




8-1-2011

Resilience, Character Strengths and Flourishing: A Positive Education Workshop for Singapore Teachers

Sha-En Yeo
happycoachee@gmail.com

Follow this and additional works at: http://repository.upenn.edu/mapp_capstone

 Part of the [Junior High, Intermediate, Middle School Education and Teaching Commons](#), [Other Psychology Commons](#), and the [Secondary Education and Teaching Commons](#)

Yeo, Sha-En, "Resilience, Character Strengths and Flourishing: A Positive Education Workshop for Singapore Teachers" (2011).
Master of Applied Positive Psychology (MAPP) Capstone Projects. 25.
http://repository.upenn.edu/mapp_capstone/25

This paper is posted at ScholarlyCommons. http://repository.upenn.edu/mapp_capstone/25
For more information, please contact libraryrepository@pobox.upenn.edu.

Resilience, Character Strengths and Flourishing: A Positive Education Workshop for Singapore Teachers

Abstract

Positive education, or teaching the skills of well-being through direct instruction and the curriculum, aims to teach children the skills to build resilience, capitalize on strengths and systematically build the pillars for a flourishing life. Positive education can succeed amidst a supportive school environment and well-equipped teachers that inculcate the right values and character. Given that school-going children spend more than fifty percent of their time in school, it is thus imperative that teachers be trained with the skills of well-being. This paper provides an introduction to positive psychology (the foundation for positive education), describes the need for positive education in Singapore schools and proposes a workshop to equip secondary/high-school teachers with the skills and knowledge of resilience, character strengths and a flourishing life – the elements of which are summarized as PERMA (positive emotions, engagement, relationships, meaning & achievement) (Seligman, 2011).

Keywords

positive education, resilience, strengths, positive emotions, engagement, meaning, achievement

Disciplines

Junior High, Intermediate, Middle School Education and Teaching | Other Psychology | Secondary Education and Teaching

Resilience, Character Strengths and Flourishing:
A Positive Education Workshop for Singapore Teachers

Sha-En Yeo

University of Pennsylvania

A Capstone Project Submitted

In Partial Fulfillment of the Requirements for the Degree of

Master of Applied Positive Psychology

Advisor: Dr Jane. E. Gillham

August 1, 2011

**Resilience, Character Strengths and Flourishing:
A Positive Education Workshop for Singapore Teachers**

Sha-En Yeo

shaen@positiveedu.com

Capstone Project

Master of Applied Positive Psychology

University of Pennsylvania

Advisor: Dr Jane E. Gillham

August 1, 2011

Abstract

Positive education, or teaching the skills of well-being through direct instruction and the curriculum, aims to teach children the skills to build resilience, capitalize on strengths and systematically build the pillars for a flourishing life. Positive education can succeed amidst a supportive school environment and well-equipped teachers that inculcate the right values and character. Given that school-going children spend more than fifty percent of their time in school, it is thus imperative that teachers be trained with the skills of well-being. This paper provides an introduction to positive psychology (the foundation for positive education), describes the need for positive education in Singapore schools and proposes a workshop to equip secondary/high-school teachers with the skills and knowledge of resilience, character strengths and a flourishing life – the elements of which are summarized as PERMA (positive emotions, engagement, relationships, meaning & achievement) (Seligman, 2011).

Table of Contents

Introduction to Positive Psychology	4
Resilience, Character Strengths and Flourishing	5
The Need for Positive Education	6
Existing School-based Programs	8
Overview of Singapore Education.....	9
People as Valuable Resources	9
Criticism of Singapore Education.....	10
Social Emotional Learning for Character Education.....	11
Positive Education Complements Social Emotional Learning	12
Focus on Teachers.....	13
Importance of Teacher Training	14
Challenges Faced by Singapore Teachers.....	15
Support for Teacher Development in Singapore Education	15
Learn-by-Doing Workshop Approach.....	16
Positive Education Workshop for Teachers.....	17
Conceptual Background and Activities	18
Resilience.....	18
Character Strengths.....	25
Positive Emotions	30
Engagement.....	33
Relationships.....	38
Meaning	44
Achievement	47
Future Implementation	53
Conclusion	54
Appendices.....	55
References.....	64

Introduction to Positive Psychology

“Positive psychology is the scientific study of optimal human functioning. It aims to discover and promote factors that allow individuals, communities, societies to thrive and flourish.”

- Jonathan Haidt & Shelly Gable (2005)

The study of positive psychology (PP) is focused on ‘what is going right’ with people, communities and societies and how we can lead more fulfilling lives. This proposal that there is more to humanity than the solving of problems and mental illness was put forward by Martin Seligman in 1998 (when he was APA president) to balance the study of psychology, which has historically focused on what is going wrong in human beings and how to fix it. With PP, Seligman (1998) believes that what is good about life is as genuine as what is bad and therefore deserves equal attention from psychologists (Peterson, 2002). The field of PP covers a wide range of topics, from the study of self-efficacy in individuals to that of job crafting in organizations and justice in communities.

It is thus not surprising that PP is widely applicable in industries ranging from nursing (positive health), to corporations (positive organizational scholarship), to education (positive education). In all its applications, PP has given a fresh lens to viewing what are traditional approaches of operating. For instance, instead of simply viewing doctors’ offices as places that people go to remove illness, it is a place where people go to build and learn about health. This follows from the proposal that an absence of disease is not the same as living a healthy, flourishing life (Fowler, 2010). Similarly, corporations are not just places where people to go churn out reports or trudge through ten to twelve hours of day; instead they are places of engagement where people find meaning (Grant, 2010). Finally, in the realm of education, schools are not places just to learn the skills of achievement or to use as a stepping stone for a career, but institutions to educate children on how to live lives signified by good character and

values. In the same way, students are not empty vessels that come laden with family and individual issues but are people with strengths who have great propensity and potential for learning.

Resilience, Character Strengths and Flourishing

This paper will focus on three key areas of PP: (1) resilience, (2) character strengths; and (3) flourishing: a well being theory summarized in the acronym PERMA (Seligman, 2011). Each of these areas plays a different function in building a more fulfilling life.

Resilience, or the ability to overcome challenges, is often lauded as a favorable human trait. Indeed, one aspect of positive human functioning is when a person faces significant life challenges and has to overcome adversity (Ryff & Singer, 2003). Although resilience often arises from depths of despair, the sheer determination and courage some people exhibit as they go against the odds and come out triumphant is admirable and worth studying. Resilience does not ignore the pain people go through, but examines how they emerge stronger than before.

Character strengths form the foundation of the study of PP. Indeed, a study of positive human traits would not be possible without including personal qualities that reflect virtues and sound values. In asking the question “what constitutes a virtue or character strength?” Seligman & Peterson (2004) identified 24 strengths (see **Appendix 1**) that were found to be universal across societies and history. Seligman (2004) believes that emphasizing and utilizing these strengths in every domain of life will greatly enhance well-being.

Flourishing, the new well-being theory put forth by Seligman (2011) describes the keys to leading a fulfilling life. Over the last 13 years since the field emerged, Seligman found that there are five elements humans pursue independently for increased well-being: positive emotions (P), engagement (E), relationships (R), meaning (M) and achievement (A); the acronym PERMA

(Seligman, 2011) was neatly coined to capture these elements. This theory forms the backbone of well-being by looking at the positive side of life and is supported by the foundation of character strengths and balanced by the study of resilience.

The Need for Positive Education

“You can get all A's and still flunk life.”

- Walker Percy

To Dr. Martin Luther King Jr. (1947), the purpose of education was two-fold – develop intelligence and character. He cautioned against education being just about efficiency and emphasized critical and intensive thinking that would give students the “power of concentration [and] worthy objectives upon which to concentrate” (Luther King Jr., 1947, p.1). Historically, most schools have strived towards this twin emphasis on intelligence and character. In recent years, however, schools have shifted their focus to academic achievement, as doing well (i.e. getting ‘A’s in exams) leads to securing a place in a good university and ultimately, a good job. This cycle means that schools devote resources into enhancing test scores, sometimes neglecting the need to instill values and build character. Positive education, or teaching the skills of well-being through direct instruction or infusion into the curriculum, hopes to bring the balance back to the equation through an emphasis on building resilience, character strengths and well-being.

Seligman (2008) often poses this question to educators: “In two words or less, what do you most want for your children?” Most respond with words like ‘Love’, ‘Happiness’ and ‘Fulfillment’. Next he poses the question: “In two words or less, what do schools teach?” Most of the time, the response is along the lines of ‘Success’, ‘Math’ or ‘Literacy’. He noted that the answers to the two questions do not overlap and this gap exists because schools believe that achievement and well-being cannot be taught alongside each other (Seligman, 2008). Positive education proposes that the skills of well-being can be similarly taught like the skills of

achievement: through deliberate teaching of skills and concepts to both teachers and students, without compromising achievement.

The need for positive education is crucial for two reasons. Firstly, positive education can help to prevent depression in adolescence. Depression is quite common in youths, with approximately 4–8 percent of adolescents suffering depression in any given year (Costello et al., 2002; National Institute of Mental Health, 2000). Research conducted reveals that the first onset of depression happens on average around 15 years of age (Lewinsohn et al., 1994). By 18, as high as one in five youths have suffered a clinically significant episode (Lewinsohn, Hops, Roberts & Steeley, 1993). Some researchers (Costello, Erkanli & Angold, 2006) argue that the rate of youth depression is not actually increasing but is a result of greater awareness of depression and poor methodology; however, there is evidence to show that depression in youth is a phenomenon to be concerned about and has implications for adulthood. Research has found that depression is often recurrent in adolescence and predicts increased risk for depression in adulthood as well (Garber, Kriss, Koch, & Lindholm, 1988; Harrington, Fudge, Rutter, Pickles, & Hill, 1990); it also predicts various adverse outcomes in adulthood, including lower educational attainment, poor work history, substance abuse, and recurrent episodes of mood disorder (Rohde, Lewinsohn & Seeley, 1994; Weismann., et al, 1999).

Secondly, positive education can help schools refocus their attention on building character and promoting well-being or flourishing. To this end, schools will benefit greatly when they focus on fostering traits such as social competence, autonomy and sense of meaning and purpose (Benard, 1991). According to Benard (1995), these traits help to build internal assets or resources students can tap into when encountering adversity. Of course, these must be supported by external assets such as caring protective relationships, high expectations and meaningful

participation at the school and community level (Benard, 1995). Furthermore, positive education can also be seen a vehicle for increasing life satisfaction and an aid to better learning and more creative thinking (Seligman et al, 2009).

Existing School-based Programs

Research on school-based programs and interventions suggests that the aims of preventing depression and increasing well-being can be achieved through positive education. For example, the Penn Resiliency Program, that focuses on building resilience in adolescents aged 10-12 years, has been found to reduce and prevent symptoms of depression, reduce hopelessness and anxiety (Gillham, Brunwasser & Freres, 2008). The High School Positive Psychology Program, that aims to promote strengths and several aspects of PERMA in youths aged 16-18, has been found to have many positive effects e.g. increased students' reports of enjoyment and engagement in school (Seligman et al., 2009). The Promotion of Alternative THinking Strategies (PATHS) program, which teaches social awareness and problem-solving skills to youth, has been found to improve social skills and prevent behavior problems and symptoms of anxiety and depression (Greenberg, Kusche & Riggs, 2004).

Such programs have a wide range of positive effects on students such as improved emotional well-being, social skills, classroom behavior, attitudes about school and achievement (CASEL, 2008). Furthermore, children from different geographic, socio-economic and racial, ethnic and cultural backgrounds benefit from these school-based programs. It is important that these programs be complemented with a nurturing school climate or culture (Gillham et al., 2011). For instance, the philosophy of PP could be embedded into instructional practices, school rules, policies, goals and aspirations; support networks such as counseling and advisory; and

increased collaborations with family and organizations in the community that serve youth (Benard, 2004).

