



Garrison Institute Report

Developmental Issues in Contemplative Education

A Symposium of the Garrison Institute's
Initiative on Contemplation and Education

April 2008

ACKNOWLEDGEMENTS

Garrison Institute's *Initiative on Contemplation and Education* is made possible with generous lead funding from the Fetzer Institute, W.K. Kellogg Foundation, Lostand Foundation, the NoVo Foundation, and Mary H. and James H. Ottaway Jr. Major funding is also provided by the French American Charitable Trust, Adam Rose and Peter McQuillan, Sandra Rose, and the Shelley and Donald Rubin Foundation.

Garrison Institute
PO Box 532, Garrison, New York 10524
Telephone: 845-424-4800
Fax: 845-424-4900
www.garrisoninstitute.org

Information included in this report is available for use with appropriate attribution. The Garrison Institute would appreciate a copy for our records.

This report is printed on 100% post-consumer-waste recycled paper.



TABLE OF CONTENTS

Executive Summary.....	4
Symposium Agenda	5
Presentations Report	9
Keynote Address, Daniel Siegel, M.D.	9
Introduction, Patricia Jennings, M.Ed., Ph.D.	10
Mindfulness Education and Child Development	11
Kimberly Schonert-Reichl, Ph.D. and Janice Parry	
Mindfulness for the Hip Hop Generation.....	12
Andres Gonzalez, Ali Smith, and Atman Smith	
Learning to BREATHE, Patricia Broderick, Ph.D.....	14
Applied Mindfulness in Montessori and Waldorf Curricula....	15
Patricia Jennings, M.Ed.,Ph. D. and Arthur Zajonc, Ph.D.	
Imaginary Journeys, Tom Roepke	17
Tools of the Mind, Adele Diamond, Ph.D.	17
Closing, Linda Lantieri	19
Biographies.....	21

EXECUTIVE SUMMARY

In response to mounting pressures, growing numbers of mainstream educators are exploring the use of contemplative or mindfulness-based methods to train attention and awareness skills for the purpose of improving academic performance, developing social and emotional resilience, reducing teachers' levels of stress and burn-out, and empowering classrooms to be true learning environments.

Ninety-three researchers, educational leaders and classroom teachers from the US, Canada, England, Ireland and Denmark convened at the Garrison Institute to explore how contemplative approaches can support specific developmental goals in childhood and adolescence. The symposium was chaired by Dr. Mark Greenberg, holder of the Bennett Endowed Chair in Prevention Research at Penn State, and Dr. Tish Jennings, director of Garrison's Initiative on Contemplation and Education. Building on a three-year series of smaller expert forums held at the Garrison Institute, the gathering combined presentations, demonstrations, scholarly commentary and experiential exercises illustrating leading-edge science and practice in contemplative education.

In his opening keynote address Dr. Daniel Siegel, UCLA psychiatrist and author of *The Mindful Brain* (2007), called for a fourth R in education—*Reflection*. Through practicing reflection, he said, "children, adolescents, and adults can develop the essential skill of 'mindsight' that enables them to be resilient in the face of stress, to bolster social and emotional intelligence, and to build the capacity to live life with flexibility and exuberance, compassion and empathy, self-understanding and well-being."

At its conclusion Dr. Greenberg characterized the symposium as a "watershed event," saying, "It is clear that there is a specific field to be built in the area of mindfulness and although very strongly linked to Social and Emotional Learning (SEL), it needs its own nurturing and own voice." Participants likewise expressed keen enthusiasm and appreciation for this landmark step in advancing the theoretical and empirical case for the efficacy of contemplative interventions in mainstream education.

SYMPOSIUM AGENDA

Friday

7:00 Welcome: Tish Jennings

Keynote: Dan Siegel

Human development can be shaped toward resilience and well-being by cultivating the innate capacity for reflection. When we come to reflect on the mind we develop the essential skill of mindsight that enables children, adolescents, and adults to develop resilience in the face of stress, to bolster social and emotional intelligence, and to build the capacity to live life with flexibility and exuberance, compassion and empathy, self-understanding and well-being. The scientific explorations of secure attachment, mindful awareness, executive brain function, and mental health will be compared to each other as we review the core proposal that reflection is a way of attuning to one's own inner world such that the social circuits of the brain are activated and developed. The result of teaching reflection as a basic skill would be the growth of the most human dimensions of our brains--our prefrontal cortex--while cultivating well-being in our minds, and kindness in our relationships with each other, and ourselves.

Contemplative Practice: David Rome
Arriving, Presence and Deep Purpose

Saturday

7:30 Contemplative Practice: Michael Baime

An Introduction to Meditation and Attention: Shamatha

All meditation practices train attention. This has special importance in education, where a focused stable attention is necessary for learning, memory recall, information processing, and problem solving. The stability of attention cultivated by meditation practice also has significant consequences for emotional balance and behavior in the classroom. But our use of the word 'attention' is sometimes imprecise. When we tell a student, "place your attention on the breath," do we know what they are actually doing? Is there only one kind of attention? Modern neuroscience has demonstrated that the process that we call attention is not

as simple as it seems. It is the result of several functionally and anatomically distinct neural subsystems. This is not really a new discovery. For thousands of years, traditions of meditation have distinguished among several types of attention in mindfulness practice. Our two guided morning meditation sessions will explore two of the most commonly described types of meditative experience: shamatha and vipasshana. Saturday morning we will explore the practice of shamatha, which emphasizes precision and close attentional focus. An appreciation of these different approaches to attention in mindfulness practice is critically important for the skillful development of mindfulness-based interventions

8:00 Breakfast

9:00 Greetings and overview of day: Tish Jennings

9:30 **Mindfulness Education and Child Development: From Theory and Research to Practice**

Kimberly Schonert-Reichl and Janice Parry will present some of their recent work in Vancouver, British Columbia regarding the pilot implementation of the Mindfulness Education (ME) program – a curriculum developed by the [Hawn Foundation](#). The "Mindfulness Education" (ME) program consists of teaching a series of simple techniques designed to enhance self awareness, focused attention, self regulation, stress reduction, and caring and altruistic behaviors in children. Kimberly will also briefly describe the current research that is taking place in Vancouver to evaluate the effectiveness of the program.

