



Garrison Institute Report

Contemplation and Education
A Survey of Programs Using
Contemplative Techniques in K-12
Educational Settings: A Mapping Report

October 2005

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Section 1: Executive Summary

The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character, and will... An education which should improve this faculty would be the education par excellence. But it is easier to define this ideal than to give practical directions for bringing it about.¹

William James

Between June 2004 and April 2005, the Garrison Institute, with support from the Fetzer Institute and the Impact Foundation, mapped the current status of programs utilizing contemplative techniques with mainstream student populations in K-12 educational settings. The Mapping Project sought to identify similarities and differences in program pedagogy and methodology. The Mapping Project also explored the degree to which such programs foster love and forgiveness among students.

The occasion of the first Garrison Institute Symposium on Contemplation and Education in April 2005 marked the presentation of a conceptual framework within which to organize programs included in the Mapping Project. This framework proposes that programs using contemplative techniques in mainstream educational settings seem to fall into one of two pedagogical categories. They are either essentially “contemplative programs,” or, as is the case with social and emotional learning programs, they use aspects of “contemplative techniques” but are not “contemplative programs.”

Contemplative techniques include a broad range of practices drawing from Western and Eastern traditions. These techniques include attention training and refinement practices, secular meditation and yoga. Increased self-awareness, mindfulness, self-reflection, emotional intelligence and social skills are among the outcomes associated with these techniques.

According to Tobin Hart, contemplation refers to “a third way of knowing that complements the rational and the sensory.”² In the context of the Mapping Project, contemplative programs are those with pedagogical approaches that primarily focus on developing and deepening this third way of knowing. Such programs specifically cultivate the conditions that create the possibility of contemplative awareness. To do so, they emphasize *mindfulness* and focus on improving students’ capacity for *attention*. In contrast, programs that use contemplative techniques — but are not contemplative programs — foster contemplation in support of

other, typically broader goals, such as the development of social and emotional skills.

Several common definitions for mindfulness exist. Jon Kabat-Zinn defines mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally.”³ From another perspective, mindfulness is the process of “bringing one’s complete attention to the present experience on a moment-to-moment basis.”⁴ Both of these definitions for mindfulness involve attention. Attention is commonly defined as the capacity to select internal sensations, external stimuli, responses, memories, or thoughts that are behaviorally relevant among the many others that are behaviorally irrelevant.⁵ Whereas mindfulness practices emphasize an impartial, non-goal-oriented awareness of whatever presents itself in one’s experience, attention training focuses specifically on improving the efficiency of attentional selection by facilitating the functioning of three different aspects of attention: alerting, orienting, and/or conflict monitoring.

With regard to methodology, contemplative programs for K-12th grade students have much in common. In general, they incorporate mindfulness and other contemplative techniques to train and refine attention, promote emotional balance and by extension, help students develop the capacity for self-regulation. However, programs define the terms attention, mindfulness and contemplation inconsistently, and often imprecisely. At the programmatic level, a theoretical framework for defining attention appears to be absent; so too is a well-accepted definition of mindfulness.

Despite methodological and pedagogical differences, contemplative programs share a common set of outcomes consistent with those of mainstream education. The main short-term or immediate outcomes include enhancing students’ learning and academic performance, improving the school’s social climate as well as promoting emotional balance and pro-social behaviors. These programs also share common long-term or ultimate outcomes including the development of noble qualities such as peacefulness, internal calm, compassion, empathy, forgiveness, patience, generosity and love.

The contemplative programs in the Mapping Project all focus on helping students meet these shared outcomes. However, the emphasis on prioritizing distinct but interrelated short-term outcomes — and the focus of the techniques used to realize these outcomes — provides a rationale for constructing two closely related, but separate methodological domains:

1) Contemplative programs that prioritize developing mindfulness and attention training.

2) Contemplative programs that prioritize emotional balance and wellbeing.

In brief, Section 2 addresses the Mapping Project's methodology. Sections 3-4 provide snapshot descriptions of contemplative programs organized according to their emphasis on specific, yet interrelated, goals. Section 5 includes information about social and emotional learning programs that use contemplative techniques with students in mainstream schools. Section 6 addresses other, non-mainstream, programs that incorporate contemplative techniques in ways that are relevant to K-12 educational settings. Section 7 focuses on the use of contemplative techniques in teacher training. Section 8 provides synopses of informants' responses to the Mapping Project's research questions, and Section 9 of the Mapping Report identifies emerging issues and presents topics for consideration concerning future research. Section 10 contains references.

Four appendices follow the report. Appendix I provides a general overview of Garrison Institute's Program on Contemplation and Education, including a summary of the first Garrison Institute Symposium on Contemplation and Education. Appendix II contains the basic questionnaire used in the Mapping Project. Appendix III identifies the Mapping Report participants and Appendix IV includes contact information for the organizations highlighted in the report.

Under separate cover is the Scientific Research Supplement which addresses scientific issues related to program development. Furthermore, it identifies challenges pertinent to current research as well as potential areas of future research regarding the use of contemplative techniques in K-12 educational settings. In providing a snapshot of the "state of the field," the Mapping Report notes the paucity of rigorous research available on this topic. Yet, despite the lack of existing research, many programs are highly motivated to engage in assessment and evaluation. The supplement examines ways in which effective research has the potential to shape the development, implementation, and selection of particular contemplative interventions.

Section 2: Mapping Project Methodology

Research for the Mapping Project was extensive although not comprehensive since no mechanism currently exists for identifying all relevant programs. Between June 2004 and May 2005, two staff members from Garrison Institute researched relevant programs. Word of mouth, solicitation through online listservs and internet research proved significant mechanisms for identifying individuals and programs. The Mapping Project's research questions focused on basic program information, pedagogy, methodology, implementation strategies, measures of success, training for program presenters and areas for improvement.

Garrison Institute contacted approximately eighty informants with relevant expertise through email exchanges and telephone interviews. The overwhelming majority of informants reside in the United States. However, research also included selected programs from Canada, England and India. The project prioritized identifying programs in secular, public school settings.

Initially, the project gathered verbal information by conducting semi-structured interviews, using open-ended questions to elicit information. However, this process proved inefficient. Consequently, the project enhanced the research format through the use of a simplified questionnaire (Appendix II), which provided a more dynamic exchange of information. The project also requested supplemental materials from participants including published articles, CDs, curricula and program brochures.

Garrison Institute did not make personal contact when Internet research or written materials provided comprehensive program information. Another aspect of the interview was to request each participant to recommend similar programs for inclusion in the research.

Section 3: Contemplative Programs that Prioritize Developing Mindfulness and Attention Training

This section provides an overview of contemplative programs that prioritize teaching mindfulness and training attention. Emotional balance, academic success and pro-social behaviors are important outcomes of these programs. These programs seek to promote noble qualities among youth, but they do so with great subtlety, often without publicly acknowledging this goal in their program descriptions.

In a variety of different ways, the programs utilize contemplative techniques that recognize the interrelationship between nurturing focus and awareness as well as the cultivation of compassion and responsible action. Program methodologies have the explicit intention to provide children with the internal resources that lead to the development of cognitive and ethical engagement.

These programs draw on a variety of resources and tools in diverse settings. The programs range from highly developed methodologies that could be replicated with fidelity in other settings, to educational approaches that stem from the experience and expertise of specific individuals. Some of the programs described below are already functioning in mainstream school settings. Others work with special populations in alternative educational settings that, nonetheless, have some overlap with programs in mainstream schools.

Although each has unique features, many of the existing school-based mindfulness programs, as well as programs for use with adolescents in non-school-based settings, are loose adaptations of the **Mindfulness-Based Stress Reduction (MBSR)** program. Founder Jon Kabat-Zinn designed the eight-week MBSR Program at the **Center for Mindfulness in Medicine, Healthcare and Society at the University of Massachusetts Medical School** to integrate “mindfulness meditation practices into the mainstream of medicine and health care.”⁶ MBSR uses various mindfulness meditation practices, such as silent meditations, awareness of the breath, and body scans, as well as movement practices such as gentle stretching and mindful Yoga. Extensive research on the MBSR model shows that adult participants experience multiple positive outcomes including reduced stress, increased relaxation, less pain, increased tolerance of pain and improved self-esteem.⁷

The MBSR model has various applications for educational settings. Whereas pain and stress can be symptomatic of disease, trauma or other health-related causes, academic failure and anti-social behaviors at school often indicate systemic problems within the school community. The Center for Mindfulness believes that students, teachers and other

members of the school community can benefit from mindfulness and other contemplative techniques in an effort to become more responsive and less reactive, more focused and less distracted, more calm and less stressed.

In 2001, the Center for Mindfulness partnered with **Westboro High School** in Westboro, MA, to examine applications of the MBSR model in a school setting. The project focused on identifying the ingredients of a healthy school community and established several goals including:

- Reducing personal and professional stress for teachers through the cultivation of mindfulness, i.e. paying attention on purpose in the present moment, non-judgmentally.
- Introducing the possibility of an intimate and penetrating, fluid yet sustained quality of attention in everyday life.
- Integrating awareness skills or contemplative competencies such as mindfulness, concentration, compassion, forgiveness, tolerance, non-attachment and equanimity.⁸

Although the Westboro High School project primarily targeted teachers and school staff, the students benefited indirectly. Teachers reported being more alert, attentive and patient, as well as less reactive and judgmental.⁹ The project experience also highlighted the need to encourage teachers to explore bringing meditation practices into their classrooms and to their students.

Working in Menlo Park, CA, **Amy Saltzman** also focuses on the need for mindfulness curricula in the classroom. She designed and currently presents a school-based mindfulness program loosely based on the MBSR model. Her approach works with mindfulness in the context of developing emotional intelligence, skillful means, ethical behavior that reflects our interconnectedness as well as academic performance. Saltzman delivers developmentally appropriate meditation practices to elementary school students. Her model involves six different types of breathing practices, two awareness of emotion practices, an awareness of sound practice, a loving-kindness practice, brief yoga and a body scan. Integration of classroom discussion about applications for mindfulness in daily life complements meditation practice.

Other school-based mindfulness programs based on Kabat-Zinn's model also utilize highly trained community-based presenters. In West Chester, PA, **Trish Broderick** meets with high school students to provide basic education about stress as well as coping with difficult emotions.

Sessions during this six-week program include simple breathing exercises, body awareness, walking meditation and sitting meditation. Meetings incorporate discussion and exercises drawn from cognitive therapy that show the links between thinking and feeling. These approaches help students learn effective ways to look after themselves when emotions become overwhelming. In this setting, mindfulness techniques are used in a general school setting, albeit with a psychological emphasis.

The **Lineage Project** in New York, NY, and **Youth Horizons** in San Francisco, CA, are two other programs based on the MBSR approach. However, unlike the programs described above, these programs work specifically with youth at risk. The Lineage program works in school settings, while Youth Horizons provides programs for incarcerated youth in a non school-based setting.

Soren Gordhamer, founder of the Lineage Project, writes that “class consists of simple yoga exercises; short guided meditations; and talks and discussions on subjects such as working with stress, the difference between responding versus reacting to situations and ways to relax without drugs.”¹⁰ By participating in awareness-based stress reduction programs, youth:

- Learn positive ways of responding to stress other than repression or acting out.
- Learn how to respond rather than react to difficult events.
- Find calm and clarity through positive techniques rather than through drugs.
- Gain clarity of mind so that more conscious choices can be made, while learning to understand the consequences of all actions.
- Gain a better understanding of the mind and body through awareness-based classes that help youth live healthier lives.¹¹

The Lineage Project also supports youth in developing compassion and making — and keeping — a commitment to non-violent engagement in their communities. In this effort, the program uses a loving kindness meditation called “happiness meditation.” Classes for students already familiar with the Lineage Project’s approach also delve into the theme of forgiveness.

As with the Lineage Project’s approach, Youth Horizons also emphasizes the important roles of attention and the training of attention in the transformation and rehabilitation of adjudicated youth. The program recognizes that many youth participants share a common history of attention problems related to a diverse range of causes. Youth Horizon’s intensive curriculum helps youth train their awareness. The program cultivates body and mind discipline through mindfulness meditation, yoga and the “council process” — a semi-structured community meeting in which participants create a safe space within which they listen respectfully, share personal expression and develop compassion.¹²

Youth Horizons also uses focused attention as an aspect of overall methodology. According to the Program’s co-Director, Andrew Getz,

The strength of our program rests on the environment we create for positive change. Often these youth have given up on a positive future for themselves. We communicate to them that every situation is workable given the right kind of attention. We provide tools and support to encourage them to learn how to pay attention to themselves. We also communicate that they are valuable simply by giving them our non-judgmental attention.¹³

Philosophically and methodologically informed by, but distinct from MBSR, **InnerKids Foundation** programs reflect the influence of Jon Kabat-Zinn's work. InnerKids utilizes a number of elements similar to those in MBSR. However, the program adapts these elements for use with a younger target population and specifically identifies the development of clarity and compassion as goals.

