

Opinion Article

Copyright © All rights are reserved by Debbie Ambrosetti

# Implementing Mindfulness in A Continuation School in Order to Help Decrease Negative Behaviors

Debbie Ambrosetti\*

Department of Secondary Education, California State University, Fullerton, USA

\*Corresponding author: Debbie Ambrosetti, Department of Secondary Education, California State University, Fullerton, USA.

Received Date: May 03, 2022

Published Date: May 31, 2022

## Opinion

A fight breaks out in the classroom; a student is perpetually truant, a young female becomes pregnant and cannot keep up with school. These are all candidates for continuation school. Since 1965, state law has mandated that school districts enrolling over 100 12th grade students make available a continuation program or school that provides an alternative route to the high school diploma for youth vulnerable to academic or behavioral failure. The law provides for the creation of continuation schools, "designed to meet the educational needs of each pupil, including, but not limited to, independent study, regional occupation programs, work study, career counseling, and job placement services" [1].

The concept of mindfulness, "the state of being attentive to and aware of what is taking place in the present" [2], is not new, but incorporating it into an adolescent (secondary) school setting specifically as a means to address, and possibly diminish, school violence is something that has not been addressed in an adequate manner. According to Albert (2015) [3], "Mindfulness is related to meditation, but the terms are not synonymous. Moreover, Mindfulness consists of formal meditation exercises (e.g., paying attention to the body, lying on the ground, or walking slowly with a sense of awareness of one's surroundings) as well as informal exercises (e.g., paying full attention to what one is doing or experiencing at a certain moment)."

First, note that an adolescent's prefrontal cortex (the area in the brain most notably used for sophisticated thinking abilities used to weigh risks and rewards as well as impulses), is not fully developed (Steinberg, 2005). Therefore, frequently, adolescents

do not think about the consequences of their actions until it is too late. The still-developing prefrontal cortex of an adolescent's brain can have noticeable effects on adolescent behavior: difficulty holding back or controlling emotions, a preference for physical activity, a predisposition towards high excitement and low effort activities (video games, sex, drugs, etc.). Due to the immaturity of the prefrontal cortex, adolescents are ill-equipped to address issues that relate to consequences, and judgment adequately. In other words, they rarely think of adverse effects, which can lead to riskier, impulsive behaviors, including experimenting with drugs and alcohol (Steinberg, L. 2008).

According to Casey, Tottenham, Liston, and Durston (2005) [4], the brain goes through a series of pruning, and one area that goes through the pruning process dramatically is the area that weighs risk and rewards, plans, and governs impulse control. Hence, this leads to an improvement in impulse control, thus better-regulating emotions, and the coordination of thoughts and feelings [5-7]. My work targeted increasing continuation school students sense of awareness to the present moment, for the possibility of looking at their actions and words objectively so that they can analyze what is occurring instead of "jumping to conclusions" and acting on impulse.

By learning to experience the present moment as it is, we develop the ability to step away from old habits of reacting without thinking, which is often an impulsive act. Reported are structural changes in the brain, such as an increase in the gray matter through pre and post MRIs in four areas of the brain. These areas are those

responsible for controlling arousal and responsiveness, cognitive and emotional processing, neuron regeneration, awareness and experience of the self, sensory perception, and motor control [8]. Increases in attention and affective processes [9], as well as decreases in stress and anxiety [10]. These are incredibly significant and relevant to my goal of using this increased awareness to address school violence through the practice of mindfulness. Perhaps the new mantra should read, "Teach a man to fish and he eats for life, teach a child to think before he acts, and you save a life."

It is important to note that mindfulness differs from qualities such as intelligence and alertness by its feature of open-mindedness which allows for the development and integration of diverse perspectives, details, and problem-solving strategies [11]. Mindfulness has been used in schools with success and popularity [12]. This study prompted me to take, what I believe is the next logical step, and that is to address issues of escalating violence in schools. By creating a gap between the experience of stress and an individual's reaction, informed choices may be possible for these young people.