An example of a school that embeds PP through its culture is Geelong Grammar School (GGS), Australia's premier private school for elementary through to high school students. Since 2008, they have been involved in infusing positive education throughout their school in three ways: (a) teaching positive education (resilience, gratitude, strengths) explicitly; (b) embedding positive education into the curriculum e.g. identifying characters' strengths in Macbeth in literature class (White, 2010); and (c) living positive education e.g. practicing it in daily lives (Seligman et al., 2009). Through the three approaches, GGS has become an institution not only characterized by good academic results, but an institution that cares for development of good character and well-being of each and every person that passes through its doors (White, 2010).

Overview of Singapore Education

Singapore's education system has been described as “world-leading” and in 2010 was among those picked out for commendation by the British education minister Michael Gove (BBC, 2010). A recent McKinsey (2010) report placed Singapore as having “great” and “most improved” schools and capable teachers. This status of “most improved” means that the Singapore education system has achieved significant, sustained, and widespread gains in student outcomes on international and national assessments from 1980 onwards. This indicates that the system has seen five years or more of consistent rises in student performance spanning multiple data points and subjects (McKinsey report, 2010).

People as Valuable Resources

With almost 20 percent of the national budget focused on education for its citizens, Singapore certainly sees its people as a valuable resource that have a unique contribution to make. The government believes strongly that through education, every individual can realize his

full potential, use his talents and abilities to benefit his community and nation, and lead a full and satisfying life. As such, it is not surprising that the mission of Ministry of Education (MOE) is “Molding the future of the nation” and the vision is to see “Thinking Schools, [and a] Learning Nation” (MOE, 1997). More specifically, the hope is to build a nation of thinking and committed citizens capable of meeting the challenges of the future, and an education system geared to the needs of the 21st century (MOE, 1997).

The desired outcomes of education (DOEs) (i.e. attributes that educators aspire for every Singaporean to have by the completion of his formal education) drive the policies and direction of the MOE. A person that has been schooled in the Singapore education system should embody the DOEs upon leaving school (MOE, 2001). He/she has a good sense of self-awareness, a sound moral compass, and the necessary skills and knowledge to take on challenges of the future. Also, he/she is responsible to his family, community and nation. Finally, he/she appreciates the beauty of the world around him, possesses a healthy mind and body, and has a zest for life. In sum, the person is confident, self-directed, an active contributor and a concerned citizen (MOE, 2010).

Criticisms of Singapore Education

While the system has prepared many Singaporeans for academic success, it has been criticized for insufficiently developing soft skills such as empathy and respectful listening. In fact, many Singaporeans who fare well academically are not employable. According to the Workforce Development Agency (WDA, 2002), some top scorers lack the emotional intelligence and practical skills needed to interact with customers and do even better. They usually cannot think out of the box and are used to following instructions. Furthermore, owing to this strong academic focus, students suffer from pressure from both the school as well as the home.

A UNICEF survey conducted in 2001 found that 35 percent of Singaporean children (age fourteen and below) reported that getting good grades made them happy. Exam anxiety was one of the main causes of unhappiness among the children. Of more concern was the finding that 36 percent of the children surveyed indicated failing tests and examinations as their greatest fear compared to 17 percent who considered parents or guardians dying as their greatest fear (UNICEF, 2001). High parental expectations could be another factor contributing to the stress. A Ministry of Community Development, Youth and Sports (MCYS) study on Marriage and Parenthood (2004) showed that parents are generally concerned over their children's future, especially with regard to education and other achievements of material wellbeing. While 72 percent of parents were most likely to profess that achievements did not matter so long as their children were happy, they nevertheless had high expectations. These multiple pressures have led to the education environment in Singapore referred to as a "pressure cooker" (Chua, 2011).

Social Emotional Learning for Character Education

To counter these criticisms and ensure students achieve the desired outcomes of education, the MOE introduced Social Emotional Learning (SEL) as an approach towards developing a more holistic student and giving teachers the language with which to enable students to enhance their "life effectiveness" (CASEL, 2011). SEL, defined as "the process of acquiring the skills to recognize and manage emotions, establish and maintain positive relationships, make responsible decisions and handle interpersonal situations effectively" (CASEL, 2007, p.1), is based on the theory of emotional intelligence put forward by Daniel Goleman. The goal of SEL, aside from promoting life effectiveness, ultimately aims to help students have greater social and emotional well-being.

Currently, all schools (and all teachers) in Singapore have received basic training in SEL concepts and it is a core approach towards character education. Thus far, the results of SEL in

Singapore schools has been encouraging, with schools reporting students' ability to better manage relationships with their peers and making better decisions (MOE, 2009). This is supported by CASEL's findings that students in schools that use an evidence-based SEL curriculum (one that has been scientifically evaluated and found effective) significantly improve in their attitudes toward school, their behaviors, and their academic performance.

As mentioned earlier in the paper, the Promotion of Alternative THinking Strategies (PATHS) program is one such curriculum that has been shown to improve social skills and prevent behavior problems and symptoms of anxiety and depression (Greenberg, Kusche & Riggs, 2004). The Seattle Social Development program, meant for students aged 6 to 12, promotes a positive classroom environment and teachers' social competence and problem-solving skills, has been found to prevent aggression and violence, substance use and other high risk behavior through adolescence (Hawkins, Smith & Catalano, 2004). Finally, a recent review of thirty studies found that SEL results in improvements in students' achievement test scores—by an average of 11 percentile points over students who are not involved in SEL programming (Durlak, Weissberg, Taylor, Dymnicki & Schellinger, 2008).

Positive Education Complements SEL

Given that all schools in Singapore already have SEL as their framework for character education, positive education can further build on SEL as they both share a common goal - increasing well-being and the development of good character. SEL teaches the skills we all need to handle ourselves, our relationships, and our work, effectively and ethically. These skills include recognizing and managing our emotions, developing caring and concern for others, establishing positive relationships, making responsible decisions, and handling challenging

situations constructively and ethically. Implemented schoolwide, SEL helps create and maintain safe, caring learning environments (CASEL, 2007).

Positive education can leverage on the SEL foundation of care and concern for others, positive relationships, making good decisions and responding to challenges in a flexible, accurate way; it can explicitly promote the identification and use of character strengths, suggest specific strategies for greater student engagement through psychological flow, propose spiritual questions to help students find greater meaning and purpose in coming to school and identify various pathways to achievement. In this way, positive education broadens the concept of well-being from that of “life-effectiveness” to that of a “thriving and flourishing life” (Seligman, 2011). In summary, SEL is a *process* of learning life skills, while positive education is a *philosophy* of education that is rooted in the psychological objectives of finding and nurturing genius and talent and making normal life more fulfilling.

Focus on Teachers

“A teacher affects eternity; he can never tell where his influence stops.”

- Henry Brooks Adams

Teachers are mentors and role models to their students – influencing young minds and inculcating sound social and moral values through word and deed, within and beyond the classroom. They are thus in a position to not only deliver the content but also to be a caring, competent adult. The presence of such an adult in the school environment is one of the enabling factors of children’s resilience (Masten & Reed, 2005). As a role model, they play a crucial part in shaping the character of their students. Indeed, research has found that prosocial behaviors such as sharing, helping, and being a good teammate can be facilitated by modeling and strengthened by appropriate reinforcement (Radke-Yarrow, Zahn-Waxler & Chapman, 1983). Aristotle also argued that character results from adults guiding the activities of youth. This

suggests that important adults in youth's lives such as parents, teachers, youth development program leaders and sports coaches may play important roles as character mentors (Park, 2004).

Should teachers neglect to form emotionally warm, supportive relationships with and among their students, both parties will suffer. By fostering the appropriate social and emotional climate in the classroom, students' chances for academic success are increased and students will find the meaningful personal relationship they have with their teachers something to look forward to (Murray, 2002).

Importance of Teacher Training

Providing a warm and meaningful environment does not come naturally to all teachers; it is thus imperative that teachers are given the appropriate training and support needed to enable this outcome. When teachers are well trained to build good relationships and manage the emotional climate of the class, not only will they feel more empowered, students will also benefit (Murray, 2002). Studies have shown that when a teacher is enthusiastic about the content matter and the student (i.e. wants to know the student better), their students are more likely to be engaged, interested, energetic, and curious about learning the subject matter. Research has also found a correlation between teacher enthusiasm and students' intrinsic motivation to learn and vitality in the classroom (Patrick, Hisley & Kempler, 2000). Finally, student motivation and attitudes towards school are closely linked to student-teacher relationships i.e. when the relationships are good, students tend to be more motivated and have a more positive attitude towards school (Patrick, Hisley & Kempler, 2000). Essentially, enthusiastic teachers are particularly good at creating beneficial relationships with their students. Their ability to create effective learning environments that foster student achievement is centered on the kind of relationship they build with their students (Baker, Terry, Bridger & Windsor, 1997).

Challenges Faced by Singapore Teachers

Most teachers enter the profession wanting to make a difference in children's lives and to help them achieve their potential through holistic education (Ayers, 1995). However, they often have to play many secondary roles beyond teaching. In Singapore, for example, they have to prepare for visits from overseas guests, prepare reports for quality inspections and even serve as a traffic warden in the car park. Adding to this are demands from parents and students itself. Parents have high expectations while students tend to seek out teachers for help and advice. Hence on top of their teaching and administrative load, teachers also become frontline counselors for students (and sometimes, even the parents!) It is thus vital that they be well equipped with requisite knowledge and skills to manage students effectively in the emotional and affective domains. Ultimately, imparting the skills and knowledge of positive education to teachers will have the greatest impact because they can work towards being better role models for their student and jointly use the skills for their own well-being as well as their students.

Support for Teacher Development in Singapore Education

Singapore teachers have a great responsibility in educating the future generation; they are seen as "key players to maximize the development of each child" (Gregory & Clark, 2003, p. 70). Consequently, the MOE aims to look after teachers' development and well-being so they can be equipped with the necessary skills and knowledge; thereby giving their best to the students. As part of teacher development, all teachers can attend up to 100 hours of training each year in various areas (e.g. content, people and management skills). Teachers are also given many opportunities to further their study full-time or part time. Furthermore, outstanding teachers are also recognized by an award called the Presidents Teachers Award (PAT) presented to them personally by the President of Singapore (MOE, 2009).

At the policy level, other initiatives to better support teachers include the set-up of the Holistic Health Framework in schools; this framework provides a structure for teachers to help students develop total well-being (mental, social and physical) (MOE, 2007). A most recent initiative to build closer teacher-student relationships is the Form Teacher Guidance Period (FTGP), where form teachers can spend quality time (one period a day) with the students, focusing on building teacher-student relationships and helping students develop the SEL competencies (MOE, 2009).

It must be noted that while the emphasis of this paper is on teacher development and its impact on student achievement and outcomes, the best learning environment for students is ultimately when teachers can work effectively with parents and the community via a whole-school approach. In fact, the old adage of ‘it takes a village to raise a child’ stands true. When parent, school and community can work together, student achievement is enhanced via increased communication, alignment of values and congruence of school and family practices (Chrispeels, 1996).

Learn-by-Doing Workshop Approach

“The things we have to learn before we do them, we learn by doing them.”

- Aristotle

In order for positive education to be made more accessible and relatable, it has to be experienced. Learning about it purely cognitively will probably not appeal to most. Hence, a learn-by-doing workshop approach has been proposed for sharing positive education. This approach (otherwise termed experiential learning) emerged from Dewey’s philosophical pragmatism, Lewin’s social psychology, and Piaget’s cognitive-developmental genetic epistemology (Kolb, 1984); the approach emphasizes the central role that experience plays in the learning process.

Dewey (1916) believed that schools should teach students how to be problem-solvers by helping students learn how to think rather than simply learning rote lessons about large amounts of information. He believed that learning was active and schooling was unnecessarily long and restrictive. His idea was that children should come to school to do things and live in a community which gave them real, guided experiences that fostered their capacity to contribute to society. For example, Dewey believed that students should be involved in real-life tasks and challenges (e.g. learning proportions in cooking class instead of on paper). To Dewey, schools should focus on judgment rather than knowledge so that school children become adults who can “pass judgments pertinently and discriminatingly on the problems of human living” (Campbell, 1995, p. 215-216). He also believed that schools should help students learn to live and to work cooperatively with others.

In this workshop, teachers will be involved in hands-on experiential activities to emphasize the learn-by-doing approach. This active ‘doing’ allows them to directly participate in the experience, so that they gain a better understanding of the new knowledge and retain the information for a longer time. After all, the wise saying by Confucius holds true: “tell me and I will forget, show me and I may remember, involve me and I will understand.”

