, 2003). Stereotype threat disproportionately impacts frequently stigmatized and marginalized social groups such as young women and African Americans (Maloney et al., 2013; Pennington et al., 2016). Both math anxiety and stereotype threat are problems that counselors and teachers can collaboratively address, thus improving both math and overall life outcomes. Raising awareness of stereotype threat has been shown to be insufficient to positively impact math outcomes on its own (Tomasetto & Appoloni, 2013); targeted interventions must be incorporated as well. Yeager and Walton (2011) found that "there is convincing evidence that even simple and brief interventions rooted in socialpsychological theories may actually yield a long-lasting mitigating effect on minority students' vulnerability to stereotype threat" (p. 211). These findings support the idea that math classes can be ideal and perhaps even critical places to infuse social-emotional learning. By incorporating SEL concepts and skills within math instruction, educators have unique opportunities to address math anxiety and stereotype threat reduction while at the same time covering math and SEL standards.

The Integrative Model

This section outlines a model for integrating SEL standards throughout the math curriculum. The model can be a guide for school counselors and teachers of any level or subject to collaborate and locate access points both to academic and SEL content. In partnership, school



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counselors and teachers can modify or create engaging academic lessons that simultaneously improve student wellness. The framework invites educators to take a new perspective regarding content coverage and delivery while providing a pathway to meet mutual educational and wellness imperatives.

The first step in the model begins with a willingness of teachers and school counselors to team together on behalf of student's academic and social-emotional growth. The next step is a preassessment of students' current skills levels. The third step is weekly teacher-counselor consultation as the joint SEL and academic lessons are planned and delivered. The final step is post-assessment and evaluation. Applying principles of the backward design approach (Bowen, 2017) when implementing this model can assist in aligning learning outcomes and standards across the academic and SEL domains.

First Steps

Integrating social-emotional standards within the curriculum alongside academic standards depends heavily on collaboration between the school counselor and teacher. The counselor-teacher team must work together to identify the skills, knowledge, and behaviors that students should gain from the lessons. After establishing these learning outcomes, the teacher and school counselor preassess each student for their baseline knowledge of both the academic and SEL components. Postlesson assessments provide an opportunity to examine growth across both domains.

In the pilot of the model outlined below, the teacher partner focused on the concept of quadratic functions in algebra as the school counselor identified authentic access points to social-emotional learning within the same math content. The counselor identified several access points: recognizing emotions and thoughts, managing stress, navigating relationships/friendships, managing conflict, improving communication skills, group behaviors, understanding and appreciating diversity, and working toward greater equity and social justice. For example, the counselor-teacher team related the characteristic U shape of a parabola to an SEL outcome of increasing self-awareness. The team associated the high and low points of the U to felt emotions, eliciting examples of when a student may either feel great (shown as upside down U, or "high point") or times when they feel "down" (shown as a right-side up U shape on a graph). From here, students were encouraged to identify, acknowledge, and better understand their feelings while simultaneously learning about the properties of parabolas and how to graph them. The conjoint objectives for students to gain skills in both SEL and math and to link and reinforce concepts from both realms were achieved through this single collaborative lesson.

Assessment of Learning

After identifying learning objectives and curricular access points and reviewing the preassessment data, the next step is determining how success will be measured: how will the team know that the student has achieved the desired SEL and math outcomes? Are additional classroom or individual/small group "booster" lessons needed? Post-assessments following individual lessons and again at the end of the unit are effective ways to evaluate individual student learning. The post-assessment should focus on the desired outcomes related to the knowledge and skills standards identified earlier in the process. Examples of assessments of learning include homework



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assignments, exams, and real-time or recorded skills demonstrations. Assessments can also include perception-based components such as the student reflecting on their own self-growth or envisioning future situations in which they may apply their new learnings. Another approach to assessing learning is to conduct formal and informal observations of students as they apply their new learnings. The counselor and teacher can compare pre- and post-assessment data to look for growth over time. This data can also be utilized in program evaluation as the school counselor-teacher team considers how to improve processes and outcomes in the future.