The InnerKids Foundation’s mission is to “make mindfulness awareness practices more accessible to children.”¹⁴ Based in Los Angeles, CA, InnerKids views mindful awareness as “an important component to the development of attention, balance, clarity and compassion, (the new ABCs) of learning and leading a balanced life.”¹⁵

The ABC’s are, to some extent, sequential. Attention training supports mindful awareness from which emotional balance and qualities such as clarity and compassion naturally emerge. InnerKids’ Executive Director Susan Kaiser-Greenland explains,

I believe that cultivating a child’s ability to look at awareness, simply for the sake of doing so, in and of itself trains compassion. We encourage our older students to “just watch and let it go,” cultivating the ability to see clearly, moment-by-moment, with discernment.¹⁶

All of the InnerKids' activities provide attention-training practice. The program teaches pre-kindergarten through elementary school students various contemplative techniques including sitting practice and movement practice to help them "find balance anytime and anywhere."¹⁷ In one activity, students sit in a circle, listening to the sound of a bell until it fades away. Students raise their hands when they can no longer hear the sound, in an effort to develop attention and deeper awareness. Another activity addresses memory and attention, using awareness of breath to anchor students' observation and enhance memory recall.

The InnerKids Foundation is currently developing a middle-school program and collaborating with mental health professionals to adapt mindfulness tools for children and families suffering from various health-related issues including ADHD, chronic pain, and OCD, as well as the effects of abuse, neglect and violence. InnerKids is working with UCLA and the Mindful Awareness Research Center to research the effects of bringing mindfulness awareness practices (MAPs) into early education. The MAPS project begins by training teachers in developing mindful awareness practices for their own inner discovery and teaches them how to implement the tools of ABC with young children. According to Principal Investigator Sue Smalley, ongoing research will assess whether children using MAPs show improved attention regulation, emotional balance, and compassion using age-appropriate measures such as EEG, neurocognitive tasks, and measures of social behavior.

The **Mindfulness Education (ME) for Children** program also involves scientific research on student outcomes associated with classroom-based mindfulness practices. ME is a project of the **Bright Light Foundation** that seeks to determine the effects of a ten-week intervention for primary and intermediate grades in the Vancouver School District, BC. The ME program trains teachers to implement a series of simple techniques designed to enhance self awareness, focused attention, problem solving abilities, self regulation, goal setting, stress reduction, conflict resolution and pro-social behaviors in children.¹⁸

The **Impact Foundation**, based in Aurora, CO, offers yet another approach to promoting mindfulness in the classroom. Impact Foundation's eight-week curriculum presents three categories of meditations each of which address specific skills and qualities:

- Mindfulness meditation develops awareness, concentration, focus, calm, emotional intelligence, and understanding of mind and body.
- Heartfulness meditation develops caring, compassion and other altruistic qualities of the mind and heart.

- Skillfulness meditation develops specific states of mind such as confidence, sense of safety and ecological awareness.¹⁹

Students' responses to the Impact Foundation's work reflect the degree to which participants can internalize, utilize and value the practice of mindfulness. The Impact Foundation uses scripted meditation instructions to provide "guided relaxations" in which students become familiar with using breath to center and calm themselves, just as an anchor steadies a ship in changing seas. Fifth graders in a Colorado public elementary school made the following comments after receiving five 7-10 minute scripted meditation sessions from their teacher.

I did my anchor breath today when my teacher was telling me about writing a state report. I got scared because I didn't think I'd be able to finish my report in time. I didn't have time to do all five anchor breaths, so I did less. After I did that, the teacher handed out the packet and I could see it'd really be easy after all.

My teacher was testing me the other day. I always get nervous and think I will forget what the story is about. My mind went blank, so I used my breathing and then I could remember the story. She said I did great.²⁰

In contrast to the programs above that target entire school populations, **David Forbes** designed a school-based program specifically to help male high school athletes reduce stress, focus attention and learn to be better football players. In his book, *Boyz 2 Buddhas*, David Forbes explains "meditation is potentially helpful in moving young men toward higher levels of development from whatever point they are at."²¹

In Forbes' experience, the use of meditative techniques with male adolescents promotes multiple outcomes including:

- Engagement in mindful behavior (in contrast to reactive behaviors or repression of emotions);
- Increased awareness of bodily sensations and emotional feelings;
- Decreased attachment to conventional masculine identity;
- Mastery beyond ego;
- Stress reduction;

- Health promotion; and
- A sense of honor for the need for sacred space.²²

Forbes' experience with urban athletes in Brooklyn, NY, suggests that such an approach has relevance for adolescents in general. Forbes makes the case for a contemplative urban school counseling practice that would rely on mindful counselors that support and incorporate mindfulness techniques on a daily basis. He argues that mindfulness — utilized at multiple levels — can help transform school counseling, and by extension, the broader school environment and the individual lives of those within the school community.

As with the other mindfulness programs, Forbes views love and forgiveness as implicit — and not directly stated — byproducts of increased mindfulness among athletes. For example, as male athletes feel more interconnected they transcend the sense of “self” versus “other.” This heightened sense of awareness can increase tolerance, empathy and self-acceptance. A logical extension is that schools which foster mindfulness are more likely to be peaceful, healthy and successful.

In contrast to programs that integrate contemplation practices into academic curricula, the **New School** at South Shore, WA, promotes mindfulness through scheduling periods of silence as an integral part of the school day. Part of the Seattle public school system, the New School follows a daily routine that incorporates three minutes of school-wide silence each morning. The school community also practices silence together at a Spirit Assembly each Friday morning, after which classes present songs, dance and other activities. As of the writing of this report, the New School student community includes pre-K to 2nd grade classes and plans to expand to the 8th grade level.

The experience of silence can also promote mindfulness within the context of a more comprehensive wellness model. According to Principal Gary Tubbs, it is “critically important for students to learn mindfulness/awareness so they can have “power” over the movement of their bodies; quiet their minds, relax and still themselves; learn to reflect; learn to take responsibility for their own choices rather than [maintain] the habit of looking outwards; and learn how the power over their thoughts, words and actions co-creates their life.”²³

Section 4: Contemplative Programs that Prioritize Emotional Balance and Wellbeing

The following programs begin with the development of emotional balance and related concepts as their starting point. They utilize mindfulness, attention training and other contemplative techniques as part of their multifaceted methodology. Unlike the programs identified in Section 3, these programs are explicit in their focus on prioritizing emotional balance. In the context of these contemplative programs, emotional balance incorporates stress reduction and the promotion of health and wellbeing which, by extension, support the development of pro-social behaviors and cultivation of a healthy school climate.

One of the earliest educational programs to use a contemplative technique to promote emotional balance is the **Education Initiative** at the **Mind Body Medical Institute (MBMI) at Harvard University**. This program trains teachers to help their students reduce the emotional and behavioral effects of stress. This K-12 curriculum utilizes mind/body tools to promote stress awareness, effective use of relaxation response techniques and strengthened coping skills.²⁴

Relaxation response techniques include “repetition of a word, sound, phrase, prayer, or muscular activity” and “passive disregard of everyday thoughts that inevitably come to mind and the return to your repetition.”²⁵ Research shows that students exposed to this curriculum demonstrated multiple benefits including:

- A higher grade point average;
- Increased self-esteem;
- Decreased psychological distress;
- Less aggressive behavior;
- Better work habits;
- Better attendance; and
- Decreased unexcused tardiness.²⁶

The **HeartMath®** system utilizes specific contemplative techniques to produce positive physiological and emotional outcomes. Used in schools nationally, HeartMath focuses on the heart’s role in regulating the

autonomic nervous system and emotion. In particular, “HeartMath techniques combine a shift in the focus of attention to the area around the heart (where many people subjectively feel positive emotions) with the intentional self-induction of a sincere positive emotional state, such as appreciation.”²⁷

The HeartMath approach includes various techniques such as the Freeze-Frame tool which provides a five-step plan to help people identify a stressful or otherwise uncomfortable experience, generate a pause that breaks the chain of emotional reactivity, shift their focus to the heart, engage in heart-centered breathing and generate a positive feeling such as appreciation. Other tools include Attitude Breathing and Heart Lock-In technique. HeartMath’s TestEdge™ curriculum introduces students to some of these simple tools.

A more involved educational model is HeartMath’s The Freeze-Framer ® heart rhythm-monitoring and coherence-building system.²⁸ This interactive hardware/software system monitors and displays individuals’ heart rate variability patterns when they engage in the positive emotion-focused techniques that are taught in an online tutorial. A fingertip sensor records the pulse wave, which allows the Freeze-Framer to plot changes in heart rate on a beat-to-beat basis.

Elementary, middle and high schools use HeartMath programs in a variety of ways. Research links the HeartMath approach to positive student outcomes including reductions in general psychological distress, test anxiety, and risky behaviors. In addition, data show improvements in test scores, classroom behaviors, stress resiliency, learning, and academic performance.²⁹

In addition to these organizationally comprehensive programs, individual teachers in schools across the United States also teach their students contemplative techniques to promote wellbeing, stress management and develop relaxation skills. **Deborah Tackman**, a health educator in Eau Claire, WI, uses a variety of relaxation techniques including sequential breathing and mental imagery, as part of the high school health curriculum. She reports using these techniques in the classroom prior to exams.³⁰

For the past five years, **Adam Bernstein** practiced meditation with students at the **Berkeley Carroll School** in Brooklyn, NY. He states, “I sound the bell almost every Middle School class I teach. We practice conscious breathing in silence. I also gather for a half hour weekly for meditation with high school students.” Bernstein’s approach involves

consistent repetition of a single, simple practice during classes in an effort to promote mindfulness.³¹

Located in South Lake Tahoe, CA, Eliana Morris developed the **Children's Compassion Mind-Training Program** after ten years as a social worker and elementary school teacher in the public school system. The program, now operating in local public schools, incorporates the study of compassionate and ethical behavior through self-assessment of daily thought, speech and action. This personal exploration is integrated with academic standards and presented in a non-sectarian way that meets the needs of the government, school administrators, teachers, families and children.

The Children's Compassion Mind-training Program helps students discover their role in the relationship between cause and effect thereby helping them make a deeper connection between ethical behavior and happiness.³² For example, students identify specific virtues to focus on each day and then assess their own related actions, speech and thoughts. Students practice writing skills by tracking and recording their goals, challenges and progress in a notebook called the "Good Book." The data collection component of tracking their behaviors facilitates personal investigation. Students identify correlations between making ethical choices and the resulting positive opportunities. The activity helps students identify where they want to make changes in their lives, how to make these changes and what happens when they do so.

Marilyn Howell incorporates contemplative techniques within a broadly defined wellness model that examines the relationship between body and mind. Developed in 1979, at the **Brookline Public High School**, in Brookline, MA, Howell's two-semester Body/Mind curriculum helps high school students connect scientific research on the brain, nervous system and psychoneuroimmunology with practical, contemplative experience using yoga, meditation, acupuncture and guided imagery.

Students explore the connection between stress and disease as well as other body/mind topics. Howell finds that the most common course outcomes reported by students are greater confidence, a healthier lifestyle, an open mind, a sense of community in class, increased body awareness, and the ability to use that awareness to improve physical and mental well-being.³³

Whereas yoga is one aspect of Howell's Body/Mind curriculum, it is the central methodology of many different school-based programs in use across America. The **US Yoga Association** brings yoga into schools at the national level while other programs such **Yoga Ed** and **The Kids Yoga Deck** provide direct service to their local communities as well as

train teachers and instructors to disseminate the curricula more broadly.³⁴ Each of these programs also incorporate aspects of other contemplative techniques in their work.

Based in Los Angeles, CA, Yoga Ed is a K-8 model that uses yoga to teach students a broad range of life skills including health promotion, self-care, relaxation and anger management. Yoga Ed's approach uses various physical and contemplative techniques to promote physical fitness and mental health. As described by Program Director Leah Kalish, students in each class experience "time in" — inner-focused activities that range from sitting in silence, using guided imagery, or meditating on a candle, to looking at an image or sitting in a restorative pose.³⁵

Yoda Ed also incorporates loving-kindness meditation as another example of "time-in" activity. The technique allows students to bring up important issues, such as forgiveness, as a method of dealing with anger in more constructive and healthy ways. Students learn to distinguish feelings and behaviors. This process helps them prepare to experience feelings as energy that can be felt and released — and not necessarily acted out.

The Kids Yoga Deck "integrates the transformational practice of yoga with meditations that utilize creative arts and writing to teach children to understand and value themselves and the world around them while developing creativity, compassion, concentration and curiosity."³⁶ Designed by Annie Buckley in Los Angeles, CA, The Kids Yoga Deck includes contemplative techniques such as breath awareness (five-count breathing), visualization, and yoga postures, as well as visual or tactile forms of meditation involving drawing or clay, and asking students to create their own scenes.³⁷

One teacher, from Los Angeles, states that although there is no scientific data reflecting the impact of her use of The Kids Yoga Deck model in class, she observes that:

- The kids enjoy it tremendously.
- The kids can and do teach each other.
- The kids learn and retain the vocabulary easily.
- The kids are much, much calmer immediately after practice.