Positive Education Workshop for Teachers

Existing programs in school have thus far been focused on either building resilience (e.g. Penn Resiliency Program) or building strengths and well-being (e.g. High School Positive Psychology Program); as yet, there are no programs that deeply integrate both approaches. Gillham & colleagues (2011) acknowledge that any school program will be more effective and promote the well-being of youth if both approaches are used: that is, focusing on coping with problems/resilience and building the strengths and pillars of well being. This workshop aims to integrate both approaches by focusing on building resilience, strengths and flourishing.

The workshop will first provide participants an overview to PP and the rationale for positive education, followed by introducing the concept of resilience and four key strategies to help build resilience. Next, the concept of strengths will be introduced as a transition from addressing challenges to building the foundation for PERMA. Finally, each of the PERMA elements will be explored deeply through the use of activities. The workshop will conclude by returning to the various concepts and emphasizing the need for positive education as a whole-school approach (please see **Appendix 2** for the details of the full workshop plan).

The workshop will extend over two days, to provide ample time for teachers to discuss and exchange ideas. It will also provide opportunities for them to learn about positive education and experience it through various activities. In accordance with the learn-by-doing approach, the workshop will consist of a mix of lectures and hands-on activities. Important to the success of the workshop are the use of good questions to facilitate learning and prompt further discussion. The ideal class size is between 20 to 30 teachers to allow greater interaction amongst participants.

Conceptual Background and Activities

Resilience. Resilience, defined as the “ability to recover from or adjust easily to misfortune or change” (Merriam-Webster.com, 2011), conveys the sense that resilience is not just about recovering from a bad event but being accurate about the misfortune/change and having the flexibility to adapt to it. These twin core features of resilience are at the heart of cognitive-behavioral therapy (CBT) (Ellis, 1957; Beck, 1961); they also form the theoretical foundation of several cognitive-behavioral school-based depression prevention programs and the Penn Resiliency Program (Gillham et al., 2011). The core strategies teachers will learn to build

resilience include the ABC (Activating event-Belief-Consequences) model, avoiding thinking traps, putting-in-perspective and loving-kindness meditation.

ABC Model. The ABC model is premised on Ellis' (1957) research that when an activating event (A) occurs, our beliefs (B) influence the consequences (C) in two ways - how we feel (emotional response) and how we act (behavioral response). If we are able to be more mindful of our beliefs, evaluate how realistic our beliefs are and consider alternative evidence, we might be able to detect patterns that may be counterproductive and stop the downward spiral that could occur (Gillham et al., 2011). An example of the ABC model is as follows:

- Activating event (A): A teacher receives an email from the principal requesting to see him as soon as possible.
- Belief (B): The teacher's belief is "I must have done something wrong" or "The principal must be mad at me".
- Consequences (C). The teacher will most likely start to feel nervous (emotional response) and unable to concentrate on the immediate task at hand (behavioral response).

In this case, the teacher, already feeling nervous, might go the meeting for the Principal and not be able to think or speak clearly. As a result, the Principal might think she has no opinions to offer or is unable to focus on the discussion. This might ultimately result in the Principal getting irritated or mad, and the belief becomes reality. The teacher might leave the room with clear evidence (from her point of view) that the Principal is mad at her. In this way, a downward spiral has begun – stemming from the teachers' beliefs about the activating event. A revised version of the above example could be as follows:

- Activating event (A): A teacher receives an email from the principal requesting to see him as soon as possible.
- Belief (B): The teacher's belief is "Perhaps he wants to talk about something important" or "He may want to commend me about the event that I just managed".
- Consequences (C). The teacher might start to feel nervous but also curious and excited about what the Principal has to say (emotional response) and walk with a spring in his/her step (behavioral response).

In this example, the teacher also feels nervous but considers alternative views that there might be something good that she has done or that she might be involved in an important task, resulting in her feeling curious and excited. By considering these alternative views, her positive emotions enable her to continue with work and look forward to the approaching meeting. In this way, the downward spiral is halted.

Through teacher and student examples of the ABC model, role plays and pair-coaching during the workshop, it is hoped that the teachers would be able to first, identify their own beliefs, challenge their beliefs (if faulty) about activating events and alter the consequences. They will then be able to respond more flexibly and accurately to activating events in the school and classroom. Furthermore, when a student approaches them with an activating event, they would be able to coach the student through a conversation using the ABC model as a framework.

Thinking traps. Defined as patterns of thought we tend to rely on that are reflected in our beliefs, thinking traps influence how we think and behave (Saltzberg-Levick, 2011). According to Beck (1967), these traps make people particularly prone to depression and each of us tends to

be more vulnerable to two or three of the traps (Reivich & Shatté, 2002). Some examples of these traps are:

- Jumping to conclusions (coming to a conclusion without gathering sufficient evidence)
- Magnifying and minimizing (tendency to devote greater focus on bad events and lesser focus on good events)
- Externalizing (blaming others or external circumstances for the outcome of events)

Besides learning about thinking traps, teachers will also learn about how to use the critical questions to overcome them (Saltzberg-Levick, 2011) (please see **Appendix 3** for a description of the thinking traps and the critical questions). These questions prompt people to correct their faulty beliefs by testing the accuracy of the beliefs and evaluating their usefulness. An example of how to use the thinking traps and cognitive questions to challenge one's beliefs is as follows:

- Activating event (A): A colleague walks past teacher in the hallway without saying 'hi' and appearing unhappy
- Belief (B): "She is angry with me and is ignoring me"
- Consequences (C): Teacher might feel worried and avoid her colleague too
- Possible thinking trap: Jumping to conclusions
- Critical question: "Have I gathered enough evidence to come to this conclusion? If not, where can I look for more evidence such that I have a more balanced picture?" (Reivich & Shatté, 2002).

- Revised consequences: Teacher reexamines her conclusion and realizes that colleague was speaking to her earlier that day. Instead of avoiding colleague, walks up to her desk to check in on her and discovers that colleague had a bad conversation with a parent and was feeling upset. She ends up listening to her colleague and their bond becomes stronger.

In this example, when the teacher had asked the critical question and reexamined the evidence, her emotional response moved from worry to concern for her colleague and her action moved from avoidance to checking in on her. In this way, avoiding thinking traps by asking the critical questions help restore the accuracy of the beliefs and the flexibility to respond to the adversity.

With knowledge of the thinking traps and critical questions, teachers will firstly, be able to know how to avoid falling into the traps and what questions they could ask to help them get out of the traps. Secondly, they would be able to identify when students are falling into the traps and ask the critical questions to help them gather more evidence, thereby coming to a more balanced conclusion.

Putting-in-perspective. Catastrophizing thoughts typically involve a person thinking of an extremely disastrous outcome from a seemingly minor issue, increase one's anxiety level and leads to inaccurate perceptions about the reality of the situation (Reivich & Shatté, 2002). For instance, a teacher might receive a phone call from an annoyed parent. Before meeting the parent, the teachers' mind might already have raced ahead to the potential that the parent might have a personal grouse against him/her and might end up complaining to the principal, which might affect his/her chances of promotion and ultimately result in a compromised job. The reality might be that the parent is frustrated by the school system or his/her child's examination

results and just wanted some clarification. In such cases, the propensity to blow things out of proportion impedes a person's ability to be accurate and flexible.

Putting-in-perspective is a skill that is designed to help people deconstruct catastrophizing thoughts by guiding people to more accurate thinking (Reivich & Shatté, 2002); more specifically, it works with our beliefs about the implications of the adversity – what is going to happen in the future now that the adversity has struck. In the workshop, teachers will be first be asked to estimate the probabilities of the catastrophic event happening (worst case scenario), followed by picturing the best case scenario and its possibility and finally, suggesting the most likely scenario. The final solution is typically a more reasoned, balanced outcome involving aspects of both the worst and best case scenarios (Gillham, personal communication, 2011). When teachers recognize that their student is catastrophizing, they will be able to guide them through the process of putting-in-perspective, allowing them to discover what is worrying the student; at the same time, it will help the student come up with a more balanced perspective about the issue.

Research on the effectiveness of CBT (and the ABC model, thinking traps and putting-in-perspective) is well documented – experimental studies on the efficacy of CBT have shown that it can effectively treat depression and other psychopathology (Ellis, 1957). Furthermore, cognitive-behavioral interventions, which are effective for treating depression in adults (Strunk & DeRubeis, 2001), show promise in treating depression in adolescents (e.g. Stark et. al, 1991; Kaslow & Thompson, 1998). These interventions typically teach participants cognitive-restructuring and problem-solving skills. It must be noted that criticisms of CBT exist: in most studies of CBT, it has been limited to focusing mainly on cognitive restructuring aspects, instead of the combination of cognitive, emotive and behavioral aspects, which also contribute to our

beliefs (Feltham, 1997). However, Ellis (2003) recently argued that emotions and behaviors are discussed, especially when addressing the consequences of the faulty beliefs.

Several CBT depression prevention programs for youth have emerged recently. Clarke and colleagues found that youth (age 13 -18) that went through their prevention program had reduced depressive episodes by 75 percent over a 15-month follow up (Clarke et. al, 2001). The Penn Resiliency Program, as mentioned earlier, has been found to prevent depressive symptoms and reduce anxiety (Gillham, Reivich, Jaycox & Seligman, 1995). Gillham et. al (1995) also found that participants were only half as likely as controls to report moderate to severe levels of symptoms up to two years after intervention. Finally, a meta-analytic review of 17 controlled evaluations of the program show that youth who participate in the program report reliably lower levels of depressive symptoms immediately after the intervention and at two follow-up assessments (6-8 months and 12 months post-intervention) as compared to youths who do not receive the intervention (Brunwasser, Gillham & Kim, 2009). Given these results, it is thus worthwhile for schools to invest in depression prevention programs.

Loving-kindness meditation. Loving-kindness meditation involves directing one's emotions toward warm and tender feelings in an open-hearted way. Individuals are first asked to focus on their heart region and contemplate a person for whom they already feel warm and tender feelings (e.g., their child, a close loved one). They are then asked to extend these warm feelings first to themselves and then to an ever-widening circle of others (including people they dislike) (Fredrickson, Cohn, Coffey, Pek & Finkel, 2008). Like other meditation practices, it involves quiet contemplation in a seated posture, often with eyes closed and an initial focus on the breath. Initial research has found that loving-kindness meditation can reduce pain, anger, and psychological distress (Carson et al, 2005). In a random assignment study, it was found that even

a brief (7-minute) exercise of loving-kindness meditation was sufficient to cultivate participants' positive regard towards themselves and strangers (Hutcherson, Seppala & Gross, 2008). Given that loving-kindness meditation specifically builds positive emotions towards oneself and others, it might have the ability to undo the effects of negative emotions, thereby helping to foster resilience (Tugade & Fredrickson, 2005).

A 30-minute loving-kindness meditation session has been included in this workshop as a way for teachers to calm the chaos in their mind when faced with a stressful situation at school and bolster resilience. Since loving-kindness meditation is typically used to increase feelings of warmth and caring for self and others (Salzberg, 1995), it also serves as a useful personal tool to build strong relationships with their colleagues and students.

Character Strengths. Building character strengths is one of the central concerns of PP (McCullough & Snyder, 2000; Seligman, 2002) and even more so for education. Character strengths are defined as “dispositions to act, desire, and feel that involves the exercise of judgment and leads to a recognizable human excellence or instance of human flourishing” (Yearly, 1990, p.13); they also represent what virtues we can choose to ‘do’ or ‘live’ in order to lead a flourishing life.

Classification of strengths. As an initial step towards classifying these dispositions, Peterson & Seligman (2004) explored widely influential religious and philosophical traditions (i.e. Confucianism, Taoism, Islam) and found that there were certain core virtues that were widely endorsed (Dahlsgaard, Peterson & Seligman, 2005). More specifically, within these traditions there was near-universal recognition and praise of 6 core virtues – wisdom, courage, transcendence, humanity, temperance and justice (Peterson & Seligman, 2004). Following the identification of the core virtues, they set up identifying candidate strengths by reviewing

literature from psychiatry, youth development, character education, to name a few. Eventually, they developed a set of criteria to narrow down the list of candidates. To be included in the classification, the candidate had to meet all of the following criteria (Peterson, 2006):

Table 1.

