



Adjusting Brain Waves, One School At A Time

by Julie Deife

Hope is in the air. It could mean student success and systemic change for a failing education system, and it is coming from an unusual source: the Transcendental Meditation (TM) program introduced to the world more than 40 years ago by Maharishi Mahesh Yogi, rebranded and artfully packaged as Stress-Free Schools.

The TM Stress-Free Schools program has been adopted in thirteen schools nationwide, most of them in only the last three years, after the David Lynch Foundation for Consciousness-Based Education and World Peace turned its focus to this cause. Stress-Free Schools' emergence coincides with a surge of interest in consciousness and a national fear that our schools are failing. No small coincidence either that meditation is no longer a stranger to mainstream America or that the Transcendental Meditation program has played a large part in this marvel that didn't happen overnight.

Transcendental Meditation is an ancient technique derived from Vedic wisdom. It allows the practitioner to contact the field of pure being, the limitless ocean of life described by physicists as the Unified Field. Learning TM involves receiving a mantra (sacred syllable) and instructions from a TM teacher. The student learns to let go and 'dive in' to the field of pure consciousness, twice daily for about twenty minutes each session through silent repetition of the mantra to focus the mind. Other meditation techniques may also facilitate entry into the Unified Field for dedicated practitioners over time, but the spread of TM has been quickened through its simplicity and ability to produce fast results.

Early on an astute Maharishi invited scientists to research the effects of TM, a move that yielded over 600 published scientific studies, many of which have been verified independently. TM researchers collected a body of evidence showing TM reduces stress, increases IQ scores, improves brain function and brain coherence, improves job satisfaction and productivity, reduces substance and alcohol abuse, decreases violent behaviors and positively impacts a host of other issues that students and schools grapple with daily.

World-renowned filmmaker David Lynch (Twin Peaks, Mulholland Drive, Eraserhead, Inland Empire) came to TM thirty-four years ago as a self-described "fairly miserable struggling artist," because he heard a distinct change in his sister's voice after she'd begun practicing TM. Today, after not missing a single meditation session in all that time, Lynch is an unusually articulate spokesperson for Transcendental Meditation, consciousness and creativity, publicly testifying to the power of TM by recounting his experiences. Lynch is one of many high-profile individuals attracted to TM and the Maharishi; most notably was the Beatles whose fame and political positions helped popularize TM.

Lynch describes accessing the Unified Field as "pure bliss," "transcendent," "thrilling" and "every human's birthright" – language that is probably not going to convince school boards that

students should do TM. He does, however, paint a clearer construct of Consciousness-based Education through a nature-based analogy wherein the Unified Field is likened to an actual field of soil. As with any field, if the soil is tended well, the plants will be healthier, Lynch explains. When the focus is on the leaves as opposed to the condition of the soil, it exemplifies a symptomatic approach akin to prescribing drugs for the leaves of violence, anger, hatred or fear that are a result of bad soil. As the soil of pure consciousness expands unhealthy leaves will be replaced by leaves of peace, love, harmony and creativity.

The David Lynch Foundation initially focused its efforts on peace through the TM program, predominantly on college campuses. Recently the emphasis shifted to teenagers and the idea of education reform, supporting work already begun by the Maharishi organization. Through the Foundation, David Lynch has made a commitment to "ensure that any child in America and around the world who would like to learn to meditate can." Finding the means to fulfill this promise is at least as astounding as the promise itself since the standard cost to learn TM is \$2,500 per person. Even with this generosity and dedication, skepticism toward a meditation program in an educational setting can be a daunting hurdle to overcome among traditionally trained educators focused on accountability.

"If you told me I was going to be doing this [school-wide Transcendental Meditation] in my school a few years ago, I never would have believed it," said the principal of an inner-city urban public middle school in the San Francisco Unified School District about the program implemented at that school in March, 2007. (At the request of the David Lynch Foundation, the identities of the principal and school are to remain confidential until two more schools in SFUSD scheduled to start the program in 2008 have completed the initial phase). This principal had heard about TM in the same context as many Americans but never thought much about it. "Yeah, I knew about the Beatles and their meditation experiments in the '60s, but I had never been interested in it or in meditation at all for that matter." This principal's attitude toward TM and meditation changed shortly after the school signed on to Stress-Free Schools.

Eight years ago this middle school was named the worst in the district. Dead last. It lies in a neighborhood where kids may walk past dead bodies on their way to and from school, where post-traumatic stress disorder is a fact of life, where coming to school every day may mean the students are risking their lives. Dismal results in the categories of achievement, attendance, number of fights and teacher turnover stood out as paramount reasons for the low rating.

It was not difficult for this principal to get a green light to sign on to Stress-Free Schools after he and TM teachers presented TM research results showing its effects on stress, attention deficit hyperactivity disorder (ADHD), brain development and brain coherence (the ability of different parts of the brain to work together). They also gave an explanation of the technique itself and the cost, which in this school's case is zero, for the first three years. The program's expense is being covered by the David Lynch Foundation, one of 26 community partners working to change things around for these kids.

After only six months of the Stress-Free Schools' program, attendance by teachers was up by one-third and the student suspension rate had dropped by half. One year into the program 97% of the 325 students, all the teachers and the principal participate in twice-daily school-wide Quiet Time, the name for Stress-Free Schools' meditation sessions. The other 3% of the students are those with ADHD who have yet to master the ability to sit still and 'dive in', but instead receive one-on-one help during Quiet Time.

Other changes are more subtle and not as easily measured. The school is experiencing a collective softening of the environment, "people treating each other better, mellower kids and

very few fights," says the principal. Quiet Time meditation sessions "are their own time, and it is helping them with their inner peace. Kids here don't normally have that expectation."