10:30 Break

10:45 Small group discussion

12:00 Lunch

1:00 **Mindfulness for the Hip-Hop Generation**

Andres Gonzalez, Atman Smith, and Ali Smith, co-founders of the [Holistic Life Foundation](#), will demonstrate how they make mindfulness and contemplative practices relevant to at-risk, inner-city youth. After an introduction and a short film about the organization and the students they serve, they will present a yoga class similar to what they teach in their after school program, along with a question and answer

session. Their very special friend and mentor Mark Greenberg will discuss the developmental implications of their work.

2:00 **Learning to BREATHE: Teaching emotion regulation skills to adolescents**
The BREATHE program was designed to provide universal, developmentally-appropriate instruction in mindfulness skills for adolescents. The overall goals include fostering adolescents' capacity for emotion regulation and enhancing their stress management skills. Presenter Patricia Broderick will provide an overview of program development and program structure. In addition, quantitative and qualitative results from a pilot study will be reviewed. Liz Robertson will offer scientific commentary.

3:00 Break

3:15 Small group discussions

4:30 Break before dinner

6:00 Dinner

7:30 **Applied Mindfulness in Montessori and Waldorf Curricula**
Contemplation can be applied to not only *what* one teaches but *how* one teaches. Former Montessori teacher, school director and teacher educator Tish Jennings and Waldorf school and teacher's college founder and Amherst College professor Arthur Zajonc will introduce applied contemplative activities from both these alternative educational methodologies. They will also discuss ways to apply these ideas in traditional educational settings.

Contemplative Practice: David Rome
Felt Sense and the Non-conceptual Whole

Sunday

7:30 Contemplative Practice: Michael Baime

An Introduction to Meditation and Attention: Vipasshana
This meditation session will emphasize vipasshana, a practice that cultivates a more open and spacious awareness.

- 8:00 Breakfast
- 9:00 Greetings and overview of day: Tish Jennings
- 9:10 **Imaginary Journeys: Introducing Contemplative Practices in Early Childhood Classrooms**
New York public school teacher Thomas Roepke introduces the use of dramatic play as a context for working with contemplative practices in early childhood. The use of imagination will be explored as a means of cultivating attention, enthusiasm, and wonder in the classroom. Descriptions of imaginary journeys taken in a New York City public school kindergarten will be shared and then a small group from the audience will be invited to participate in a short demonstration. Developmental cognitive neuroscientist Adele Diamond will share her reflections followed by a whole group discussion.
- 10:10 Discussion: small groups
- 10:45 **Contemplative Practices to Cultivate Inner Strength in Children**
In her work as Founding Director of the [*Inner Resilience Program*](#), Linda Lantieri has seen that the capacity to be more in control of one's thoughts, emotions, and physiology can form a sort of internal safety net that gives children the inner preparedness they need to face the challenges and opportunities of life. Using principles derived from modern brain research, Linda authored *Building Emotional Intelligence: Techniques to Cultivate Inner Strength in Children* (Sounds True, 2008) in which teachers, parents and children are introduced to calming and focusing practices. This presentation will focus on the approaches used to meet the various developmental needs of both the adults and young people that are implementing this work.
- 11:15 Discussion: large group
- 12:00 Lunch /departures

Small Group Discussion Facilitators: Richard Brown, DaRa Williams, Brenda Boyd Bell, Richard Brady, Carolyn Palmer, David Lee Keiser

PRESENTATIONS REPORT

Keynote Address: The Fourth “R” and the Mindful Brain in Education - Reflection in the Development of Resilience and Well-being
Daniel Siegel, M.D. , UCLA Mindful Awareness Research Center (MARC)

Dan began by noting that the practice of reflection builds the basis for and supports the development of resilience and well-being. Traditionally, education is about the advancement of cognitive skills, language and mathematics, and facts and knowledge. Mindfulness, however, is about sensing the mind, knowing the mind, being open to what the mind is, which is nowhere in traditional education.

Social and Emotional Learning (SEL), involves four parts: (1) Interpersonal Attunement, (which helps develop); (2) Dyadic Regulation; (3) Internal Self-regulation (which is the basis for); (4) Resilience. This “four-tier” model is a helpful way to think about what shapes resilience, how it comes from “attuned” relationships, and how it relates to mental health outcomes. What is the most powerful predictor of parent-child attunement? A “coherent narrative” on the Adult Attachment Interview (AAI) has a predictive power of 85% for parent-child attunement. Adults are assessed according to how they have made sense of what happened to them as children, not what actually happened. Such reconciliation of past events indicates a coherent state of mind and appropriate integration of past life history. Dan defined integration as the linking together of disparate parts into a whole. An integrated mind allows adults to “see their mind,” to have access to “Mindsight,” defined as perceiving the mind.

There is a significant overlap between traits of a coherent narrative and mindfulness. Dan presented 9 common factors between the coherent narrative on the AAI and the outcomes of mindfulness training (which are all mediated by the Pre-Frontal Cortex): (1) Bodily Regulation, (2) Attuned Communication, (3) Emotional Balance, (4) Fear Modulation, (5) Flexible Responding, (6) Insight, (7) Empathy, (8) Morality, and (9) Intuition. With these concepts in mind, Dan discussed the three aspects of human reality: (1) mind, (2) brain, (3) relationships. These are the three irreducible and interconnected points of the human existence (which argues against a reductionist view of the mind). Dan defined the mind as, “an embodied and relational process that regulates the flow of

energy and information.” In this manner, the brain acts as the neurological relationship between energy and information, and relationships are an act of sharing energy and information flow. This represents a multidirectional view of the mind, brain, and relationships – the sharing of information and energy flow occurs by communication in relationships, attached relationships shape the development of the regulatory circuits of the brain, etc. Dan proposed that mindfulness traits lead to open, receptive states of mind, which allow access to attuned communication, which leads to a secure adult attachment. Mindfulness, as defined, is a form of “intrapersonal attunement” that promotes integration and secure attachment. Since Dan defines well-being as an “integrated system,” mindfulness takes a central role in the development and maintenance of wellness. Teaching reflection in school can help students become more mindful of their thoughts (Mindsight) and deliberate in their actions, which promotes integration and resilience, and opens the door to compassion.