Criteria for Character Strengths

Criteria for VIA character strength:
<ul style="list-style-type: none"> • is widely recognized across cultures; • is fulfilling or contributes to one’s individual fulfillment or happiness; • is morally valued or valued in its own right • is trait-like or has an individual difference with stability and generality; • is measureable as demonstrated by researchers as an individual difference; • is distinct or not redundant with other strengths (empirically or conceptually); • has an opposite or obvious; • has paragons or are embodied prominently in some individuals; • has prodigies or are shown precociously by some youth ; • can be absent selectively or is missing altogether in some individuals; • has enabling institutions or is the goal of societal practices and rituals; and does not diminish others.

Values-in-Action classification of strengths. With the core virtues and criteria in mind, they identified 24 character strengths and began work developing the *Values-in-Action (VIA) Classification of Strengths* classifying and describing the strengths in greater detail. This led to the development of the VIA and VIA-youth (Peterson & Seligman, 2004; Park & Peterson, 2004), a self reported questionnaire that can help adults and youth (aged 10-17) identify their most prominent or ‘signature strengths’ (Peterson & Seligman, 2004, p.18). A study on the VIA

and VIA-youth has found them both to be demonstrably reliable and stable over at least 6 months (Park & Peterson, 2005).

Strengths and well-being. There are 2 core benefits of focusing on strengths: (a) strengths can buffer against stress and trauma (Park, 2004); and (b) strengths can increase well-being. Park (2004) has found that strengths like hope, kindness, social intelligence, self-control, and perspective - can buffer against the negative effects of stress and trauma, preventing or mitigating disorders in their wake (Park, 2004). Building strengths such as social intelligence can also prevent or at least reduce aggressive and antisocial behavior including school misbehavior and fighting (Hudley & Graham, 1993, 1995). Indeed, Seligman, Steen, Park & Peterson (2005) have found that using signature strengths in new ways increased happiness and decreased depressive symptoms for six months.

In a study investigating the correlation between various strengths and life satisfaction, it was found that strengths of the ‘heart’ – zest, gratitude, hope and love are more robustly associated with life satisfaction than the more ‘cerebral’ strengths such as love of learning (Park & Peterson, 2005; Park, Peterson & Seligman, 2004, 2005). This pattern was consistent among adults and among youths as well as longitudinal evidence that these “heart” strengths foreshadow subsequent life satisfaction (Park et al., 2005b).

In another study of adult and youths, Park (2004) found that strengths of hope, zest, love and gratitude were positively associated with life satisfaction. In youth, the strengths of hope, teamwork, and zest were relatively more common; strengths such as teamwork and prudence apparently contribute more to life satisfaction for children and adolescents than for adults. In adults, strengths such as curiosity and spirituality seem to contribute more to life satisfaction for adults than for children and adolescents (Park, 2004).

Programs that focus on strengths. There are several programs that focus on building strengths in youth. The High School Positive Psychology Program is disseminated through (20-25) 80-minute sessions to youth in the 9th grade with the core part of it focused on discussion of character strengths, in-class activities to solidify concepts, and homework encouraging students to apply lessons in the real-world (Seligman et al., 2009). The program is one of the first structured curriculums aimed at both helping students identify their top (signature) strengths and increasing the use of their strengths in everyday life. Secondary goals of the program include increasing positive emotions; reflect upon life's purpose and meaning and the promotion of resilience. Thus far, longitudinal assessment of the program following students from the 9th grade through 12th grade reveals that the program:

- increased students' reports of enjoyment and engagement in school;
- improved strengths related to learning and engagement in school;
- improved students' social skills (e.g., empathy, cooperation) as reported by teachers.

Crucially, it did not impede the traditional goals of classroom learning i.e. achievement, but rather worked alongside to enhance it (Seligman et al., 2009).

Another program that focuses on strengths is Celebrating Strengths in Schools. It weaves PP concepts into the existing curriculum instead of introducing them in special units (Eades, 2008). As part of the approach, children learn to tell stories using simple props. They practice spotting strengths in the stories and then later in each other. This increases the awareness of strengths in the whole school. Children also start to notice classmates' strengths, which fosters appreciation between classmates (Eades, 2008).

Implications for education. The findings above suggest that youth programs that focus on strengths development could have the potential to reduce depression and boost well-being. Also, any program that is focused on positive youth development should consider focusing on the strengths of teamwork, hope, zest and prudence first so as to increase life satisfaction in youth (Park, 2004). Indeed, Park (2004) has found that programs that build character strengths amongst youth not only guard against the negative effects of stress but also builds moral, healthy, and happy people who can overcome challenges in life and enjoy the good life (Albee, 1996; Elias, 1995).

The results above also identify that hope and zest are common strengths shared by adults and youth. Tapping on these strengths by creating an adventurous and hopeful environment in the classroom can thus contribute to well-being for both teachers and students. Zest, defined as living life with a sense of excitement and energy, in particular, is vital for well-being for *both* students and teachers. In a study of 881 Croatian students, zest was also found to be associated with higher levels of life satisfaction, subjective vitality, and a pleasurable, engaging, and meaningful existence (Brdar & Kashdan, 2010). A similar study in Hong Kong on 228 teachers found zest to be associated with elevated levels of life satisfaction. Furthermore, teachers with high levels of zest also reported experiencing more positive emotions and less negative ones (Chan, 2009). In summary, teachers must not forget to constantly deliver their lessons by tapping into students' heart strengths - in a way that is zestful (constructing each day as an adventure), conveys hope and love and builds gratitude.

Workshop activity. In this workshop, teachers will learn how to identify their own strengths as well as the strengths of their students. Specifically, they will learn how to conduct a strength interview with their students. First, they would be given a bag containing the 24

strengths (each written on a card) and asked to select a character strength that most represents them. They will then proceed to interview each other about that particular strength using a specified list of questions (e.g. “when do you use this strength?” and “how does it feel when you use the strength?”) Through this activity, teachers and students can increase awareness of their strengths and the domains in which they use them. Teachers might be prompted to consider how they could use their strengths in new ways e.g. “how can I use my strength of ‘love’ to answer emails from parents?” and in so doing, can similarly encourage their students to do likewise.

Alongside giving teachers the knowledge and skills for resilience and strengths, the workshop also aims to help teachers develop flourishing students. In his latest well-being theory, Seligman (2011) proposed five elements of flourishing summarized by PERMA: positive emotions (P), engagement (E), relationships (R), meaning (M) and achievement (A).

Positive Emotions. According to Fredrickson (2001), positive emotions like joy, love and serenity broaden humans’ thoughts and behaviors and facilitate more adaptive responses to environments, which create greater learning opportunities and accrual of resources, further facilitating future wellbeing (Fredrickson, 1998, 2001). Not only are positive emotions markers of well-being, these emotions also produce future well-being (Fredrickson, 2001). The broadening function of this model builds enduring personal resources, which help individuals as they come across future challenges. For example, a child that is joyful has the urge to play (broadens action), engages in rough-and-tumble play with his friend, which builds physical resources (i.e. knowing how to fall) and social resources (i.e. bonding with the friend). Both resources will be useful in the event of breaking a fall during a fight and/or turning to a friend in times of need. In this way, positive emotions create upward spirals toward well-being (Fredrickson & Joiner, 2002). In contrast, frequent negative emotions such as anger, guilt and

fear are believed to narrow thoughts and behaviors (e.g., fight or flight), reducing learning and adaptation resources (Fredrickson, 2001).

A recent study suggests that positive (but not negative) emotions are associated with more adaptive problem-solving and coping strategies in students (Reschly, Huebner, Appleton & Antaramian, 2008). This supports Fredrickson's (2001) theory - positive emotions appear to be related to greater personal and environmental resources, such as greater student engagement in school activities and more supportive relationships with adults (e.g. teachers).

Positivity ratio. Fredrickson and Losada (2005) have identified the crucial ratio of positive emotions to negative emotions as 3:1. A ratio above 3:1 indicates that you are flourishing and moving towards an upward spiral of positivity (Fredrickson, 2009); consequently, a ratio below that indicates that one is languishing (i.e. people who describe their lives as “hollow” or “empty” (Keyes, 2002)). Research has found that this ratio predicts a variety of outcomes in various settings. In business, Fredrickson and Losada (2005) found that high-performing teams showed greater creativity, asked more questions and as a result, had increased profits and better satisfaction ratings – their positivity ratio was 6:1. In contrast, low-performing teams asked few questions tried to defend their positions and did not work well together; as a result, they were poorly rated by customers and were floundering – their positivity ratio was less than 1:1. Gottman and Silver (2000) have also found that the ratio of thriving marriages is typically 5:1 when discussing an area of continuing disagreement; 20:1 when they are relaxed and having fun. In contrast, languishing marriages had a ratio that hovered around 0.8:1.

Interventions to increase positive emotions. Several interventions have been found to increase positive emotions e.g. gratitude exercise and savoring. Indeed, gratitude or counting one's blessings is an effective approach for maximizing contentment (Emmons & McCullough,

2003). This is further supported by findings that the gratitude exercise - where one identifies three things one is grateful for and why – when done on a daily basis for a week, increased happiness and decreased depressive symptoms for six months after (Seligman, Steen, Park and Peterson, 2005; Sin & Lyubomirsky, 2009). Particularly, children who practice grateful thinking have more positive attitudes toward school and their families (Froh, Sefick, & Emmons, 2008).

Savoring, the act of noticing and appreciating the positive aspects of life (Bryant & Veroff, 2007) and “conscious attention to the experience of pleasure” (p. 5), has also been found to cultivate positive emotions. Bryant (1989) lists three forms of savoring that heighten the effect of positive events and positive feelings: (1) anticipatory (2) in the moment and (3) reminiscent. This means that we can savor a positive event before it happens by getting excited in preparation for it, we can savor the positive event while it is happening and we can savor a positive event by remembering it. In a randomized controlled study looking at the positive effects of reminiscing in youth, Bryant, Smart & King (2005) found that youth particularly like to reminisce on pleasant memories and gained more from reminiscing if the intent was to gain perspective and self-insight toward the present. Also, students who reminisced twice daily for a week about positive memories using either cognitive imagery or memorabilia reported greater increases in happiness over the course of the week, compared to students who merely thought about their present life situation twice daily for a week. This result provides experimental evidence that increasing the frequency of positive reminiscence can increase people’s levels of happiness.

Implications for education. Knowledge of positive emotions and the positivity ratio is crucial for teachers. To ensure a healthy school environment, schools need to incorporate student emotions in models of student engagement and in designing programs for youth; also, since the experience of positive emotions is likely to be malleable and responsive in the instructional and

interpersonal environments, it is thus essential for teachers to create an environment of positivity and for them to be equipped with the language and knowledge of positive emotions.

Furthermore, teachers can be more intentional in creating a classroom environment where the positivity ratio is 3:1 or more, so as to promote better well-being for students. Finally, teachers can promote savoring by beginning the day with the gratitude exercise and asking them to reminisce about pleasant memories from the day before.

Workshop activity. To cultivate their positive emotions and experience the upward spiral of positivity, participants' will be asked to make a 'positive collage', inspired by Fredrickson's (2009) positive portfolio. In this activity, teachers will cut pictures from magazines that represent a particular emotion. They would then write short descriptions of each picture detailing how the activity in each picture helps them cultivate that particular emotion and then share the collage with a partner. This would help them savor each picture in greater detail as well as promote greater understanding between participants. This activity is designed to not only increase teachers' positive emotions but a strategy that teachers could use to help students cultivate positive emotions.

Engagement. Educators have often observed that children have limitless curiosity and thirst for knowledge before they enter school (Jackson, 1968). Several years later, however, those same children can be found in school buildings with their minds wandering and attention straying. Schools and teachers obviously have a large role to play. Should students not be engaged, it can adversely affect their achievement and initiate a downward spiral that may lead to dysfunctional school behavior and, ultimately, culminate in leaving school entirely (Finn, 1989; Newmann, 1992; Steinberg, Brown, & Dornbusch, 1996). It is thus essential for schools and teachers to be able to engage students during the long hours they are in school.

