

Why Mosaic Works: What the Research Says

The Mosaic Project's curriculum, method and philosophy reflect the wisdom of a wide scope of psychological and educational research. The following review offers a window into the vast body of study that informs The Mosaic Project's curriculum and structure. Also see a summary of our program evaluation.

The following research suggests that the following aspects of The Mosaic Project experience contribute to the successful realization of our organizational and curricular goals.

Through its Outdoor School and In-school Programs, The Mosaic Project:

- Offers an intentional, safe space to discuss issues that separate and unite us as people and communities
- Encourages and facilitates the emergence of friendships and mutual understanding across lines of difference while reducing bias and prejudice
- Offers challenging but achievable goals that require diverse teams to work together
- Creates positive, non-competitive opportunities for children from different backgrounds to connect and engage
- Cultivates a sense of shared purpose and identity among diverse student and staff participants
- Cultivates awareness of interconnectedness to each other and to the environment
- Teaches non violent communication and conflict resolution skills to students
- Bolsters participants' self esteem through engaging in positive discipline strategies and by helping students identify their gifts and celebrate their identities
- Offers positive mentors who reflect the diversity of the children served
- Provides a safe residential setting in a neutral environment for children to step outside their comfort zones, learn and get to know each other
- Uses experiential education to cater to a wide range of learning styles
- Uses music as an integral part of our curriculum which facilitates memory and recall of key lessons
- Cultivates emotional intelligence and core socio-emotional competencies through imparting concrete skills and opportunities for introspection and engagement with others. These include:
 - o Self Awareness (Knowing what I'm feeling in a moment; self-respect)
 - o Social Awareness (Knowing what others are feeling; capacity to empathize; appreciation and capacity to engage with diversity)
 - o Self Management (Handling emotions mindfully; understanding appropriate response)
 - o Relationship Skills
- Works with 9-10 year-olds who are at a critical point in their development where they have capacity to take another's perspective and really empathize with different points of view
- Works primarily with children, aiming to deconstruct prejudice before it becomes entrenched

Contact Theory

Contact Theory states that under the right conditions, contact between members of different groups can reduce conflicts and prejudices. Simply placing a diverse group of students together is not enough to break down stereotypes and prejudice. They also need to be treated as equals; share common goals and have opportunities for cooperation, collaboration and positive, noncompetitive interactions with one another; and feel like their intermingling is supported by mentors and

authority figures. Research suggests that the more of these factors in place, the more likely people are to overcome their biases. (Fiske, 2008; Van Laar, 2005) Effective communication and collaborative conflict resolution strategies also support healthy integration across communities of difference. (Maznevski & DiStefano, 1996)

Ali, Shahla Maghzi. Getting Along Across Differences. Greater Good Magazine.
http://greatergood.berkeley.edu/research/research_differences_maghzi.html

Fiske, Susan T.. (2008). Look Twice. Greater Good Magazine. Volume V, Issue I.
<http://greatergood.berkeley.edu/greatergood/2008summer/Fiske351.html>

Pettigrew, Thomas F. and Linda R. Tropp. (2006). A Meta-Analytic Test of Intergroup Contact Theory. *Journal of Personality and Social Psychology*, 2006, Vol. 90, No. 5, 751–783

Van Laar, Colette, Shana Levin, Stacey Sinclair, Jim Sidanius. (2005). The effect of university roommate contact on ethnic attitudes and behavior. *Journal of Experimental Social Psychology* 41, 329–345.
<https://weblamp.princeton.edu/~psych/psychology/research/sinclair/pubs/roommate.pdf>

Common purpose or goal

Social divisions may also be transcended and greater ethnic harmony achieved through a group's uniting successfully around a common purpose or goal, especially if it is designed to span ethnic/racial boundaries. (Also see Sherif, 1966; James, 1910/1970; Holland & Andre, 1989; Staub, 1989, ch. 18; Sharan, Hare, Webb, & Hertz-Lazarowitz, 1980; Fishbein, 1996; Bond, 1988)

Ali, Shahla Maghzi. Getting Along Across Differences. Greater Good Magazine.
http://greatergood.berkeley.edu/research/research_differences_maghzi.html

Super-ordinate shared identity

Linked to the positive effects of common purpose and goals, research has found that the promotion of a super-ordinate identity unites members of oppositional groups and replaces hostility with common identity. (Gaertner et al., 1993). (see also Brown and Turner, 1979, on criss-cross categorization or Dorai, 1993, on cross-cutting social ties)

Ali, Shahla Maghzi. Getting Along Across Differences. Greater Good Magazine.
http://greatergood.berkeley.edu/research/research_differences_maghzi.html

Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*, 4, 1-26.

Conflict Resolution Curriculum leads to more emotional control and pro-social behaviors. It also leads to gains in standardized test scores.