Describing the brain (specifically the pre-frontal cortex) in detail, he proposed that the “resonance circuit” (which involves neural systems responsible for both social and emotional behaviors) is activated during mindfulness states and traits. Mindfulness reinforces the resonance circuitry, which leads to more attuned and empathic intra- and inter-personal communication.

Dan closed the lecture with a call for a scientific view of well-being that: (1) clarifies health and disease, (2) offers a new approach to evaluation in clinical and educational settings (assessments of chaos and rigidity), and (3) suggests possible pathways toward health, particularly the promotion of integration. The importance of “Reflection” cannot be overstated. It stabilizes the three components of human reality, liberates an individual from top-down enslavements (prisoners of the past), and promotes neural-integration. Reflection in schools will help us achieve “no pre-frontal cortex left behind.”

Introduction to Developmental Issues in Contemplative Education **Patricia Jennings, M.Ed., Ph.D., Garrison Institute**

Patricia (Tish) presented an overview of the questions, concerns, and research involved in the new field of contemplative education. The two major themes included: (1) bringing mindful awareness practices to children, and (2) bringing mindfulness to the way we teach. Included in these themes are developmental concerns, specifically around the capacities of the pre-frontal cortex (inhibition, self-regulation, meta-cognition, and a sense of self). Also important considerations include

best practices such as, which activities are appropriate and for how long? Can and should the activities be done in classroom settings, and do they detract from the time allotted for each core course or can they become part of the lessons? How should we discuss broader cultural issues like the “Church and State” taboo?

In spite of all these as yet unanswerable questions we *can* move forward without a completed, evidence-based, scientifically proven approach to Contemplative Education. We can apply what we already know (about the development of the pre-frontal cortex, appropriate activities to support its development, etc.) to the design of programs that should work. However, pilot testing and randomized control trials are essential before we take these practices to scale. To build a sustainable field of Contemplative Education we should combine basic science research with educational practices and nurture collaborations between educators and scientists.

Mindfulness Education and Child Development: From Theory and Research to Practice

**Kimberly Schonert-Reichl, Ph.D., University of British Columbia
and Janice Parry, The Hawn Foundation**

Kim presented a summary of the UNICEF 2007 Report Card on Child Poverty. The United States and the United Kingdom scored last on a comprehensive report of six key dimensions of well-being: material well-being, health and safety, educational well-being, family and peer relationships, behaviors and risks, and subjective well-being. The Mindfulness Education (ME) program (based on constructs of mindfulness, positive psychology, the self-determination theory, and positive youth development) was created to help children understand the ways their minds work, and how their thoughts and feelings affect their behavior. It utilizes activities that foster components of mindfulness in a developmentally appropriate manner for elementary school-aged children. The curriculum is based on 12 lessons subdivided into 4 units: (1) Introduction, (2) Mindfulness of senses, (3) Mindfulness of thoughts and feelings, and (4) Mindfulness of ourselves in the world. The core exercises include, quieting the mind (listening exercise), and soft belly breathing.

Kim and Janice showed a video clip narrated by Goldie Hawn providing an overview of the rationale, purpose, and anecdotal accounts of the ME program. One vice principal noted how important it is and how it makes you feel as an adult to reflect, self-reflect, and concentrate, and that kids

are busy if not busier than adults. Included in the video are some statistics about the effectiveness of ME on: teacher reports, attentional control, social and emotional competence, and aggressive behavior.

After the video presentation, Janice led the audience through an abbreviated Lesson #2 – breath awareness. Kim mentioned the need of the program to nurture the development of children’s self awareness (meta-cognition). During middle childhood cognitive abilities become more complex, how children understand themselves and others becomes more complex than in early childhood, and this should be an important component of any contemplative education. To close the presentation, Kim and Janice described several more Lessons from ME: Lesson #7 – Perspective Taking; Lesson #8 – Learning Optimism; Lesson #10, Gratitude; Lesson #11– Acts of Kindness (small acts that can be done throughout the day). They noted that the optimism curriculum did not seem to be appropriate for younger children as the concept of optimism versus pessimism seemed well beyond their level of understanding.

The question and answer session included comments/questions regarding: (1) how to work with kids’ pain and suffering, not just gratitude; (2) funding sources; (3) teacher empathy for students of different cultural backgrounds, etc.; (4) whether ME can be implemented with special needs students; (5) next steps; (6) whether the DVD be available to the public; (7) further developmental issues; (8) forced “group” thinking; and (9) any plans for ME in secondary school.

Mindfulness for the Hip-Hop Generation: A Pilot Study on Urban, Minority Youth

Holistic Learning Foundation

Andres Gonzalez, Ali Smith, and Atman Smith

Mark Greenberg, Ph.D., Penn State University

Andres Gonzalez, Ali, and Atman Smith began their lecture with a biographical sketch about themselves and how they came to found the Holistic Life Foundation. Having grown up in a family that nurtured their spiritual growth, Ali and Atman were familiar with spiritual practice from a young age. They met Andres at the University of Maryland where they were students. The three of them were interested in philosophies espousing civic duty and organizational change. Upon graduating they decided to form a non-profit that was grounded in both social justice and spiritual insight. After being invited to facilitate a homework club with severely at-risk youth in a Baltimore public school, they approached the

principal with their ideas about embedding yoga and meditation into their curriculum.

The Holistic Life Foundation (HLF) grew out of their desire to bring these spiritual practices to at-risk youth in many impoverished Baltimore neighborhoods. They now lead an after-school program for children in their neighborhood with programming that includes: trips to the YMCA, basketball, homework assistance, organic farming, community displays, and of course yoga and meditation. They are also working in several Baltimore schools with the help of Mark Greenberg to study the effects of the meditation components on the children's cognitive, attentional, coping, academic, and behavioral skills. Their intention is to create several "Oases in the Hood" - community centers that can offer youth a place to grow and nurture their inner lives and have alternative experiences to gang life.