Flow. Engagement, in the field of PP, is characterized by the notion of flow. Flow is described as a state of complete immersion in an activity that is intrinsically enjoyable. Often, engagement and concentration is so deep that one loses sense of time and the person functions at his highest capacity (Csikszentmihalyi & Nakamura, 2010). A person typically reaches a state of flow when his/her skills adequately match the challenge of the task i.e. when skillful and successful action become effortless, even when a great deal of physical or mental energy is exerted (Shernoff & Csikszentmihalyi, 2008). In such cases, individuals stretch their skills to their limits in pursuit of a challenging goal. Csikszentmihalyi (1990) reasoned that various combinations of high or low challenges and skills predict distinct psychological states: (a) apathy, resulting from low challenge and low skill; (b) relaxation, resulting from high skill but low challenge; (c) anxiety, resulting from high challenge but low skill; and finally (d) flow, resulting from high challenge combined with high skill. This lends precious insight into why students might be frustrated or apathetic towards school or the activities.

Flow and well-being. Research supports flow theory. Students are more engaged when concentration, enjoyment, and interest were simultaneously elevated (Csikszentmihalyi & Schneider, 2000). In a longitudinal study investigating the conditions of student engagement, it was found that student engagement was maximized in classroom experiences in which perceived challenge and skill were above average and in balance compared to those marked by apathy, anxiety or relaxation (Shernoff et al., 2003). Moreover, perception of high competence and autonomy (skill level) were found to be associated with significant increases in mood, enjoyment, esteem and intrinsic motivation (Csikszentmihalyi & Shernoff, 2008). Finally, students spent the largest chunks of time in class doing less engaging activities, such as

individual work, listening to lectures, taking notes, and doing homework. Much smaller amounts of time were spent interactively in discussions, group work or talking with teachers individually.

In a study comparing teenagers levels of concentration in various activities (e.g. classroom, study, watching television), Csikszentmihalyi, Rathunde & Wallen (1993) found that they concentrated more in classroom settings and self-study rather than watching television or social activities. This suggests that deep absorption or concentration in activities promotes optimal learning experiences and the path to achievement in school might well be increased absorption on tasks. Additionally, students who were chronically interested in something took action about their future and feel more positively (enthusiastic and confident) about it. In doing so, consistent with the *broaden-and-build* theory, they accrue internal personal resources or psychological capital (Csikszentmihalyi & Shernoff, 2008) in the form of increased self-esteem and personal locus of control, which they can tap on in moments of future challenge. Finally, in the area of academic achievement, Renninger (2000) found that when students were interested and engaged in reading, for example, they would recall more points and more sentences from paragraphs (Renninger, 2000). Being interested and engaged also had a positive impact on their school results – Csikszentmihalyi & Shernoff (2008) found that students are more likely to get higher grades and test more successfully.

Programs/interventions to increase flow. Recent research into flow in the school context comes from alternative schools such as Montessori middle schools, non-traditional public school programs such as the Key School in Indianapolis and schools in foreign countries (e.g. Denmark) (Rathunde & Csikszentmihalyi, 2005). The foundational writings of Maria Montessori (1967) emphasized intrinsic motivation and were consistent with modern theories of motivation on goal orientations as well as flow. Montessori observed children's "spontaneous concentration" (p. 85),

which was similar to the concept of flow and engagement in exploration, play and learning activities; she believed these episodes of spontaneous concentration were a normal part of development for healthy children. In a large scale study comparing demographically matched samples of students from a Montessori middle school to students from a public middle school, it was found that Montessori students reported higher combinations of high intrinsic motivation indicative of meaningful engagement (Rathunde & Csikszentmihalyi, 2005a). They also spent more time in academic activities individually and in groups (Rathunde & Csikszentmihalyi, 2005b); such social interaction and group work has indeed been found to promote engagement (Csikszentmihalyi & Schernoff, 2008).

The Key School in Indiana implements a K-12 curriculum based on flow theory and Gardner's (1993) theory of multiple intelligences. A unique innovation of the school is the creation of a flow activities room (Whalen & Csikszentmihalyi, 1991). Students visit the flow room several times per week and freely participate in structured activities of choice. The main idea is to allow students to develop and use different competencies in an intrinsically motivating manner, promoting skills that might otherwise go untapped by the traditional curriculum (Whalen & Csikszentmihalyi, 1991). Thus far, it has been found that the degree of choice provided in the flow room helped students discover and clarify their interests, intensified their play, thereby leading to the meaningful learning of process-oriented skills and sustained attention. Students also reported frequent flow and high quality of experience when in the room (Whalen & Csikszentmihalyi, 1991). This was measured using the Experience Sampling Method (ESM) (Hektner, Schmidt, & Csikszentmihalyi, 2007). In ESM, participants typically carry a paging device which signals them at random moments throughout the day. When beeped, they complete a questionnaire that asks questions like "When you were beeped, did you *enjoy* what

you were doing?” By reporting on immediate experiences throughout waking hours over several days, the ESM solicits repeated “snapshots” of subjective experience, and improves upon the problem of recall and estimation errors inherent to surveys and interviews (Hektner, Schmidt, & Csikszentmihalyi, 2007).

Andersen (2005a) observed students in selected schools in Denmark. Using a ‘flow observation form’ to rate the flow of students in classrooms, followed by student interviews, Andersen (2005a) found that Danish students reported above average on measures of flow during class time compared to students in other countries (e.g. Finland, Japan). He attributed this finding to an emphasis on student autonomy, independence and intrinsic motivation in Denmark as well as the use of alternative forms of evaluation rather than grades. As such, the quality of engagement amongst Danish students was high (Andersen, 2005a).

Implications for education. The implications for educators are many. First, educators need to design activities that optimally engage students - these activities should neither be trivially simple nor impossibly hard; rather, the appropriate match between challenge and skill led to higher quality learning experiences in terms of perceived engagement, intrinsic motivation, mood, and self-esteem. Second, aside from the activities, the manner in which they were conducted was also important (i.e. they should pique student interest). Students found small group discussion and activities better able than didactic teaching to foster high concentration and high enjoyment - the combination indicative of meaningful engagement (Csikszentmihalyi & Shernoff, 2008). Finally, goals need to be broken down into sub goals to allow the student to build up the requisite skills to meet the increasing challenge along the way, promoting flow experiences leading up to the larger goal (Hunter, 2003).

Workshop activity. In this workshop, teachers will simulate the conditions of flow and promote a feeling of full immersion by doing a tangram activity (using seven shapes to make another shape given only its silhouette; no pieces can overlap) in small groups. Given that the solution to the tangrams is not immediately recognizable, it poses some challenge to the teachers and requires them to make use of existing skills and experience. They will be given a set of fixed instructions (goals) and the fastest group will get a prize. This will be followed by a discussion on how to promote engagement in students and what kinds of activities would be stimulating enough to induce flow.

Relationships. As human beings, we are all inextricably linked to another person – be it as part of a family or in the context of a community. From the moment we are born, we form an attachment to the main caregivers in our lives (Bowlby, 1969) and somehow instinctively know how to smile to make our caregivers pick us up. Indeed, in almost every instance of our lives, we are in contact with another person; it is thus imperative that we make the best of these relationships. Relationships are curious things – they can make our lives so much better when they are formed on secure bonds; however, they can also lead us to feel negative emotions and anxiety if they are poorly managed.

Relationships and well-being. Good relationships are fundamental to our well-being – they make us happier and function better. People in good relationships care deeply for other people, have mutual understanding and often validate how valuable the other person is (Diener & Biswas-Diener, 2008). In fact, Diener, Oishi and Lucas (2003) found that good social relationships consistently predicted subjective well-being across every country studied and are perhaps the most important source of a person’s well-being (Berscheid & Reis, 1998). Good

relationships have also been found to be the best predictor of life satisfaction (Diener & Biswas-Diener, 2008).

Within the school context, students have various relationships to manage, the most common being relationships with their peers and teachers. Managing these well can have a strong impact on a students' well-being. Argyle (2001) and Diener and Seligman (2002) have found stronger associations between happiness and good social relationships than between happiness and intelligence, school grades, and status. Moreover, students that have strong relationships with peers and teachers also show typically stronger school adjustment (Benard, 2004).

High Quality Connections. Research conducted by Dutton and her colleagues (2011) have identified that a way to boost strong relationships is to build high quality connections (HQCs) with the people in your lives. Typically used in a work setting, HQCs are defined as short-term positive interactions between two people (Stephens, Heaphy & Dutton, 2011) that result in both parties feeling revitalized and reenergized. For instance, instead of just simply engaging in small talk e.g. “how is the weather?”, we could ask a colleague questions such as “what was the best part of the day?” or “what keeps you going at work?”, listen intently to the answer and participate actively in the conversation. Dutton (2011) describes HQCs as analogous to a healthy blood vessel that connects parts of our body, supplying vital nutrients – it is flexible, strong and resilient. I believe that HQCs, when used in the school context, can create a network of positivity between staff, students and parents.

People in an HQC are more likely to feel positive arousal and a heightened sense of positive energy (Quinn & Dutton, 2005). Also, the quality of a connection is felt through a sense of positive regard (Rogers, 1951). Being regarded positively denotes a sense of feeling known

and loved, or being respected and cared for in connection. Finally, there is usually a sense of felt mutuality. Mutuality captures the feeling of potential movement in the connection, borne out of mutual vulnerability and responsiveness as both people experience full participation and engagement in the connection at the moment (Miller & Stiver, 1997).

Evidence suggests that HQCs improve individual functioning through affecting cognitive, physiological and behavioral processes. For example, experimental studies suggest that small interactions with others can improve cognitive processes, in terms of the speed of processing and working memory performance (Ybarra et al., 2008). HQCs also allow knowledge to be absorbed further (Wenger, 2000) and facilitates the creation of new knowledge (von Krogh, Ichijo & Nonaka, 2000). Furthermore, HQCs are important means by which individuals develop and grow (Ragins & Verbos, 2007), enhance and enrich identities (Roberts, 2007), and form attachments to work organizations or to communities (e.g., Blatt & Camden, 2007). Most importantly, people who have a greater number of HQCs experience more energy and more positive emotions such as joy, interest, and love. These positive emotions contribute to higher trust, better coping, greater resilience in the face of setbacks, more creativity, greater attention and the broadening of the thought-action repertoire (Fredrickson, 1998). Within the school context, building HQCs could enhance learning, bonds between teachers and students and build a culture of respect and trust.

Dutton (2011) identifies four pathways to achieving HQCs: task enabling, respectful engagement, play and trust. Task enabling is defined as ‘interpersonal actions that help someone complete or perform a task’ (Dutton, 2003b). Research on interpersonal helping (e.g., Lee, 1997), interpersonal citizenship (Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Williams & Anderson, 1991) and prosocial motivation (Penner, 2002) all suggest that the interpersonal

provision of information, emotional support and other resources can cultivate perspective-taking and gratitude, which fosters connection quality. Furthermore, those who task enable others experience a heightened sense of personal worth. This enhanced sense of worth leads to further efforts to build connection. In fact, psychologists have found that the positive emotion of pride provides an intrinsic reward for people who help others (Dutton, 2003) and makes them want to continue helping. Given that teachers are the main source of informational, and occasionally, emotional support in the classroom and by task enabling their students, they play a significant role in helping them can perform better both academically and socially.

In respectful engagement, behaviors that demonstrate the basic human entitlements of dignity and respect (Rawls, 1971) allow HQCs to be built. Indeed, being engaged with others and conveying a sense of presence displays respect and allows for continued engagement (Kahn, 1992). Also, actions that communicate affirmation and reflect respect and worth can potentially enable connections, and make interactions quite meaningful (Stephens, Heaphy & Dutton, 2011). For example, when a student comes to see a teacher in the staffroom, one way the teacher can show respectful engagement is to put aside whatever work he/she was doing and genuinely listen to the student. When there is respectful engagement i.e. the person honors and values you, self-esteem is elevated and you are drawn closer to the person who is affirming you (Dutton, 2003). Respectful engagement thus empowers and energizes us, creating a heightened sense of our capacity to act both in relation to other people and with respect to ourselves (Dutton, 2003). Respectful engagement is thus crucial in the classroom and teachers that communicate sufficient respect to the student often find the respect reciprocated.