- The kids see it as a treat. (“which I think is awesome because basically they are internalizing the idea that discipline is a good thing.”)³⁸

Section 5: Social and Emotional Learning Programs that Use Contemplative Techniques

Social and emotional learning (SEL) programs employ a wide range of methodologies, including some contemplative techniques, to provide students with the skills necessary for developing emotional intelligence. However, SEL programs are not “contemplative programs” per se. SEL programs emphasize the outcomes of contemplative techniques that are particularly relevant to a set of five core skill clusters which promote:

- Recognizing and managing emotions;
- Developing caring and concern for others;
- Making responsible decisions;
- Establishing positive relationships; and
- Handling challenging situations effectively.³⁹

Effective SEL programs yield significant results that extend beyond these skill clusters. Research links SEL with various indicators of academic success including increased mastery of subject material, reduced anxiety, and enhanced attention as well as reduced suspensions, expulsions and grade retention.⁴⁰ SEL competencies also play important roles in health promotion and prevention of high-risk behaviors.⁴¹

In contrast to the clearly identified outcomes associated with the skill sets, SEL programs tend to address love and forgiveness as ultimate, but not directly stated, goals.⁴² For example, the development of empathy — critical in the experience of love and forgiveness — is closely related to the SEL definition of ‘perspective-taking’ as ‘identifying and understanding the thoughts and feelings of others.’ ‘Respecting others,’ a component of the core skill ‘responsible decision making,’ promotes the belief that others ‘deserve to be treated with kindness and compassion’ as well as a motivation to ‘contribute to the common good.’ Although not specifically stated, kindness is closely linked with love. Similarly compassion, defined as the desire to remove suffering, is an aspect of forgiveness.

One nationally used SEL program, **Promoting Alternative Thinking Strategies (PATHS)** emphasizes the importance of self-awareness as a precursor to empathy — and presumably, but not specifically stated, to the development of love and forgiveness. The program integrates “the domains of self-control, emotional awareness and understanding, and

social problem-solving to increase social and emotional competence.”⁴³ PATHS teaches students to pay attention to their emotions (self-awareness) as the basis of being able to successfully manage their emotions (self-control). According to Mark Greenberg, who developed the program, “We think that unless children can learn how to calm down when they’re truly upset, nothing else that we’ll teach them about moral development or about feelings will make much difference in their social or academic performance.”⁴⁴

PATHS trains teachers to help students learn contemplative skills without ever labeling them as such. For example, PATHS teaches preschool through Grade 1 students to “Do Turtle” a simple, memorable procedure to calm down and breath. Doing Turtle promotes effective self-talk that in turn encourages self-control and inhibits aggressive behaviors. This unit uses the metaphor of a wise turtle teaching a young turtle the value of going into it’s shell when feeling angry or upset in order to provide a safe space to use the “Three Steps for Calming Down: 1. Tell yourself to stop; 2. Take one long, deep breath; 3. Say the problem and how you feel.”⁴⁵ The curriculum uses a similar, but developmentally appropriate model for students in Grades 2-5.

PATHS also teaches students to notice their emotions without judging them. Students learn that are no “good” or “bad” feelings. Instead, the curriculum teaches that feelings of all kinds are important signals and provide information that can inform healthy decision-making. In contrast, students learn to analyze and evaluate behaviors. The distinction between feelings and behaviors is linked to developing empathy and caring — students learn to consider other people’s feelings and how behaviors might impact them. Attention to one’s own and others’ emotional states is thereby connected with self-control that is, in turn, connected with healthy relationships. In addition, PATHS effectively engages students in using contemplative techniques in the context of a multifaceted approach.

Careful randomized trial methodology shows that PATHS improves protective factors (cognitive and social competence) and reduces poor outcomes (both aggressive/disruptive symptoms as well as internalizing symptoms) in children.

In addition to PATHS, other SEL programs might be said to promote contemplation by utilizing techniques such as the interruption of action, cuing and the use of a specific place and/or technique that remind students to focus attention, concentrate or reframe thoughts.⁴⁶ These techniques help students manage their emotions by cultivating awareness of an individual’s interior life and, in turn, interrupting the all-too-frequent tendency to respond reflexively to situations. The

Mapping Project identified examples of techniques found in broadly used SEL programs that share traits with contemplative practices.

The **Resolving Conflict Creatively Program** prompts teachers to designate a Peace Place in a corner or other specific place in the classroom and work with students to develop guidelines for its use. Peace Places are usually comfortable spaces with chairs and a table for problem-solving, perhaps a rocker, writing and drawing implements, books about feelings, as well as attractive pictures and posters of strategies for "cooling down." Typically, students go to the Peace Place when they have a conflict and are ready to work it out by themselves. The Peace Place is appropriate for a student who is angry or upset or who simply needs a little quiet time to cool down and regain their composure. Students can choose to go to the Peace Place on their own, or receive encouragement to do so from the teacher.^{47 48}

The **Open Circle Program** teaches students to identify when they feel upset and how to use breathing techniques for self-calming. For example, the program invites kindergarten students to imagine that they feel like a cat when a big dog walks into a room. The teacher asks students to envision "what might happen to the cat's breathing" in this situation. From there, the teacher builds on the metaphor to help students recognize stress signals from their bodies — including those that indicate loss of emotional control — and creates opportunities for them to practice calming down. Open Circle also teaches calm breathing techniques to older children. For example, 5th graders learn to count their breaths, beginning at ten and ending at one, as a way to calm down.⁴⁹

In addition to the classroom-based technique described above, the Open Circle Program utilizes contemplative techniques extensively as part of teacher training. The program's founder and Executive Director, Pamela Seigle, identifies the "presence" of the teacher as essential to the Open Circle Program's success with K-5th grade students. Activities within the Open Circle teacher training model address many subjects such as calm breathing techniques, mindfulness, and problem-solving models that include calming the mind. The training model intentionally slows down the pace, allowing teachers and principals the opportunity for personal reflection. Teachers also examine how their background and culture impacts their relationships with students and colleagues.

The emphasis on deep listening allows teachers to know their students more fully, appreciate their unique gifts and love them. A focus of Seigle's work with teachers is the development of self-awareness. This, in turn, allows teachers to be more forgiving of the children they teach.⁵⁰

PassageWays, based in Boulder, CO, expands on the general model of SEL by acknowledging the spiritual dimension of human experience and emphasizing the development of students' inner life within a secular, mainstream educational context. In the context of teaching SEL skills, PassageWays identifies "seven gateways" to the soul of students:

- The search for meaning and purpose;
- The longing for silence and solitude;
- The urge for transcendence;
- The hunger for joy and delight;
- The creative drive;
- The call for initiation; and
- The yearning for deep connection.⁵¹

Contemplation is a common element among the gateways, all of which utilize a wide range of techniques to access inner awareness. Students work with the council process to deepen their capacity for communication and their appreciation for the power of silence. Other exercises that complement the council process also foster students' increased comfort with silence and reflection. PassageWays offers students tools for becoming more present.

Kessler describes that "as part of the program's focus on identity formation, community and support through transitions, PassageWays works with students to increase self awareness and awareness of others."⁵² PassageWays also provides opportunities and teaches students the requisite skills to examine deep questions concerning the mysteries of life. To do so successfully involves extensive teacher training in the areas of creating and maintaining an emotionally and spiritually safe learning environment. In particular, strengthening the teachers' sense of presence, and increasing their awareness of their own inner life and how their own experience projects outward into the classroom are core components of the PassageWays training.

The **EduCare Foundation**, based in Thousand Oaks, CA, uses contemplative techniques to help address deep emotional and spiritual issues and promote student success, leadership, and character development. The ACE: Achievement and Commitment to Excellence program addresses students' barriers to learning (negative attitudes,

repetitive failure habits, disrespect for self and others) and assists students in developing essential skills that are the foundation for behaviors and attitudes that promote successful learning (including taking personal responsibility, goal-setting, time-management, conflict resolution, clear communication, self-reflection and building positive peer relationships).⁵³

The EduCare Foundation explicitly focuses on promoting love and forgiveness and uses a wide range of techniques to promote “heart-centered education” in school-based and after-school programs. The model links self-awareness with the opportunity to apply compassion in response to one’s emotional, mental or physical state. The conscious use of quiet time fosters increased self-awareness of emotional, mental and physical experience. Students participate in guided meditation to create an inner sanctuary that facilitates a connection with intuition and inner wisdom.

The EduCare model addresses the school community as a whole, and links school climate, adult behavior and student experience. Professional development training for teachers and administrators is a central aspect of the EduCare Foundation’s model. According to EduCare Foundation’s founder, Stu Semigran:

If expressing loving-kindness and consideration for everyone within a school or youth organization is not valued as foundational and is not consciously being developed, then lifting youth into their self-mastery and healing is a long shot. Too many schools and youth-serving organizations speak to developing their kids without taking an honest look at themselves in the mirror.⁵⁴

Section 6: Comprehensive School Visions Informed by Contemplative Practices

Outside of the mainstream, many alternative schools, religious schools and spiritual philosophies of education incorporate contemplative techniques and/or foster love and forgiveness within their mission, structural organization or classroom methodologies. Some schools promote contemplative experience explicitly through the use of specific contemplative techniques. Other schools foster contemplation implicitly through their pedagogical approach and school environment. In some cases, schools utilize both explicit and implicit approaches.

The schools and educational approaches described in the following section provide examples of private and charter school methodologies with potential applications for use in mainstream settings. Noticeably absent in this report however, is a review of contemplative practices found in parochial schools, such as Christian, Jewish and Islamic educational institutions.

There are several reasons for the omission of the use of contemplative techniques in parochial schools. Firstly, the range of schools functioning within these traditions includes such diversity as to be simply beyond the Mapping Project's capacity and scope. Secondly the experience and understanding of contemplation in Christian, Jewish and Islamic education often incorporates specific, religiously defined contemplative techniques that foster contemplative experience within a religious context. In contrast, the Buddhist, Quaker Schools and other "religiously-based" schools included in the Mapping Project are essentially non-sectarian, promoting spirituality rather than religion.

Unlike the religious identification of parochial schools, Buddhist practices inform educational pedagogy in a variety of non-sectarian schools. The **Alice Project** in India is an educational research program that addresses the widespread obstacle of students' lack of attention and concentration in the classroom. Twenty years ago, co-founders and directors Valentino Giacomini and Luigina De Biasi worked with the Buddhist philosophy of mindfulness to develop a non-sectarian methodology based on the project's concept of "Unity" - unity of the internal world (mind and its relation to body) and external world (scholastics).

The Alice Project's educational curriculum recognizes that learning is not readily attainable or sustainable if a child's mind is not present. As a result, the project integrates a special program curriculum into the government mandated academic curriculum. Within this special program, attention training is understood as cultivating not only

awareness of mind and focused attention but emotional intelligence as well. Commenting on his understanding of emotional intelligence, Giacomini recognizes that “emotions are the result of thoughts, and our target is to go back to the source of the thoughts themselves and analyze their nature, not their content.”⁵⁵

Alice Project teachers model the use of meditation, guided visualizations, self-inquiry, discussion, breath and yoga practices, moral stories, and various mental and physical exercises to help students develop knowledge, wisdom and deeper concentration — all of which help bridge the dualism between the inner world and academic experience. Through the Alice Project, teachers and students awaken to the nature of the mind and perceptions. This awakening plays an essential role in developing sustainable education and a culture of peace since a peaceful mind with wisdom will naturally foster tolerance of diversity and inspire universal responsibility for community as well as the environment. In Giacomini’s words, “Self-knowledge and awareness are a prerequisite for mental equilibrium and happiness. Only from this basis can compassion and wisdom rise.”⁵⁶

The **Shambhala School** in Halifax, Nova Scotia, introduces contemplative practices that include meditation, yoga, silent time and respectful bowing into an educational setting. The school combines a strong academic program and enrichment through the arts with self-discovery through meditation and related activities. Although the meditation is based on the Buddhist tradition, youth from non-Buddhist families seeking an alternative to the mainstream schools make up 75% of the student body.

Principal Steve Mustain describes the school’s approach to meditation explaining that:

When we sit, we don't expect a Zen-like atmosphere, but realize that the kids take time to make a relationship with the practice and it's different for each one. The boundaries are clear though, in that they have to sit quietly with good posture. We review the technique regularly and also allow for questions or comments. I think many of the students develop an unspoken appreciation for the time and quiet space, but not all would necessarily talk about [it] due to [the] cool factor. It's also important not to use meditation as punishment e.g. "you guys are too loud so we are going to sit."⁵⁷

As with many of the other programs and schools identified in the Mapping Project, the Shambhala School fosters love and forgiveness in a subtle manner. Mustain continues:

We do foster these things [love and forgiveness] and they are present in a tangible way. We would tend not to use the word love so much, simply because it means too many things to teens and we also don't want to develop a too "love and light" persona. If you talk about it too much, it comes across too moralistic.⁵⁸

The **Tinicum School** in Ottsville, PA, is a small, private religious high school that presents a liberal arts curricula based on state recommendations along with daily mandatory meditation practice (thirty minutes in the morning), martial arts practice for those who want it, and constant modeling of compassion and mindfulness. As described by Stephanie Kenney, "We do our bit to make this place a fun and interesting place to grow up in but the point of the school is to provide a substantial education to students of all abilities in the great and productive traditions of the Western and Eastern philosophy."⁵⁹ Kenney further explains that the school views "learning ... [as] an event, not an abstracted and self-referential system" but that "learning and enthusiasm are one and the same."