Recent research has shown that mindfulness has borne positive outcomes for people working in high-stress environments, including the reduction of stress and heightened positive emotional state, as well as an increased willingness to tolerate negative emotions (Eifert & Heffner, 2003; Levitt, Brown, Orsillo, & Barlow, 2004) which can allow for acceptance of such feelings (Hayes, Strosahl, & Wilson, 1999; Linehan, 1993; Segal et al., 2002). Shorter recovery times from negative emotions is also one of the positives impacts of this practice of mindfulness meditation (Kabat-Zinn, 1990), among others. Nevertheless, few studies have directly tested these proposed mechanisms of action). This research holds promise that the practice of mindfulness may be useful in addressing the stress and social-emotional demands teachers have in their daily work [13].

From these positive research findings, I am hypothesizing that it may be possible to extend this area of promising research to include a larger group of adolescent respondents to address their violent, acting out, and their often reckless behaviors to have a sample that is generalizable to the larger population [14-20]. "Adolescents with conduct disorder frequently engage in aggressive and disruptive behaviors. Often these behaviors are controlled or managed through behavioral or other psychosocial interventions. However, such interventions do not always ensure lasting changes in an adolescent's response repertoire so that he or she does not engage in aggression when exposed to the same situations that gave rise to the behavior previously. Mindfulness training provides a treatment option that helps an individual focus and attends to conditions that give rise to maladaptive behavior."

The authors continued by stating, "The adolescents were able to learn the mindfulness procedure successfully and use it in situations that previously occasioned aggressive behavior which led to large decreases in the aggression of all three individuals. Follow-up data showed that the adolescents were able to keep their aggressive behavior at socially acceptable levels in school through

to graduation [21,22]." "Mindfulness is widely considered effective in psychotherapy as a treatment not just for adults, but also for children and adolescents with aggression, ADHD, or mental-health problems like anxiety." Using mindfulness in psychotherapy showed promising results; therefore, I decided on focusing on a population of adolescents who have had to leave their neighborhood assigned schools for a continuation school due to various issues in their lives [23,24]. The one thread that ran through the population I focused on was the anger and aggression they felt and exhibited. While some research has focused on school attendance, and truancy, one of the results has shown a decrease in aggression, as stated above and more often focused on elementary aged children. However, I have not read any studies of work being done to reduce aggression in continuation schools, and this is a very specialized population [25,26].

My methodology included both quantitative and qualitative research methods. The quantitative portion incorporated both a pre and post-test 5 points Likert-type scale that consisted of 10 questions. These questions were created to examine "child and adolescent mindfulness," issues related to "perceived stress" and evaluates their "self-esteem [27-30]."

The qualitative portion consisted of pre and post interviews with the teacher of the two classes and included open-ended interview questions detailed in the section below.

This study had six phases:

1. Meet with school Officials to review my research agenda in the area of and schedule the administration of the initial pre-test and subsequent training times, dates and location [31-33].
  - a. At the start of the study, I will meet with the principal for an interview about the types of conflict at the school, and she believed it was aggression and fighting.
2. I administered a pre-test to the students using a 5 point Likert-type scale which consists of 10 questions with three separate areas of focus as described: examine "child and adolescent mindfulness," addressed issues related to "perceived stress" and lastly, evaluated their "self-esteem."
3. Step two consisted of administering several ongoing training on the practice of mindfulness. The various training sessions occurred five times per week for students in a suburban, continuation secondary school, and continued throughout the spring semester. The student respondents are majority Latino and enrolled in a 9-12 continuation school. They were in a continuation school for various reasons: drug use, teen pregnancy, truancy, and aggression problems [34-38].
4. Step three involved administering a post-test using the same 5 points Likert-type scale at the end of the school's semester, which was collected and analyzed.
5. Finally, at the end of the secondary school's academic year, I met with the teacher of the two classes for a post-interview about her opinions about the issue of aggression and fighting

amongst the students in her classes. She explained that not only did she a dramatic decrease in the aggression, but also she bragged to other teachers at the school about how well her students were doing. She relayed to me that they didn't believe her. She then went on to explain how the custodian at the school just laughed, so she gave him a lesson, one that she copied from my training with her students, to him. Afterward, he expressed to her that he felt very relaxed [39-42].