Another pathway to HQCs is play. Play is a distinctly human capacity that develops over a lifetime (Huizinga, 1950). Specifically, playful activities allow people to develop skills and

pleasures that are only available when participating (MacIntyre, 1981). Dutton (2003a) found that connecting with another person through play was useful for reducing stress, taking people outside their normal roles and behaviors, and thus allowing employees to see and know each other differently (Dutton, 2003a). Indeed, play in school promotes greater engagement i.e. most students will be more involved with and consequently learn more from play-like than work-like activities (Block, 1984). Work-like activities (such as worksheets) are seen as undermining their emerging sense of self-social competence and self-social determination. Such activities connote that students are incapable of choosing the right substance or form for their work; it must be chosen for them. In contrast, play-like activities make them feel that they have some measure of control over their school learning destinies in terms of substance, form, motives, and standards (Block, 1984).

Play activities support students learning through engagement with sensory motor experiences (von Glasersfeld, 1992b). In the study of mathematics, for example, Salomon and Perkins (1998) found that giving students materials to manipulate when learning mathematical concepts engages students in the conceptual development of mathematics. For example, learning to do fractions by cutting up a pizza into pieces as opposed to doing fraction equations on a worksheet gets them involved and allows them to relate to the numbers through real-life play rather than just staring at numbers on a sheet of paper. Furthermore, Oldfield (1991) and Ernest (1986) found that learning mathematics through games and play not only enhances engagement, but allows them to confidently engage in discussions about the mathematical concepts without fear of failure. This helps them build confidence and self-efficacy related not only to their mathematics ability but also their ability to problem-solve in general. This ties in well with flow theory and the broaden-and-build theory of positive emotions as adding a play-like quality to

current classroom activities promotes flow (Csikszentmihalyi, 1990) and helps to build important psychological resources (Fredrickson, 2001).

The fourth pathway to HQCs is trust. Defined as “conveying to another person that we believe they will meet our expectations and they are dependable” (Dutton, 2011), trust is one of the crucial building blocks of any relationship. Having a willingness to ascribe good intentions and have confidence in the words and actions of another person will demonstrate to another person that they matter. In the workplace or classroom, trust is built through sharing resources, seeking input, allowing others to exercise influence and using inclusive language (Dutton, 2011). Trust also involves using positive words and actions such as sharing valuable information, appropriate self-disclosure, using inclusive language, giving away control and responsibility, granting access to valuable resources, and soliciting and acting on input. We also create trust by the things we do not do or say, including accusing others of bad intent, demeaning others, check-up behaviors and surveillance, and punishing people for errors (Dutton, 2003). To create a culture of trust, teachers can allow students to develop joint goals and make independent decisions and refrain from accusation and harsh punishments.

Trust is fundamental to the success of schools and education—it begins from the moment parents trust the school to take care of their children. Schools are seen as trustworthy institutions to build character, foster good relationships and help children achieve. Teachers are trusted to be good role models and genuinely care for the children. In fact, trust is viewed to be a solid foundation for the effectiveness of a school (Cunningham & Gresso, 1993) and is a fundamental ingredient to building a caring culture within the school. In studies on trust in schools, Hoy and colleagues have found teachers' trust in their colleagues, as well as their principal to be important elements of the trust in a school setting. Indeed, faculty trust in both colleagues and the principal

has been linked to school effectiveness, as well as to positive school climate (Hoy, 2002). When trust is broken between the teacher and student, suspicion and punishment are the likely consequences, factors that are dysfunctional to cognitive and social-emotional development. Likewise, when trust is broken between the principal and teacher, the probable consequences are hyper-vigilance, punishment, and getting even, typically destructive forces that undermine the effectiveness of the school (Tschannen-Moran & Hoy, 1997).

Workshop activity. Teachers will do a trust activity as a way to bring teachers back to the role they perform in the school—not only as teachers to the students but as a trusted individual within the school community. Teachers will be put in pairs and one will be blindfolded as the other leads them on a short walk outside the room. The goal is to guide the blindfolded person safely around the premises without them getting hurt or falling down. When they return, both parties are asked about what they learned about trust and what the role of both the leader and follower are. Through this activity, teachers will recognize that trust is not built overnight and it requires consistency and sometimes, the ability to let others exercise influence over you (letting go). They will also discuss how they could build stronger trust between colleagues and with their students.

Meaning. One would think that a concentration camp would be the most desolate place to find meaning in life; however, it is through that experience that Viktor Frankl came to a realization what meaning in life was all about (1959). In his book *Man's Search for Meaning*, he describes the horrifying experiences of being in the camp, but also how, by having a purpose to see his wife and publish his book on logotherapy, he overcomes difficulty and survives the grueling ordeal. Finding meaning, according to Frankl (1959) is not so much questioning what we expect out of life, but what life expects for us. In order for us to feel purposeful, we must take

responsibility for our actions and contemplate what is unique about us that we can contribute to the world. This approach parallels Seligman's (2002) approach of how we can leverage our signature strengths to impart knowledge, increase power or promote goodness in the world, thereby bringing greater meaning into the purpose of our existence.

Steger and Frazier (2005) define meaning as “the extent to which people comprehend, make sense of, or see significance in their lives, accompanied by the degree to which they perceive themselves to have a purpose, mission, or over-arching aim in life” (p.574). Battista and Almond (1973) see it as coherence and alignment of values and one's behaviors; Ryff and Singer (1998) view it as having a goal to work towards while Seligman (2002) believes it is when you belong to and serve something larger than you e.g. religion, education. These definitions will appeal to different people in different ways because of the differing cultural, spiritual and social background each person grows up in. For instance, a person who is not religious might relate meaning to working towards a vision; a person who is religious might find meaning in connecting with God. As a school teacher, it is crucial, therefore to be able to recognize these differences and allow space for differing views to coexist.

Meaning and well-being. In a study by social scientists at John Hopkins University (extracted from Frankl, 1959), which surveyed 7948 students at 48 colleges, it was found that 78 percent of students identified their first goal was ‘finding a purpose and meaning to my life’. This finding translates into the future, as many adults head into careers hoping not only for monetary reward or advancements but finding meaning in what they do (Grant, 2010). Indeed, having meaning has been found to be positively associated with work outcomes, life satisfaction and happiness (Steger & Dik, 2010). Having meaning in life also allows one to life authentically

and maximizes one's potential (Steger & Frazier, 2005). It is thus necessary, as teachers, to be able to help students find meaning in their lives, particularly in the school domain.

Interventions to increase meaning. A way to discover what meaning is through spirituality. Pargament (2011) defines spirituality as 'a search for the sacred'—a definition that sets it apart from the dogma of religion and turns it into a broader concept. Thus, the sacred could be a religious being, but it can also be a holiday or a conversation you have had with a friend, that reinforced your sense of identity and brought you greater meaning. To understand what might be sacred to another, Pargament (2011) advocates the use of spiritual questions such as “who do you normally turn to when you have problems?”, “what is one thing you feel deeply grateful for?” These questions facilitate open conversation and allow people to discover what is sacred in their lives.

Other strategies to increase meaning include developing a clear vision of what they, as teachers, are trying to accomplish through their lives as this vision could answer questions about meaning in their lives (Frankl, 1963). Fostering connections with other people will also give people a sense that they matter and may help them see connections between their experience and the circles of influence in their lives. These circles include romantic partners, family and friends, neighborhood, community, social causes, religious movements, humanity, and life; as their circle widens, people may transcend the bounds of their momentary existence and gain a sense of spiritual connectedness (Steger, in press). Additionally, in order for people to make sense of their lives, there should be a sense of certainty and self-understanding which can be developed by emphasizing the use of character strengths (Seligman, 2002). Using one's strengths in connection to things larger than ourselves tends to bring greater meaning to life as it gives one a clear view

of one's self. Finally, through narrating about their own lives and writing about their future selves (Steger, 2011, personal communication), people can increase meaning for themselves.

In the California Healthy Kids survey, Benard and Slade (2009) report that only 18 percent of 5th graders, 16 percent of 7th graders and 13 percent of 9th graders find meaningful participation at school. It is thus important that schools consider how to increase meaning in students' lives. The High School Positive Psychology Program (Seligman et al., 2009) includes a unit on the meaningful life. Students are asked to read a short excerpt/story on meaning then start a meaning journal (together with their parents) and participate in community service projects. Verbal feedback from students suggests that they are thinking about meaning and the journal served as a tool to foster discussions on meaning with their parents (Gillham, 2011). Community service projects or organized youth activities can also help increase meaning. In a study examining three youth programs, Larson et. al (2004) found that most youth joined the activities/programs for extrinsic reasons (e.g. hang out with other teens), but as they participated in the activities, they found their motives changing – they realized they actually liked helping people and found meaning doing so.

Implications for education. It appears that meaning in life is not something that can be taught; however, it is possible to create conditions to increase meaning for students. Teachers could, firstly, promote discussions about meaning in life by using the spiritual questions. These questions can prompt students to look more deeply within their spiritual core and discover the meaning in their lives. Of course, the teacher has to ensure that there is safety for sharing and create a culture of trust and openness through the emphasis of confidentiality. Secondly, teachers could encourage students to keep a spiritual or meaning journal in which to record their thoughts or exchange thoughts with their parents. Thirdly, teachers could encourage more students to be

involved in activities where students have the opportunity to work with others and help the less fortunate. Finally, teachers could help students identify their signature strengths and encourage them to use them in various domains of their school life.

Workshop activity. To help teachers discover what their lives mean and where they derive their meaning from, participants would be given time to address the spiritual questions in pairs. They will also discuss what made them join the teaching profession and what their role as teachers means to them. Through the discussion, teachers will also learn what qualities are necessary to promote a discussion about meaning within the classroom and what other questions they might need to prompt students to dig deeper within them.

Achievement. Seligman argues that people seek accomplishment even in the absence of positive emotion, engagement, and meaning (2002). Due to his exposure to multiple bridge players, Seligman (2011) observed that there were some who simply wanted to win at all costs—he called these people ‘accumulators’ because they felt satisfied when they successfully managed to accumulate either money or accolades in their life regardless of the other elements of PERMA. Indeed, a sense of competence or achievement is one of our key psychological needs (Ryan & Deci, 2000). Thus, since our lives are largely directed by the goals that we want to achieve and the information that we attend to (James, 1892), achievement is really a crucial element of well-being.

The path to achieving success is multifold: there are various definitions to what achievement is and different levels of achievement. In education, academic achievement is certainly one of the main foci but increasingly, schools are seen as places where children develop into holistic individuals, with strong character and myriad interests beyond academic pursuits. To

achieve success in school therefore, it is important to for teachers to know about (a) goal setting & hope theory (b) grit; and (c) intelligence, mindsets and praise.

Goal-setting theory. Goal setting theory is based on an evolutionary premise: all living things engage in action that is directed by goals because they need to survive. In man, goals are generally self set by a process of reasoning and may be short or long term (Locke, 1996). Locke states that when a goal is more specific and difficult, it leads to greater achievement and higher performance. A factor that could sway the outcome both ways is the level of commitment a person has – the harder the goal is, the higher the commitment and the greater the performance (Locke, 1996). Setting specific and challenging goals ordinarily leads to greater persistence because they generally take longer to reach and require more resilience to overcome obstacles (Locke, 1996). Furthermore, difficult goals also reflect on our standards of self-satisfaction. This ties in nicely with flow theory and the balance between challenge and skill level: when goals are appropriately set at a level challenging enough to neither induce anxiety nor boredom and when there is sufficient skill/ability to achieve the goal, goals can enhance interest in a task and drive people to greater clarity about the goal (Locke, 1996). Being mindful of these conditions will help teachers set achievable yet challenging goals for their students, promoting mastery and flow.