Collaborative Learning and Instruction

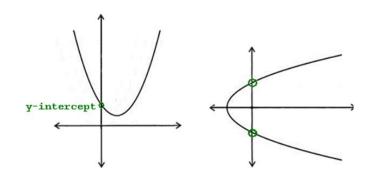
What follows is a demonstration of the model, illustrating integration access points within a high school math curriculum. The model was piloted in a large urban high school in the Northwestern United States. The school demographics are diverse, with approximately 90% of students identifying as students of color, 48% identifying as female, and 58% of students coming from low-income families. Table 1 below demonstrates how one school counselor-teacher team applied the model by the crosswalk of SEL and math standards within a quadratics unit in two ninth-grade algebra classrooms. For this example, the SEL standards used are from the ASCA Student Standards (ASCA, 2021); the math standards used are from the Common Core standards (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010).

Table 1Integrative Model Applied to an Algebra Quadratics Unit

Math standard ^a	ASCA standard ^b	Learning outcomes	Academic/SEL access ^c
F.IF.7a Graph quadratic functions and show intercepts, maxima, minima M 1. Belief in development of whole self, including a healthy balance of mental,	Negative a, so the parabola opens down. Vertex or Maximum Point Parabola Zeros	 Math Parabola is the U-shaped curve Maximum is the top of the mountain Minimum is the bottom of the valley/trough Zeros/roots/x-intercepts are where the parabola crosses the x-axis SEL Opening up vs shutting down Emotions (excitement, anger, grief) 	
	social/emotional and physical well- being		 Asking for help Differences in culture, worldviews, ideas

Math standard ^a	ASCA standard ^b	Learning outcomes	Academic/SEL access ^c
A.SSE.3 Choose an equivalent form of an equation to reveal properties of the quantity represented by the equation	B-SS 2. Create positive and supportive relationships with students who are similar to and different from them	Standard Form $y = ax^{2} + bx + c$ Factored form $y = a(x - r_{1})(x - r_{2})$ $r_{1}, r_{2} \text{ are the roots}$ Vertex Form $y = a(x - h)^{2} + k$ $(h, k) \text{ is the vertex}$	 Vertex (x, y) is the point where the maximum or minimum of the parabola is. Y-intercept is where the parabola crosses the y-axis. Roots/zeros/x-intercepts are where the parabola crosses the x-axis.
	B-SS 4. Demonstrate empathy	Vertex form: allows you to find the vertex of parabola. Standard form: allows you to find the y-interest.	 Understanding starting at different places than others Exept of the What are your roots, how does that look
	parabola. Factored form: allows you to find the root parabola.		 Where are you able to intercept and regulate emotions and anxiety, triggers, strategies

Math standard ^a ASCA standard ^b Learning outcomes Academic/SEL access ^c



F.IF.8 Write a
function defined
by an
expression in
equivalent
forms to reveal
and explain
different
properties of

B-LS 9. Decisionmaking informed by gathering evidence, getting others' perspectives and recognizing personal bias

Use the <u>box method</u> to multiply two expressions in factored form to get the standard form.

Use the <u>box and diamond method</u> to factor an equation written in standard form.

Math

- Factor
- Coefficient
- Combine like terms

SEL

- Different ways of problem solving may lead to the same results
- Different perspectives and ideas
- All-or-nothing thinking

A-APR.3 Identify zeros of polynomials

the function.

Take factored form and set it equal to zero to find the zeros/roots/x-intercepts.

Math standard ^a	ASCA standard ^b	Learning outcomes	Academic/SEL access ^c
when suitable factorizations are available.		(x-3)(x+2) = 0; this tells you that the roots are at $x = 3$ and $x = -2$.	
A-REI.B4 Solve for quadratic equations in one variable using the quadratic formula.	B-SS 8. Demonstrate advocacy skills for self and others and ability to assert self, when necessary	Quadratic Formula $ax^{2} + bx + c = 0$ $x = \frac{-b \pm \sqrt{b^{2} - 4ac}}{2a}$	MathCoefficientOrder of operations
	B-SMS 6. Demonstrate ability to identify and overcome barriers	Examples: $3x^{2} + 5x - 7 = 0$ $a = 3, b = 5, c = -7$ $x = \frac{-5 \pm \sqrt{(5)^{2} - 4(3)(-7)}}{2(3)}$ $= \frac{-5 \pm \sqrt{25 + 84}}{6}$ $= \frac{-5 \pm \sqrt{109}}{6}$ $= \frac{-5 \pm \sqrt{109}}{6} \text{ or } \frac{-5 - \sqrt{109}}{6}$ $= 0.907 \text{ or } -2.573$ $-x^{2} - 6x + 8 = 0$ $x = \frac{-(-6) \pm \sqrt{(-6)^{2} - 4(-1)(8)}}{2(-1)}$ $= \frac{6 \pm \sqrt{38}}{-2}$ $= \frac{6 \pm \sqrt{88}}{-2} \text{ or } \frac{6 - \sqrt{68}}{-2}$ $= -7.123 \text{ or } 1.123$	 Order of a system, protocols Process in advocacy How do we get something done from asking the teacher for help and or guidance to figuring out a system Life steps Goal setting