I have spent my career investigating, conducting and examining research that would gain insight into the workings of adolescent behavior. The adolescents in this country are increasingly stressed and anxious-based on the study, this is not the formula for maintaining a productive educational environment. By conducting research in this area and using a specific population of angry and aggressive adolescents -- an avenue that had not been explored for the purposes outlined, I consider this study to be on the forefront for addressing the issues which too often manifest themselves as impulsive violence. As discussed earlier, mindfulness has already proven successful in reducing stress and anxiety, while at the same time increasing gray matter while offering these adolescents a method of addressing violence impulses before they occur. These results are very exciting and extremely appropriate given the increase this country has seen in adolescent violence [43-47].

## Findings

After completing my research, I analyzed the data to identify the mindfulness practices that worked and did not work to create a program in which we train both pre-service teachers and adolescents in secondary in our cross-campus teacher preparation program. However, my quantitative findings were not as stellar as I was hoping. There was no statistical significance in the survey data [48-52]. The survey questionnaire results were not promising at all. According to the survey results, there were not any changes.

## Case Processing Summary

### Cases

	Included	Excluded	Total			
	N	Percent	N	Percent	N	Percent
Q1* Group	75	90.4%	8	9.6%	83	100.0%
Q2* Group	70	84.3%	13	15.7%	83	100.0%
Q3* Group	73	88.0%	10	12.0%	83	100.0%
Q4* Group	76	91.6%	7	8.4%	83	100.0%
Q5* Group	73	88.0%	10	12.0%	83	100.0%
Q6* Group	66	79.5%	17	20.5%	83	100.0%
Q7* Group	76	91.6%	7	8.4%	83	100.0%
Q8* Group	73	88.0%	10	12.0%	83	100.0%
Q9* Group	70	84.3%	13	15.7%	83	100.0%
Q10* Group	66	79.5%	17	20.5%	83	100.0%

However, what I did uncover manifested itself in the qualitative

portion of the study in the form of student and teacher interviews. The interviews are the area I will focus on in this portion of the paper. My sessions with the students began and ended the same way each time. I would tell them to get into position [53-55]. The "position" meant sitting straight in their chairs and not crossing their arms or legs and closing their eyes. Others asked if they could sit on the floor or lay down. I allowed it but said face away from your classmates so that you don't become concerned with others looking at them. I included this last piece because as a professor of classes on adolescent development, I am aware of a concept labeled, imaginary audience [56-58]. This concept is a result of their heightened sense of self-consciousness that you believe you're the focus of everyone's attention. Imaginary audience is a developmental effect of adolescents' increased cognitive abilities. Therefore, if they face away from each other, I've assuaged their concerns. I began with a ringing of the bell and practiced having them focus on their breathing [59-62]. I then used specific mantras, if you will. I would recite them as follows, "Breathe in, breathe out. Breathe in caring, breathe out judgment; breath in love; breathe out criticisms; breath in relaxation, breathe out stress." Each session's mantras would follow a similar pattern. Now anyone who has worked with adolescents can attest to the thought that it is like herding cats, especially with this specific population's issues! However, by the third day, all I had to say was, "Get into your positions" and within, a minute they were ready to begin. The teacher was astonished. The students even began requesting the sessions because of, as they stated, how it made them feel [63-67].

An interesting note is that my qualitative findings seemed to go in direct opposition to my quantitative findings which were deemed insignificant. The pre and post data from the quantitative results showed no difference. The questions in the survey requested information on how they rated themselves regarding stress, feeling out of control and their ability to manage the daily lives and the stressful events that occurred. According to social scientists, this is a term that describes a type of response bias that is the tendency of survey respondents to answer questions in a manner that will be viewed favorably by others. It can take the form of over-reporting "good behavior" or under-reporting "bad," or undesirable behavior. The tendency poses a serious problem with researching with self-reports, especially questionnaires. This information helps explain why students rated themselves highly on their ability to manage their lives and deal with stress. However, the anecdotal information which came from speaking with these same students in a one-on-one manner was surprising in a very positive way. They reported that they employed mindfulness techniques in various situations [68-70].