Hope theory. Closely linked to goal setting theory is hope theory: having hope drives people to make goals, set plans, and believe they will achieve them. Hopeful people also maintain their goals even when they experience setbacks or difficult circumstances (Lopez et al., 2004). Through the synergy of providing pathways (strategies to reach the goal) and agency (initiate and sustain motivation), hope theory is necessary for the success of the goal pursuit (Lopez et al., 2004). It should be noted that the pathways and agency components are both

necessary, but neither on its own is sufficient to sustain successful goal pursuit. For example, an individual might identify various pathways to reach the goal but without agency thoughts such as positive self-talk (“I can do it”), it will be difficult to reach the goal (Snyder, Cheavens, & Michael, 1999).

Having hope is crucial for well-being in children and adolescents. High-hope children, identified as children who scored in the top third of the Children’s Hope Scale (Snyder, Hoza et al., 1997), typically have higher perceived competence and self-esteem and present fewer symptoms of depression (Snyder, Hoza et al., 1997). They are also more optimistic, focus on success rather than failure when pursuing goals and perceive themselves capable of solving problems that may arise (Snyder, Hoza et al., 1997). Recent research also suggests that high hope is linked closely to having a greater perceived purpose in life (Feldman & Snyder, 2005).

In the academic arena, the high-hope students do not denigrate their abilities when they encounter setbacks and do not let them affect their self-worth. They also recognize that failure merely means they did not try hard enough in a given instance or did not identify the correct studying techniques. This is clearly demonstrated by research evidence that hope is not related to native intelligence (Snyder, McDermott, Cook & Rapoff, 2002) but is related instead to academic achievement.

Seeing that high hope has so many positive effects on a child’s sense of self-worth and academic achievement, strategies to enhance hope should be a part of every teacher’s toolbox. First, teachers can encourage students to set goals that are specific and achievable and then help them set clear markers for their goals. These markers must enable the students to track progress towards the goal i.e. ‘putting in one hour of practice a day in order to get an ‘A’ grade for Mathematics’ as opposed to ‘getting good grades’. Second, to help them consider various

pathways towards their goals, teachers can help students break down their large goals into smaller sub-goals. Third, to enhance agency, teachers can check to ensure the goals they have set are personal goals that fill their needs and intrinsically motivate them. Teachers could also encourage students to keep a diary of positive memories. Snyder, McDermott et al (2002) have found that hopeful children often draw upon their own memories of positive experiences to keep them buoyant during difficult times.

Grit. Grit is defined as perseverance and passion for long-term goals. The gritty individual works strenuously toward long-term challenges, maintaining passion and effort despite setbacks and distractions (Duckworth, Peterson, Matthews & Kelly, 2007). Simply put, achievement as a mathematical equation would read this way: achievement = skill x effort where effort is the amount of time spent on a task and skill includes speed, slowness and rate of learning (Seligman, 2011). In an initial study with children participating in the Scripps National Spelling Bee context, Duckworth and Seligman (2005) decided to test what factor (grit, verbal IQ, self-control) would predict their entry into the final round and how well they performed. She found that gritty finalists outperformed the rest, in part because of the amount of time spent studying words. Replicating the study, Duckworth and Seligman (2006) additionally found that the extra time spent practicing accounted for the entire edge grit confers. Thus, it is important that in addition to IQ, teachers emphasize the need to compliment it with sufficient practice and support the student with as many resources as one would a 'gifted' child (Duckworth et al., 2007). Also, teachers might remind students that the pursuit of a goal might require deliberate practice that is repetitive, effortful and not as enjoyable (Duckworth, Kirby, Tsukuyama, Berstein & Ericsson, 2010); but that it can lead to eventual success if they persevere. Teachers could encourage the use of self-quizzing or peer-quizzing techniques, which Karpicke, Butler

and Roediger (2009) have found to be more enjoyable and able to provide feedback on progress. Importantly, teachers should prepare youth to anticipate failures and misfortunes and point out that excellence in any discipline entails multiple failures and frustrations and requires endurance on the task.

Intelligence, mindsets and praise. Finally, the importance of Dweck's (2002) research on mindsets or beliefs about intelligence and praise cannot be underscored enough. She proposes that intelligence can be viewed as a fixed entity (i.e. your IQ is what you are born with and it cannot be improved) or malleable (i.e. intelligence can be developed). Students who believe intelligence is fixed worry about being judged as dumb and are afraid of failure as they might make mistakes. As a result, they tend to avoid situations in which they can fail and avoid putting in effort into challenging tasks. Typically, they think of failure as something native to their personality – a feature of 'low-hope' children. In contrast, students who believe that intelligence can be developed enjoy challenges, want to work hard and value learning over looking smart. These students are typically 'high-hope' individuals who prove to be more resilient and can thrive amidst challenge (Snyder, McDermott et al, 2002).

Closely tied to the mindset theory of intelligence is how students are praised. Trait praise is when they are praised for how smart or intelligent they are (e.g. "You are so clever!"); process praise is when they are praised for the effort they have put in (e.g. "This piece of work is clearly written and shows to me the amount of effort you have put in! I am so proud of you!"). Dweck's (2002) studies show that students who are trait praised may have felt good initially but when they encounter difficulty, will start to think that they are not smart enough. Process praised students, however, thought that they probably did not work hard enough or put in enough effort into the task. More importantly, process praised students were more eager to learn new things. As a

result, they gained from opportunities they pursued; trait-praised students however, shied away from such opportunities for fear the challenge would make them appear less smart than they were. In a study conducted by Mueller and Dweck (1998), they found that children who are praised for intelligence when they succeed are the ones least likely to attribute their performance to low effort, a factor over which they have some amount of control. Instead, they show the most marked preference for ability over effort explanations among the three groups. Thus, praise for intelligence does not appear to teach children that they are smart; rather, such praise appears to teach them to make inferences about their ability versus their effort from how well they perform.

In summary, praise that comments on children's abilities, goodness, or worthiness after their performance of a task or that expresses the adult's global evaluation of the child on the basis of the child's performance (e.g., disappointment or pride in the child as a whole) tends to affect how the child responds to future setbacks. In contrast, feedback that focused children on examining their strategies or effort (process feedback) would foster more mastery-oriented responses to setbacks (Kamins & Dweck, 1999). This implies that teachers need to recognize that not all praise is effective and use process praise more often.

Workshop activity. To help teachers learn how to praise a student effectively, teachers will practice praising each other using both trait and process praise. Not only will they get a safe environment in which to compliment each other, they will also feel positive emotions receiving praise. It also serves as a good closing activity to the whole workshop. Following that, teachers will engage in a discussion on how it felt giving and receiving both types of praise.

Future Implementation

This workshop is set to be implemented in one of Singapore's top schools, Hwa Chong Institution. At present, the school is flourishing academically – their students win accolades in competitions and the Cambridge 'A' Level examinations. However, they feel that there is a need

to build up the resilience of the students and give them the foundational skills to flourish. Currently, the school believes that PP and positive education will not only enhance the students' well-being but also enrich the school culture. Ultimately, it is hoped that the staff and students will speak a common language of PP and utilize the skills they have learnt in the workshop towards a flourishing life. When all teachers have been trained, it is hoped that positive education will extend to co-curricular activities and the school curriculum as well and become a culture across the school; similar to what Geelong Grammar School has done. Beyond Hwa Chong Institution, it is hoped that positive education will become a key approach towards building well-being in Singapore schools. It will serve as a complementary approach to the current SEL foundation already in place.

Conclusion

“We are creatures of the future, not ones driven by the past” says Seligman (2011, p.104), and if we allow ourselves to believe that the past determines what might happen in the future, we will render ourselves helpless to the environment. Instead, we should focus on how we, as humans, can take control of our personal well-being and put in steps towards the future. Indeed, in every decision we make, we will think about how much it will add to our lives; similarly, every decision teachers make, facing a classroom of students, impacts their future in strong ways. As such, teachers need to balance their teaching of achievement skills with teaching well-being – by focusing on building resilience, character strengths and using PERMA (Seligman, 2011) as a framework to flourish. In this way, positive education is able to balance both the need to eliminate or reduce difficulties while simultaneously molding what is necessary for building good character in students (Seligman, 2011).

Appendix 1

Character strengths and virtues

Virtues	Character Strengths
Wisdom and Knowledge (strengths that involve the acquisition and use of knowledge)	<ul style="list-style-type: none"> • Creativity, curiosity, open-mindedness, love of learning, perspective
Courage (strengths that allow one to accomplish goals in the face of opposition)	<ul style="list-style-type: none"> • Bravery, persistence, integrity, zest
Humanity (strengths of tending and befriending others)	<ul style="list-style-type: none"> • Love, kindness, social intelligence
Justice (strengths that build healthy community)	<ul style="list-style-type: none"> • Citizenship, fairness, leadership
Temperance (strengths that protect against excess)	<ul style="list-style-type: none"> • Forgiveness, prudence, self-regulation, humility
Transcendence (strengths that forge connections to the larger universe and provide meaning)	<ul style="list-style-type: none"> • Appreciation of beauty & excellence, gratitude, hope, humor, spirituality

Appendix 2

2-day workshop plan

DAY 1	
Time	Item
830-835	Introduction of myself
835-900	Icebreaker: Positive Emotions of the day (5 mins) - Pairwork <ul style="list-style-type: none"> • What positive emotions did you experience today/yesterday and what led to it? Debrief (10-15 mins) <ul style="list-style-type: none"> • What were some thoughts running in your mind when you were sharing the story with your friend? • What was the process by which you selected the emotion and then the story?
900-910	Introduction to course: Resilience, Character Strengths and Flourishing Setting ground rules and expectations
910-930	Introduction to positive psychology Importance of positive education
930-1000	Introduction to Resilience: What is it? What enables it? - Pairwork Tuning-in activity (10 mins) <ul style="list-style-type: none"> • 5-minute discussion on what resilience means Debrief <ul style="list-style-type: none"> • What is your definition of resilience? • Why is resilience important in education?
1015-1030	BREAK

DAY 1	
Time	Item
1030-1100	<p>How to teach Resilience?</p> <p>Introduction to ABCs</p> <ul style="list-style-type: none"> • ABC examples • Role play to identify consequences, emotions and beliefs (need volunteers)
1100-1200	<p>Practicing the ABCs – your turn as coach! (40 mins) - Pairwork</p> <ul style="list-style-type: none"> • One person to describe the adversity and one person to listen for consequences, emotions and beliefs <p>Questions coach can use</p> <ul style="list-style-type: none"> • What were you saying to yourself when you felt that way? • What were the images in your head? Walk me through it? • Does the intensity of the emotions/consequences match the situation? <p>Debrief</p> <ul style="list-style-type: none"> • What are some questions, reflections you have about using ABCs? • How can it help you as a person, as a teacher? • How can this tool help us be more resilient?
1200-1215	<p>Summarize key points of the morning</p> <ul style="list-style-type: none"> • What did we learn about positive psychology/resilience?
1215-1315	LUNCH
1315-1320	Jai Ho/Pink gloves energizer
1320-1350	Thinking traps (30 mins) – Individual activity

DAY 1	
Time	Item
	<ul style="list-style-type: none"> Thinking traps and what they are: the 7 traps to watch out for <p>Debrief</p> <ul style="list-style-type: none"> How does identifying the TTs help us change our perspective? How do thinking traps affect our resilience? How can we use the knowledge of TTs in our role as a person, as a teacher?
1350-1420	<p>Putting in Perspective (PIP) (40 mins) – Whole class activity</p> <ul style="list-style-type: none"> Catastrophizing: what is it? Example of catastrophizing Student/teacher examples <p>Debrief (20 mins)</p> <ul style="list-style-type: none"> What can you learn about resilience from this? How can you apply this as an individual, as a teacher?
1420-1500	<p>Loving Kindness Meditation</p> <ul style="list-style-type: none"> How to increase positive emotions and resilience using loving kindness Reflections & other tips to keep calm
1500-1515	<p>Summarize Resilience & key skills</p> <ul style="list-style-type: none"> ABC mode, thinking traps, PIP and LKM
1515-1530	BREAK
1530-1600	<p>Introduction to strengths</p> <p>Strengths Interview (10 mins each) - Pairwork</p>

DAY 1	
Time	Item
	Debrief <ul style="list-style-type: none"> • What did you learn about yourself? And your partner? • What is so important about strengths? What insights did you garner about when to use them? • Shadow side to strengths?
1600-1630	Close of day 1 <ul style="list-style-type: none"> • Reflect on key learning points and expectations • Write down 3 things you can do differently in the classroom and in your personal life

DAY 2	
Time	Item
830-845	Good morning activity: Quotation search to form new group - Groupwork <ul style="list-style-type: none"> • Quotations about each PERMA element • Each group will do a short recap about each element at the end of the day
845-900	Recap Day 1 Recap workshop objectives and Day 2 content
900-910	Introduction to Positive emotions Relive a frustrating and joyful situation <ul style="list-style-type: none"> • How did the frustrating situation feel? • What did you feel like doing?