Possibly unbeknownst to the principal, the improved environment at the school could be what scientists named the Maharishi Effect, after a discovery (in 1974) that even one percent of the population practicing TM in a city improves the whole community's quality of life. That research showed a decrease in crime and accident rates when a critical mass of people practiced TM together over a period of time.

Another school, far from San Francisco, is reporting equal success by their school's standards. This is Whiteman Primary School, an independent school in Steamboat Springs, Colorado. Located in a very different neighborhood from the San Francisco middle school, it varies on just about every other measure too, from school readiness and school safety to family involvement, income, the families' and community's educational level and ethnicity.

But like the principal of the San Francisco middle school, Head of Schools at Whiteman Primary School, Nancy Spillane, was impressed with research showing the beneficial effects of TM, especially on stress and brain function. These measures are important no matter the demographic as is the influence that scientific research can have on educators, school boards and parents looking for solutions. Spillane's first exposure to TM was via a television program about ADHD, which included a segment on the K-12 Maharishi School of Enlightenment in Fairfield, Iowa that is the original laboratory for Stress-Free Schools. Impressed and curious, she investigated for three years before sharing what she'd learned about this program that seemed to offer ways to enhance a child's educational experience and long-term development.

Spillane spent long hours "reading studies out of Harvard, Stanford, the Yale Center for Conflict Resolution." She noted among the many medical conditions named that TM could help, "stress and brain function stood out in study after study as an underlying theme for younger people." The final step in her research was to travel to Iowa for an onsite visit. Spillane said, "I was starting to feel that if I'm not doing this in my school, I'm doing a disservice to my school."

She finally presented the Stress-Free Schools program to the school board and parents; one-and-a-half years after that presentation, Spillane (who had never meditated before), all 64 students, 14 teachers, eight school board members and eight parents, are all meditating. The cost to the school is only \$178 per person thanks to David Lynch Foundation scholarships.

In both San Francisco and Steamboat Springs the research sold the program. The scientific research on TM is, in fact, the heart that pumps life into this venture. Research evidence is creating an inroad to education and it is another avenue for TM to come out of the womb and into the world.

Some of the most fascinating and sought after research for educators is concentrated around TM and ADHD, which is frequently associated with inattentiveness, impulsivity and hyperactivity. The research is significant in part because of the incredibly high number of kids diagnosed: 8% of children ages 4-17 are diagnosed with ADHD and are taking prescription medication for it, according to the Centers for Disease Control (2005). Many of these pharmaceuticals have not been approved for use in children, or come with FDA mandated black box labels warning of serious side effects.

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It is heartbreaking to listen to Fred Travis, PhD, a leading TM researcher and one of the high-profile spokespeople for Stress-Free Schools, talk about what is really going on with these kids' brains that they are so freely and frequently medicated.

TM researchers refer to the prefrontal cortex of the brain as its CEO. This area regulates decision-making, moral reasoning and judgment, planning and one's sense of self. Sensory input is transported there by nerves normally insulated with a fatty coat called myelin, or white matter which increases the speed of information processing 16-20 times, according to Dr. Travis.

Children with ADHD have reduced myelination along the nerves resulting in time lags in communication between brain regions. These lags frequently occur due to developmental reasons. "ADHD kids' brains usually show developmental delays of about three years," says Dr. Travis. Unexpected, unusual or inappropriate behaviors are often observed among ADHD children.

Dr. Travis likes to share an example that goes like this: "A student suddenly leaps out of his chair on Monday morning and shouts, 'Great kick! We won the game' having watched his favorite football team play on Sunday. Nobody knows what he's talking about. It has taken that long for the prefrontal cortex to receive and piece together the information and produce an appropriate response."

Research shows that TM practice may activate frontal attention areas in underdeveloped frontal-striatal circuits resulting in these brain circuits being available for attention control and regulation of impulses. Violent reactions have this same origin of malfunction in the brain's hardware. These are the kinds of findings that are inspiring educators like Nancy Spillane and the principal of the San Francisco middle school to take this program seriously.

"The word is out. I think this thing is bubbling," says Spillane. In fact, she is counting on another independent school in her area to go the same direction, which will allow students to continue to practice TM after they leave primary school. Word of mouth about the effects of the Stress-Free Schools program has already increased admissions at the Whiteman Primary School by over 50%.

The Maharishi organization has demonstrated what TM can do in educational settings as well as how it can be implemented there. Stress-Free Schools offers a huge lesson through the successes of TM and serves as a model for many other yoga and meditation programs that have the potential to assist us in addressing our national education crisis. If the tenor of the times truly reflects readiness for change, impressive research results, credible high-profile spokespeople and a secure funding stream outside of the system are useful tools to gather together. Those who are ready for a different future will come, one school at a time.

For more information about Stress-Free Schools and Consciousness-Based Education contact Bob Roth, Director, at dl@dlfoundation.org Christopher Bush, Director of Programs for the David Lynch Foundation, can be reached at (323)874-2467 and chris@davidlynchfoundation.org

See also www.davidlynchfoundation.org

Julie Deife is the founding publisher and editor-in-chief (2002 - 2007) of LA YOGA Ayurveda and Health magazine. She was a public school teacher from 1973 - 1988.

*There are thirteen Stress-Free Schools, only three of which existed prior to the involvement of the David Lynch Foundation. Two are in Washington, D.C. one in Detroit, one in Hartford, CT, another in Tucson, AZ, three Native American schools (one each in Nevada, South Dakota and Maine), one in New York City, a middle school in San Francisco and a primary school in Colorado. Five more schools are starting with administrator and faculty instruction before the end of the 2008 school year: one in Ottawa, Canada; two more schools in San Francisco and two more Native American schools in Maine, all offshoots of current programs in those areas.