Maharishi School of the Age of Enlightenment in Fairfield, IA is another independent school that integrates meditation into the daily program. Founded in 1974, this non-sectarian, K-12 school provides Consciousness-Based SM education that includes the twice-daily practice of Transcendental Meditation® (TM). Students younger than ten years of age engage in a walking technique whereas older students practice sitting meditation in groups, learning increasingly advanced techniques over time.⁶⁰ Students also learn a specialized curriculum entitled "The Science of Creative Intelligence" that is based on "universal principles — natural laws" which are common to all areas of academic study. They also learn how these principles relate to their own lives."⁶¹ Maharishi School of the Age of Enlightenment cites many research studies demonstrating that Consciousness-Based SM education improves academic achievement, increases creativity, and enhances other desirable qualities in students.⁶²

Despite the specific links between TM® and Consciousness-Based SM education, school students can learn and practice TM meditation outside of the broader educational pedagogy. In recent years, students and their families at the **Nataki Talibah Schoolhouse** in Detroit, MI, have had the opportunity to learn TM beginning in 5th grade. At the same time, this K-8 charter school followed the regular academic curriculum outlined by the State of Michigan. Students are predominantly African American youth living in a working-class suburb.

According to researcher Rita Benn, private funding for the TM® program at Nataki Talibah Schoolhouse supported two certified TM® teachers who

provide the six-45 minute instructional sessions, of which five are group sessions and one is an individual session, over a two-week period at the school.⁶³ Beginning in fifth grade, students learn how to practice the TM® technique which consists of closing the eyes and sitting silently while repeating an individually assigned mantra defined as a vibrational sound.

At the Nataki Talibah Schoolhouse, students practice TM® for the first and last ten minutes of the school day as an entire group in the gym in order to minimize disruption to the school schedule. A resource room teacher who has been instructed in TM® typically leads these daily meditation sessions. Students who choose not to engage in TM or have discontinued the practice remain in their home classroom during the times that the other students are in the gym. Periodically throughout the academic year, the certified TM® teachers visit the school and check in with the students in regard to their practice.

Neo-Humanist Education schools utilize daily yoga and meditation to develop students' physical wellbeing and mental capabilities as part of the comprehensive educational pedagogy of Ananda Marga Gurukula.⁶⁴ Based on the teachings of Shrii PR Sarkar, Neo-Humanist schools "promote an awareness of ecology in its broadest sense — the realization of the inter-relatedness of all things — and to encourage respect, care and universal love for all."⁶⁵ Similarly, the Quiet Time program at the **Progressive School of Long Island, NY**, involves students in short periods of yoga, singing and meditation each morning. According to an interview with school principal and fourth grade teacher Eric Jacobson, the majority of the students like the contemplative practices and "the majority of students/parents report better concentration, more peace of mind and body, good feelings of family and universal love at school."⁶⁶

Schools based on Krishnamurti's philosophy take a different approach to fostering contemplation, love and forgiveness. Scott Forbes, former principal of the **Brockwood Park Krishnamurti Educational Center** in England, questions whether contemplation should be a deliberate act or whether "we should make room for contemplation that isn't deliberate [so that] realizations occur non-deliberately?"⁶⁷ From his perspective, "Young people have to see why something like contemplation has value—you can just tell them (but this doesn't work), it actually has to be experienced."

Krishnamurti schools utilize explicit and implicit levels of pedagogy. School atmosphere, including a contemplative aspect, is central to the implicit pedagogy and is a primary focus, aimed at helping students develop a sense of meaning. Forbes identifies four aspects to creating a desirable school atmosphere:

- Nature: Students develop sensitivity by respecting and taking care of nature.
- Beauty: Aesthetic things and places need to be cared for, and students learn to “take care” by being responsible for them.
- Silence: Students and teachers experience “space in the day” by having access to a specific place and/or time that is dedicated to silence.
- Relationships: Students learn to care about themselves and others from adults and other students who focus on authentic relationships.⁶⁸

At the level of explicit pedagogy, Krishnamurti schools promote experiential awareness of silence, awe and wonder through an emphasis on aesthetics, atmosphere, nature and a place of silence.⁶⁹ For example, a school day could begin with ten minutes of silence or another contemplative experience during which everyone listens to music or someone reading a poem. Likewise, classes can begin with 2-3 minutes of silence to bring students into their own minds and into the present. Krishnamurti requested that schools create a specific place for silence in the physical center of the school.⁷⁰ Thus, students could have multiple opportunities for experiencing silence in both formally and informally designated spaces.

Krishnamurti schools integrate contemplation into academic content areas not by saying “now we are going to contemplate” but by examining deeply “what’s going on inside of me and how does that connect with other things, history and events?”⁷¹ Forbes suggests that many classes can discuss human nature and deliberately explore the construction of self as it appears in literature, history and other subject areas. By asking students to look at other people struggling to figure out who they are, students automatically reflect on their own nature.

According to Forbes, moments of silence, and the experience of contemplation, bridge the implicit and explicit levels of pedagogy. Therefore, examining the contexts in which contemplation is promoted is tremendously important since students need a safe place to examine the nature of ‘self’ and develop a sense of interconnection. Consequently, schools must be respectful and affectionate places in order to promote positive nurturing relationships among students, teachers and staff. From this perspective, schools that solely aim to deliver measurable

academic outcomes are unlikely to promote contemplation, love or forgiveness successfully.

Unlike most mainstream approaches to education that focus on students' futures, Krishnamurti's emphasis on the present time implicitly affirms mindfulness. Forbes writes, "When the time reference is in the future, the educator engages in X to produce Y, whereas with the time reference in the present, the educator engages in X because X is intrinsically worth engaging in."⁷²

Quaker education also affirms the importance of knowing the present moment in order to gain the first-hand, experiential awareness necessary for creating and sustaining an ethical and spiritual relationship among self, others and the world.⁷³ Silence, and the experience of silence, is fundamental to the development of conscience. In the Quaker tradition, the experience of silence, and contemplation, is radically simple in methodology.⁷⁴ The Quaker practice of the silent meeting provides a structure in which people express and experience their willingness to invite observation of inner life.

For example, Ken Jacobsen, former Headmaster of the **Olney Friends School** in Barnesville, OH, describes the importance of participating in a silent meeting each day, "We started the day sitting in a circle for fifteen minutes of silence — open silence, not absolute silence — in which anyone can share a message out loud."⁷⁵ The circle creates a spacious, calming and centering silence. In the silent meeting, students learn to sit quietly with a message before sharing out loud. Evident in the following statements, Olney graduates experience silence as part of a fluid process:

When I first came to Olney, I hated the silence because I could hear what was going on inside me. When I graduated, I loved the silence because I could hear what was going on inside me.

When I first started, silence was nothing but emptiness. Now, it is nothing but fullness.

The silent meeting in Quaker education promotes, but does not force, the development of a sense of wonder. However, for Quakers, silence is not a technique. In describing the relationship between silence and the school, Jacobsen poses the question, "Is the silence within the school or is the school within the silence?" For Jacobsen, silence is an admission of something beyond words, and all that words can create.

Rudolf Steiner's philosophy of education, as expressed in **Waldorf Education** worldwide, facilitates contemplation and hones attention

implicitly through curricula and atmosphere rather than explicitly through the use of “identifiable” contemplative or attention-training techniques. For example, Waldorf education makes extensive use of storytelling and other activities that allow inner experience. According to Waldorf educator Jack Petrash, students experience heightened attention while listening to stories, followed by a musing state that is inherently contemplative.⁷⁶ The teacher might invite students to draw or write about aspects of the story while still in the wistful state, thereby deepening the inner experience. In addition, Waldorf education uses conscious awareness of movement to enhance contemplative knowing and attention.

As with Waldorf Education, implicit and explicit contemplative practices fit within the Montessori curriculum. For example, in the Montessori preschool classroom, the teacher implicitly promotes contemplation by presenting simple, attractive activities designed to facilitate the child’s development. The teacher introduces these activities in lessons marked by silence and mindfulness. After watching attentively the children learn how to perform the activity independently. As children try the activity for themselves, they concentrate on performing the task with the same quiet mindfulness as the teacher. This method of teaching facilitates the development of the attention and concentration vital for learning.

The “silence game” is an example of Montessori’s more explicit method of teaching contemplative practice. In this game, often done in a darkened candle-lit room, the teacher asks the children if they can “make silence.” The children listen carefully for the silence while sitting quietly with their eyes closed. After about five minutes of quiet listening, the teacher asks children what they heard in the silence. An extension of this activity involves ringing a bell and asking the children to hear when the ringing stops. Another involves asking a parent to bring a sleeping baby into the classroom. The children sit together and the teacher encourages them to be as quiet as the sleeping baby. The teacher also encourages the children to observe the baby’s breathing and see if they can breathe like a sleeping baby.

In the older grades, the Montessori curriculum focuses on cooperative learning. While there is no explicit curriculum for teaching contemplative practice at this age, teachers are trained to help children develop the attributes required for cooperation such as compassion, empathy, citizenship and understanding another’s perspective. Patricia Jennings, founder and former teacher at the **Montessori Family Center** in St. Helena, CA, says, “Asking children to close their eyes and to focus on their heart was one of my favorite activities.”⁷⁷ “After a few minutes I would ask them to feel like their heart was expanding to include everyone

in the group. I found this exercise very helpful in promoting empathy and acceptance of others, a vital component of cooperation.”

In addition, many after-school and out-of-school programs involve contemplative techniques and/or foster love and forgiveness. Essentially, these programs are beyond the scope of the Mapping Report. However, the basic methodology of **Sustaining the Soul**, based in Bennettsville, SC, seems appropriate for inclusion.

Sustaining the Soul uses different modalities to support students in quieting their minds and (re)connecting to their heart. This program for emerging and seasoned student leaders above the age of thirteen functions in after-school and out-of-school settings. Sustaining the Soul utilizes four primary pathways or Journeys: Journey to the Inner Self, Journey to the Physical Self, Journey to the Creative Self and Journey from Self to Community. These Journeys can ultimately lead to inner peace and renewal, which the program identifies as critical for those who work for social justice and peace.

With the exception of the Pathway of Prayer, Sustaining the Soul’s methodology appears to be easily adaptable for use in mainstream secular school settings. The program provides a compelling model for integrating contemplative techniques with standard educational content areas including health, physical education, visual arts, performing arts and language arts. The varied methodologies support the needs of students with diverse learning styles.

According to Program Director Marian David, the use of secular meditative techniques as well as journaling is central to the Journey to the Inner Self. The Creative and Physical Journeys, as well as the Journey from Self to Community, also provide a feasible format for contemplative practices in school settings. For example, quiet consideration of the ways in which fitness can impact inner experience can enhance Physical Education programs. Similarly, attention to “eating” as a contemplative experience could enrich lessons on healthy nutrition within health education programs.

Whereas perception of oneself as lacking skill or talent discourages many students from expressing themselves creatively, Sustaining the Soul encourages individuals to “focus on the process rather than the product.” The program builds on the creative experience by exploring art as metaphor by probing with questions such as “how can I live more artfully?”⁷⁸ Other Journeys explore deepening awareness through Pathways that include humor, laughter, music, dance, movement; focus on relationships, involvement in support circles and experience of the outdoors.

Section 7: Contemplative Techniques in Pre-Service and In-Service Teacher Training

All of the programs described in this section of the report involve some type of teacher training. The nature of the trainings, as well as their depth, vary widely. In some instances, teachers build on their personal experience with contemplative practice. In other instances, teachers receive highly structured, comprehensive training specific to a particular curriculum or methodology.

The Mapping Report includes programs that provide teachers with foundational experiences which inform their entire approach to teaching. These programs create a range of opportunities for teachers to integrate contemplation into daily life including ways to strengthen self-awareness, honor “inner life,” and utilize techniques that foster the development of noble qualities. Some of the programs train teachers to use techniques or engage in creative processes that culminate in bringing contemplative understanding into the classroom.

These programs work from the premise that student-centered curricula will only succeed if those presenting the programs can successfully create a conducive classroom environment in which to present curricula and model the desired outcomes. Thus, programs that utilize contemplative techniques and/or seek to foster love and forgiveness are best presented by teachers who know how to consciously direct their attention toward engaging in contemplative experience and promoting noble qualities.

Founded by Parker Palmer, in 1994, **Courage to Teach** helps teachers across America connect with their inner experience. The program uses the term “formation” to describe the process of working with teachers to link “soul” with “role.”⁷⁹ The program asserts that teachers must be in touch with their inner experience in order to teach at their highest level. In addition, the program honors the vast potential for service through which the teacher models and actively supports students in their own process of forging inner connections.

Courage to Teach utilizes specific methodology to teach its curriculum and foster “formation.” Participating teachers, counselors and school administrators attend eight consecutive small group retreats over a two-year period, guided by trained facilitators. The program validates process over outcome. In this context, contemplation and the use of contemplative techniques play a central role. Although every Courage to Teach group has its own unique experience, certain common themes inform the program as a whole:

- Framing evocative questions;
- Welcoming silence;
- Working with paradox;
- Identifying birthright gifts;
- Using poetry and teaching stories; and
- Practicing the “clearness committee.”⁸⁰

Evaluation of Courage to Teach demonstrates many positive, durable outcomes resulting from the “formation” process.⁸¹ Courage to Teach teachers feel rejuvenated. They remark that they are more able to ‘teach from the heart’ and genuinely connect with their students. They perceive that they are better able to reflect on their own teaching practice and feel less isolated among colleagues. In addition, teachers see greater mindfulness and balance in their lives. Anecdotal evidence also suggests that Courage to Teach participants adapt many of the program’s techniques for use with students in school.