ASCA standard b Academic/SEL access ^c Math standard ^a Learning outcomes A.SSE.1 Interpret **B-SMS 5**. Math parts of an Demonstrate Expression Term 2 Term 1 expression perseverance to Term (terms, factors, achieve long- and Factor coefficients) short-term goals Expression Coefficient Constant Constant (x)M 4. Self-confidence SEL in ability to succeed Factor 1 Factor 2 **Growth mindset** Things that are constant in one's life Factors that change life

Math standard ^a	ASCA standard ^b	Learning outcomes	Academic/SEL access ^c
key features, whole self, then write an including a her equation for it. balance of me	development of whole self, including a healthy balance of mental, social/emotional and physical well-	The graph of a quadratic function is called a para For $f(x) = ax^2 + bx + c$ Opens up if $a > 0$ Opens down if $a < 0$ x-intercept: Set $f(x) = 0$, solve for x .	 Math If a is positive, the U opens up (smiley face). If a is negative, the U opens down (frowny face). x-intercepts/roots/zeros are where the U-shape crosses the x-axis. Y-intercept (c-value) where U-shape crosses y-axis. SEL Opening up vs shutting down
		y-intercept: c Equation of axis: $x = -\frac{b}{2a}$ Vertex: $\left(-\frac{b}{2a}, f\left(-\frac{b}{2a}\right)\right)$	Emotions (excitement, anger, grief)

ASCA standard b Learning outcomes Academic/SEL access ^c Math standard ^a **A.REI.10** M 1. Belief in Math **Emphasize** development of that a point on whole self, If a is positive, the U opens up (smiley face). a line/curve is including a healthy If a is negative, the U opens down (frowny a solution. balance of mental, face). social/emotional • x-intercepts/roots/zeros are where the Uand physical wellshape crosses the x-axis. being • Y-intercept (c-value) where the U-shape crosses y-axis. 0 SEL Opening up vs. shutting down Emotions (excitement, anger, grief) The red points are all solutions. If the parabola above is represented by $y = x^2-3x+2.25$, then when you plug in the (x,y) numerical values of the red dots to this equation, do some calculating, you will find that the right-side of the equals sign will be the same as the left side.

ASCA standard b Academic/SEL access ^c Math standard a Learning outcomes M 1. Belief in **F.IF.2** Spiral in Math **Function Notation** development of function notation. whole self, Input (domain) is all the x-values including a healthy Example: Output (range) is all the y-values balance of mental, f(x) = 3x + 1Function is like a machine (input a number social/emotional and it outputs another number); functions name of function and physical wellmake predictions. being (f of x) Input output (domain) (range) SEL f(2) = 3(2) + 1 = 7Self-care When you input helpful self-care strategies f(-4) = 3(-4) + 1 = 11the output is more positive outcomes Use the slope formula to calculate the average rate of **F.IF.6** Average **B-SMS 4.** Math rate of change **Demonstrate** change. ability to delay between two Velocity gratification for points. Speed long-term rewards Given two points: Rise over run Change in y over change in x (X_1, V_1) (X_2, V_2) Slope Slope Formula: B-SMS 5. $\underline{y}_2 - \underline{y}_1$ SEL Demonstrate perseverance to $X_2 - X_1$ How people change achieve long- and Setting and achieving goals

short-term goals

Math standard ^a ASCA standard ^b Learning outcomes Academic/SEL access ^c

GUIDED PRACTICE EXAMPLE 1

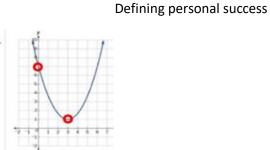
M 5. Belief in using abilities to their fullest to achieve high-quality results and outcomes

dentify the following characteristics of the parabola to the right.



$$\frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{1-7}{3-0} = \frac{-6}{3} = \boxed{2}$$



^a Common Core (2010) math standard number (in bold) and description (in italics).

