

making a meaningful difference

March 2011

Building Inner Resilience in Teachers and their Students:

Results of the Inner Resilience Pilot Program

SUBMITTED TO:

Linda Lantieri

Charlotte DeLucia Malkmus



120 Wall Street
21st Floor
New York, New York 10005
212-425-8833
www.metisassociates.com

metis associates

Building Inner Resilience in Teachers and their Students: Results of the Inner Resilience Pilot Program

Introduction

Teachers often face a variety of stresses, such as heavy workloads, relative isolation from their colleagues, time constraints, emphasis on academic achievement testing, low decision-making power, and frequent lack of support from their superiors and peers (Byrne, 1993; Murray, 2005; Winzelberg and Luskin, 1999). Given the stresses that they face and the little support that they receive to address these challenges, it is not surprising that teachers respond with common physiological, emotional, and behavioral manifestations of stress (Winzelberg and Luskin, 1999), or by leaving the profession altogether. Those who stay are at risk of developing another serious problem: teacher burnout, a multi-dimensional construct that consists of emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, Jackson, & Leiter, 1997). Burnout occurs when teachers have attempted unsuccessfully to cope with stress over long periods of time (Kyriacou, 2001). Teacher burnout can be tremendously destructive to teacher-student relationships, classroom management, and the classroom environment, as well as on the health of individual students (Jennings & Greenberg, 2008).

Studies of stress reduction across multiple sectors have suggested that some programs can be effective in reducing participants' perceived and demonstrated stress and can break cycles, such as the "burnout cascade." Research has also shown that mindfulness is associated with more positive affect, reduced anxiety and depression, and better relationships with others (Brown & Ryan, 2003; Barnes, Brown, Krusemark, Campbell, & Rogge, 2007). Consequently, these changes in teachers' mindsets can have a positive impact on classroom climate. Indeed, Marzano and colleagues (2003) conducted a meta-analysis of more than 100 studies of classroom management and found that a teacher's "mental

set” had the greatest effect on reducing student misbehavior. Teachers who were able to remain objective and calm under pressure were the best.

The Inner Resilience Program (IRP) is designed to address the host of issues that educators face and to help them develop the skills and strategies they need to be successful and to serve their students effectively. While the program was originally founded to serve educators and students in lower Manhattan following September 11, 2001, it rapidly became clear that the program was needed throughout NYC and beyond. In spring 2006, the IRP received generous funding from the Fetzer Institute to conduct rigorous research using a randomized control trial to examine the impact of the program on teachers and their students. This study, which is described in more detail below, determined that the IRP had a positive impact on the well-being of teachers. Based on these results, the IRP Pilot Schools Program was initiated in 2009 with 10 New York City public schools, hypothesizing that the positive effects of the program would be even greater if staff members from a school participated in the various components of the IRP together. In this report, we summarize the findings from the rigorous study of the IRP, describe the IRP Pilot Schools Program and the current study methodology, and present findings from the current study. This report describes the impact of these activities on the administrators from the pilot model schools.

Results of a Rigorous Study of IRP Effectiveness

During the 2007-2008 school year, Metis Associates, an independent research and evaluation firm, conducted a randomized control trial (RCT) study to examine the impact of the program on the well-being of teachers and students, as well as on the climate of their classrooms. A total of 57 teachers of Grades 3–5 from NYC public schools participated in the study, with 29 teachers (and their students) randomly assigned to the treatment group and 28 teachers and their students randomly

assigned to the control group. Because randomization was conducted at the teacher level, teachers worked at schools located across the city and there were few instances of multiple teachers participating from the same school. Activities were intended to reduce teacher stress and increase their concentration, attention, and job satisfaction; as well as improve relationships with their colleagues. Specifically, activities included a series of weekly yoga classes, monthly *Nurturing the Inner Life* meetings, a weekend residential retreat, and training and support in the use of a curriculum module for students. It was theorized that changes in the teachers would have a positive influence on the climate of their classrooms, which, in turn, would affect students' wellness with regard to stress and frustration levels, attention, and acting out behaviors. In addition, the program was intended to reach students directly through curriculum activities.

Impacts were examined across a number of dimensions of well-being for teachers, including stress, burnout, coping skills, mindfulness, attention, job satisfaction, and relations with colleagues. For students, impacts of the program were examined on the following dimensions: levels of aggression, attention, depressive mood, fear, frustration, pleasure sensitivity, and perceptual sensitivity. Classroom climate was examined in terms of the teacher's leadership and management style and the supportiveness of the environment. A number of within-group analyses also examined whether the program had greater impact on teachers who perceived it as being more useful, as well as on students who demonstrated the greatest vulnerability on the pre-survey.

Tables A1-A5 in the Appendix of this report show the full results of the study. In summary, results of between-group analyses indicated that teachers in the treatment group experienced reduced stress levels, increased levels of attention and mindfulness, and greater perceived relational trust with their colleagues. Additionally, 3rd-grade students of treatment teachers perceived that they had significantly more autonomy and influence in their classes at the end of the school year than at the

beginning, and analyses of student wellness indicated that the program had a significant, positive impact on reducing 3rd- and 4th-grade students' frustration levels.

Analyses of within-group differences indicated that teachers who perceived more program impact (i.e., “high impact teachers”) demonstrated greater reductions in emotion-oriented coping skills, fatigue/secondary trauma, and emotional exhaustion and greater increases in mindfulness and compassion satisfaction compared to non-high-impact teachers. Also, high-impact teachers perceived that their classes had greater autonomy and influence, and students of these teachers perceived greater classroom supportiveness than students of non-high-impact teachers. Furthermore, students of high-impact teachers were lower in frustration but also lower in perceptual sensitivity than non-high-impact teachers. Analyses of high-risk students indicated that 3rd- and 4th-grade high-risk students showed greater positive change than their non-high-risk peers on *each* of the student wellness outcomes, and 5th-grade high-risk students showed greater positive change on nearly all student wellness outcomes compared with the non-high-risk students.¹

The IRP Pilot Schools Program

Encouraged by the findings of the experimental study on IRP's impact, the IRP program staff hypothesized that the positive effects would be even greater if program activities focused on the principal (who is both the instructional leader and sets the emotional tone for the school) and if

¹ Though the results are highly notable and merit additional research, two statistical phenomena—“restriction of range” and “regression to the mean”—must be considered in an evaluation of the findings.

multiple staff members from a school participated in the program together. Thus, the IRP Pilot Schools Program was initiated in 2009 with 10 schools.

