THE FOUNDATIONS OF SUPPORTIVE LEARNING ENVIRONMENTS:

Supportive Learning Environments for Belonging and Deeper Learning

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What Are Supportive Learning Environments?

Supportive learning environments create the conditions for students to feel safe, connected, engaged, and challenged in meaningful ways. Grounded in neuroscience, human development, and the learning sciences, these environments recognize that learning is deeply shaped by emotions, relationships, identity, and reflection. Meaningful learning is not separate from emotion; rather, it depends on emotionally engaged thinking that helps students make sense of ideas, experiences, and the world around them.



Core Principles of Supportive Learning Environments[1]

EMOTION DRIVES LEARNING

Research demonstrates that emotionally engaged thinking activates brain systems connected to attention, meaning making, and self-reflection. Students are more likely to retain and apply learning when they feel emotionally connected to ideas and experiences.

What students have emotions about shapes what they think about and what they have the opportunity to learn. As educators observe students engaged in their schoolwork, assignments, and projects, they can ask: What are students having emotions about? Are their emotions focused on outcomes, such as work completion, grades, and test scores? Or are they focused on the ideas, content, and skills at the heart of the curriculum?

LEARNING AND IDENTITY ARE CONNECTED

Students' identities, cultures, languages, and lived experiences shape how they make meaning of new ideas and engage in learning. At the same time, learning experiences influence how students see themselves, their futures, and their place in the world. When educators intentionally build on students' existing knowledge, cultural assets, and lived experiences, learning becomes more connected, meaningful, relevant, and engaging. Reflective learning opportunities help students connect academic content to personal meaning, goals, and purpose while strengthening their sense of belonging and identity.

An important distinction is the difference between Big "R" Relevance and little "r" relevance. Little "r" relevance reflects surface-level connections to a topic or content, such as connections based on students' age, demographic groups, or local community. Big "R" Relevance goes deeper by connecting learning to students' identities, lived experiences, goals, and sense of purpose.

REFLECTION SUPPORTS DEEPER THINKING

Students need opportunities to balance focused academic attention with reflective thinking. Students need opportunities to process ideas, ask questions, collaborate, and make meaning from learning experiences. When adolescents engage in thinking that is beyond the "here and now" and integrates concrete information into abstract meaning-making, they are growing their brains to do more of this kind of "transcendent thinking."

RELATIONSHIPS INFLUENCE BRAIN DEVELOPMENT

Supportive relationships and psychologically safe learning environments help students engage more deeply in learning. Trust, belonging, and positive educator relationships strengthen student participation, confidence, and motivation.

MEANINGFUL LEARNING BUILDS ENGAGEMENT

Meaningful learning encourages students to move beyond focusing solely on outcomes and performance. Instead, students engage deeply with ideas through curiosity, inquiry, and authentic exploration, which are integral to transcendent thinking.

Practices That Support Learning Environments[2]

Schools and educators may consider the following practices to strengthen supportive learning environments:

- Build strong and consistent relationships with students grounded in trust, care, and belonging.
- Create psychologically safe classroom environments where students feel comfortable taking academic risks.
- Design meaningful learning experiences that provide students choice and voice in their work, and connect to their identities, interests, and lived experiences.
- Provide opportunities for reflection, discussion, inquiry, and collaboration.
- Use instructional practices that encourage critical thinking, problem solving, and deeper engagement with ideas.
- Provide growth-oriented feedback that supports persistence, confidence, and student thinking.
- Foster schoolwide cultures that prioritize belonging, engagement, and meaningful learning experiences.



Benefits of Supportive Learning Environments[3]

Supportive learning environments can lead to:

- Increased student engagement and motivation.
- Stronger student belonging and connectedness.
- Improved academic outcomes and deeper learning.
- Greater student confidence and agency.
- Increased reflection, curiosity, and critical thinking.
- Positive classroom and school climate.
- Stronger educator and student relationships.

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Why It Matters

Supportive learning environments are foundational to student learning and development. Neuroscience research continues to demonstrate that emotions, relationships, reflection, and meaning making are essential components of how students learn, grow, and engage with the world around them.

The webinar, "***The Foundations of Supportive Learning Environments: Supportive Learning Environments for Belonging and Deeper Learning***" was co-sponsored by the Southern Center for Opportunity and Access (SCOA) and the National Academy of Education (NAEd). SCOA appreciates the NAEd, Mary Helen Immordino-Yang, Peter Karp, Matthew Nuñez, and Samantha O'Connor for their participation in the webinar and contribution to this document. For more information about the webinar visit: https://southernopportunity.org/webinars/the-foundations-of-supportive-learning-environments/

The contents of this document were developed under a grant from the U.S. Department of Education (Grant #S004D220011), a partnership with SEF.

ENDNOTES

1 Core Principles of Supportive Learning Environments

Immordino-Yang, M. H. (2015). Emotions, learning, and the brain: Exploring the educational implications of affective neuroscience. W. W. Norton & Company.

Immordino-Yang, M. H., McColl, A., Damasio, H., & Damasio, A. (2009). Neural correlates of admiration and compassion. *Proceedings of the National Academy of Sciences*, 106(19), 8021-8026. https://doi.org/10.1073/pnas.0810363106

Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin.

Gotlieb, R. J. M., Yang, X.-F., & Immordino-Yang, M. H. (2024). Diverse adolescents' transcendent thinking predicts young adult psychosocial outcomes via brain network development. *Scientific Reports,* 14, 6254. https://doi.org/10.1038/s41598-024-56800-0

Immordino-Yang, M. H., & Knecht, D. R. (2020). Building meaning builds teens' brains. *Educational Leadership,* 77(8), 36-43.

2 Practices That Support Learning Environments

Immordino-Yang, M. H. (2015). Emotions, learning, and the brain: Exploring the educational implications of affective neuroscience. W. W. Norton & Company.

Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin.

Gotlieb, R. J. M., Yang, X.-F., & Immordino-Yang, M. H. (2024). Diverse adolescents' transcendent thinking predicts young adult psychosocial outcomes via brain network development. *Scientific Reports,* 14, 6254. https://doi.org/10.1038/s41598-024-56800-0

3 Benefits of Supportive Learning Environments

Immordino-Yang, M. H. (2015). Emotions, learning, and the brain: Exploring the educational implications of affective neuroscience. W. W. Norton & Company.

Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin.

Gotlieb, R. J. M., Yang, X.-F., & Immordino-Yang, M. H. (2024). Diverse adolescents' transcendent thinking predicts young adult psychosocial outcomes via brain network development. *Scientific Reports,* 14, 6254. https://doi.org/10.1038/s41598-024-56800-0