The most noteworthy to me was the very aggressive young man who explained to me that he doesn't feel like killing anyone anymore. Another respondent, a 15-year-old girl who had an infant stated that she would repeat the mantras aloud with her baby and that both she and her child would fall asleep. A 16-year-old mother waited outside of class because she needed help with her anger issues. She stated that she's so angry all the time. I gave her some tips on mindful walking and mindful eating. The same

person came back to me and expressed her gratitude. Others stated it helped them relax at night or when they felt “about to lose it.” These vignettes are a testament to the compelling role mindfulness can have on engaging students in their behavior modification and control. Too often those in positions of power, administrators, and teachers impose their will for a change of behaviors onto their students. However, as my work with this frequently troublesome population of students has shown, students who work to modify their behavior through the use of mindfulness as a means to connect with their emotions and the larger world, are more willing to change. And often, but often, they’re not even aware that they are engaged in practice with behavior modification as its goal. In other words, not imposing our will on students, but allowing them to explore and examine their emotions in a nonintrusive manner has promising results [71-73].

Even without prodding, after a few weeks of mindfulness training for the students, which the teacher sat in on, I noticed her exuberance. She began meeting me at the door, eager to begin the session. She even expressed to me that she was sharing her observations on her students’ change in behavior with the other teachers in the continuation school, stating that they didn’t believe that the student population in this school was able to do what’s involved in the practice of mindfulness. She invited them to sit in on a session. She even recalled an incident when the janitor came in and said he had heard of what was going on in her classes in respect to mindfulness training and thought it was a bunch of nonsense. Since I kept my meditation bell in her closet, she decided to imitate my practice and have the janitor sit for a session. Afterward, he begrudgingly admitted that he felt calmer, more at ease and relaxed. He said he couldn’t believe how it made him feel [74-77].

After concluding my student training, as I prepared to leave the school, I gave the teacher own bell. She later admitted to continuing the practice with her students and bragging to other teachers about how much better her students were doing, overall. I find this to be a very promising result. Also, for the students involved to sustain this practice on their own, outside of the school environment, as they admitted to me, is a testament to the positive role it has had on their everyday life. My goal was to teach the students to utilize the practice of mindfulness as a method to ensure that they would have the tools necessary to deal with their issues of stress and anxiety effectively before their actions become negative or violent. Hopefully, this will become a continuous cycle of practice for them [78].

Further research needs to focus on creating better ways of surveying respondents as to not end up with a social desirability bias. Also, I will be looking to develop and implement better framed in-depth interviews with those involved in the studies. Additionally, I would like to conduct mindfulness research at an adolescent detention center. The students in this environment are a highly specialized population with a target audience of adolescents who need to reduce their anger and violent behavior. The best approach would be preventative, however, targeting this special population might serve as an early intervention measure. By giving these adolescents the tools and strategies to control their thoughts and

actions, this strategy may work towards aiding these adolescents towards redefining themselves from identifying as someone in a detention center to someone who can redefine their destiny and choose an alternate path [79-81].

## Acknowledgement

None.

## Conflict of Interest

No conflict of interest.