Program Activities

Administrators were recruited for the IRP Pilot Schools program in the spring of 2009. As part of their participation in the project, principals of the 10 pilot schools were asked to commit to a number of activities over the course of the two years of the project. For example, they were asked to select five school staff members in 2009-2010 and five in 2010-2011 to participate in the activities described below, most of which are still ongoing. All services and related materials have been offered free of charge.

- **One three-month series of weekly yoga classes**—During these 75-minute classes, participants are introduced to a weekly yoga practice with a focus on stress management and mind-body health. The classes are offered through the leadership of a skilled, certified yoga instructor and provide teachers in the group a time each week to focus on themselves in an atmosphere of safety and relaxation.
- **One four-month series of monthly *Nurturing the Inner Life* classes**—In this series, participating teachers gather for 2.5 hours monthly over the course of a semester to explore a variety of reflective approaches to help effectively manage their stress. An atmosphere of warmth and collegiality is actively cultivated as participants engage in group dialogue, are taught various contemplative practices, and record their thoughts and feelings in journals over the course of the series. Each session ends with a shared meal.
- **Eight hours of training in IRP’s curriculum, *Building Resilience From the Inside Out: A K-8 Curriculum*, followed by two staff development site visits for each participating member**—The curriculum works as a guide for teachers to help their students learn to calm

their minds and relax their bodies, so that they can be more present for learning in the classroom. A CD that guides students through various mindfulness and muscle-relaxation practices accompanies the curriculum. Each teacher is assigned a staff developer who makes site visits to the teachers' classrooms and provides on-site support for implementing the lessons. They also help teachers to provide an atmosphere in their classes that facilitates a more caring and calm learning community. Teachers are encouraged to explore all the lessons in the curriculum module with their students, to find activities that work effectively with their particular classes and to practice them daily if possible.

- **One weekend residential retreat**—The retreat is designed to honor the genuine need for rest and rejuvenation while also introducing educators to practical strategies for staying calm, strong, and creative within the turmoil and stresses of work and life. Participants spend the weekend as a caring learning community—morning yoga is offered; healthy meals are served; and psycho-educational workshops on stress management, conflict resolution, and grief are provided. Teachers are given opportunity for contemplative practice and each teacher is offered a body-work session by a certified body-work practitioner, a reflection session with a mental health professional, and an opportunity to talk in large and small groups about the meaning of their work as educators. Furthermore, participants are able to take home powerful and practical tools for self-care.

Additionally, IRP Pilot Schools have been offered the following services for the entire school community:

- **Two professional development workshops**—These workshops focus on topics related to stress management and social/emotional learning. They introduce educators to the research and theories behind social emotional learning and provide them with opportunities for

discussion, new skills practice and experiential exercises focused on self-awareness, social awareness, self-management and relationship skills.

- **Two parent workshops**—These workshops are designed to help caregivers strengthen their own resilience and better understand the stresses affecting today’s children. Workshops are offered to schools on a variety of topics related to stress-management and social emotional learning, including: *Building Emotional Intelligence* (Lantieri, 2008), Violence in the Media, Anger Management, Bullying and Cyberbullying, Difficult Conversations with Children, and Stress Management for Parents.
- **Two “Stress Reduction Days” for school staff**—During these days, certified body-work practitioners come to individual school sites and spend the day providing individualized “stress reduction sessions” for school staff members. The 20-30 minute sessions incorporate healing touch, gentle stretching exercises, and relaxation techniques.

Moreover, as part of the program, principals were asked to make the following commitments:

- Identify funding to pay the 10 teachers involved in the curriculum training per-session rates for their eight hours of participation in program activities;
- Strengthen their existing efforts related to SEL curriculum implementation; and
- Commit to two years of the project.

Principals from the 10 participating pilot schools also were invited to attend a **monthly principals’ group**. These groups focus on self-care and how it relates to professional performance. Gatherings are also designed to aid in fostering a community of caring among colleagues who share the burdens of what is often a taxing and isolating job with a high rate of burnout. Principals are invited to bring their Assistant Principals to the gatherings with them each month. The gatherings themselves consist of experiential exercises focused on stress-management techniques, group

discussion, and self-reflection, and are accompanied by a shared meal. Participants are actively encouraged to share the stress-management and reflective exercises with their respective school staff members, and are also asked to strengthen their existing efforts related to SEL curriculum implementation in their schools over the course of the two years.

The underlying theory behind the principals' gatherings is that much of the failure of successful implementation of new programs on a school-wide level relates to a lack of full engagement from the school leadership. Principals' gatherings could, therefore, serve to deepen the administrators' understanding of what is meant by SEL and inner-life work, and to use the strength of the group for members to support one another's efforts and share best practices.

Program Participation

The IRP Pilot Schools program was originally conceptualized such that each school would recruit the same number of participants and participate in each of the program offerings equally. However, the reality of working with schools from such diverse communities (participating schools were located in East Harlem, Chinatown, Tribeca, and Greenwich Village – locations that are disparate despite all being in NYC) was that schools had differing needs, schedules and capacities that either enhanced or hindered their ability to participate fully in the program. For example, geographic proximity to the IRP offices where classes were offered after-school had a much greater impact on participation than had been foreseen, resulting in much higher participation levels from schools that were closest to IRP's offices. Tables 4 and 5, below, display schools' participation in the various components of the program. In general, participation has been somewhat scattered (across both schools and activities) and is not consistent with the program design.

The principals' gatherings, however, maintained high participation over the course of the two years. It was for this reason, as well as the principals' key role as school leader in influencing school climate, that the team collected feedback on program impact from administrators who attended the monthly meetings.

Methods

In order to determine the extent to which participants perceived that the IRP Pilot Schools Program was effective in positively impacting their own well-being and their schools' culture, Metis Associates administered an online survey to the 13 participants of the monthly principal group. The online survey consisted of both closed- and open-ended items and asked questions about respondents' demographics (including responsibilities in the school, length of time in position, etc.), participation in activities (including both individual and school-level participation), perceptions of the impact of the program on themselves and their schools, and recommendations for changes to the program.