The **Contemplative Education Department at Naropa University** in Boulder, CO, offers an alternate approach to teacher training that includes pre-service as well as in-service training. The Department also offers an Alternative Licensure program through the Department of Education in Colorado. All of the programs provide a comprehensive contemplative approach using a variety of traditional and innovative contemplative techniques, both for teacher and classroom transformation.⁸² Although Naropa’s program is based on non-sectarian Tibetan Buddhist practices there is significant diversity among students’ religious traditions.

Professor Richard Brown, the program’s director, describes the philosophy of education that informs Naropa’s approach to teacher training:

On the path of contemplative teaching we develop clarity and respect for what is happening in the moment, even when it is painful.... When we honestly and compassionately manifest who we are, without attachment, we can experience ourselves and our students as ordinary and sacred. Such a genuine meeting of hearts and minds naturally gives rise to effective teaching and learning. This is education without aggression; education not

based upon fear, rigidity or control, but upon uncovering, exploring and creating a sacred world.⁸³

The Naropa program uses meditations that foster mindfulness and increase awareness as fundamental techniques in promoting teacher transformation. Methodology also includes practices that develop awareness of and presence in the teacher's body, voice and movement. One aspect of this program involves loving-kindness practices to generate love and compassion — within both the teacher and the teaching/learning relationship. Teachers learn Maitri Space Awareness, a yoga practice, as a means of experiencing a full spectrum of relational and learning dynamics.

In addition, teachers learn to extend mindfulness, awareness and sacredness into classrooms on an individual basis. Classroom practices include, listening to both sound and content, cultivating respect and caring, and developing skills to work with strong emotions. Based on teachers' experiences, it seems that curricular transformation grows naturally and uniquely from an implicit culture of mindfulness and compassion in the classroom.

Cultivating Emotional Balance (CEB), a research project of the University of California, San Francisco, and the Santa Barbara Institute, CA, also incorporates meditations and other contemplative techniques derived from Buddhist practices.⁸⁴ This eight session training program for teachers integrates contemplative practice with information and practices derived from emotion research. Teachers learn mindfulness training, meditation involving attention to breathing, techniques for settling the mind, kindness meditation and tonglen — a specific meditation to promote compassion.⁸⁵ In addition, CEB teaches about the nature of emotion.

Research is currently underway to determine the CEB's efficacy with regard to teacher outcomes. In particular, CEB aims to reduce potentially negative emotional responses and promote potentially beneficial emotional responses to others and the self, as well as foster physiological health. CEB is also the basis for the Classroom Project, which seeks to determine whether CEB improves teacher-child relations and teacher modeling behavior that, in turn, positively impacts the classroom learning climate. Measures for success include improved teaching and learning, reduced disruptive behavior and increased pro-social behavior.

Linda Lantieri founded **Project Renewal** to provide opportunities for New York City school staff to integrate the experiences they had on September 11, 2001. Project Renewal, a project of Tides Center, offers residential retreats, stress reduction days, after-school workshops, training and

consultation. The program also provides schools with the option for on-site faculty meetings, monthly workshops and yoga classes. Common themes that inform the varied activities include reducing stress, promoting resiliency, fostering self-awareness, quieting the mind, maintaining balance and increasing emotional intelligence.

As well, the program utilizes contemplative techniques to help participants access the inner life. For example, Project Renewal's methodology involves journaling, labyrinth walks, guided imagery, walking meditation, mindfulness techniques, breathing meditation, drawing and contemplative stretching. The project aims to reduce isolation by fostering inner awareness through silence as well as authentic relationships based on respectful communication.

According to Lantieri, the project aims to help teachers "have the awareness, skills and behavior to balance one's inner life so that it might reflect more of what they want to have happen in their outer life... the skills to center oneself and access deeper wisdom."⁸⁶ Project Renewal aims to foster deeper understanding among people to promote compassion, love and forgiveness.

The **Center for Contemplative Mind** in Northampton, MA, also trains youth workers, teachers and other youth-oriented professionals to use contemplative practices with youth groups. The **MPower** program introduces three general types of contemplative practices: meditation, mindful movement, and empathic dialogue. These three types of practices help young people acquire mindfulness skills in four areas:

- Insight — increasing self-awareness and comprehension of cause and effect.
- Equanimity — cultivating acceptance, calmness, patience and an inner source of positive affect.
- Empathy — discerning feelings, perceptions, values, and bias of self and other.
- Foresight — predicting the consequences of behavior and learning to make behavioral choices that achieve more satisfying results.⁸⁷

MPower focuses on working with urban, economically disadvantaged youth of color who, for the most part, have not had access to opportunities for learning contemplative skills. There are several MPower programs currently in development. For example, in March 2005, MPower initiated a sequence of two, eight-week educational sessions to

provide staff training in contemplative techniques at Brightside Center, a residential treatment program for youth. The program teaches techniques that can help staff personally and professionally, both in the context of their jobs and in relationship with the youth.

Other MPower activities include:

- Promoting links between social organizations and contemplative practices by holding a citywide networking meeting to showcase contemplative techniques. As a result, several agencies have invited MPower to speak with staff directly.
- Working with faculty at community colleges in pre-service programs that train future “youth workers.”
- Developing an accredited continuing education model for teachers and other youth-oriented professionals that will provide training in contemplative techniques.

Section 8: Synopses of Responses to Research Questions

The following section presents synopses of the responses to specific questions on the Mapping Project questionnaire and builds on the map of relevant programs. These generalizations synthesize data about the contemplative programs using information from the written questionnaire and/or verbal interview. Typically, these programs meet the most selective criteria for inclusion in the Mapping Report — in other words, they are “contemplative programs” for students in mainstream K-12 educational settings. When appropriate, the synopses also make reference to other programs to provide context for comparison.

The purpose of the Mapping Project was to define general categories for contemplative programs as well as identify the breadth of their experiences. Therefore, each synopsis below provides comprehensive, although not exhaustive information defining the landscape of school-based contemplative programs.

A. Program Descriptions

Sections 3-7 highlight specific aspects of the various programs included in the Mapping Report. Significant areas of commonality and diversity exist among the programs. At the most basic level, the programs share a commitment to using contemplative techniques for the benefit of students, their schools and society. In general, they incorporate mindfulness and a range of other contemplative techniques to train attention and promote emotional balance. The programs in the Mapping Project use many of the same techniques to present an array of creative, typically complementary models.

In addition to the similarities between specific approaches, contemplative programs — as a whole — share many of the same basic outcomes as mainstream education. The programs join schools’ intentions to enhance student learning and academic performance, improve school climate as well as promote emotional balance and pro-social behaviors. At a more fundamental level, contemplative programs are in line with schools and society at large in aiming to develop noble qualities among students. These qualities include peacefulness, internal calm, compassion, empathy, forgiveness, patience, generosity and love.

Despite their similarities, contemplative programs also exhibit significant variation. Some programs are school-based, others are community-based but given access to schools. Whereas trained schoolteachers implement some approaches, skilled members of the community also present contemplative education in the classroom as volunteers or paid

consultants. Some programs involve multiple trained teachers in a school setting in contrast to schools at which isolated teachers do “their own thing” — with or without the tacit approval of school administration. In addition, some schools reinforce the importance of contemplation and/or love and forgiveness organically through the school mission statement, daily schedule and attention to school atmosphere. In other schools, a specific contemplative program affects only a single classroom in isolation from the larger school community.

B. Origins of Programs and the Role of Personal Experience

Altruism, combined with a deep personal connection to contemplative practice, is a common motivation behind the development of contemplative programs for students or the incorporation of contemplative techniques within a broader methodology. Life experience, as opposed to an intellectual commitment to a specific philosophy, appears to be an especially powerful motivation. However, the inspiration to start religiously or philosophically-oriented schools can be closely connected to the work of particular spiritual teachers such as Krishnamurti and Shrii PR Sarkar or wisdom traditions, including Buddhism.

For many program developers, personal and very positive experiences with contemplative practices prompted the desire to introduce others to contemplative curricula. Others found their motivation in personal spiritual experiences that were not necessarily within the framework of organized religion. Having children of their own is another factor that contributed to the development of programs. For example, Amy Saltzman writes, “My experience with my children prompted me to wonder what would it be like if more children learned this life skill [mindfulness] while they were young, and remained familiar with the “still quiet place” within themselves as they grew up?”⁸⁸

Social justice experiences, such as working in urban schools during the 1960s or working with youth in homeless shelters, also inspired program development. A few people describe professional areas of interest, such as adolescent depression or mind/body science, as the catalyst for developing programs that could provide positive skills for youth. Enthusiastic responses from students continue to inspire ongoing program development.

C. Connections between Contemplation and Programs that Foster Love and Forgiveness

Almost all programs identified fostering love and forgiveness as part of their ultimate goal. However, with very few exceptions, this ultimate aim is communicated implicitly and not explicitly. The explanation is largely based on practical considerations. Schools are risk-averse and tend to embrace programs that minimize the likelihood of conflict and controversy. Whereas the current educational climate legitimizes a curricular focus on promoting empathy or kindness, the use of terms such as love and forgiveness would be largely unacceptable.

However, some programs do incorporate techniques that subtly promote love and forgiveness. Although the Shambala School has a Buddhist orientation, Principal Steve Mustain promotes a school culture in which love and forgiveness is more broadly applicable:

“Our experience is that kids want to be kind and treated kindly, but there has to be a certain level of warmth that exists in the environment for them to allow themselves to be this way. It’s almost literally like having a thermostat; if you can raise the temperature through practicing meditation, talking circles, a staff that walks the talk, reminders of who we are etc., then you can actually see that a positive atmosphere is infectious and promotes compassionate, loving relationships.”⁸⁹

Other programs provide opportunities for students to introduce topics such as love and forgiveness. For example, Yoga Ed “creates a space that allows things to come up and be dealt with, such as forgiveness.”⁹⁰ Arrays of existing programs use meditations that promote loving-kindness and compassion.

D. Research on Contemplative Programs

There is very little published scientific research on the outcomes of school-based contemplative programs. There is research on programs that use contemplative techniques as part of a more elaborate methodology. For example, research on SEL shows significant positive outcomes. However, studies on specific SEL programs do not specifically address outcomes related to contemplative techniques. Similarly, research on the EduCare Foundation’s programs focuses on the efficacy of a multi-faceted methodology that includes some contemplative techniques, but does not appear to identify outcomes directly related to contemplation.

Some contemplative programs are now in the process of actively engaging in high quality research studies. The UCLA MAPs project and Bright Light Foundation's ME program are both engaged in rigorous evaluation. The Lineage Project is working with a doctoral student to conduct research that would measure changes in self-awareness, stress and non-violent engagement. However, this first wave of rigorous research is just beginning to gather momentum and the results are yet to be published.

Despite the lack of past research, many other contemplative programs express keen interest in future evaluation. These programs typically report conducting some type of informal evaluation activities including pre- and post-tests, observation of students and built-in performance-based assessments. Research on some programs, such as HeartMath® and TM®, reinforce the need for further study.

Almost all responses to the question about research related anecdotal evidence of success. Responses indicate that teachers, school administrators and parents seem to welcome the programs. Students appear to express appreciation and demonstrate behavioral improvements. The schools feel like nicer places to be. However heartening these responses may be, the programs typically acknowledge the need for external evaluation.

In general, programs report two main research-oriented challenges: 1) identifying a qualified and interested evaluator; and 2) securing funding to cover the costs of the evaluation. Even though programs and schools are receptive to evaluation, a host of other issues complicate research. Ultimately, quantitative scientific data will be needed in order to be accepted by mainstream public education.

E. Training for Teachers and other Presenters

All of the contemplative programs identified in this report use presenters with some type of training. Some contemplative curricula provide extensive training programs for teachers. These teacher training programs help teachers gain contemplative teaching skills and develop their own personalized approaches for bringing contemplation and contemplative techniques into the classroom.

The contemplative programs identified in the Mapping Project typically use skilled presenters who gain their training in a variety of ways including:

- Certification as teachers, school social workers, nurses, school counselors, physicians and other youth-oriented professions;
- Certification in yoga and marital arts;
- Experience with meditation practice and meditation instruction;
- On-site professional development training for a specific curriculum and/or educational methodology;
- Off-site training for a specific curriculum and/or educational methodology;
- Reliance on training manuals; and
- Training in a specific methodology as applied to use with other populations, or in other settings, i.e. the MBSR model.

F. Primary Contact in the School Setting and Scheduling

Community-based contemplative programs rely on different primary contacts in the school building. In some cases, an individual teacher invited or introduced a program into the classroom — with or without explicit permission from school administrators. In other cases, school administrators were the main connection. Sometimes, parents or school board members advocate for a specific curriculum.

The programs identified in the mapping report work with students from pre-school up to 12th grade. The number of students involved in contemplative programs varies significantly program to program. Sometimes the entire school community participates in contemplative practice. In contrast, some programs had very small class sizes with just a few students at any given time. Other programs worked with intact classes in regularly scheduled class periods. Class time varied significantly as did the overall number of sessions.

G. Funding Sources and Current Needs

Above all, programs identified the need for funding as their top priority. Non-profit organizations rely on grants or donations. For-profit companies, along with some not-for profit organizations, bring in revenue through various strategies including fee-for-service arrangements, teacher training programs and/or sale of commercial products. Some

programs operate on a volunteer basis. Very few programs appear to be fully funded by schools.