^b American School Counselor Association Student Standards: Mindsets and Behaviors (2021) standard number (in bold) and description (in italics).

^c SEL = social-emotional learning.



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Considerations

For the proposed model to be effective in mutually meeting academic and SEL goals, all parties must be willing to be actively engaged in collaboration, planning, delivery, and assessment. To achieve this, the authors recommend regularly sharing data with school faculty and staff regarding the effectiveness of SEL interventions on academic and life outcomes; this can be done via existing faculty meetings, newsletters, websites, blogs, or other methods. Furthermore, the model must be implemented in a sustained and integrated manner to be most effective. Embedding the model within comprehensive school counseling program management components such as the annual administrative conference, mission and vision statements, and advisory board meetings and reports (ASCA, 2019) are some of many ways to enhance the probability of systemic and sustained integration across time and changes in faculty and staff. The model has the flexibility to be inclusive of diverse state, district, school, national, and most importantly student needs, although time constraints of teachers and school counselors may impact the design and implementation of the model. It is imperative that the school administrators endorse this approach and offer support and time for teachers and counselors to plan and collaborate. With these conditions, students and the entire school community should experience the many benefits of this model as outlined above.

Conclusion

In this article, the authors discussed the importance of re-thinking models for integrating SEL in classrooms. The authors challenge educators to reconceptualize SEL from a stand-alone, siloed approach to an integrative approach that will best meet the needs of students within the current contexts of their lives while working within the time and human resource constraints in schools. The authors presented a model of how counselor-teacher teams can effectively collaborate through this delivery model to powerfully impact academic achievement and student social-emotional wellness and make efficient use of the limited resources of time and faculty in ways that promote teacher well-being. It is time for educators to move beyond isolated delivery of SEL content and integrate SEL within and across the academic curriculum.



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References

- American School Counselor Association (n.d.). *Appropriate and inappropriate activities for school counselors*. https://www.schoolcounselor.org/getmedia/8fe536c2-7a32-4102-8ce7-42e9b0683b3b/appropriate-activities-of-school-counselors.pdf
- American School Counselor Association (2004). *ASCA national standards for students*. Alexandria, VA: Author.
- American School Counselor Association (2019). *The ASCA national model: A framework for school counseling programs* (4th ed.). Alexandria, VA: Author.
- American School Counselor Association (2021). ASCA student standards: Mindsets and behaviors for student success. Alexandria, VA: Author.
- Ballotpedia (2023, November 21). *K-12 education content standards in the states*. https://ballotpedia.org/K-12 education content standards in the states
- Bedyńska, S., Krejtz, I., & Sedek, G. (2018). Chronic stereotype threat is associated with mathematical achievement on representative sample of secondary schoolgirls: The role of gender identification, working memory, and intellectual helplessness. *Frontiers in Psychology*, 9, 428. https://doi.org/10.3389/fpsyg.2018.00428
- Beilock, S. L., Rydell, R. J., & Mcconnell, A. R. (2007). Stereotype threat and working memory: Mechanisms, alleviation, and spillover. *Journal of Experimental Psychology: General*, 136(2), 256–276.
- Belfield, C., Bowden, B., Klapp, A., Levin, H., Shand, R., & Zander, S. (2015). The economic value of social and emotional learning. *Journal of Benefit-Cost Analysis*, 6(3), 508–544.
- Bowen, R. S., (2017). *Understanding by design*. Vanderbilt University Center for Teaching. https://cft.vanderbilt.edu/understanding-by-design/
- Centers for Disease Control and Prevention (CDC) (2023). *Youth Risk Behavior Survey: Data summary and trends report*.

 https://www.cdc.gov/healthyyouth/data/yrbs/pdf/YRBS_Data-Summary-Trends_Report2023_508.pdf
- Caviola, Toffalini, E., Giofrè, D., Ruiz, J. M., Szűcs, D., & Mammarella, I. C. (2022). Math performance and academic anxiety forms, from sociodemographic to cognitive aspects: A meta-analysis on 906,311 Participants. *Educational Psychology Review*, *34*(1), 363–399. https://doi.org/10.1007/s10648-021-09618-5
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2022, April 22). 2022 SEL State Scorecard Scan. https://casel.org/2022-state-scan/
- Conley, S., & You, S. (2021). School organizational factors relating to teachers' intentions to leave: A mediator model. *Current Psychology*, 40(1), 379–389. https://doi.org/10.1007/s12144-018-9953-0