A total of 10 of the 13 total participants of the monthly principal meetings (77%) completed the online survey. All respondents worked in elementary schools. The tables below display additional demographic information about these participants.

Table 1

Position in School		
Position	N	Percent
Principal	7	70%
Assistant Principal	3	30%

Table 2

Length of Time in Position in Current School		
Length of Time	N	Percent
1-3 years	1	1%
4-6 years	4	40%

7-10 years	4	40%
11-15 years	0	0%
16-20 years	1	10%
More than 20 years	0	0%

Table 3

Length of Time in Position in Any School

Length of Time	N	Percent
1-3 years	1	10%
4-6 years	0	0%
7-10 years	3	30%
11-15 years	1	10%
16-20 years	4	40%
More than 20 years	1	10%

As Tables 1-3 display, seven of the 10 participants indicated that they are principals, while three indicated that they are assistant principals. The great majority of the participants have been with their schools for between four and 10 years, though there is more variation in the length of time that they have been in their position at *any* school.

In addition to the online survey, a focus group was conducted with monthly principal group participants in March 2011. The focus group took place during one of the regularly scheduled principal gatherings; all of the administrators participated in the group. Results from the online survey were reviewed prior to the focus group, allowing for the possibility of probing more deeply on responses. In particular, the Metis evaluators probed participants on the challenges that they face in implementing the program in their schools.

Results of the Evaluation of the IRP Pilot Schools Program

Reasons for Participation in IRP Pilot Schools Program

Respondents indicated a number of reasons why they were interested in the IRP Pilot Schools Program. One key reason they elected to participate was that they hoped to develop their

own emotional intelligence and to have time to take care of themselves. For example, one participant indicated the following:

“The idea of carving out time to attend to emotional/mental health was very appealing. Too often in my work I am busy taking care of everyone and their needs. Seldom do I get the chance to pause to be revitalized in this way, while also being in the presence of colleagues who have similar work experiences.”

Respondents also recognized the need for this work in their schools. For example, one respondent wrote, *“Stress reduction and self-care are essential in a profession where the threat of burnout is constant. The IRP program sounded like it would address these issues.”* Another wrote:

“We were interested because the emphasis was on the teachers and we believe it is important for teachers to develop the skills that they will present later to students. If teachers learn how to handle stress, it will have a positive impact on the learning environment in their classrooms.”

A third key reason that respondents gave as to why they chose to participate related to them having the opportunity to build their school communities. One administrator wrote that he/she chose to participate because the program promotes *“the philosophical framework and understanding that all (work) organizations, particularly those that impact on youngsters, should be reflective, humane, supportive and nurturing and that all members need to ‘take care’ of each other and of themselves in order to maximize their effectiveness and the effectiveness of the organization (and positively impact the youngsters).”* Furthermore, another respondent wrote that they were interested in the program because they believed it *“would provide an enormous amount of support for the school's community. It also focused on an area in which a great need*

existed but nothing was really in place to address it.” This respondent went on to say, “We knew that this program would help everyone in the school's community - personally and professionally.” Yet another administrator wrote:

“I was hoping to provide social emotional support for the members of the school's community and we hoped that a natural outgrowth of that support would be developing closer relationships with each other.”

Participation in IRP Pilot Schools Program Activities

The tables below display the IRP Program activities that administrators reported participating in over the course of the two project years, including both activities that they personally participated in and those in which their staff participated.

Table 4

Administrator Participation in IRP Activities

Activities	N	Percent
Principal Meetings	10	100%
Education Leaders Retreat	7	70%
Stress Reduction Days	6	60%
PD Workshops for School Staff	8	80%
Parent Workshops	8	80%
Nurturing the Inner Life Meetings	0	0%
Yoga Classes	6	60%
Curriculum Trainings	0	0%

Table 5

Pilot Schools Staff Participation in IRP Activities

Activities	N	Percent
Stress Reduction Days	8	80%
PD Workshops for School Staff	9	90%
Parent Workshops	8	80%
Nurturing the Inner Life Meetings	7	70%
Yoga Classes	8	80%
Curriculum Trainings	8	80%

Administrators Perceived Impact on Themselves

Table 6 displays administrators' responses to the perceived impact of the IRP activities on themselves *personally*. As the table shows, the great majority perceived that the program impacted them *to a great extent* across each of the predicted areas, including reduced stress and increased mindfulness, coping skills, and body awareness.

Table 6

Respondents' Perceptions of IRP's Impact on their Personal Skills

Impact Area	N	Don't Know	Not at All	A Little	To Some Extent	To a Great Extent
Stress Level	10	0 (0%)	0 (0%)	0 (0%)	2 (20%)	8 (80%)
Mindfulness	10	0 (0%)	0 (0%)	0 (0%)	2 (20%)	8 (80%)
Coping Skills	10	0 (0%)	0 (0%)	0 (0%)	2 (20%)	8 (80%)
Body Awareness	10	0 (0%)	0 (0%)	0 (0%)	3 (30%)	7 (70%)
Other*	2	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (20%)

*Responses included "sense of community" and "meaningful connections with others"

Administrators' open-ended responses support their responses to the closed-ended findings and indicate that they found the work extremely valuable to their capacity to keep balance in their lives and to cope with everyday stresses. Furthermore, they reported that they found the interaction with other administrators extremely valuable. Below is a sample of responses that they provided in an open-ended section of the survey:

- *"This has made a significant impact on me personally. I now handle stress better and I have learned strategies to reduce stress. The principal meetings are very powerful and I have learned a lot from my colleagues. It is a safe place for all of us."*
- *"Participation in this principal group has had a tremendous impact on me personally. It has provided a safe haven for me. It has introduced me to other school leaders and allowed me to interact with them on a personal level rather than just on a professional*

level. It's difficult to leave a building, especially when so many things are happening. However, this principal group has taught me that it's necessary to take time for myself to recharge and try to give myself what I need to go on before I can support others.”

- *“This was a wonderfully profound experience for me, which allowed me to see things in perspective when I would have otherwise made different decisions about my job. In a more personal way, I am more cognizant of the emotional needs of the staff around me and try to find balance between the academic and the emotional.”*

Table 7 displays administrators’ responses to the perceived impact of the IRP activities on themselves *professionally*. As the table shows, administrators were extremely positive about the program’s impacts in these areas as well.