They presented a video overview of their foundation that detailed the mission statement, curriculum and programming, and many student confessionals. It contained many candid and playful moments with children describing their experience with yoga and meditation, and their general frustration about all the gang violence that is part of their everyday lives. The program ended with a guided meditation on the sound "OM."

Mark Greenberg presented a brief description of the current research study being conducted in collaboration with HLF. The goal of the study is to "conduct a pilot randomized controlled trial on the effectiveness of a mindfulness-based yoga program for low-income, urban youth in East Baltimore." The program is in four Baltimore public schools (2 experimental, 2 control), 4 days/week for 12 weeks, 30-40 minutes during school day. The intervention is based on a series of yogic exercises that end with a period of mindfulness training - Pranayama breathing and the corpse pose (shavasana) practices. They are using a variety of measures to tests changes in: cognitive & attentional skills, coping skills, emotional adjustment, academic adjustment, behavioral adjustment, and intervention acceptability. Greenberg's theoretical model was presented in detail on the Power Point presentation.

The Question and Answer session began with Mark asking the HLF about how they dealt with the trauma that many of the students have undoubtedly experienced. Atman answered the question succinctly by explaining that the techniques they give to the children allow them to be "in, and not of it [the trauma and pain]." Other questions were made regarding: (1) students' abilities/willingness to close their eyes and experience pain; (2) the types of measures used in the study; teacher

reports of student change; (3) concerns about confusing spiritual and secular components of their curriculum; (4) the Hawthorne effect; how to encourage students who had “given up;” (5) how to measure the spontaneous moments that go beyond the reach of the “clean” scientific approaches; and (6) how they envision social justice.

Learning to BREATHE: Teaching Emotion Regulation Skills to Adolescents

Patricia Broderick, Ph.D., West Chester University

The focus of Patricia’s (Trish) lecture was on how she developed the BREATHE curriculum, the developmental issues she considered, and the problems she discovered and had to address along the way. She began by addressing concerns about rumination and other possible negative outcomes associated with adolescence, such as anxiety and depression. She addressed some of the mistakes she made while preparing and facilitating the BREATHE program. First, she over-relied on referrals from guidance counselors and parents resulting in a group that was not necessarily interested in participating in a mindfulness program. From this she learned that students needed to self-select for the program. Secondly, the “pull out” periods presented a problem for the teens who would have preferred to socialize and get homework done instead of participate in the program. Lastly, she had a hard time finding the focus of the program – for instance, MBSR is traditionally based on stress reduction, but teenagers (Trish’s population) are often reluctant to admit to or identify with being stressed or needing help.

From these initial problems, she came to the conclusion that BREATHE should be part of a universal prevention program, that presents a positive focus, which is embedded within the regular curriculum as an enabling component, and that is developmentally appropriate. Social and Emotional Learning (SEL) programs recognize that SEL skills rest upon the child’s maturing capacity for emotion regulation. BREATHE is a kind of on-the-spot emotion regulation, a component that is often lacking in most SEL curricula.

The BREATHE program consists of six sessions that help students develop emotion regulation in various parts of their lives: (1) Body, (2) Reflections, (3) Emotions, (4) Attention, (5) Take-it-as-it-is (non-judgment), (6) Habits for a healthy mind. The rationale for BREATHE is based on certain developmental assumptions that show the interconnectedness of social interaction, development, learning, and emotion regulation. Each session is divided into three parts: (1) introduction/review, (2) presentation/discussion/activity, and (3)

practice. Trish then briefly led the audience through Session 1 – The Body. Some of the other session themes include involvement in one's emotions (i.e. what do they *feel* like), attention, non-judgment (i.e. how are we mean to ourselves through our thoughts and actions), etc.

BREATHE was piloted among a group of 123 high school seniors (30 control, juniors), and outcomes studied included changes in Positive/Negative Affectivity, Emotion Regulation, Rumination, Self-consciousness, among others. Her results showed decreases in Negative Affect, somatic symptoms, overtiredness, and disorders of emotion regulation, as well as positive increases in self-acceptance and relaxation. 86.5% of the seniors reported being satisfied or very satisfied with the BREATHE program, and 64.6% reported practicing mindfulness techniques outside of class.

From her own observations, Trish found the in-class meditation practices (i.e. the body scan), the time for students to de-stress, and the students learning to manage thoughts and feelings were the most useful components of the program. The most important overall skill learned was how to let go of distressing thoughts and feelings in order to control stress.

Questions asked during the question and answer session included: (1) Dan Siegel's inquiries into the spaciousness of mind and "presence;" (2) Kristen Neff's comments about self-compassion and the negative consequences of self-esteem; (3) how to implement mindfulness practices in a Catholic school; and (4) how long it took to see results.

Applied Mindfulness in Montessori and Waldorf Curricula **Patricia Jennings, M.Ed., Ph.D. and Arthur Zajonc, Ph.D.**

Tish began the presentation with a biographical sketch of Maria Montessori. Montessori was the first woman doctor in Italy who studied psychiatry under Freud, and began her work with handicapped children to awaken their senses. Her pedagogical philosophies were informed by the idea that all beings are fundamentally connected with one another. Termed, "Cosmic Education," Montessori was interested in determining how we can teach peace to children; how can we come to understand our fundamental interconnectedness with all things in the universe? The educational practices were grounded in the reverent belief that children were spiritual embryos and that we must, as teachers, understand the spiritual seed in the children that is constantly unfolding.

From her uncanny observational skills developed through her medical training and from working in many different environments, Montessori came to see that children develop into who they are from the environmental influences – with their “absorbent minds.” As such, Montessori placed great emphasis on the preparation and practices of the teacher. In order for the child to thrive, teachers must not interrupt that development. More than simply not stifling the child’s growth, the teacher must nurture it and honor it so that it happens naturally. Teachers must: be sensitive to mystery, and sensitive to the wonder of life revealing itself. They should “confess themselves to themselves.” To this end, Montessori based the curriculum to accord with three planes of child development: (1) early childhood (absorbent and sensitive), (2) middle childhood (intellectual), and (3) adolescent.