Research suggests that students who study conflict resolution exhibit more emotional control and positive social behaviors than their peers. Research also links conflict resolution study to gains in

standardized test scores. (Aber et. al, 1999) Non violent Conflict Resolution skills help reduce levels of ethnic disharmony within the school setting itself, outside school and later in life. It appears that well-ingrained strategies for conflict resolution are also a protection against the escalation of tension, violence and bullying in schools. (Also see Stevahn, Johnson, Johnson, & Real, 1996; Zhang, 1994; Gross, 1994.).

Ali, Shahla Maghzi. Getting Along Across Differences. Greater Good Magazine.
http://greatergood.berkeley.edu/research/research_differences_maghzi.html

Klass, Perri. (2009). At Last, Facing Down Bullies (and Their Enablers). The New York Times, June 8. <http://www.nytimes.com/2009/06/09/health/09klas.html?emc=eta1>

Zhang, Q. W. (1994). An intervention model of constructive conflict resolution and cooperative learning. Journal of Social Issues, 50, 99-116.

Self-esteem

Supporting children to feel pride in their racial or ethnic identity (without undercutting other ethnic identity groups) helps boost their self-esteem. (Bowman and Howard in Briscoe-Smith, 2008)

Briscoe-Smith, Alison. (2008). Rubbing Off. Greater Good Magazine. Volume V, Issue 1. <http://greatergood.berkeley.edu/greatergood/2008summer/Briscoe-Smith451.html>

Music as Educational Tool

Research shows that learning through music and singing songs helps students remember and recall information over time. (Rainey, et. al, 2002; Wallace, 1994; Thaut, et. al, 2005)

Rainey, David W. and Janet D. Larsen. (2002). The Effect of Familiar Melodies on Initial Learning and Long-term Memory for Unconnected Text Winter 2002, Vol. 20, No. 2, Pages 173–186. <http://caliber.ucpress.net/doi/abs/10.1525%2Fmp.2002.20.2.173>

Thaut H, Peterson DA, McIntosh GC. (2005). Temporal entrainment of cognitive functions: musical mnemonics induce brain plasticity and oscillatory synchrony in neural networks underlying memory. Center for Biomedical Research in Music, Molecular, Cellular, and Integrative Neuroscience Programs, Colorado State University.
<http://www.ncbi.nlm.nih.gov/pubmed/16597771>

Wallace, Wanda T.. (1994). Memory for music: Effect of melody on recall of text. Journal of Experimental Psychology: Learning, Memory, and Cognition. Vol 20 (6), Nov 1994, 1471-1485. <http://psycnet.apa.org/?fa=main.doiLanding&doi=10.1037/0278-7393.20.6.1471>

Link between Social-Emotional Intelligence and Academic Performance

There is a wide body of research that reflects a distinct connection between social-emotional intelligence and academic performance. Research suggests that early pro-social behavior strongly predicts subsequent academic achievement, even for those students whose academic standing at age eight was not high. Conversely, deficits in emotional intelligence may lead to higher incidence of behavioral and learning challenges. The implication is that helping children develop

social skills at an early age may have a greater impact on their academic abilities than concentrating solely on their academics. Skills that support academic performance include: managing emotions that interfere with learning and concentration; developing motivation and the ability to persevere even in the face of academic setbacks and challenges; working cooperatively and effectively in the classroom and in peer learning groups; setting and working toward academic goals. (Also see Caprara, et. al., 2000; Izard, et al. 2001; Watson, Marilyn, 2004; Petrides, K.V., Norah Frederickson and Adrian Furnham, 2002, Ragozzino, 2003; Zins, Joseph E., et al., 2004; Gross, 1994.)

Cherniss, C., Extein, M., Goleman, D., & Weissberg, R.P. (2006). Emotional intelligence: What does the research really indicate?. *Educational Psychologist*, 41(4), 239-245. (pdf available)

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.
<http://www.info.myhealthmagazine.net/documents/Meta-Analysis-Child-Development-Full-Article.pdf>

Elias, M. J., Wang, M. C., Weissberg, R. P., Zins, J. E., & Walberg, H. J. (2002). The other side of the report card: student success depends on more than test scores. *American School Board Journal*, 189(11), 28-30 <http://www.casel.org/downloads/otherside.pdf>

Petrides, K.V., Norah Frederickson and Adrian Furnham. (2002). The Role of Trait Emotional Intelligence in Academic Performance and Deviant Behavior at School. Institute of Education, University of London, UK, December. [pdf available]

Ragozzino, Katharine, Hank Resnik, Mary Utne-O'Brien, and Roger P. Weissberg. (2003). Promoting Academic Achievement through Social and Emotional Learning. *Educational Horizons*, Summer. 169-171. <http://pilambda.org/horizons/v81-4/Ragozzino.pdf>