Table 7

Respondents’ Perceptions of IRP’s Impact on their Professional Skills

Impact Area	N	Don’t Know	Not at All	A Little	To Some Extent	To a Great Extent
Job Satisfaction	10	0 (0%)	0 (0%)	0 (0%)	3 (30%)	7 (70%)
Staff Management Style	10	0 (0%)	0 (0%)	1(10%)	1 (10%)	8 (80%)
Relationships with Staff	10	0 (0%)	0 (0%)	0 (0%)	2 (20%)	8 (80%)
Relationships with Students	10	0 (0%)	0 (0%)	0 (0%)	2 (20%)	8 (80%)

Again, the open-ended responses corroborated findings from administrators’ closed-ended responses. Respondents indicated that the program has helped them professionally by helping them to be calmer and better focused, and to deepen their relationships with staff in their buildings. Following is a sample of their open-ended responses to the question regarding their perception of the impact of the program on them professionally:

- *“My [participation in] the retreats and in the principal group has enhanced my leadership skills - I have learned how to be more direct AND more compassionate.”*
- *“I am calmer, more relaxed and I am able to handle stress better.”*

- *“It helps me develop skills and postures that enhance my ability to be a nurturing, supportive and understanding leader. It helps me prioritize.”*
- *“The principal group has helped me to maintain perspective at a time when it is increasingly difficult to be an educator. The current culture of blame can be very demoralizing, as can the shifting expectations and the ever-increasing work load. The conversations have been extremely supportive and have helped to counteract the feeling of isolation that can set in, even when working as part of a strong team. The meditations have been helpful as well, and have helped me to carry a sense of detachment to interactions at work.”*
- *“I attended the staff retreat last year and spent the weekend with five other staff members. It was one of the best experiences of my life. This retreat allowed me to interact with them on such a personal level and it gave us a common language. We still refer to strategies that we learned that day or we'll reference something that we learned about ourselves or each other. It gave us a newfound respect for each other and it solidified our relationship and this has made us better professionals as we returned to our school building.”*

Impact on the School Community

Administrators indicated that they have made a number of changes to their schedules and routines in their schools, as well as to their leadership approach, due to their participation in the program. For example, some administrators indicated that they have made changes to their regular staff meetings, such as starting the meetings with ice-breakers, breathing and relaxation techniques, and acknowledgements. Additionally, one administrator indicated that he/she now

has “agenda-less” monthly meetings (with snacks, watercolors, etc.). Other administrators indicated that they have added activities to their schedules. For example, one respondent indicated that he/she instituted a day of meditation and relaxation for the staff during an already set professional development day. Another reported that he/she has supported (logistically and financially) a social skills study group that was started by teachers. Yet another pointed out the addition of yoga and other calming/focus-building activities in his/her school.

Overall, most administrators indicated that the key impact on their approach to the work in their buildings is the program’s enabling of them to be more supportive and encouraging of their staff. For example, one respondent wrote that as a result of his/her participation:

“I think that I approach every interaction with the hope of being positive, supportive and encouraging. I try to listen and manage conflict in the community as best as I can. When situations are difficult and stressful I am more able to step back, learn from the situation and hopefully not take things personally.”

Table 8 displays administrators’ responses to the perceptions of the program’s impact on their schools’ culture. As the table shows, the great majority of participants perceived that the program had at least *some* impact on the school culture.

Table 8

Respondents’ Perceptions of IRP’s Impact on their School’s Culture

	N	Percent
Don’t Know	0	0%
Not at All	0	0%
A Little	2	20%
To Some Extent	3	30%
To a Great Extent	5	50%

Again, open-ended comments corroborated the closed-ended responses, as administrators elaborated on ways that the program has impacted on the school culture, including, among other

differences, changes in teachers' practices and ways that staff and students relate to each other. A sample of their responses to an open-ended question asking them to elaborate on changes in their school culture is below:

- *“We have lots of visitors coming to [our school]. They all comment on the calmness of the school and how students are nurtured and cared for. I think the teacher stress reduction days acknowledge how hard the teachers work and that we care about their well-being.”*
- *“Teachers are more peaceful and include some of the practices into their own classrooms. For example yoga, using a chime to call the group to meeting.”*
- *“The main success that I've observed is that members of the staff have seen the importance in addressing the children's social emotional needs in the same way that we address their academic needs. Sometimes we focus so much on the children's academics. However, unless we meet their social emotional needs as well, they will not make the progress that we need them to make. This program has given staff members the strategies that can be implemented and incorporated into our daily program to support the children in this manner.”*

Challenges

Participants had the opportunity to discuss the challenges that they face in the implementation of the program in their schools both by responding to the online survey and to the focus group questions. During the focus group, the administrators passionately described their frustration in trying to include this work in their schools. They perceive the work as eminently valuable to themselves and to their staff; however, they struggle to find the time to

implement it in the context of other demands that they face on a day-to-day basis. And while “time” might be considered the basic challenge expressed, the administrators described a more fundamental issue: the value of this work seems to be at odds with the current overall educational context. The emphasis on testing is dominating education to the point that there is little time left to address any other student or teacher needs. Paradoxically, the current climate is making the work more necessary than ever, adding to the administrators’ frustration over the situation. This problem extended even to the teacher level. A couple of participants indicated that it was difficult to get teachers to see the value of the program activities when they feel so pressured by other instructional demands and the seemingly impossible expectations for their time.

Summary

Overall, results of the evaluation of the IRP Pilot Schools Program indicate that the administrators find the program extremely valuable for themselves both personally and professionally. Furthermore, they reported that they made a number of changes to the way they lead their schools, including making changes to their school meetings to include time for staff to relax, reflect, and connect with their colleagues. Some also added activities to promote reflection and inner resilience work to their school programming for their teachers, as well as for their students. Moreover, most respondents indicated that they feel more equipped to support and encourage their staff members since they began participating in the program.