SSN#: 2473-2826

- Cooper, C. M., Przeworski, A., Smith, A. C., Obeid, R., & Short, E. J. (2023). Perceptions of social–emotional learning among K-12 teachers in the USA during the COVID-19 pandemic. *School Mental Health*, *15*(2), 484–497. https://doi.org/10.1007/s12310-022-09563-w
- Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education & Development*, *17*(1), 57–89. https://doi.org/10.1207/s15566935eed1701_4
- Domitrovich, C. E., Bradshaw, C. P., Berg, J. K., Pas, E. T., Becker, K. D., Musci, R., Embry, D. D., & Ialongo, N. (2016). How do school-based prevention programs impact teachers? Findings from a randomized trial of an integrated classroom management and social-emotional program. *Prevention Science: The Official Journal of the Society for Prevention Research*, 17(3), 325–337. https://doi.org/10.1007/s11121-015-0618-z
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x
- Egalite, A. J., Mills, J. N., & Greene, J. P. (2016). The softer side of learning: Measuring students' non-cognitive skills. *Improving Schools*, 19(1), 27–40. https://doi.org/10.1177/1365480215616313
- Englander, E. (2021). Bullying, cyberbullying, anxiety, and depression in a sample of youth during the coronavirus pandemic. *Pediatric Reports*, *13*(3), 546. https://doi.org/10.3390/pediatric13030064
- Every Student Succeeds Act, 20 U.S.C. § 6301 (2015). https://www.congress.gov/bill/114th-congress/senate-bill/1177
- Greenberg, M. T. (2023). Evidence for social and emotional learning in schools. *Learning Policy Institute*. https://doi.org/10.54300/928.269
- Greenberg, M. T., Brown J. L., Abenavoli, R.M. (2016). Teacher stress and health effects on teachers, students, and schools. Edna Bennett Pierce Prevention Research Center, Pennsylvania State University.
- Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and emotional learning as a public health approach to education. *Future of Children*, 27(1), 13–32.
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, *58*(6–7), 466–474.



ISSN#: 2473-2826

- Havlik, S., Ciarletta, M., & Crawford, E. (2019). "If we don't define our roles, someone else will": Professional advocacy in school counseling. *Professional School Counseling*, 22(1), 1-11. https://doi.org/10.1177/2156759X19848331
- Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions*, 20(2), 90–100. https://doi.org/10.1177/1098300717732066
- Jameson, M. M. (2014). Contextual factors related to math anxiety in second-grade children. *The Journal of Experimental Education*, 82(4), 518–536. https://doi.org/10.1080/00220973.2013.813367
- Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health*, *105*(11), 2283–2290. https://doi.org/10.2105/AJPH.2015.302630
- Keyes, K. M., Gary, D., O'Malley, P. M., Hamilton, A., & Schulenberg, J. (2019). Recent increases in depressive symptoms among US adolescents: Trends from 1991 to 2018. *Social Psychiatry and Psychiatric Epidemiology*, 54(8), 987–996. https://doi.org/10.1007/s00127-019-01697-8
- Klusmann, U., Richter, D., & Lüdtke, O. (2016). Teachers' emotional exhaustion is negatively related to students' achievement: Evidence from a large-scale assessment study. *Journal of Educational Psychology*, 108(8), 1193–1203. https://doi.org/10.1037/edu0000125
- Leachman, M., Masterson, K., & Figueroa, E. (2017). A punishing decade for school funding. *Center on Budget and Policy Priorities*, 3.
- Lu, A., Feng, Y., Yu, Z., Tian, H., Hong, X., & Zheng, D. (2015). Anxiety and mind wandering as independent consequences of stereotype threat. *Social Behavior and Personality: An International Journal*, 43(4), 537–546. Academic OneFile.
- Luttenberger, S., Wimmer, S., & Paechter, M. (2018). Spotlight on math anxiety. *Psychology Research and Behavior Management*, 11, 311–322. https://doi.org/10.2147/PRBM.S141421
- Mahoney, J. L., Durlak, J. A., & Weissberg, R. P. (2018). An update on social and emotional learning outcome research. *Phi Delta Kappan*, *100*(4), 18–23. https://doi.org/10.1177/0031721718815668
- Maloney, E., Schaeffer, M., & Beilock, S. (2013). Mathematics anxiety and stereotype threat: Shared mechanisms, negative consequences and promising interventions. *Research in Mathematics Education*, 15(2), 115–128. https://doi.org/10.1080/14794802.2013.797744
- Marken, S. & Agrawal, S. (2022). K-12 workers have highest burnout rate in U.S. *Gallup, Inc.* https://news.gallup.com/poll/393500/workers-highest-burnout-rate.aspx