Arthur Zajonc also presented a biographical and curricular summary of Rudolf Steiner, founder of the Waldorf Schools. Steiner, a contemporary of Montessori, acted as editor of Goethe’s scientific writings and held several academic positions where he taught philosophy. From 1900-1925 he developed his spiritual philosophy, Anthroposophy, after which he was ostracized within the academic community. After WWI, Steiner taught about the spiritual education of children, sometimes while standing on tobacco leaves to the farmers coming in from the fields. The first school was founded in Stuttgart in 1919.

A primary path of knowledge and the foundation for insight in Steiner’s educational philosophy was meditation. “All knowledge of the worlds of soul and spirit slumbers in the profoundest depths of the human soul. It can be brought to light through a path of knowledge [meditation].” Like Montessori teacher preparation, the meditative life of the teacher was essential – “since we teach who we are, we are called to become more truly human.” Meditative practice was not an isolated activity done outside of the context of formal learning though. It suffused the entire curriculum and the school environments. The children were equally received with reverence, their imaginations nurtured, and their spiritual development encouraged - “receive the children in reverence; education them in love; let them go forth in freedom.” To best facilitate the development of these qualities, without ideological indoctrination, Steiner based the curriculum according to three phases of development: (1) early childhood (imitation), (2) middle childhood (imagination), (3) adolescence (truth).

The question & answer session and dialogue began with a question from Adele Diamond about how to translate the educational practices of the Montessori and Waldorf curricula into the society at large because they are so dependent upon the skill of the teacher. Other questions were

asked regarding: (1) the relational component of the curricula and how this can impact brain development; (2) whether mindfulness is a spiritual/values-based practice or just paying attention, and how this could negatively impact the reception of the practices in public education, (3) what kinds of collaborative practices the students engage in, (4) how Waldorf schools survived the Nazi regime, (5) how assessments can be used to encourage spiritual growth, not stunt it, and (6) how the physical space of the classroom can affect learning. Regarding question (2), Dan Siegel commented on the extant body of empirical data that can allow us to talk about the benefits of mindfulness without framing it in religious or spiritual terms. It is possible to completely avoid the divisiveness inherent in such conversations through a scientific discussion about mindfulness and its value in educational settings. Adele voiced her concern that though the themes of love and compassion were implied by every speaker, not enough had been done to make explicit the importance of those qualities in relation to education.

Imaginary Journeys: Introducing Contemplative Practices in Early Childhood Classrooms

Thomas Roepke, Reading Recovery Teacher at PS 112, East Harlem, NY

Tom presented an overview of the role of the teacher in the Waldorf educational tradition. How can the teacher nurture the instrumental and non-instrumental aspects of a child – doing vs. being, practice to attain vs. nothing to get or acquire? Tom led several members of the audience through an imaginary journey through the “Garrison Forest of Wonders.” Throughout, Tom led the “students” through several breathing exercises to help them stay present and grounded during the journey. He encouraged active and embodied exploration of the environment with all the senses (hearing, smelling, touching, etc.), allowing each “child” to have their own experience. Several times throughout the journey, he gathered them all together and led them through group exercises – i.e. catching butterflies, looking through binoculars, etc. At the close of the journey, the group reconvened with one last breathing exercise and the ringing of a bell.

Tools of the Mind

Adele Diamond, Ph.D., University of British Columbia

In response to Tom’s presentation, Adele made reference to Vygotsky’s belief that mature make-believe play is the major mechanism for

developing self-regulation in preschoolers. Executive Functions (EF) of the pre-frontal cortex include 3 core abilities: (1) inhibitory control (which includes selective and sustained attention); (2) working memory; and (3) cognitive flexibility. Inhibitory control is so important in children (and adults) because it makes discipline and change possible. It allows us a measure of control over our attention and our actions, rather than simply being controlled by external stimuli, our emotions, or engrained behavioral tendencies. During social pretend play, children must hold their own role and those of others in mind (working memory), inhibit acting out of character (employ inhibitory control), and flexibly adjust to twists and turns in the evolving plot (cognitive flexibility) – thus exercising all three components of executive function.

As an example of this, Adele presented information about “Tools of the Mind,” a pedagogy based upon Vygotsky’s work. Her research, recently published in the journal *Science*, demonstrated the profound effects “Tools of the Mind” has on children’s developing EF (compared to control groups). The experimental group met or exceeded testing standards and needed less time on instruction (but did better overall on performance). This provides scientific support for the claim that mature play enhances the student’s capacity for academic tasks.

Story-telling is another way to improve EF, because stories require and invite rapt attention, the need to hold what has happened thus far, and the ability to relate what has happened to the new information being revealed. Story-telling can also create a safe space to talk about tough issues such as loss, rejection, or change. Most importantly students learn best by actively engaging the material themselves, and active involvement is an essential component of both play and story-telling. As such, they are indispensable methods for cultivating the healthy development of the pre-frontal cortex.

To close her lecture, Adele discussed the positive and negative consequences of a feedback loop system on EF and educational outcomes. Students’ academic trajectories are heavily influenced by whether or not they enter school well-regulated. She hypothesized that the benefits from early EF training might increase over time, and that helping at-risk children improve their EF skills early might be critical to later school performance/retention. Adele also predicted that preschool interventions that target EF will lead to better mental health outcomes in children.

The question and answer session included comments/questions regarding: (1) how curiosity and imagination are treated in normal school settings; (2) how to bring wonder and aliveness into more “mainstream”

school settings; (3) Dan Siegel's ideas about how storytelling helps integrate the mind, and the development of the pre-frontal cortex; (4) what political action we might take after this conference; (5) more information about "Tools of the Mind" program; (6) how to recognize the options public school teachers do have already in their classrooms; and (7) the adaptation of musician's brains.

Closing Talk: Developmental Issues in Contemplative Education **Linda Lantieri, Inner Resilience Program**

Linda reflected on her experiences as a young teacher, struggling with the turbulent social milieu in 1968 – How to integrate yearning she felt for social justice to field of education? Drawing from the work of Martin Luther King, Jr. and Gandhi, she conceived of education that not only nurtured intellect, but also hearts, spirits, and minds as well. These ideas resulted in her first book "Waging Peace in our Schools" (ed. Lantieri). This book piggy-backed the publication of Dan Goleman's groundbreaking work, "Emotional Intelligence," which began a much needed public discussion about the power of emotions and the emotional education of our nation's youth. Dubbed "Social and Emotional Learning" (SEL), it was conceived of as a process through which children and adults develop fundamental emotional and social skills to handle themselves, their relationships, and their tasks, effectively and ethically.