The results provide important preliminary evidence that school-wide implementation of the IRP works as hypothesized. When administrators participate in the program, they can be catalysts for change that occurs beyond the individual classroom to affect the culture of the entire school building. Additionally, when multiple members of the school building participate in the

program, the result can be more powerful than when only one or a small number of teachers participate. Interestingly, the findings also suggest that the logic of the impact follows as one might predict as well. That is, as results from this preliminary examination of the pilot program suggest, that the strongest impact is on individuals personally, followed by professional changes, which is followed by changes in school culture. It is, however, extremely encouraging that in the relatively short time that administrators have participated in this program, they have made the kind of changes in their leadership routines and styles that can lead to deep change and, indeed, many report observing culture changes in their buildings already.

Recommendations

This preliminary evaluation found that the impact of the program can be very strong for administrators and their staff. The primary challenge is in implementing the IR work on an ongoing and widespread way in the schools. The following recommendations are made to increase implementation across the school buildings:

- Administrators should select one or two lead teachers who could spearhead the work in their schools. This would alleviate some of the coordination and logistical responsibility from the principal and would also increase buy-in from teachers, who would have a peer role model who could demonstrate the value of the work.
- IR should visit the schools to provide specific guidance on the aspects of the program that would be most beneficial to the staff and students, as well as to provide suggestions for how to make the activities work within the school schedules.

Additionally, it is recommended that this evaluation be followed up with a more systematic study of the program's effectiveness. For example, the following activities could provide more thorough and rigorous data on the effectiveness of the program:

- School-level participants, including administrators, teachers, and other staff members, could complete the same battery of pre- and post-surveys that participants in the study completed to provide a more consistent and thorough examination of the impact of the program.
- Participants could complete an additional instrument that examines whether changes in the school culture have occurred following implementation of the program.
- An experimental or quasi-experimental design could be implemented to rigorously study the impact of the school-wide program on individuals personally and professionally, as well as on the culture of the school overall.

References

- Barnes, S., Brown, K. W., Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy, 33*(4), 482–500.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822–848.
- Byrne, B. M. (1993). Burnout: Testing for the validity, replication, and invariance of causal structure across elementary, intermediate, and secondary teachers. *American Educational Research Journal, 31*(3), 645–673.
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79* (1), 491-525.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53*(1), 27–35.
- Lantieri, L. (2008). *Building emotional intelligence: Techniques to cultivate inner strength in children*. Boulder, CO: Sounds True.
- Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works*. Alexandria, VA: ASCD.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach Burnout Inventory. In C. P. Zalaquett & R. J. Wood (Eds.), *Evaluating Stress: A book of resources* (pp. 191-218). Lanham, MD: Scarecrow Education.
- Murray, J. (2005). *Social-emotional climate and the success of new teachers: A new look at the ongoing challenge of new teacher retention* (Wellesley Centers for Women, Report WCW 9). Wellesley, MA: Wellesley Centers for Women.
- Winzelberg, A. J., & Luskin, F. M. (1999). The effect of a meditation training in stress levels in secondary school teachers. *Stress Medicine, 15*, 69–77.

Appendix

Table A1

Teacher Wellness Qualities Measured and Results²

Wellness Quality Measured	Scale ³	Treatment Group Mean (SD)	Control Group Mean (SD)	Test of Significance for Interaction (time*group)	Test of Meaningfulness for Interaction (Effect Size)
Stress	Stress Likert Scale	Pre = 5.12 (1.03) Post = 4.54 (1.36)	Pre = 4.61 (1.42) Post = 5.11 (1.13)	F=6.592, p=.013*	0.71
Stress	PSS	Pre = 22.89 (6.17) Post = 17.43 (6.88)	Pre = 22.48 (7.07) Post = 19.59 (6.00)	F=1.470 p=.231	0.33
Body Awareness	BAQ	Pre = 4.41 (1.03) Post = 4.92 (1.04)	Pre = 4.22 (0.98) Post = 4.37 (1.14)	F=1.649 p=.205	0.35
Task-Oriented Coping	CISS	Pre = 55.93 (6.84) Post = 58.21 (7.36)	Pre = 58.75 (8.44) Post = 59.18 (7.15)	F=1.142 p=.290	0.29
Emotion-Oriented Coping	CISS	Pre = 48.03 (9.26) Post = 40.68(10.34)	Pre = 47.86 (9.62) Post = 45.29 (11.40)	F=3.803 p=.056	0.53
Avoidance-Oriented Coping	CISS	Pre = 52.71 (9.41) Post = 52.43 (6.69)	Pre = 48.68 (10.11) Post = 49.43 (10.57)	F=0.244 p=.624	0.13
Avoidance Coping via Distraction	CISS	Pre = 24.93 (5.47) Post = 23.86 (5.01)	Pre = 22.39 (5.99) Post = 23.00 (6.37)	F=1.760 p=.190	0.36
Avoidance Coping via Social Diversion	CISS	Pre = 18.89 (4.76) Post = 19.64 (2.50)	Pre = 17.75 (4.77) Post = 17.93 (5.44)	F=0.279 p=.600	0.14
Mindfulness	MAAS	Pre = 3.64 (0.61) Post = 4.20 (0.48)	Pre = 3.74 (0.82) Post = 3.80 (0.84)	F=8.879 p=.004*	0.81
Compassion Satisfaction	ProQol	Pre = 35.93 (6.77) Post = 35.29 (8.44)	Pre = 33.70 (7.49) Post = 34.19 (8.66)	F=0.284 p=.596	0.14
Burnout	ProQol	Pre = 28.61 (4.52) Post = 24.21 (5.80)	Pre = 26.89 (6.00) Post = 24.74 (5.40)	F=2.147 p=.149	0.40
Fatigue/Secondary Trauma	ProQol	Pre = 18.93 (5.44) Post = 15.57 (5.29)	Pre = 16.96 (6.62) Post = 13.89 (4.91)	F=0.030 p=.864	0.06
Emotional Exhaustion	MBI-ES	Pre = 31.07 (8.93) Post = 24.86 (12.18)	Pre = 29.11 (12.24) Post = 25.15 (12.27)	F=0.523 p=.473	0.20
Personal Accomplishment	MBI-ES	Pre = 35.50 (7.61) Post = 37.14 (6.29)	Pre = 31.48 (9.50) Post = 34.15 (7.97)	F=0.239 p=.627	0.13
Depersonalization	MBI-ES	Pre = 8.11 (6.17) Post = 8.21 (7.34)	Pre = 8.67 (6.82) Post = 9.59 (8.31)	F=0.207 p=.651	0.13
Relational Trust	Bryk's Teacher-to-Teacher Trust Scale	Pre = 1.17 (0.86) Post = 1.27 (0.79)	Pre = 1.30 (0.75) Post = 1.07 (0.75)	F=4.374 p=.041*	0.57

* indicates p<.05 based on results of repeated measures ANOVA tests

² Bolded items indicate statistically significant or educationally meaningful results.