## References

- California Education Code, § 48430, et seq., and § 51225.3.
- Brown K, Ryan R (2003) The benefits of being present: Mindfulness and its role in psychological well-being. *J Pers Soc Psychol* 84(4): 822-848.
- Alberts HJEM, Hülshager UR (2015) Applying mindfulness in the context of work: mindfulness-based interventions. In, Reb J, Atkins PWB (Eds.). *Mindfulness in organizations. Foundations, research, and applications.* Cambridge: Cambridge University Press, UK. pp.100-132.
- Casey, Tottenham, Liston, Durston (2005)
- Dwyer (2014)
- Ladouceur, Peper, Crone, Dahl (2012)
- Smith Steinberg, Chen (2014)
- Hölzel B K, Carmody J, Vangel M, Congleton C, Yerramsetti S M, Gard T, et al. (2011) Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Res* 191(1): 36-43.
- Lutz A, Greischar L L, Rawlings N B, Ricard, M, Davidson R J (2004) Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *PNAS* 101: 16369-16373.
- Davidson R J, Kabat-Zinn J, Schumacher J, Rosenkranz M, Muller D, et al. (2003) Alterations in brain and immune function produced by mindfulness meditation. *Psychosom Med* 65(4): 564-570.
- Langer E J (1993) A mindful education. *Educational Psychologist* 28: 43-50.
- Wisner B, Jones B, Gwin D (2010) School-based meditation practices for adolescents: A resource for strengthening self-regulation, emotional coping, and self-esteem. *Children & Schools* 32(3): 150-159.
- Roeser R W, Skinner E, Beers J, Jennings P A (2012) Mindfulness Training and Teachers’ Professional Development: An Emerging Area of Research and Practice. *Child Development Perspectives* 6(2): 167-173.
- Baime M (2011) This is your brain on mindfulness. *Shambhala Sun* 44-48.
- Barnes V, Davis H, Murzynowski J, Treiber F (2004) Impact of meditation on resting and ambulatory blood pressure and heart rate in youth. *Psychosom Med* 66(6): 909-14.
- Beauchemin J, Hutchins T, Patterson F (2008) Mindfulness meditation may lessen anxiety, promote social skills, and improve academic performance among adolescents with learning disabilities. *Complementary Health Practice Review* 13(1): 34-45.
- Benson H, Wilcher M, Greenberg B, Huggins E, Ennis M, et al. (2000) Academic Performance Among Middle School Students After Exposure to a Relaxation Response Curriculum. *Journal of Research and Development in Education* 33(3): 156-165.
- Brady R (2008) Realizing true education with mindfulness. *Journal of Sociology of Self-Knowledge* 4: 87-97.
- Brefczynski-Lewis J A, Lutz A, Schaefer H S, Levinson D B, Davidson R J (2007) Neural correlates of attentional expertise in long-term meditation practitioners. *PNAS* 104: 11483-11488.