In addition to financial sustainability, many programs identify research to demonstrate outcomes as their other most pressing need. However, the possibility of evaluation is essentially limited by financial constraints. In the absence of feasible external research, programs nonetheless report engaging in ongoing internal assessment to enhance program efficacy.

Section 9: Emerging Issues

The theoretical basis for integrating contemplative practices within the context of K-12 education is compelling. Analysis of the information gathered during the Mapping Project suggests a wide spectrum of programs, definitions and practices; emerging scientific research; and related issues worthy of discussion, investigation and future consideration.

The following topics detail these emerging issues:

1. Various models exist for bringing contemplative programs into K-12 educational settings. At present, few school-based contemplative programs reflect research. Instead, program design reflects the expertise and experience of the people who teach the programs. In most cases, the program content includes techniques drawn from contemplative practice outside of the education arena.
2. Further investigation is necessary in order to reach conclusions regarding program efficacy including:
 - What are the goals of contemplative programs?
 - What are the outcomes and ultimate impact of such programs?
 - What are the mechanisms needed to effect systemic change within the field of education?
 - What are the mechanisms through which contemplative programs can lead to behavioral change among students?
 - Is there a link between school-based contemplative programs and spirituality?
 - How do contemplative programs address cultural considerations, race, ethnicity, religion and socio-economic status?
 - What are the liability issues related to school-based contemplative programs?
 - What are the most appropriate, accurate and relevant ways to describe school-based contemplative programs?

- What are the characteristics of developmentally appropriate contemplative programs?
- How much time should be scheduled for the effective implementation of such programs?
- What is the relationship of contemplative programs to core educational programs and how are they integrated into the daily schedule?
- What are the guidelines that determine whether contemplative programs are appropriate for students, teachers, and other members of the school community?
- What are the applications for contemplative programs in special education settings?
- What are the core components of ‘special needs’ programs?
- Which student populations should contemplative programs target?
- How can contemplative programs align their goals with students’ needs and interests?
- Is it feasible to bring traditional spiritual values into secular settings?
- What happens should students have their own “spiritual” experiences using contemplative techniques at school?
- How can teachers and other presenters learn to separate their own, personal and spiritual understandings, from their implementation of contemplative programs?
- How do we ensure that contemplative programs are taught within a moral and ethical framework?
- Which quantitative and qualitative research designs are most appropriate for use in this field?
- Which outcomes should be measured?
- How should these outcomes be measured?

- How can programs assess their students' motivation and receptivity to contemplative practices?
- Is there a cultural shift toward the integration of contemplation in education?
- Does the conceptual framework proposed in this report provide an adequate descriptive model of the methodology and pedagogy associated with contemplative programs, as they exist today?

3. The Mapping Project used a specific definition of contemplation as the basis for criteria distinguishing contemplative programs from programs that utilize contemplative techniques within a broader theoretical framework. However, this framework is one of many ways to organize school-based contemplative programs. So too, the definition of contemplation used within the report is one among a diverse range.

A narrow definition of contemplation in education could include only those programs that directly foster mindfulness. A more general definition could include those programs that foster contemplation through various techniques such as those identified by Tobin Hart which include “not doing, deep listening, the art of pondering, guided imagery, body focusing (body scan), concentrated language and free writing.”⁹¹

Another approach to understanding mindfulness takes the definition beyond “just noticing” what is happening and includes “responding” in ways that promote emotional regulation and wellbeing. In the context of contemporary psychology, mindfulness is “an approach for increasing awareness and responding skillfully to mental processes that contribute to emotional distress and maladaptive behavior.”⁹² Contemplative programs have yet to address potential applications for the broader, clinical definition of mindfulness within school settings. At the more general level, the question remains whether any or all of these varying definitions align with current needs and goals.

So, what exactly is a contemplative program in an educational context? Do contemplative programs necessarily need to use meditation or mindfulness practices? How about other forms of mind training and attention training? What about schools that provide silent time at the start and end of the school day? To what extent do programs that focus on attention training look similar to, or different from, SEL programs that use contemplative techniques such as “quiet time” as part of a multi-faceted, but not intrinsically contemplative, approach. Does contemplation just happen or do students need to learn it? What of

specific activities including solo experiences, the use of silence, journaling, yoga, martial arts?

4. Contemplative programs and mainstream education appear to share common outcomes. Both perspectives include attention training, mind training, academic success, emotional balance, pro-social behaviors and a healthy school climate as key short-term outcomes. In addition, common ultimate outcomes include cultivating noble qualities in students such as emotional balance, peacefulness, wellbeing, compassion, gratitude, empathy, forgiveness and love.

Despite these shared outcomes, most schools do not currently incorporate contemplative programs as it has been outside the bounds of education. Perhaps it is a question of having too much to do and too few resources. Increased pressure to improve academic performance and the need to create safe and non-disruptive schools are also factors.

5. A significant challenge in designing, implementing and evaluating the outcomes of school-based contemplative programs is present when demonstrating that such programs may help schools meet common short-term and long-term outcomes more effectively. Finding the right terminology for describing the essence of contemplative programs in acceptable and comprehensible language presents another pressing challenge in presenting the case for school-based contemplative programs effectively to the education community and society at large.

6. Throughout the Mapping Project, programs evidenced a strong desire to learn about each other. However, in most instances, programs operate in isolation from one another. Many programs are engaged in parallel projects, in some cases designing curricula without knowledge of existing models. Other programs use the same techniques without awareness — or perhaps without acknowledgment — which may contribute to future questions concerning intellectual property rights. Establishing clear avenues of communication appears to be a priority, although the structure and organization remain undetermined.

7. The Mapping Project identified many contemplative models that exist outside of the mainstream education but utilize methodology that could be adapted for broader use. Religious schools such as Quaker Schools, schools based on alternative pedagogies such as Neo-Humanism as well as programs for youth at risk such as Lineage Project and Youth Horizons all have contemplative aspects that could be relevant for mainstream use.

Despite the potential for crossover, the actual feasibility of removing specific contemplative techniques from their original pedagogy remains to

be determined. A related issue is the degree to which teachers in mainstream schools are motivated to foster a contemplative environment compared with teachers in alternative settings.

8. The degree of students' motivation and resistance poses an important area for investigation among mainstream student populations, out-of-school youth and youth with special needs. For instance, are there differences in receptivity to contemplative practices between distressed youth and their less-stressed peers? Techniques that seem to be particularly effective with youth in one setting might work equally well — or not at all — with youth in another setting. Fundamental issues related to cultural, racial, ethnic, socio-economic and other types of differences are also pressing areas for further investigation.

9. Effective teacher training has a central role in program implementation and success. The Mapping Project identified several different approaches to teacher training. Although these approaches share some common characteristics, they tend to have different goals. Some models promote contemplative practice for the teachers' direct benefit, while others train teachers to implement contemplative curricula with students. Future research is necessary to examine the role of teachers in the implementation of contemplative programs as well as the role of contemplative practice in teacher training.

Section 10: References

- ¹ James W. *The Principles of Psychology*. New York, NY: Dover Publications. 1890/1950.
- ² Hart T. Opening the contemplative mind in the classroom. *Journal of Transformative Education*. 2002;2(1):28-46.
- ³ Kabat-Zinn, J. *Mindfulness Meditation for Everyday Life*. New York, NY: Hyperion. 1994.
- ⁴ Marlatt GA, Kristeller JL. "Mindfulness and Meditation." In: Miller WR, ed. *Integrating Spirituality into Treatment: Resources for Practitioners*. Washington, DC: American Psychological Association. 1999.
- ⁵ Amishi Jha. Personal communication. May, 2005.
- ⁶ *History*. Center for Mindfulness in Medicine, Health Care, and Society. Available at: www.umassmed.edu/cf. Accessed: March 31, 2005.
- ⁷ *Stress Reduction Program*. Center for Mindfulness in Medicine, Health Care, and Society. Available at: www.umassmed.edu/cf. Accessed: March 31, 2005.
- ⁸ Florence Meleo-Meyer. Personal communication. March, 2005.
- ⁹ Ibid.
- ¹⁰ Gordhamer S. CBO uses yoga to focus residents. *Around DJJ*. Fall 2000:2.
- ¹¹ *Our Programs*. Lineage Project. Available at: www.lineageproject.org. Accessed: January 27, 2005.
- ¹² Zimmerman J. *The Way of Council*. North Bergen, NJ: Bramble Books. 1996.
- ¹³ Andrew Getz. Personal communication. February, 2005.
- ¹⁴ *Mindful Awareness Classes For Children*. InnerKids Foundation. 2004
- ¹⁵ Ibid.
- ¹⁶ Suisan Kaiser. Personal communication. January, 2005.
- ¹⁷ Ibid.
- ¹⁸ *Mindfulness Studies in Elementary and High Schools*. Bright Light Foundation. Available at: www.brightlightfoundation.org. Accessed April 1, 2004.
- ¹⁹ Winston D, Sundberg H. *Meditation: An Eight-Week Course for the Classroom*. Aurora, CO: Impact Foundation. 2004.
- ²⁰ Ulco Visser. Personal communication. January, 2005.
- ²¹ Forbes D. *Boyz 2 Buddhas*. New York, NY: Peter Lang. 2004.
- ²² Ibid.
- ²³ Gary Tubbs. Personal Communication. March, 2005.
- ²⁴ *School Health: Education Initiative*. The Mind Body Medical Institute. Available at: www.mbmi.org. Accessed: January 24, 2005.
- ²⁵ *The Relaxation Response: Elicitation of the Relaxation Response*. The Mind Body Medical Institute. Available at: www.mbmi.org. Accessed: March 29, 2005.

- ²⁶ *School Health: Research*. The Mind Body Medical Institute. Available at: www.mbmi.org. Accessed: January 24, 2005.
- ²⁷ McCraty R. *The Scientific Role of the Heart in Learning and Performance*. Boulder Creek, CA: HeartMath Research Center. 2002.
- ²⁸ Arguelles L, McCraty R, Rees R. The heart in holistic education. *Encounter: Education for Meaning and Social Justice*. 2003;16(3):13-21.
- ²⁹ *Research Overview*. Institute of HeartMath. Available at: www.heartmath.org/research/research-overview.html. Accessed: January 24, 2005.
- ³⁰ Deborah Tackman. Personal communication. October, 2004.
- ³¹ Adam Bernstein. Personal communication. March, 2005.
- ³² Eliana Morris. Personal Communication. January, 2005.
- ³³ Marilyn Howell. Personal communication. November, 2004.
- ³⁴ *Public School Programs*. US Yoga Association. Available at: www.usyoga.org. Accessed: December 7, 2004.
- ³⁵ Leah Kalish. Personal communication. September, 2004.
- ³⁶ Buckley A. *Kids Yoga Deck*. 2004.
- ³⁷ Annie Buckley. Personal communication. September, 2004.
- ³⁸ Jennifer Mansfield. Personal communication to Beth Killip. June, 2004.
- ³⁹ *Introduction to SEL: What is SEL*. CASEL. Available at: www.casel.org. Accessed: January 19, 2005.
- ⁴⁰ *Introduction to SEL: Why is SEL Important?* CASEL. Available at: www.casel.org. Accessed: January 19, 2005.
- ⁴¹ Ibid.
- ⁴² *Introduction to SEL: SEL Competencies*. CASEL. Available at: www.casel.org. Accessed: January 19, 2005.
- ⁴³ Elliott DS, ed. *Blueprints for Violence Prevention; Promoting Alternative Thinking Strategies (PATHS)*. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado. 2002.
- ⁴⁴ Goleman D. *Destructive Emotions*. New York, NY: Bantam Dell. 2003.
- ⁴⁵ *Blueprints for Violence Prevention; Promoting Alternative Thinking Strategies*.
- ⁴⁶ John Payton. Personal communication. March, 2005.
- ⁴⁷ Kreidler W, et al. *ESR Elementary/Middle Schools Trainer Manual*. Cambridge, MA: Educators for Social Responsibility. 1998.
- ⁴⁸ Kreidler W et al. *Resolving Conflict Creatively Program Elementary/Middle School Participants Manual*. Cambridge, MA: Educators for Social Responsibility. 1998.
- ⁴⁹ Seigle P, Lange L, Macklem G. *Open Circle Curriculum*. Wellesley, MA: Wellesley College. 2004.
- ⁵⁰ Pamela Siegle. Personal communication. March, 2005.