To promote a new vision in schools, Lantieri, Goleman, and colleagues founded the Collaboration for Social and Emotional Learning (CASEL) in 1997. Outcomes of SEL reported by Zins, Weissberg, Wang, and Walberg (2004) summarized the growing evidence-based support for improvements in youth attitudes, behavior, and school performance. CASEL also played a role in how emotional learning has been incorporated in educational settings – by defragmenting and integrating the many and varied existing programs in schools – illustrated by CASEL's publication "Safe and Sound."

Linda discussed the need to welcome children's minds and hearts, as well as their analytic brains, in school settings. She asked, "Can we nurture children's inner lives without violating beliefs of families or the separation of Church and State?" The events of Sept. 11, 2001 hastened this need with thousands of educators and students struggling to integrate the events of what happened. Linda was then offered a large grant to design and implement programming toward those ends, and "Building Resilience From the Inside Out" was the result.

Linda turned the discussion to an overview of Parker Palmer's Four Stages of a Movement to bring attention to the gradual process of bringing meditative practices into schools. Briefly, the stages are: (1) Rosa Parks Phase – when the jail of life no longer pales in comparison to physical jail; (2) Communities of Congruence – communities are needed to help overcome the fears and consequences associated with the risks of a movement; (3) Figure out how to bring the message to the public – what is the vision, how to say it in words, scientific investigation, contextualized, respectful, must include the parents, teachers, educators, etc.; (4) When the very institutions that gave you a hard time invite you in. Linda made it a point to note that the purpose of the contemplative education movement is not to make kids good meditators, but to make them loving, caring humans, who are engaged in the world.

Tish spoke briefly at the end of Linda's lecture to touch upon some of the themes and questions of the weekend, which included: (1) Best practices; (2) Context; (3) Role of teachers; (4) Idea of love; (5) Building a field; (6) Importance of an appropriate and secular language; and (7) Patience required for questions to be answered.

PRESENTERS & FACULTY BIOGRAPHIES

Michael Baime, M.D., of the University of Pennsylvania School of Medicine, is the Director of the Penn Program for Stress Management. This mindfulness-based stress management program has enrolled more than 5,000 individuals in a structured eight-week meditation-based training course since its inception in 1992. Dr. Baime graduated from Haverford College in 1977 and from the University of Pennsylvania School of Medicine in 1981. He completed post-graduate training in internal medicine at The Graduate Hospital in Philadelphia in 1984, and served an additional year as chief resident. He is currently a Clinical Associate Professor of Medicine at the University of Pennsylvania School of Medicine. Dr. Baime was the recipient of the Appel award for student work in psychiatry in 1981 and The Provost's Award for Distinguished Teaching at the University of Pennsylvania in 2006. He has trained meditation and stress management instructors and led numerous retreats and advanced meditation programs in both the Shambhala Buddhist tradition and in secular settings.

Brenda Anita Boyd-Bell, Ph.D. is best known throughout the country for assisting her clients in their process of "experiencing the essentials of themselves." As President and Chief Executive Officer of Chrysallis Empowerment and Transformation, a professional consulting firm that offers a continuum of professional and educational services, Dr. Boyd-Bell has distinguished herself as an educator and trainer who motivates and encourages perpetual empowerment and transformation of individuals and organizations. Chrysallis provides specialized curriculum design for academic and human relations programs and individual and group counseling strategies that uniquely assist in shifting both individual and organizational paradigms. Dr. Boyd-Bell is also a major contributor to the enrichment and enhancement of educational and faith-based organizations in her home community of Bedford-Stuyvesant Brooklyn, New York and has served as a secondary school English teacher with the New York City Department of Education and a tenured professor with the City University of New York, as well as a lecturer and adjunct faculty at the State University of New York, New York City Technical College, Queens College, John Jay College of Criminal Justice, Pace University, Columbia University and the College of New Rochelle, School of New Resources. She has been recognized in many forums with awards and certificates of excellence in education and community service.

Richard Brady is a mindfulness educator, school consultant and educational writer, following a 34-year career as a mathematics teacher

at Sidwell Friends School. He has given numerous workshops and retreats for educators on mindfulness practice and contemplative education at national conferences, retreat centers and schools. Richard is a founding member of the Mindfulness in Education Network and the Washington Mindfulness Community.

Patricia Broderick, Ph.D. is a professor in the Department of Health and the director of the Stress Reduction Center at West Chester University of PA. She is a licensed psychologist, a nationally certified counselor, certified school psychologist (K-12), certified school counselor (K-12) and a graduate of the Mindfulness-Based Stress Reduction program at UMASS medical school. Her research interests include mindfulness-based approaches to treatment, gender differences in coping styles of early adolescents, and relationships between rumination and the development of depression. The second edition of her developmental textbook, *The life span: Human development for helping professionals* (Broderick & Blewitt) was published in 2006 by Merrill-Prentice Hall.

Richard C. Brown founded the Contemplative Education department at Naropa University in 1990. The department, which he chairs, adapts Buddhist wisdom, compassion, and skillful means to non-sectarian teacher education. Its programs include a BA in Early Childhood Education, a fifth-year state licensure program, and a low residency/online MA in Contemplative Education. After teaching public elementary school, Richard taught seven years during the 1980's at The Vidya School, a Buddhist-inspired K-12 in Boulder. Since then he has been involved in the formation of several contemplative schools. He has also helped develop Buddhist rites of passage programs, and has written about child and adolescent spiritual development. Richard has written on various topics of contemplative teacher education including emotion, awareness, and observation.