³ PSS=Perceived Stress Scale; BAQ=Body Awareness Questionnaire; CISS=Coping Inventory for Stressful Situations; MAAS=Mindfulness Attention Awareness Scale; ProQol=Professional Quality of Life Scale; MBI-ES=Maslach Burnout Inventory-Educator Survey

Table A2

Classroom Climate Qualities Measured and Results⁴

Classroom Climate Quality Measured	Scale	Treatment Group Mean (SD)	Control Group Mean (SD)	Test of Significance for Interaction (<i>time*group</i>)	Test of Meaningfulness for Interaction (<i>Effect Size</i>)
Teachers' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (Teachers)	Pre = 2.07 (0.33) Post = 2.26 (0.53)	Pre = 1.91 (0.40) Post = 2.02 (0.44)	$F=1.161$ $p=.286$	0.29
Classroom Supportiveness	Classroom Climate Inventory (Teachers)	Pre = 2.71 (0.47) Post = 2.79 (0.73)	Pre = 2.59 (0.59) Post = 2.62 (0.59)	$F=0.081$ $p=.776$	0.09
3rd- and 4th-Grade Students' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (3 rd -4 th Grade)	Pre = 1.66 (0.37) Post = 1.78 (0.42)	Pre = 1.64 (0.37) Post = 1.60 (0.37)	$F=24.310$ $p<.001^*$	0.41
Classroom Supportiveness	Classroom Climate Inventory (3 rd -4 th Grade)	Pre = 2.34 (0.38) Post = 2.28 (0.40)	Pre = 2.21 (0.40) Post = 2.11 (0.41)	$F=1.485$ $p=.223$	0.11
5th-Grade Students' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (5 th Grade)	Pre = 1.51 (0.66) Post = 1.45 (0.58)	Pre = 1.88 (0.54) Post = 1.85 (0.51)	$F=0.098$ $p=.755$	<0.01
Classroom Supportiveness	Classroom Climate Inventory (5 th Grade)	Pre = 2.16 (0.72) Post = 1.94 (0.79)	Pre = 2.92 (0.65) Post = 2.63 (0.78)	$F=0.419$ $p=.518$	0.09

* indicates $p<.05$ based on results of repeated measures ANOVA tests

⁴ Bolded items indicate statistically significant or educationally meaningful results.

Table A3

Student Wellness Qualities Measured and Results⁵

Wellness Quality Measured	Scale ⁶	Treatment Group Mean (<i>SD</i>)	Control Group Mean (<i>SD</i>)	Test of Significance for Interaction (<i>time*group</i>)	Test of Meaningfulness for Interaction (<i>Effect Size</i>)
3rd- and 4th-Grade Students					
Aggression	EATQ-R SF	Pre = 1.40 (0.42) Post = 1.44 (0.43)	Pre = 1.56 (0.53) Post = 1.60 (0.52)	F=0.004 p=.949	<0.01
Attention	EATQ-R SF	Pre = 1.77 (0.26) Post = 1.76 (0.26)	Pre = 1.73 (0.33) Post = 1.75 (0.30)	F=0.362 p=.547	0.06
Depressive Mood	EATQ-R SF	Pre = 1.68 (0.48) Post = 1.68 (0.49)	Pre = 1.75 (0.53) Post = 1.71 (0.53)	F=1.142 p=.286	0.09
Fear	EATQ-R SF	Pre = 2.22 (0.45) Post = 2.15 (0.51)	Pre = 2.22 (0.51) Post = 2.14 (0.50)	F=0.054 p=.817	<0.01
Frustration	EATQ-R SF	Pre = 2.05 (0.47) Post = 1.99 (0.47)	Pre = 2.12 (0.47) Post = 2.15 (0.50)	F=4.854 p=.028*	0.18
Perceptual Sensitivity	EATQ-R SF	Pre = 2.31 (0.57) Post = 2.36 (0.58)	Pre = 2.27 (0.59) Post = 2.37 (0.57)	F=0.680 p=.410	0.06
5th-Grade Students					
Aggression	EATQ-R SF	Pre = 1.45 (0.84) Post = 1.36 (0.80)	Pre = 0.91 (0.71) Post = 0.78 (0.63)	F=0.242 p=.623	0.06
Attention	EATQ-R SF	Pre = 3.06 (0.49) Post = 3.02 (0.52)	Pre = 3.28 (0.54) Post = 3.35 (0.48)	F=1.861 p=.174	0.19
Depressive Mood	EATQ-R SF	Pre = 2.06 (0.72) Post = 1.94 (0.74)	Pre = 1.81 (0.64) Post = 1.79 (0.56)	F=1.073 p=.301	0.14
Fear	EATQ-R SF	Pre = 1.92 (0.78) Post = 1.62 (0.87)	Pre = 1.97 (0.81) Post = 1.61 (0.74)	F=0.308 p=.579	0.06
Frustration	EATQ-R SF	Pre = 2.42 (0.72) Post = 2.28 (0.74)	Pre = 2.15 (0.74) Post = 1.99 (0.80)	F=0.062 p=.803	<0.01
Perceptual Sensitivity	EATQ-R SF	Pre = 2.67 (0.70) Post = 2.52 (0.76)	Pre = 2.55 (0.59) Post = 2.58 (0.77)	F=2.307 p=.130	0.21
Pleasure Sensitivity	EATQ-R SF	Pre = 1.84 (1.07) Post = 1.69 (1.01)	Pre = 2.38 (1.01) Post = 2.24 (1.12)	F=0.011 p=.916	<0.01

* indicates p<.05 based on results of repeated measures ANOVA tests

⁵ Bolded items indicate statistically significant or educationally meaningful results.