Watson, Marilyn. (2004). A Curriculum of Care. *Greater Good Magazine*.
http://greatergood.berkeley.edu/greatergood/archive/2004springsummer/watson_spring04.pdf

Zhang, Q. W. (1994). An intervention model of constructive conflict resolution and cooperative learning. *Journal of Social Issues*, 50, 99-116. [pdf available]

Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. (2004). The scientific base linking social and emotional learning to school success. In J.E. Zins, R.P. Weissberg, M.C. Wang, & H.J. Walberg, (Eds.), *Building academic success on social and emotional learning: What does the research say?* NY: Teachers College Press
<http://www.casel.org/downloads/T3053c01.pdf>

Link between Emotional Intelligence and Risky Behavior

Students with high Emotional Intelligence are less likely to have unauthorized absences and less likely to be excluded in schools. Research indicates that emotion-related, self-perceived abilities implicit in emotional intelligence decrease deviant behavior, with effects that are particularly

relevant to vulnerable or disadvantaged adolescents. (Petrides, K.V., Norah Frederickson and Adrian Furnham, 2002.)

Petrides, K.V., Norah Frederickson and Adrian Furnham. (2002). The Role of Trait Emotional Intelligence in Academic Performance and Deviant Behavior at School. Institute of Education, University of London, UK, December. [pdf available]

Payton, J. W., Graczyk, P., Wardlaw, D., Bloodworth, M., Tompsett, C., & Weissberg, R. P. (2000). Social and emotional learning: a framework of promoting mental health and reducing risk behavior in children and youth. *Journal of School Health*, 70, 179-185
<http://www.casel.org/downloads/JOSHpaper.pdf>

The Power of Residential Programs

Residential outdoor experiences encourage success by elevating students' motivation and confidence. There is also substantial research evidence suggesting that outdoor adventure programs can positively impact young people's: attitudes, beliefs and self-perceptions - examples of outcomes include independence, confidence, self-esteem, locus of control, self-efficacy, personal effectiveness and coping strategies; as well as interpersonal and social skills - such as social effectiveness, communication skills, group cohesion and teamwork. (Also see Cooper, 1996; Dettmann-Easler, et. all, 1996; American Institutes for Research, 2005.)

Muñoz, S.-A. (2009). Children and the Outdoors: A Literature Review. Forres, Scotland: Sustainable Development Research Centre
<http://www.countrysiderecreation.org.uk/Children%20Outdoors.pdf>

Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M, Y., Sanders, D., and Benefield, P. (2004). A Research Review of Outdoor Learning. National Foundation for Educational Research and Kings College. Field Studies Council: ISBN. 1 85153 893 3.
<http://www.nfer.ac.uk/research-areas/pims-data/summaries/fsr-a-research-review-of-outdoor-learning.cfm>

American Institutes for Research. (2005). Effects of Outdoor Education Programs for Children in California Executive Summary. *Submitted to:* The California Department of Education. January 31. [pdf available]

Working with children at a critical developmental phase

Research suggests that racial awareness is formed between the ages of three-four, and that children begin to show prejudicial attitudes toward members of other races by the age of five. The Mosaic Project strives to work with children as soon as possible before their prejudices and stereotypes become entrenched. (Balch, et. al., 1978; Fishbein et al., 1996; Williams, B., (1977). Research also suggests that children increase their capacity to take a different perspective, or empathize in their pre-adolescent years, the age students attend The Mosaic Project Outdoor School. (Selman and Byrne, 1974 and Selman, 1976).

Bronson, Po and Ashley Merryman. (2009). See Babies Discriminate. *Newsweek*. Sept 14. <http://www.newsweek.com/id/214989/page/1>

Shultz, Wesley P. (2009). The Moral Call of the Wild. *Scientific American*. Dec 1. <http://www.scientificamerican.com/article.cfm?id=moral-call-of-the-wild&page=2>

Cotton, Kathleen. (2001). "Developing Empathy in Children and Youth". School Improvement Research Series. NW Regional Education Laboratory. <http://www.nwrel.org/scpd/sirs/7/cu13.html>

Selman, Robert L. and Diane F. Byrne. (1974). A Structural-Developmental Analysis of Levels of Role Taking in Middle Childhood. In *Child Development*, Vol. 45, No. 3 (Sep), pp. 803-806. Blackwell Publishing. [pdf available]

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Brown, R. J., & Turner, J. C. (1979). The criss-cross categorization effect in intergroup discrimination. *British Journal of Social and Clinical Psychology*, 18, 371-383.

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<https://weblamp.princeton.edu/~psych/psychology/research/sinclair/pubs/roommate.pdf>

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<http://psycnet.apa.org/?fa=main.doiLanding&doi=10.1037/0278-7393.20.6.1471>

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