Adele Diamond, Ph.D. is a Professor of Psychiatry at the University of British Columbia and the Canada Research Chair in Developmental Cognitive Neuroscience. Dr. Diamond studies the development of the prefrontal cortex and the cognitive abilities that depend on this brain area, such as planning, cognitive flexibility, abstract thinking, rule acquisition, initiating appropriate actions and inhibiting inappropriate actions, and selecting and attending to relevant sensory information. Dr. Diamond is exploring these cognitive abilities and their fundamental connections to the nervous system. One of her current projects involves the study of a preschool teaching program that enhances the development of executive functions and self-regulation.

Mark Greenberg, Ph.D. holds The Bennett Endowed Chair in Prevention Research in Penn State's College of Health and Human Development. He received his Ph.D. in Developmental Psychology from the University of Virginia and taught at the University of Washington from 1977-1997. He is currently the Director of the Prevention Research Center for the Promotion of Human Development and the Associate Director for the Penn State Consortium on Children, Youth and Families. Since 1981, Dr. Greenberg has been examining the effectiveness of school-based curricula (The PATHS Curriculum) to improve the social, emotional, and cognitive competence of elementary-aged children. Since 1990, he has served as an Investigator in Fast Track, a comprehensive program that aims to prevent violence and delinquency in families. His research has focused on the role of individual, family, and community-level factors in prevention. Dr. Greenberg is the author of more than 170 journal articles and book chapters on developmental psychopathology, well-being, and the effects of prevention efforts on children and families. He received the Research Scientist Award from the Society for Prevention Research in 2002.

Andres A. Gonzalez is a Puerto Rican who was born in Kansas, but raised in Maryland. In 1998 he attended the University of Maryland, College Park, where he graduated with a BS in Marketing. Andres is a co-founder of the Holistic Life Foundation, where he currently serves as an Executive Director and he is also co-founder and Co-CEO of For the People Entertainment. During the incorporation of both companies Andres attended the University of Maryland, University College, where he graduated with a Masters in Business Administration. After receiving his Masters, Andres has been studying and practicing yoga and has been instructing a diverse population, including Baltimore City Public School students, drug treatment centers, wellness centers, and colleges. Besides being a certified yoga instructor, Andres is also a musician and author.

Patricia (Tish) Jennings, M.Ed., Ph.D. is Director of the Initiative on Contemplation and Education at the Garrison Institute. Dr. Jennings received her doctorate in human development from the University of California, Davis and directed the Cultivating Emotional Balance (CEB) Project at UCSF, a randomized controlled clinical trial to assess the effectiveness of a training program for teachers that combined contemplative practice with emotional awareness to reduce destructive emotional responses while enhancing compassion and empathy. Dr. Jennings holds a faculty research appointment at San Francisco State University and is currently conducting research to examine how greater emotional competence among teachers may translate into improved teacher-student relationships, increased student pro-social behavior, a more positive classroom atmosphere and improved student academic

performance. After receiving a master's degree in education, she founded and directed an experimental Montessori school in Napa, California. Dr. Jennings later served as Director of Intern Teachers at St. Mary's College Graduate School of Education, where she taught education courses, supervised student research, developed teacher training curricula, and supervised student teacher training.

David Lee Keiser, Ph.D. is an Associate Professor of Teacher Education at Montclair State University. A product of the New York City Public Schools and a former special education teacher and residential counselor, Dr. Keiser has long been interested in the intersection of contemplation, compassion and education, and teaches a graduate course, Mindful Teaching, at MSU. He works with the Center for Contemplative Mind in Society and recently spent part of his Spring 2008 sabbatical as a visiting scholar at Naropa University. He is a published poet and the co-editor of *Teacher Education for Democracy and Social Justice* (RoutledgeFalmer Press). A recent article, "The Buddha in the Classroom," appeared in the Summer 2007 issue of *The Journal of Transformative Education*. He can be reached at david.keiser@montclair.edu

Linda Lantieri is a Fulbright Scholar, keynote speaker, and nationally known expert in social and emotional learning, conflict resolution, intergroup relations, and trauma recovery. Currently she serves as the Director of Project Renewal, a project of the Tides Center, which equips school staff and parents with the tools and skills to strengthen their inner resiliency and model these skills for the young people in their care. She is also the cofounder of the Resolving Conflict Creatively Program (RCCP) of Educators for Social Responsibility, which supports the program in 400 schools at fifteen school districts in the United States. Linda has over 38 years of experience in education and has co-authored or contributed to several books: *Waging Peace in Our Schools* (Beacon Press, 1996), editor of *Schools with Spirit: Nurturing the Inner Lives of Children and Teachers* (Beacon Press, 2001) and contributor to *Forever After: NYC Teachers on 9/11* (Teachers College Press, 2006). She is a founding member of CASEL, a Board Certified Expert in Traumatic Stress from the American Academy of Experts in Traumatic Stress, and a senior scholar at the Fetzer Institute, a nonprofit organization that supports research and education in the relationship between body, mind, and spirit.

Carolyn F. Palmer, Ph.D. is an ecological developmental psychologist, integrating the study of emotional self-regulation with perceptual, action, and cognitive development. Her ongoing research includes work on embodied learning and teaching practices; mindful attention as it

moderates the experience of everyday activity; and how parents and teachers foster spirit in children. Dr. Palmer works with college students, student teachers, and college faculty on developing their own voices and those of their pupils (both the physical voice, and the voice of presence). She is an Associate Professor in both the Department of Psychology and Program in Cognitive Science at Vassar College.

Janice Parry has 25 years of teaching experience with most of her work being with elementary aged children in the Inner City of Vancouver, Canada. Her expertise is in the areas of Social Responsibility and Literacy. Janice acts as a team leader in both of these areas and is regarded as a mentor by her peers. In a direct response to the needs of her students, Janice began implementing the original Hawn Foundation's Mindfulness Education curriculum in April 2005. The students' success with the program was so positive that she continued to teach ME lessons and eventually became a Mindfulness Education teacher trainer. Janice's passion and commitment to meeting the learning needs of her students is what drives her practice.