- ⁵¹ Kessler R. "Soul of Students, Soul of Teachers: Welcoming the Inner Life to School." In: Lantieri L, ed. *Schools with Spirit: Nurturing the Inner Lives of Children and Teachers*. Boston, MA: Beacon Press. 2001.
- ⁵² Rachael Kessler. Personal communication. May, 2005.
- ⁵³ *ACE Program Details*. EduCare Foundation. Available at: www.educarefoundation.com. Accessed: January 25, 2005.
- ⁵⁴ Semigran S. *The Practice of Love and Forgiveness in the Lives of Youth*. 2002.
- ⁵⁵ Valentino Giacomini. Personal communication. January, 2005.
- ⁵⁶ *Interview with Valentino Giacomini by Mark Singleton, May 1, 2000*; Alice Project. Available at: www.aliceproject.org. Accessed May 13, 2005.
- ⁵⁷ Steve Mustain. Personal communication. October, 2004.
- ⁵⁸ Ibid.
- ⁵⁹ Stephanie Kenney. Personal communication. October, 2004.
- ⁶⁰ Eileen Elsinger. Personal Communication. January, 2005.
- ⁶¹ Maharishi University School of Management. *Summary of Scientific Research on Consciousness-Based Education*. Maharishi School of the Age of Enlightenment. 2001.
- ⁶² Ibid.
- ⁶³ Rita Benn. Personal communication. March, 2005.
- ⁶⁴ *Neo Humanist Education*. Ananda Marga Gurukula. Available at: <http://nhe.gurukul.edu/education.html>. Accessed: January 28, 2005.
- ⁶⁵ Ibid.
- ⁶⁶ Eric Jacobson. Personal communication. November, 2004.
- ⁶⁷ Scott Forbes. Personal communication. October, 2004.
- ⁶⁸ Ibid.
- ⁶⁹ Forbes SH. "Krishnamurti's Approach to Education." In: Miller JP, Nakagawa Y, eds. *Nurturing our Wholeness: Perspectives on Spirituality in Education*. Brandon, VT: Foundation for Educational Renewal. 2002.
- ⁷⁰ Ibid.
- ⁷¹ Scott Forbes. Personal communication. October, 2004.
- ⁷² Ibid.
- ⁷³ Miller R. "That of God in Everyone' The Spiritual Basis of Quaker Education." In: Miller JP, Nakagawa Y, eds. *Nurturing our Wholeness: Perspectives on Spirituality in Education*. Brandon, VT: Foundation for Educational Renewal. 2002.
- ⁷⁴ Ken Jacobsen. Personal communication. March, 2005.
- ⁷⁵ Ibid.
- ⁷⁶ Jack Petrash. Personal communication. January, 2005.
- ⁷⁷ Patricia Jennings. Personal communication. April, 2005.
- ⁷⁸ David M, Browder A, Toole P. *Sustaining the Soul that Serves: A Guide to Sustain Emerging and Seasoned Leaders*. Bennettsville, SC: Sustaining the Soul that Serves. 2000.

- ⁷⁹ Palmer P, Jackson M, Jackson R, Sluyter D. "The Courage to Teach: A Program for Teacher Renewal." In: Lantieri L, ed. *Schools with Spirit*. Boston, MA: Beacon Press. 2001.
- ⁸⁰ Ibid.
- ⁸¹ Ibid.
- ⁸² Richard Brown, Personal communication. November, 2004.
- ⁸³ Brown C. "Taming Emotion: Tibetan Meditation in Teacher Education." In: Miller JP, Nakagawa Y, eds. *Nurturing our Wholeness: Perspectives on Spirituality in Education*. Brandon, VT: Foundation for Educational Renewal. 2002.
- ⁸⁴ Patricia Jennings. Personal communication. March, 2005.
- ⁸⁵ Margaret Kemeny. Personal communication. March, 2005.
- ⁸⁶ Linda Lantieri. Personal communication. August, 2004.
- ⁸⁷ Rene Theberge. Personal communication. February, 2005.
- ⁸⁸ Amy Saltzman. Personal communication. October, 2004.
- ⁸⁹ Steve Mustain. Personal communication. October, 2004.
- ⁹⁰ Leah Kalish. Personal communication. September, 2004.
- ⁹¹ Hart T. Opening the contemplative mind in the classroom. *Journal of Transformative Education*. 2002;2(1):28-46.
- ⁹² "Mindfulness and Meditation." In: Miller WR, ed. *Integrating Spirituality into Treatment*.

Appendix I: Overview of Garrison Institute's Program on Contemplation and Education Activities 2004-2005

Garrison Institute's initial goals for the Program on Contemplation and Education were to explore and identify ways for Garrison Institute to serve as a catalyst in the development of contemplative programs appropriate for mainstream K-12 settings in the 21st century. To realize these goals, the Program had to gain an understanding of existing programs, determine current needs and assess immediate challenges.

During its first year, the Program's two main activities were the Mapping Project and subsequent Symposium on Contemplation and Education. As a result of these two activities, the Program developed a clear direction that is now informing the design of future programming. Next steps will promote the development and use of contemplative strategies to train K-12th grade students in enhancing and sustaining attention to improve well being, strengthen academic performance and support emotional balance.

Although the Mapping Project preceded the Symposium chronologically, the two projects developed simultaneously. The interrelationships between the Mapping Project and the Symposium exist at many levels both for Garrison Institute and the community at large. For example:

- Whereas the Mapping Project functioned, in part, as a needs assessment concerning future programming, the Symposium provided a venue for presenting the Project's findings.
- While the Mapping Project sought to identify the range of programs using contemplative techniques in schools, educators at the Symposium presented detailed information explicating some of the common themes between programs, showcasing specific approaches as well as addressing best practices.
- Although the Mapping Report briefly addresses the importance of scientific research and identifies some of the more critical and relevant issues pertaining to research on the effects of contemplation in educational settings, the Symposium provided an opportunity for leading researchers to present unpublished data on their current work.
- Whereas the Mapping Project research identified leaders with varied expertise working in the field of contemplation and education, the Symposium brought them together to engage in

- interdisciplinary dialogue addressing broad ranging issues while honoring the specifics of their own programs or research.
- Whereas the Mapping Project identified a prevalent sense of isolation and fragmentation among contemplative programs, Garrison Institute designed the Symposium to provide a venue for building community and promoting networking.
- While the Symposium introduced a great deal of the information contained within the Mapping Report, the dynamic interchange at the Symposium provided confirmation for the Report's conceptual framework and enhanced the presentation of data.
- Finally, the Mapping Project and Symposium both provided Garrison Institute with progressively more detailed information valuable in informing the future direction of the Program on Contemplation and Education.

The Symposium on Contemplation and Education, April 4-6, 2005, brought together thirty-four leading scientists, physicians, psychologists, educators, people providing mindfulness education programs in schools, program officers, contemplative practitioners and others working in the field of contemplation and education. During the Symposium, participants shared their work through presentations and dialogue.

The role of science in the development, implementation and evaluation of mindfulness education was central to discussion. In particular, attendees examined how techniques that train K-12th grade students in developing, enhancing and sustaining attention are linked to educational success and contemplative practice. The Symposium concluded with open discussion about emerging issues.

The Symposium commenced with an evening presentation by Saki Santorelli, EdD, and Florence Meleo-Meyer, MA. They provided an overview of scientific research concerning mindfulness and the use of mindfulness techniques as developed at the Center for Mindfulness at the University of Massachusetts. The Center for Mindfulness in Medicine, Health Care and Society is an outgrowth of the Stress Reduction Clinic founded by Jon Kabat-Zinn, PhD, in 1979. The Center's program and activities created a historical context for the Symposium. The evening presentations concluded with contemplative practice that incorporated techniques used within the programs underway at the Center for Mindfulness.

The second day commenced with an early morning contemplative practice led by Tobin Hart, PhD, founder of the ChildSpirit Institute. Meetings began with a welcome address by Contemplation and Education Program Advisor, Theo Koffler. She set the tone for the Symposium by acknowledging the shared commitment to understanding the relationship between contemplation and education — as a whole and in its parts. Ms. Koffler invited participants to see the Symposium as a unique setting for exploration of emerging ideas with the potential to shift the current educational paradigm.

The morning program began with a presentation which highlighted the results of Garrison Institute’s Mapping Project by Contemplation and Education Program Director Deborah Schoeberlein. The symposium’s Scientific Coordinator, Amishi P Jha, PhD, Assistant Professor of Psychology, University of Pennsylvania, then addressed relationships between mindfulness training, attention and cognitive neuroscience.

The next five presentations provided snapshots of current scientific research related to contemplation and education:

- Patricia Jennings, PhD, Project Director of the Cultivating Emotional Balance project, University of California, San Francisco, Health Psychology Program, presented her current research on Cultivating Emotional Balance and The Classroom Project.
- Kimberly Schonert-Reichl, PhD, Associate Professor, University of British Columbia, discussed the role of socio-emotional competence in students’ school success and provided an overview of “The Roots of Empathy Program.”
- Susan Smalley, PhD, Co-Director, Center for Neurobehavioral Genetics at UCLA School of Medicine, addressed cognitive/attentional development, the development of empathy in children, and current research on the efficacy of mindfulness awareness programs in promoting attention, balance and compassion.
- Gianni Faedda, MD, Director of the Lucio Bini Mood Disorders Center, New York, addressed dysfunctional development and challenges regarding treatment and diagnosis of mood and attentional disorders in an education context.
- Rita Benn PhD, Director of Education, Michigan Integrative Medicine, University of Michigan, presented issues regarding research methodology for use with large-scale school-based

interventions, including an overview of her research on the use of TM® in a mainstream school setting in Detroit, MI.

In the evening, Pam Siegle, Executive Director of the Open Circle Program, involved participants in experiential techniques to demonstrate applications for the use of contemplative techniques in teacher training, using the Open Circle Program as a case study. Richard Brown concluded the program with a presentation on Naropa University's approach to contemplative education during pre-service and in-service training for teachers.

The final day of the Symposium commenced with T'ai Chi practice led by Theo Koffler and focused on education and contemplative programming. The morning program began with Chelsea Bailey, PhD, Assistant Professor at New York University, who provided a historical perspective that highlighted the evolution of educational pedagogy in the American public school system. Her presentation examined potential applications for the use of contemplative programs in schools and identified possible areas for resistance.

The next presentation on education highlighted the creative educational pedagogy and non-sectarian methodology used by the Alice Project in India. Co-founder Valentino Giacomini answered questions in an interview format providing information about the Alice Project's 'wisdom-based education.' In particular, he demonstrated developmentally appropriate methods for helping students and teachers gain insight regarding the source of thoughts and their impact on the learning environment.

Rachael Kessler, MA, Executive Director of the PassageWays Institute, followed with an address relevant to program development and design strategy that facilitates program introductions into public school settings. Soren Gordhamer, founder of the Lineage Project, concluded the morning program with an address focused on issues related to the use of contemplative techniques with youth operating outside of the mainstream educational system. Vignettes of his personal experience teaching mindfulness to youth in the juvenile justice system emphasized the importance of aligning program content with youth's interests and concerns. The Symposium concluded with an open dialogue among the participants, identifying areas for further discussion and inquiry.

The Garrison Institute Symposium on Contemplation and Education created a venue for bringing together many of the leaders in the field of contemplation and education. In addition to providing presentations on research and educational programs, the Symposium fostered creative, dynamic conversations to foster collaboration. The dialogue facilitated

understanding, generated awareness and enhanced recognition of existing programs and research. The Symposium also provided a platform for building new relationships.

The Symposium met its objectives. The intensive collaboration honored the richness that already exists in the field of contemplation and education, and created a forum for the emergence of new ideas, existing challenges and limitless possibilities.

Appendix II: Mapping Project Questionnaire

Program Contact Information

Your Name

Name of Program

Address

Telephone

Email

Research Questions

1. Please describe program details.
2. How long has your program been in existence?
3. What inspired you to develop this type of curriculum?
4. What age are your students?
5. How long are your instruction periods and how many students in each class?
6. Please describe the techniques used.
7. Was your curriculum modeled from another program?
8. What positive and/or negative feedback have you received from students/teachers/administrators and/or parents?
9. Where did you and your presenters gain their expertise?
10. What if anything would you do to improve your program?
11. Have you published any articles? If so, would you please send us an electronic file?
12. Do you have any referrals? If so, please share their contact information.

Appendix III: Mapping Report Participants

The Garrison Institute greatly appreciates the efforts, attention and enthusiasm of the many people who so generously contributed to the Mapping Project, including:

Jennifer Akey	Tobin Hart
Maggi Alexander	Andrew Hartman
Cathe Allen	Robert Hayes
Carl Arico	Marilyn Howell
Chelsea Bailey	Diana Hughes
Josh Baran	Rick Jackson
Rita Benn	Ken Jacobsen
Ariel Berg	Eric Jacobson
Adam Bernstein	Patricia Jennings
Gabriella Boehmer	Amishi Jha
Richard Brady	Aostre Johnson
Jerry Braza	Brian Kabaker
Arete Brim	Susan Kaiser-Greenland
Patricia Broderick	Leah Kalish
Richard Brown	Margaret Kemeny
Annie Buckley	Stephanie Kenney
Mirabai Bush	Rachael Kessler
Sheldon Clark	Beth Killip
Peter Cobb	Debby King
Karen Dahl	Wendy Knight
Marian David	Louann Krebs
Fred Eckhart	Grzegorz Kusnierz
Krs Edstrom	Linda Lantieri
Eileen Elsinger	Noah Levine
Dawn Engle	Ellen Lichtig
Gianni Faedda	Bob London
Marisa Ferrera	Darlene Lorraine
Susan Finley	Antoine Lutz
Nancy Fischer	Leslie MacKrell
David Forbes	Annie Mahon
Scott Forbes	Veanne Maxwell
Gil Fronsdal	Metta McGarvey
Andrew Getz	Edward Meehan
Valentino Giacomini	Florence Meleo-Meyer
Jeff Goelitz	Jack Miller
Daniel Goleman	Eliana Morris
Soren Gordhamer	Steve Mustain
Mark Greenberg	Eric Nelson
Ivan Hageman	Linda Nessel

Jan B Newman
Carmen N'namdi
Mary Utne O'Brien
Anja-Karina Pahl
John Payton
Jack Petrash
Bethany Queene Preston
Gene Roehlkepartain
David Rome
Diana Rose
Boston Russell
Sharon Salzberg
Amy Saltzman
Saki Santorelli
Dina Scalone
Kimberly Schonert-Reichl
Jon Schottland
Pamela Seigle
Tim Seldin
Jennifer Selfridge
Stu Semigran

David Singer
Sue Smalley
Temple Smith
Pamela Sook
Alexandra Stanculescu
Itamar Stern
Robin Stern
George Stranahan
Deborah Tackman
Rene Theberge
Susan Theberge
Ann Thurber
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Ulco Visser
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Appendix IV: Participant Organization Contact Information

The following participant organizations are listed in order in which they were mentioned in the Mapping Report. Out of respect for the privacy of participant organizations, this appendix includes only publicly available contact information. However, Garrison Institute would be pleased to assist you with contacting particular participants, if needed.