⁶ EATQ-R SF=Early Adolescent Temperament Questionnaire-Revised Short Form

Table A4

Summary Table for High Impact Analyses⁷

Quality Measured	Scale ⁸	High-Impact Group Mean (SD)	Non-High Impact Group Mean (SD)	Test of Significance for Interaction (time*group)	Test of Meaningfulness for Interaction (Effect Size)
Teacher Stress					
Stress	Stress Likert Scale	Pre = 5.17 (0.94) Post = 4.17 (1.34)	Pre = 5.07 (1.14) Post = 4.86 (1.35)	F=1.699 p=.205	0.53
Stress	PSS	Pre = 24.63 (6.95) Post = 13.77 (6.93)	Pre = 21.40 (5.18) Post = 20.60 (5.19)	F=10.686 p=.003*	0.41
Teacher Well-Being					
Body Awareness	BAQ	Pre = 4.56 (0.79) Post = 4.93 (0.92)	Pre = 4.27 (1.25) Post = 4.91 (0.92)	F=0.193 p=.664	0.17
Task-Oriented Coping	CISS	Pre = 54.64 (6.75) Post = 58.64(6.86)	Pre = 57.21 (6.92) Post = 57.79 (8.06.)	F=1.915 p=.178	0.54
Emotion-Oriented Coping	CISS	Pre = 50.07 (10.00) Post = 37.71 (9.14)	Pre = 46.00 (8.31) Post = 43.64 (10.93)	F=8.757 p=.006*	1.16
Avoidance-Oriented Coping	CISS	Pre = 52.21 (10.22) Post = 54.93 (5.41)	Pre = 50.21 (8.12) Post = 49.93 (7.08)	F<0.001 p=1.000	<0.01
Avoidance Coping via Distraction	CISS	Pre = 26.71 (5.01) Post = 25.64 (2.65)	Pre = 23.14 (5.46) Post = 22.07 (6.18)	F <0.001 p=1.000	<0.01
Avoidance Coping via Social Diversion	CISS	Pre = 18.93 (4.91) Post = 19.36 (1.95)	Pre = 18.86 (4.79) Post = 19.93 (3.00)	F=0.149 p=.703	0.16
Mindfulness	MAAS	Pre = 3.44 (0.55) Post = 4.24 (0.50)	Pre = 3.84 (0.62) Post = 4.16 (0.48)	F=4.771 p=.038*	0.86
Compassion Satisfaction	ProQOL	Pre = 38.71 (8.57) Post = 42.00 (7.19)	Pre = 35.00 (8.99) Post = 30.71 (10.71)	F=5.498 p=.027*	0.92
Burnout	ProQOL	Pre = 27.57 (5.53) Post = 20.50 (6.81)	Pre = 29.36(5.94) Post = 27.50 (7.08)	F=3.950 p=.057	0.78
Fatigue/Secondary Trauma	ProQOL	Pre = 20.29 (4.41) Post = 14.07(4.05)	Pre = 17.57(6.16) Post = 17.07 (6.07)	F=7.543 p=.011*	1.08
Emotional Exhaustion	MBI-ES	Pre = 30.64 (7.89) Post = 19.50(10.58)	Pre = 31.50(10.14) Post = 30.21(11.58)	F=4.501 p=.044*	0.75
Personal Accomplishment	MBI-ES	Pre = 35.00 (8.62) Post = 38.79(5.00)	Pre = 36.00(6.74) Post = 35.50(7.18)	F=2.160 p=.154	0.20
Depersonalization	MBI-ES	Pre = 6.57 (4.41) Post = 4.79(3.72)	Pre = 9.64(7.38)) Post = 11.64(8.52)	F=2.210 p=.149	0.58
Teacher Professional Relationships					
Relational Trust	Bryk's Teacher-to-Teacher Trust Scale	Pre = 0.20 (0.72) Post = 0.63 (1.18)	Pre = 1.38(0.74) Post = 1.41 (0.63)	F=1.558 p=.223	1.17

⁷ Bolded items indicate statistically significant or educationally meaningful results.

⁸ PSS=Perceived Stress Scale; BAQ=Body Awareness Questionnaire; CISS=Coping Inventory for Stressful Situations; MAAS=Mindfulness Attention Awareness Scale; ProQOL=Professional Quality of Life Scale; MBI-ES=Maslach Burnout Inventory-Educator Survey; EATQ-R SF=Early Adolescent Temperament Questionnaire-Revised Short Form