Elizabeth Robertson, Ph.D. has been with the National Institute on Drug Abuse since in 1995 and has been the Chief of the Prevention Research Branch since 1997. Prior to that she lead an intramural research program on rural substance abuse at the United States Department of Agricultural, Agricultural Research Service, Family Economics Research Group on substance abuse among rural Americans and collaborated with NIDA in developing 10 state epidemiology research groups in rural and frontier states. She received her doctorate in human development at the University of North Carolina – Greensboro in 1988. In 1990, she completed a post-doctoral fellowship with the Carolina Consortium on Human Development at the University on North Carolina – Chapel Hill where she worked with Drs. Glen Elder and Rand Conger on the Iowa Youth and Families Project. She later served for two years as Acting Associate Dean for Research at the University of North Carolina/ North Carolina State University and held an adjunct faculty position in the Department of Human Development and Family Studies. High priority areas for continued portfolio development include the integration of findings from the basic sciences into prevention research and further development of the prevention services research portfolio.

Tom Roepke has more than 20 years of teaching experience in public and private schools. For the past 10 years he has been a Reading Recovery teacher at PS 112, a public school in East Harlem, NYC. Before that, Tom was a Waldorf class teacher at the Rudolf Steiner School in NYC where he taught a group of children from first through seventh grade. Tom is currently interested in exploring how public school

teachers draw on contemplative practices in connection with their work as educators.

David I. Rome is managing director for program initiatives at the Garrison Institute. From 1993 to 2005 he was part of the senior leadership team at the Greyston Foundation in Yonkers, New York, an innovative and nationally acclaimed community development organization committed to improving the lives of people living in America's inner cities. Following a B.A. in classics from Harvard and a two-year Peace Corps stint in Kenya, David began practice and study of Buddhism in 1971. He served for nine years as private secretary to his teacher Chögyam Trungpa Rinpoche, during which time he also taught meditation and was closely involved in the founding of Shambhala International, Naropa University, and the Shambhala Training meditation program. During the 1980s, David was an editor and then president at Schocken Books, a distinguished New York publisher. More recently, he trained in the Focusing method for accessing bodily knowing, with its founder Eugene Gendlin and others, and has brought Focusing together with Buddhist mindfulness-awareness practices in a workshop called Deep Listening, which he has presented in the U.S., Canada, and Europe.

Kimberly Schonert-Reichl, Ph.D. is an Associate Professor in the Faculty of Education at the University of British Columbia. She began her professional career as a middle school teacher and then as a high school teacher at an alternate school for “at risk” adolescents. While completing her MA at the University of Chicago, Kim worked as a child therapist for children and adolescents with emotional and behavioral disorders in residential treatment. At UBC, Kim has been involved in teaching courses in development and special education to preservice teachers and graduate courses in the areas of social and emotional development in education, research methods, risk and resiliency, and a newly developed social and emotional learning practicum course. Kim is also involved in research on several projects examining the effectiveness of programs designed to promote children’s social and emotional development in school. As well, Kim is involved in a partnership with the Vancouver School Board in the area of Social Responsibility and is collaborating with several elementary schools across the district to evaluate their efforts. Most recently, Kim was on the organizing committee for the visit of His Holiness the Dalai Lama for the “Vancouver Dialogues.” (to view a webcast of this event, go to www.dalailamacenter.org).

Daniel Siegel, M.D. is a Harvard educated psychiatrist. His psychotherapy practice includes children, adolescents, adults, couples,

and families. An award-winning educator, he formerly directed the training program in child psychiatry and the Infant and Preschool Service at UCLA. Dr. Siegel serves as the Founding Editor-in-Chief for the Norton Series on Interpersonal Neurobiology. His book with Mary Hartzell, M.Ed., *Parenting from the Inside Out: How a Deeper Self-Understanding Can Help You Raise Children Who Thrive* (2003) explores the application of this newly emerging view of the mind, the brain, and human relationships.

Ali Smith is a native of Baltimore, Maryland. He is a graduate of Friends School of Baltimore and went on to attend the University of Maryland, College Park, where he graduated with a BS in Environmental Science and Policy with a specialization in Biodiversity. Ali is a co-founder of the Holistic Life Foundation, where he currently serves as Executive Director. He is also co-founder and Co-CEO of For the People Entertainment. His parents were yogis and he has taught contemplative practices for the past seven years to a diverse population, including Baltimore City Public School students, drug treatment centers, wellness centers, and colleges. Ali is also a certified yoga instructor, author, Master Gardener, member of the board of directors for Baltimore Green Week, and proud father.

Atman Smith is a native of Baltimore, Maryland. He attended the Friends School of Baltimore for twelve years, but transferred to and graduated from Paul Laurence Dunbar Senior High school to pursue basketball aspirations. He then went on to attend the University of Maryland, College Park, where he was a two year letter winner for playing on the men's basketball team, and eventually graduated with a BA in Criminology and Criminal Justice. Atman is a co-founder of the Holistic Life Foundation, where he currently serves as Director of Youth Programming. He is also co-founder and Co-CEO of For the People Entertainment. When yoga first came to the West, Atman's parents began practicing, and it became a lifestyle in which they passed to their son's. For the past seven years Atman has taught mindfulness and contemplative techniques to all demographics. Atman Smith is also a certified yoga instructor, trained in Advancement in Youth Development, Social Skills Streaming, and author

Arthur Zajonc, Ph.D. is professor of physics at Amherst College, where he has taught since 1978. He has been visiting professor and research scientist at the Ecole Normale Supérieure in Paris, the Max Planck Institute for Quantum Optics, and a Fulbright professor at the University of Innsbruck in Austria. His research has included studies in parity violation in atoms, the experimental foundations of quantum physics, and the relationship between sciences, the humanities and meditation. He is author of the book: *Catching the Light*, co-author of *The Quantum*

Challenge, and co-editor of Goethe's Way of Science. Since 1997 he has served as scientific coordinator for the Mind and Life dialogue with H.H. the Dalai Lama whose meetings have been published as *The New Physics and Cosmology: Dialogues with the Dalai Lama* (Oxford 2004) and *The Dalai Lama at MIT* (Harvard UP, 2006). He is co-founder of the Barfield School of Graduate Studies of Sunbridge College, and he currently directs the Academic Program of the Center for Contemplative Mind which supports appropriate inclusion of contemplative practice in higher education.