20. Brown P (2007, June 16) In the classroom, a new focus on quieting the mind. *New York Times*.
21. Bush M (2011) Mindfulness in higher education. *Contemporary Buddhism* 12: 183-197.
22. Csikszentmihalyi M (1997) Finding flow. *Psychology Today* 30(4): 46.
23. Csikszentmihalyi M, Larson R (1987). Validity and reliability of the experience-sampling method. *J Nerv Ment Dis* 175(9): 526-536.
24. Darling-Hammond L (2009) Steady work: How Finland is building a strong teaching and learning system. *Voices in Urban Education* 15-25.
25. Elias M (2009, June 7) Mindfulness meditation being used in hospitals and schools. *USA Today*.
26. Fashola O S, Slavin R E (1998) Schoolwide Reform Models: What Works?. *Phi Delta Kappan* 79(5).
27. Forsman L (2010) EFL communication in the new millennium: Focus on the promotion of awareness of difference and diversity. *Journal of Educational Research* 54: 501-517.
28. Franco C, Manas I, Cangas A J, Gallego, J (2010) The applications of mindfulness with students of secondary school: Results on the academic performance, self-concept, and anxiety. *Communications in Computer and Information Science* 111: 83-97.
29. Fredrickson B L, Branigan C (2005) Positive emotions broaden the scope of attention and thought-action repertoires. *Cogn Emot* 19(3): 313-332.
30. Geary C, Rosenthal S L (2011) Sustained Impact of MBSR on Stress, Well-Being, and Daily Spiritual Experiences for 1 Year in Academic Health Care Employees. *J Altern Complement Med* 17 (10): 939-944.
31. Laurie A Greco, Ruth A Baer, Gregory T Smith (2011) Assessing mindfulness in children and adolescents: Development and validation of the child and adolescent mindfulness measure (CAMM). *Psychol Assess* 23(3): 606-614.
32. Greenberg M T, Domitrovich C, Bumbarger B (2001) The prevention of mental disorders in school-aged children: current state of the field. *Prevention & Treatment* 4: 1-62.
33. Ludwig Grepmaier, Ferdinand Mitterlehner, Thomas Loew, Marius Nickel (2007) Promotion of mindfulness in psychotherapists in training: Preliminary study. *Eur Psychiatry* 22(8): 485-489.
34. Hanh T N (2011) *Planting Seeds: Practicing Mindfulness with Children*. Parallax Press.
35. Hooker A E, Fodor I E (2008) Teaching mindfulness to children. *Gestalt Review* 12: 75-91.
36. Isen A M, Daubman K A, Nowicki G P (1987) Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology* 52: 1122-1131.
37. Jennings P, Greenberg M (2009) The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research* 79(1): 491-525.
38. Johannesson I A (2002) An Inevitable Progress? Educational restructuring in Finland, Iceland, and Sweden at the turn of the millennium. *Scandinavian Journal of Educational Research* 46: 325-339.
39. Kabat-Zinn J (2003) Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice* 10(2): 144-156.
40. Kee Y H, Wang C K J (2008) Relationships between mindfulness, flow dispositions, and mental skills adoption: A cluster analytic approach. *Psychology of Sport and Exercise* 9(4): 393-411.
41. Kirsch I, de Jong J, Lafontaine D, McQueen J, Mendelovits J, et al. (2002) Performance and engagement across countries: Results from PISA 2000. Organisation for Economic Co-Operation and Development. Programme for International Student Assessment.
42. Kupari, P, Välijärvi J (2005) Osaaminen kestävällä pohjalla. PISA 2003 Suomessa [Competences on solid ground. PISA 2003 in Finland]. Jyväskylä, Institute for Educational Research, University of Jyväskylä, Finland.
43. Langer E J (2000) Mindful learning. *Current Directions in Psychological Science* 9: 220-223.
44. Lee J, Semple R J, Rosa D, Miller L (2008) Mindfulness-based cognitive therapy for children: Results of a pilot study. *Journal of Cognitive Psychotherapy* 22: 15-28.
45. Leppävirta J (2011) The impact of mathematics anxiety on the performance of students of electromagnetics. *Journal of Engineering Education* 100: 424-443.
46. Lipsey M (1998) Design sensitivity: Statistical power for applied experimental research. In L Bickman & D J Rog (Eds.), *Handbook of Applied Social Research Methods* (pp. 39-68). CA: Thousand Oaks.
47. Moneta G, Csikszentmihalyi M (1996) The effect of perceived challenges and skills on the quality of subjective experience. *J Pers* 64(2): 275-310.
48. Napoli M, Krech P R, Holley L C (2005) Mindfulness training for elementary school students: The Attention Academy. *Journal of Applied School Psychology* 21: 99-125.
49. Neff K (2003) The development and validation of a scale to measure self-compassion. *Self & Identity* 2(3): 223-250.
50. OECD (2001) Knowledge and skills for life: First results from the OCED Programme for International Student Assessment (PISA) 2000. Programme for International Student Assessment.
51. OCED (2004) Learning for tomorrow's world: First results from PISA 2003. Programme for International Student Assessment.
52. OCED (2010) PISA 2009 results: What students know and can do - Student performance in reading, mathematics, and science. (Vol. 1). Programme for International Student Assessment.
53. Ostafin B, Kassman K (2012) Stepping out of history: Mindfulness improves insight problem-solving. *Conscious Cogn: An International Journal* 21(2): 1031-1036.
54. Radel R, Sarrazin P, Legrain P, Gobancé L (2009) Subliminal priming of motivational orientation in educational settings: Effect on academic performance moderated by mindfulness. *Journal of Research in Personality* 43(4): 695-698.
55. Rathunde K (2003) A comparison of Montessori and traditional middle schools: Motivation, quality of experience, and social context. *The NAMTA Journal* 28: 13-52.
56. Raudenbush S W, Bryk A S (2002) *Hierarchical Linear Models: Applications and Data Analysis Methods*. Thousand Oaks, CA: Sage.
57. Rosaen C, Benn R (2006) The Experience of Transcendental Meditation in Middle School Students: A Qualitative Report. *Explore (NY)* 2(5): 422-425.
58. Rowe G, Hirsh J B, Anderson A K, Smith E E (Adolescents) Positive affect increases the breadth of attentional selection, *PNAS Proceedings of the National Academy of Sciences of the United States of America* 104: 383-388.
59. Sahlberg P (1997) Who would help a teacher--The teacher in changing schools. *The School Field* 6: 33-51.
60. Sahlberg P (2004) Teaching and globalization. *Managing Global Transitions* 2: 65-83.
61. Sahlberg P (2007a) Education policies for raising student learning: The Finnish approach. *Journal of Education Policy* 22: 147-171.
62. Sahlberg P (2007b) Secondary education in OECD countries: Common challenges, differing solutions. Brasilia, Brazil: European Training Foundation.
63. Saltzman A, Goldin P (2008) Mindfulness-based stress reduction for school-age children. In L Greco, S Hayes (Eds.). *Acceptance and Mindfulness Treatments for Children and Adults* (pp. 139-161). Oakland, CA: New Harbinger Publications.
64. Schmidt J A, Shernoff D J, Csikszentmihalyi M (2007) Individual and situational factors related to the experience of flow in adolescence: A