Quality Measured	Scale ⁸	High-Impact Group Mean (SD)	Non-High Impact Group Mean (SD)	Test of Significance for Interaction (time*group)	Test of Meaningfulness for Interaction (Effect Size)
Classroom Environment					
Teachers' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (Teachers)	Pre = 2.25 (0.25) Post = 2.66 (0.32)	Pre = 1.98(0.33) Post = 2.08 (0.51)	F=4.629 p=.041*	0.83
Classroom Supportiveness	Classroom Climate Inventory (Teachers)	Pre = 2.86 (0.56) Post = 3.27 (0.54)	Pre = 2.64(0.43) Post = 2.57(0.70)	F=3.238 p=.083	0.69
3rd- and 4th-Grade Students' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (3 rd -4 th Grade)	Pre = 1.81 (0.41) Post = 1.87 (0.48)	Pre = 1.59(0.34) Post = 1.74(0.38)	F=2.780 p=.096	0.19
Classroom Supportiveness	Classroom Climate Inventory (3 rd -4 th Grade)	Pre = 2.44 (0.38) Post = 2.46 (0.37)	Pre = 2.29(0.37) Post = 2.20 (0.39)	F=5.413 p=.021*	0.26
5th-Grade Students' Perspective					
Student Autonomy and Influence	Classroom Climate Inventory (5 th Grade)	Pre = 1.78 (0.64) Post = 1.58 (0.59)	Pre = 1.40(0.65) Post = 1.39 (0.57)	F=2.423 p=.122	0.27
Classroom Supportiveness	Classroom Climate Inventory (5 th Grade)	Pre = 2.13 (0.79) Post = 2.16 (0.73)	Pre = 2.16(0.70) Post = 1.86 (0.79)	F=5.457 p=.021*	0.40
Student Well-Being					
3rd- and 4th-Grade Students					
Aggression	EATQ-R SF	Pre = 1.46 (0.41) Post = 1.46 (0.43)	Pre = 1.39 (0.42) Post = 1.44 (0.42)	F=1.080 p=.299	0.11
Attention	EATQ-R SF	Pre = 1.77 (0.29) Post = 1.78 (0.23)	Pre = 1.77 (0.26) Post = 1.76 (0.27)	F=0.040 p=.841	<0.01
Depressive Mood	EATQ-R SF	Pre = 1.75 (0.54) Post = 1.75 (0.51)	Pre = 1.65 (0.45) Post = 1.66 (0.49)	F=0.009 p=.924	<0.01
Fear	EATQ-R SF	Pre = 2.30 (0.45) Post = 2.27 (0.44)	Pre = 2.19 (0.45) Post = 2.11 (0.53)	F=0.721 p=.397	0.09
Frustration	EATQ-R SF	Pre = 2.17 (0.44) Post = 1.96 (0.48)	Pre = 2.02 (0.47) Post = 1.99 (0.47)	F=8.774 p=.003*	0.33
Perceptual Sensitivity	EATQ-R SF	Pre = 2.38 (0.52) Post = 2.31 (0.57)	Pre = 2.29 (0.59) Post = 2.38 (0.59)	F=3.889 p=.049*	0.22
5th-Grade Students					
Aggression	EATQ-R SF	Pre = 1.30 (0.79) Post = 1.31 (0.84)	Pre = 1.51 (0.85) Post = 1.38 (0.78)	F=1.605 p=.207	0.21
Attention	EATQ-R SF	Pre = 3.10 (0.33) Post = 3.03 (0.40)	Pre = 3.04 (0.54) Post = 3.01 (0.57)	F=0.159 p=.690	0.06
Depressive Mood	EATQ-R SF	Pre = 2.23 (0.70) Post = 2.09 (0.72)	Pre = 1.99 (0.72) Post = 1.87 (0.74)	F=0.040 p=.841	<0.01
Fear	EATQ-R SF	Pre = 2.13 (0.79) Post = 1.79 (0.93)	Pre = 1.82 (0.75) Post = 1.54 (0.84)	F=0.222 p=.639	0.09
Frustration	EATQ-R SF	Pre = 2.34 (0.63) Post = 2.32 (0.72)	Pre = 2.45 (0.76) Post = 2.27 (0.75)	F=1.471 p=.227	0.20
Perceptual Sensitivity	EATQ-R SF	Pre = 2.46 (0.68) Post = 2.43 (0.85)	Pre = 2.77 (0.70) Post = 2.56 (0.72)	F=1.281 p=.260	0.19
Pleasure Sensitivity	EATQ-R SF	Pre = 2.09 (1.00) Post = 1.69 (1.04)	Pre = 1.73 (1.09) Post = 1.69 (1.00)	F=3.708 p=.056	0.33

* indicates p<.05 based on results of repeated measures ANOVA tests

Table A5

Summary Table for High Risk Analyses⁹

Student Wellness Quality Measured	Scale ¹⁰	High-Risk Group Mean (SD)	Non-High Risk Group Mean (SD)	Test of Significance for Interaction (time*group)	Test of Meaningfulness for Interaction (Effect Size)
3rd- and 4th-Grade Students					
Aggression	EATQ-R SF	Pre = 2.23 (0.31) Post = 1.93 (0.53)	Pre = 1.27 (0.26) Post = 1.37 (0.35)	F=44.969 p<.001*	0.75
Attention	EATQ-R SF	Pre = 1.33 (0.13) Post = 1.67 (0.27)	Pre = 1.85 (0.19) Post = 1.78 (0.25)	F=84.431 p<.001*	1.03
Depressive Mood	EATQ-R SF	Pre = 2.47 (0.21) Post = 2.02 (0.54)	Pre = 1.53 (0.35) Post = 1.62 (0.46)	F= 52.786 p<.001*	0.81
Fear	EATQ-R SF	Pre = 3.00 (0.00) Post = 2.55 (0.35)	Pre = 2.13 (0.39) Post = 2.10 (0.51)	F=23.946 p<.001*	0.55
Frustration	EATQ-R SF	Pre = 2.74 (0.16) Post = 2.31 (0.43)	Pre = 1.91 (0.37) Post = 1.92 (0.45)	F=45.947 p<.001*	1.41
Perceptual Sensitivity	EATQ-R SF	Pre = 1.38(0.22) Post = 2.00 (0.61)	Pre = 2.51 (0.40) Post = 2.44 (0.55)	F=67.554 p<.001*	1.59
5th-Grade Students					
Aggression	EATQ-R SF	Pre = 2.59 (0.37) Post = 1.95 (0.73)	Pre = 1.10 (0.59) Post = 1.18 (0.73)	F=36.186 p<0.001*	1.68
Attention	EATQ-R SF	Pre = 2.34 (0.24) Post = 2.77 (0.43)	Pre = 3.26 (0.42) Post = 3.19 (0.52)	F=24.171 p<.001*	0.67
Depressive Mood	EATQ-R SF	Pre = 3.11 (0.35) Post = 2.69 (0.62)	Pre = 1.84 (0.56) Post = 1.78 (0.66)	F=6.027 p=.015*	0.42
Fear	EATQ-R SF	Pre = 3.10 (0.30) Post = 2.56 (0.64)	Pre = 1.71 (0.63) Post = 1.46 (0.80)	F=2.994 p=0.086	0.29
Frustration	EATQ-R SF	Pre = 3.35 (0.20) Post = 2.82 (0.74)	Pre = 2.18 (0.59) Post = 2.14 (0.68)	F=10.287 p=.002*	0.54
Perceptual Sensitivity	EATQ-R SF	Pre = 1.47 (0.28) Post = 2.30 (0.85)	Pre = 2.85 (0.56) Post = 2.55 (0.75)	F=30.606 p<.001*	0.94
Pleasure Sensitivity	EATQ-R SF	Pre = 0.29 (0.32) Post = 0.94 (0.91)	Pre = 2.19 (0.85) Post = 1.86 (0.96)	F=20.039 p<.001*	0.76

* indicates p<.05 based on results of repeated measures ANOVA test

⁹ Bolded items indicate statistically significant or educationally meaningful results.

¹⁰ EATQ-R SF=Early Adolescent Temperament Questionnaire-Revised Short Form