ISSN#: 2473-2826

- MetLife. (2012). The MetLife survey of the American teacher: Challenges for school leadership. MetLife, Inc. https://eric.ed.gov/?id=ED542202
- Morsanyi, K., Busdraghi, C., & Primi, C. (2014). Mathematical anxiety is linked to reduced cognitive reflection: A potential road from discomfort in the mathematics classroom to susceptibility to biases. *Behavioral and Brain Functions*, 10(31).
- National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington D.C. https://www.thecorestandards.org/
- New Jersey Department of Education. (2024, April 10). *New Jersey student learning standards*. https://www.nj.gov/education/standards/
- Neyland-Brown, L., Francis, J. D., & Burns, G. (2019). Role responsibilities, time commitments, and counseling activities of Ohio licensed school counselors. *Journal of Counselor Practice*, 10(1), 1–18. https://doi.org/10.22229/rrt1012019
- Organisation for Economic Co-operation and Development (OECD) (2021). *Beyond academic learning: First results from the Survey of Social and Emotional Skills*. OECD Publishing, Paris. https://doi.org/10.1787/92a11084-en
- Parmentier, M., Pirsoul, T., & Nils, F. (2019). Examining the impact of emotional intelligence on career adaptability: A two-wave cross-lagged study. *Personality and Individual Differences*, *151*, 109446. https://doi.org/10.1016/j.paid.2019.05.052
- Pennington, C. R., Heim, D., Levy, A. R., & Larkin, D. T. (2016). Twenty years of stereotype threat research: A review of psychological mediators. *PLoS ONE*, *11*(1). https://doi.org/10.1371/journal.pone.0146487
- Pennsylvania State Board of Education. (2024, April 10). *State academic standards*. https://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx
- Ramirez, G., Chang, H., Maloney, E. A., Levine, S. C., & Beilock, S. L. (2016). On the relationship between math anxiety and math achievement in early elementary school: The role of problem solving strategies. *Journal of Experimental Child Psychology*, *141*, 83–100. https://doi.org/10.1016/j.jecp.2015.07.014
- Ramirez, G., Gunderson, E. A., Levine, S. C., & Beilock, S. L. (2013). Math anxiety, working memory, and math achievement in early elementary school. *Journal of Cognition and Development*, *14*(2), 187–202. https://doi.org/10.1080/15248372.2012.664593
- Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85(3), 440–452. https://doi.org/10.1037/0022-3514.85.3.440
- Soutter, M. (2023). Social-emotional learning for teachers: Critical and holistic well-being as a marker of success. *Journal of Teaching and Learning*, *17*(1), 7–30. https://doi.org/10.22329/jtl.v17i1.7001



SSN#: 2473-2826

- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. Palo Alto, CA: Learning Policy Institute.
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88(4), 1156–1171. https://doi.org/10.1111/cdev.12864
- Tomasetto, C., & Appoloni, S. (2013). A lesson not to be learned? Understanding stereotype threat does not protect women from stereotype threat. *Social Psychology of Education*, *16*(2), 199–213. https://doi.org/10.1007/s11218-012-9210-6
- UNESCO (2023, November 9). *Global report on teachers: addressing teacher shortages highlights*. https://www.unesco.org/en/articles/global-report-teachers-addressing-teacher-shortages-highlights
- U.S. Department of Education (2023, November 15). *Raise the bar: Eliminate the educator shortage*. https://www.ed.gov/raisethebar/educators
- Washington Office of Superintendent of Public Instruction. (2024, April 10). *Learning standards & instructional materials*. https://ospi.k12.wa.us/student-success/learning-standards-instructional-materials
- World Health Organization (2022). *World mental health report: transforming mental health for all*. https://www.who.int/publications/i/item/9789240049338
- Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research*, 81, 267–301.