- multilevel approach. In A D Ong, M v Dulmen (Eds.), *The handbook of methods in positive psychology* (pp. 542-558). Oxford, England: Oxford University Press.
65. Schonert-Reichl K, Lawlor M (2010) The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness* 1(3): 137-151.
66. Schweinle A, Turner J, Meyer D (2009) Understanding young adolescents' optimal experiences in academic settings. *Journal of Experimental Education* 77(2): 125-143.
67. Seligman M, Csikszentmihalyi M (2000) Positive psychology: An introduction. *American Psychologist* 55(1): 5-14.
68. Seligman M, Ernst R, Gillham J, Reivich, K, Linkins M (2009) Positive education: Positive psychology and classroom interventions. *Oxford Review of Education* 35(3): 293-311.
69. Semple R J, Reid E F G, Miller L (2005) Treating anxiety with mindfulness: An open trial of mindfulness training for anxious children. *Journal of Cognitive Psychotherapy* 19: 379-391.
70. Shernoff D J, Csikszentmihalyi M (2009) Flow in schools: Cultivating engaged learners and optimal learning environments. In R. Gilman, E. S. Huebner, & M. Furlong (Eds.), *Handbook of Positive Psychology in Schools* (pp. 131-145). New York: Routledge.
71. Shernoff D, Csikszentmihalyi M, Shneider B, Shernoff E (2003) Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly* 18(2): 158-176.
72. So K T, Orme-Johnson D W (2001) Three randomized experiments on the longitudinal effects of the Transcendental Meditation technique on cognition. *Intelligence* 29(5): 419-440.
73. Thompson M, Gauntlett-Gilbert J (2008) Mindfulness with children and adolescents: Effective clinical application. *Clin Child Psychol Psychiatry* 13(3): 395-407.
74. Tran N A, Candy D, Weisbaum E (in preparation) The effects of mindfulness training on teachers' self-compassion.
75. van Vugt M, Jha A P (2011) Investigating the impact of mindfulness meditation on working memory: A mathematical modeling approach. *Cogn Affect Behav Neurosci* 11(3): 344-354.
76. Wall R B (2005) Tai Chi and Mindfulness-Based Stress Reduction in a Boston public middle school. *J Pediatr Health Care* 19(4): 230-237.
77. Westbury I, Hansén E, Kansanen P, Björkvist O (2005) Teacher education for research-based practice in expanded roles: Finland's experience. *Scandinavian Journal of Educational Research* 49: 475-485.
78. Wright J J, Sadlo G, Stew G (2006) Challenge-skills and mindfulness: An exploration of the conundrum of flow process. *Occupation, Participation, and Health* 26: 25-32.
79. Yeganeh B, Kolb D (2009) Mindfulness and experimental learning. *OD Practitioner* 41: 13-18.
80. Zakaria E, Nordin N M (2008) The effects of mathematics anxiety on matriculation students as related to motivation and achievement. *Eurasia Journal of Mathematics, Science, & Technology Education* 4: 27-30.