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The Lineage Project
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Youth Horizons
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Mindfulness Education for Children & Bright Light Foundation
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The Impact Foundation
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The New School
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www.seattleschools.org/schools/southshore
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Mind Body Medical Institute (MBMI) Education Initiative
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HeartMath®
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Yoga Ed
Leah Kalish, Program Director
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The Kids Yoga Deck
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Promoting Alternative Thinking Strategies (PATHS)
Channing Bete Company, Inc.
One Community Place
South Deerfield, MA 01373-0200
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Resolving Conflict Creatively Program (RCCP)
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Nataki Talibah Schoolhouse
19176 Northrop Street
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313-531-3720

The Progressive School of Long Island
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Brockwood Park Krishnamurti Education Center
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Quaker Education
www.friendscouncil.org

Waldorf Schools
Association of Waldorf Schools of North America
3911 Bannister Road
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awsna@awsna.org
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916-961-0927

Montessori Education
281 Park Avenue South
New York, NY 10010
www.amshq.org
212-358-1250

Sustaining the Soul
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The Courage to Teach
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Contemplative Education Department
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Cultivating Emotional Balance
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Garrison Institute Report

Contemplation and Education
Scientific Research Issues Relevant to
School-based Contemplative Programs:
A Supplement

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October 2005

1. Program Development and Existing Research

A common approach to developing contemplative programs for children is to alter well-established programs in adults and make them developmentally appropriate. This approach offers a starting point from which to design curricular models. However, this strategy is deceptively simple. Multiple challenges complicate the process of adapting programs for adults to meet the developmental needs of children.

There is growing support from research on adults that contemplative practices have profound mind-body effects that influence physiologic-, cognitive-, affective- and social-regulation systems.^{1 2 3} These systems are in a rapid state of flux during child development.⁴ Therefore, modifying adult programs to make them suitable for children might involve alterations that are not obvious. Children are not simply “little adults.”

One promising strategy is to incorporate well-established findings from the fields of developmental cognitive, affective, and social neuroscience in the creation of contemplative programs of K-12 settings. Curriculum developers might consider the stages of brain development as they determine a program’s content and tasks for different grades. For example, the prefrontal cortex, a region of the brain critical for cognitive and emotional self-regulation, does not fully mature until twenty-five years of age.^{5 6 7} In contrast, neural systems for emotional evaluation, memory formation, and attentional orienting mature fully much earlier in development.^{8 9}

On the one hand, limiting instruction and training to developmentally appropriate practices — as opposed to involving tasks that students are simply unable to perform — might lower the potential for students’ frustration and confusion. On the other hand, contemplative practices that are appropriately challenging for children might have profound effects and transformative power on children’s rapidly changing brains. During development neural systems, are flexibly organized which means that powerful experiences can have significant impact in later functioning. However, research has yet to determine which aspects of cognitive and socio-emotional processing are most likely to maximize the positive benefits of contemplative practice for children.

Developmental considerations and implementation strategies are both relevant to the design of successful programs. With regard to introducing programs into schools, research on contemplative programs could provide powerful evidence in support of program efficacy. Thus, there are multiple ways in which research (past and future) might potentially benefit contemplative programming in the K-12 educational context.

As mentioned in the Mapping Report, to date there are very few published peer-reviewed reports of contemplation programs. These studies only provide scant details about the programs.^{10 11 12 13 14} They principally report on outcome measures in the realm of physiologic (e.g., heart rate, flexibility, blood pressure, respiration rate, EEG activity) as opposed to cognitive/affective and social functioning in children. Some studies have investigated cognitive changes in children, but the interventions are less programmatic and more short-term self-selected activities in children.^{15 16}

Furthermore, although many informal studies report encouraging findings, their failure to use standard research methodology (e.g., randomized trials, appropriate sample sizes, statistical validation of reported effect sizes), makes interpretation of results difficult. In addition to the dearth of research, there is little agreement on how to measure program effectiveness or what features of the program are important to measure. An exception is in the rapidly growing field of social emotional learning, mentioned briefly within the Mapping Report.¹⁷

Even though prior research is incomplete, a pervasive theme across these studies is that contemplative practices appear to result in positive mind-body improvements in children. Just what these mind-body improvements are, and how best to assess them with greater precision, remain as significant questions for future research.

2. Research Approaches and Suggestions for Future Work

There are three main approaches that measure program effectiveness. The first involves use of self-report instruments (questions) given to students and/or teachers. Self-report instruments ask for ratings of one's own behavior, social interactions and style, or emotional state. Although many instruments exist, few are appropriate for children (e.g., POMS, DEX, PANAS). Most self-report instruments require completion of a paper and pencil questionnaire that asks for Likert scale ratings (i.e., ratings on a scale of 1 to 5; 1) always, 2) mostly, 3) sometimes, 4) not often, 5) never).

Unfortunately, a limitation of the self-report approach is that the measures require a high degree of metacognitive awareness, which is an awareness of one's own thoughts, feelings and actions. Children are particularly deficient at metacognition.¹⁸ This might be because metacognitive skills rely on mature functioning of the prefrontal cortex. Thus, in addition to other limitations of self-report questionnaires such as response biases and subjectivity, their use is particularly problematic in children.

A second approach to measure program efficacy involves evaluating data already acquired in the school context, such as grades, truancy, social-disruptive behavior and school-violence. Such measures are relatively more objective and do not require self-report. In addition, they are time-efficient, cost-effective, and minimally disruptive since schools already collect this information for their own purposes. In general, these types of evaluation tools have the best chances of being implemented in schools.

However, there are drawbacks to measuring program efficacy by means of this type of data. For example, outcome data such as improved academic performance or decreases in disruptive/destructive behavior alone would not reveal the mechanisms by which a given contemplative program promoted these positive behavior changes. Thus, use of these objective measures, alone, limits the ability to assess which aspects of the program are necessary to produce positive results.

A third approach is to conduct experiments that evaluate particular aspects of programs. In general terms, this would mean assigning students and/or classrooms to a program and evaluating performance on a particular experimental task in two ways: 1) comparing task performance before vs. after program participation; and 2) comparing task performance between experimental and control groups. These could be tasks of memory, theory of mind, social and emotional evaluation, attention and cognitive regulation. Researchers have used this approach extensively to evaluate the efficacy of many reading programs.¹⁹

This approach can include different types of measures such as behavioral performance or neural measures (functional MRI). Behavioral performance allows assessment of changes in the functioning systems during experimentation (memory, attention, social-emotional processing). In contrast, neural measures allow for assessment of whether those behavioral changes are due to improved efficiency of the brain, recruitment of new brain areas, or reorganization of functional connections between brain regions.

Even the most careful research approach would be for naught without a good research question. For the current purposes, the research question hinges on delineating which aspects of behavior are most critical in evaluating contemplative programs. The Mapping Report highlighted two emerging themes that contemplative programs as well as mainstream education share the desire to improve: 1) cognitive/attentional control in students (attention training and academic success); and 2) social/emotion control (emotional balance and pro-social behaviors).

Since the brain regions supporting both types of control mature quite late, examining subcomponents of each type of control might help with both program development and evaluation. The area of attention is one area already being researched. All forms of attention guide the processing of relevant information and minimize the processing of irrelevant information. However, specific features distinguish attentional subsystems.

There are three main attentional subsystems: alerting, orienting, and conflict monitoring. Many recent studies have investigated the cognitive and neural bases of these subsystems. Briefly, alerting consists of achieving and maintaining a vigilant or alert state of preparedness for fight or flight decisions. Orienting restricts processing to those inputs relevant for the current task goals. Conflict monitoring resolves conflict between goals and performance, and prioritizes among competing tasks.²⁰ Each of these systems relies on different, and overlapping, brain regions including prefrontal cortex, parietal cortex, and sensoriperceptual cortices.

The developmental trajectories of the brain regions associated with attentional subsystems differ. Recent reports suggest that alerting and conflict monitoring development continue until the early 20s, while orienting reaches adult-like levels by the age of seven.^{21 22 23 24} Therefore, focusing on specific aspects of attention — as opposed to examining attention overall — might allow for better assessment of the effects of contemplative practices in the K-12 education context.

In conclusion, the “state of the field” demonstrated in the Mapping Report highlights a disproportionate ratio of programs-to-research. The time is right to begin to equalize the two. One starting point is to include developmentally appropriate research questions and methods as an integral part of program development. Also important is the integration of research into strategies that promote the use of such programs in schools. Close collaboration between program developers and researchers is likely to yield beneficial results overall.

References

- ¹ Davidson RJ et al. Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*. 2003;65(4):564-570.
- ² Lutz A, et al. Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *Proceedings of the National Academy of Sciences of the United States of America*. 2004;101(46):16369-16373.
- ³ Wenk-Sormaz H. Meditation can reduce habitual responding. *Alternative Therapies in Health and Medicine*. 2005;11(20): 42-58.
- ⁴ Elias MJ, Weissberg RP. Primary prevention: educational approaches to enhance social and emotional learning. *Journal of School Health*. 2000; 70(5):186-190.
- ⁵ Levesque J et al. Neural basis of emotional self-regulation in childhood. *Neuroscience*. 2004;129(2):361-369.
- ⁶ Diamond A, Taylor C. Development of an aspect of executive control: development of the abilities to remember what I said and to “Do as I say, not as I do.” *Developmental Psychology*. 1996;29:315-334.
- ⁷ Diamond A, Goldman-Rakic PS. Comparison of human infants and rhesus monkeys on Piaget’s AB task: evidence for dependence on dorsolateral prefrontal cortex. *Experimental Brain Research*. 1989;74(1):24-40.
- ⁸ Development of an aspect of executive control: development of the abilities to remember what I said and to “Do as I say, not as I do.”
- ⁹ Comparison of human infants and rhesus monkeys on Piaget’s AB task: evidence for dependence on dorsolateral prefrontal cortex.
- ¹⁰ Manjunath NK, Telles S. Spatial and verbal memory test scores following yoga and fine arts camps for school children. *Indian Journal of Physiology & Pharmacology*. 2004;48(3):353-356.
- ¹¹ Kim YY et al. Changes after EEG of children during brain respiration-training. *American Journal of Chinese Medicine*. 2002;30(2-3):405-417.
- ¹² Kemper J et al. Teaching an integrated approach to complementary, alternative, and mainstream therapies for children: a curriculum evaluation. *Journal of Alternative & Complementary Medicine*. 1999;5(3):261-268.
- ¹³ Smith MS, Womack WM. Stress management techniques in childhood and adolescence. Relaxation training, meditation, hypnosis, and biofeedback: appropriate clinical applications. *Clinical Pediatrics*. 1987;26(11):581-585.
- ¹⁴ Linden W. Practicing of meditation by school children and their levels of field dependence-independence, test anxiety, and reading achievement. *Journal of Consulting & Clinical Psychology*. 1973;41(1)139-143.
- ¹⁵ Spatial and verbal memory test scores following yoga and fine arts camps for school children.

- ¹⁶ Telles S et al. Plasticity of motor control systems demonstrated yoga training. *Indian Journal of Psychology & Pharmacology*. 1994;38(2):143-144.
- ¹⁷ Payton JW et al. Social and emotional learning: a framework for promoting mental health and reducing risk behavior in children and youth. *Journal of School Health*. 2000;70(5):179-185.
- ¹⁸ Eslinger PJ et al. Developmental outcomes after early prefrontal cortex damage. *Brain & Cognition*. 2004;55(1):84-103.
- ¹⁹ McCandliss BD, Noble KG. The development of reading impairment: a cognitive neuroscience model. *Mental Retardation & developmental Disabilities Research Reviews*. 2003;9(3):196-204.
- ²⁰ Fan J et al. Testing the efficiency and independence of attentional networks. *Journal of Cognitive Neuroscience*. 2002;14(3):340-347.
- ²¹ Rueda MR et al. Development of attentional networks in childhood. *Neuropsychologia*. 2004;42(8):1029-1040.
- ²² Casey BJ et al. Early development of subcortical regions involved in non-cued attention switching. *Developmental Science*. 2004;7(5):534-542.
- ²³ Casey BJ. Brain plasticity, learning, and developmental disabilities. *Mental Retardation & Developmental Disabilities Research Reviews*. 2003;9(3):133-134.
- ²⁴ Casey BJ. Images in Neuroscience. Brain development. XII. Maturation in brain activation. *American Journal of Psychiatry*. 1999;156(4):504.