DAY 2	
Time	Item
	<ul style="list-style-type: none"> • What was going through your mind? • How did it feel in the body?
910-930	Positive Emotions Lecture <ul style="list-style-type: none"> • 2 key concepts: <ul style="list-style-type: none"> ○ Broaden & build ○ Positivity ratio
930 - 1015	Positive Collage (45 mins) – Individual and Pairwork <ul style="list-style-type: none"> • Each person chooses a positive emotion they want to build and then draws an outline that represents the emotion • Then they use pictures to fill up the space in their outline – using markers to identify what it is they chose (Show sample) • Admire it and share with partner their masterpiece. Savor it!
1015-1030	BREA
1030-1100	Engagement game: Tangrams (20 mins) – Group work Debrief <ul style="list-style-type: none"> • How many of you were engaged in the activity? What do you think made it possible • Those not engaged? What was it that made it hard for you to get into the game?
1100-1130	Lecture on Flow <ul style="list-style-type: none"> • How can we help our students achieve flow?

DAY 2	
Time	Item
	<ul style="list-style-type: none"> • How can we also achieve flow in our work?
1130-1145	Recap the morning
1145-1245	LUNCH
1245-1255	Energizer: Wedding entrance song
1255-1315	<p>Introduction to Relationships</p> <ul style="list-style-type: none"> • HQCs
1315-1340	<p>Trust activity (25 mins) – Pairwork</p> <p>Debrief</p> <ul style="list-style-type: none"> • What did you learn about trust and how it builds relationships? How did you manage to guide your friend out and back without mishap? What did it feel like to be blindfolded/be the leader? • How can we implement this in the workplace? How to build trust within the colleagues and with students??
1340-1440	<p>Introduction to Meaning – share meaning story</p> <ul style="list-style-type: none"> • Watch Randy Pausch interview, Steve Jobs address, excerpts from Viktor Frankl’s book <p>Discussion about what is meaning & purpose in life</p> <ul style="list-style-type: none"> • What brings you meaning and purpose in life? Is it what you believe or what you do? How can you add more meaning in your life? What about in your role as a teacher? <p>Short lecture on ‘meaning’</p>

DAY 2	
Time	Item
	<ul style="list-style-type: none"> • How can we help our children understand how to lead a more meaningful life? What would we say to them if they said life has no meaning?
1440-1500	BREAK
1500-1540	<p>Introduction to Achievement</p> <ul style="list-style-type: none"> • Successful people: what's in common, what's different? • How to help students achieve? Short lecture <p>Practicing praise (20 mins)</p> <ul style="list-style-type: none"> • Compliment 5 people on something he/she has done well this year using trait praise and process praise • Discuss the difference between trait and process praise
1540-1615	<p>Concluding activity</p> <p>Each group to think of how they would help students in the classroom learn each element through presentation</p> <ol style="list-style-type: none"> 1. Recap what element stands for 2. Insights into its importance/use 3. Types of activities you can use it for
1615-1630	<p>Close of workshop</p> <ul style="list-style-type: none"> • Main points learnt (quick slideshow) • Refer back to main objectives of workshop • Evaluations & Feedback • Journalling

Appendix 3

Thinking traps and critical questions

Thinking Traps	Critical Questions
Jumping to conclusions	Slow down: What is the evidence?
Tunnel vision	Include more: what salient information did I miss?
Overgeneralizing	Look at behavior: Is there a specific behavior that explains the situation?
Magnifying & minimizing	Be evenhanded: what positive events occurred?
Personalizing	Look outward: How did others or circumstances contribute?
Externalizing	Look inward: How did I contribute?
Mind reading	Speak up: Did I express myself? Did I ask for information?

References

- Albee, G.W. (1996). Revolutions and counterrevolution in prevention. *American Psychologist*, *51*, 1130-1133.
- Andersen, F. O. (2005a). *International trends in primary school education: An overview based on case studies in Finland, Denmark & Japan*. Bilund, Denmark: Lego Learning Institute.
- Argyle, M. (2001). *The psychology of happiness*. Routledge, Hove, UK.
- Ayers, W. (1995). *To become a teacher: Making a difference in children's lives*. New York: Teachers College Press.
- Baker, J., Terry, T., Bridger, R., & Winsor, A. (1997). Schools as caring communities: A relational approach to school reform. *School Psychology Review*, *26*, 586 – 602.
- Battista, J., & Almond, R. (1973). The development of meaning in life. *Psychiatry*, *36*, 409 – 427.
- Beck, A. T. (1961). A systematic investigation of depression. *Comprehensive Psychiatry*, *2*, 163-170.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper and Row. Republished as: Beck, A. T. (1970). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Benard, B. (1991). *Protective Factors in the Family, School, and Community*. Portland, OR: Western Center for Drug-Free Schools and Communities.
- Benard, B. (1995). *Fostering resilience in children*. (Report No. EDO-PS-95-9). Champaign, IL: ERIC Clearinghouse on Elementary and Childhood Education.
- Benard, B. (2004). *Resiliency: What we have learned*. San Francisco, CA: WestEd.

- Benard, B., & Slade, S. (2009). Listening to students: Moving from resilience research to youth development practice and school connectedness. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in the schools* (pp. 353-370). New York: Routledge.
- Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 193-281). New York: McGraw-Hill.
- Blatt, R. & Camden, C. T. (2007). Positive relationships and cultivating community. In J. E. Dutton & B.R. Ragins (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation*, (pp. 243-264). Mahwah, NJ: Lawrence Erlbaum.
- Block, J. H. (1984). Making school learning activities more playlike: flow and mastery. *The Elementary School Journal*, 85 (1), 64-75.
- Bowlby, J. (1969). *Attachment, 2nd edition, Attachment and Loss (vol. 1)*, New York: Basic Books.
- Brdar, I. & Kashdan, T. (2010). Character strengths and well-being in croatia: an empirical investigation of structures and correlates. *Journal of Research in Personality*, 44, 151-154.
- British Broadcasting Corporation (BBC). (2010, June 20). *Schools in a curriculum vacuum*. Retrieved from <http://www.bbc.co.uk/news/10355207>
- Brunwasser, S.M., Gillham, J.E., & Kim, E.S. (2009). A meta-analytic review of the Penn Resiliency Program's effect on depressive symptoms. *Journal of Consulting and Clinical Psychology*, 77(6), 1042-1054. doi:10.1037/a0017671

- Bryant, F.B. (1989). A four- factor model of perceived control: Avoiding, coping, obtaining, and savoring. *Journal of Personality*, 57, 773-797.
- Bryant, F. B., & Verhoff, J. (2005). *Savoring: A new model of positive experience*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Bryant, F. B., Smart, C., & King, S. P. (2005). Using the past to enhance the present: Boosting happiness through positive reminiscence. *Journal of Happiness Studies*, 6 (30), 227-260.
- Campbell, J. (1995). *Understanding John Dewey: nature and cooperative intelligence*. Illinois: OpenCourt.
- Carson, J. W., F. J. Keefe, et al. (2005). Loving-kindness meditation for chronic low back pain: results from a pilot trial. *Journal of Holistic Nursing*, 23(3), 287-304.
- Chan, D. W. (2009). The Hierarchy of strengths: their relationship with subjective well-being among Chinese teachers in Hong Kong. *Teaching and Teacher Education*, 25, 867-875.
- Chrispeels, J.H. (1996). Effective schools and home-school-community partnership roles: A framework for parent involvement. *School Effectiveness and School Improvement*, 7 (4), 297-323.
- Chua, Y. (2011). A pressure cooker education system. *The Singaporean disease*. Retrieved from <http://theonlinepost.com/cm421b/?p=96>
- Clarke, G. N., Hornbrook, M., Lynch, F., Polen, M., Gale, J., Beardslee, W., et al. (2001). A randomized trial of a group cognitive intervention for preventing depression in adolescent offspring of depressed parents. *Archives of General Psychiatry*, 58, 1127– 1134.
- Collaborative for Academic, Social and Emotional Learning (CASEL). (2007). *The benefits of school-based social and emotional learning programs: Highlights from a forthcoming CASEL report*. Chicago, IL: Author. Retrieved from <http://www.melissainstitute.org/documents/weissberg-3.pdf>

- Collaborative for Academic, Social and Emotional Learning (CASEL). (2008). *CASEL Brief: Background on social emotional learning*. Retrieved from <http://casel.org/wp-content/uploads/2011/04/SELCASELbackground.pdf>
- Collaborative for Academic, Social and Emotional Learning (CASEL). (2011, June 25). *What is SEL?* Retrieved from <http://casel.org/why-it-matters/what-is-sel/>
- Costello, E. J., Pine, D. S., Hammen, C., March, J. S., Plotsky, P. M., Weissman, M. M., et al. (2002). Development and natural history of mood disorders. *Biological Psychiatry*, 52, 529–542.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Perennial.
- Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. New York: Cambridge University Press.
- Csikszentmihalyi, M., & Schneider, B. (2000). *Becoming adult: How teenagers prepare for the world of work*. New York: Basic Books.
- Csikszentmihalyi, M. & Nakamura, J. (2010). Effortless Attention in Everyday Life: A Systematic Phenomenology. In B. Bruya (Ed.), *Effortless attention*. Boston: The MIT Press.
- Csikszentmihalyi, M. & Shernoff, D.J. (2008). Flow in Schools. I: Gilman, R., Heubner, E.S., & Furlong, M. (Eds.). (2008), *Handbook of positive psychology in the schools*. New Jersey: Erlbaum.
- Cunningham, W.G. & Gresso, D.W. (1993). *Cultural Leadership*. Boston, MA: Allyn Bacon.

Dahlsgaard, K., Peterson, C., & Seligman, M.E.P. (2005). Shared virtue: The convergence of valued human strengths across culture and history. *Review of General Psychology, 9*, 203-213.

Dewey, J. (1916/2009). *Democracy and education: An introduction to the philosophy of education*. New York: WLC Books.

Diener, E., & Seligman, M.E.P. (2002). Very happy people. *Psychological Science, 13* (1), 81-84.

Diener, E. & Biswas-Diener, R. (2008). *Happiness: Unlocking the Mysteries of Psychological Wealth*. Blackwell-Wiley.

Diener, E., Oishi, S. & Lucas, R.E. (2003). Personality, culture, and subjective well-being: emotional and cognitive evaluations of life. *Annual Review of Psychology, 54*, 402-425.

Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*(12), 939-944.

Duckworth, A. L., & Seligman, M. E. P. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology, 98*(1), 198-208.

Duckworth, A., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92*, 1087-1101.

Duckworth, A., Kirby, T., Tsukayama, E., Berstein, H., Ericsson, K. (2010). Deliberate practice spells success: Why grittier competitors triumph at the National Spelling Bee. *Social Psychological and Personality Science, 2*, 174-181.

- Durlak, J. A. (1997). *Successful prevention programs for children and adolescents*. New York: Plenum.
- Dutton, J. (2003). Breathing Life into Organizational Studies. *Journal of Management Inquiry*, 12, 1-19.
- Dutton, J. (2011, 5 March). *High quality connections: A keystone to positive organisations*. Lecture delivered in MAPP 709 class, University of Pennsylvania, Philadelphia.
- Dweck, C. S. (2002). Messages that motivate: How praise molds students' beliefs, motivation, and performance (in surprising ways). In J. Aronson (Ed.), *Improving academic achievement* (pp. 37-60). New York: Academic Press.
- Eades, J.F. (2008). *Celebrating Strengths: Building strengths-based schools*. CAPP Press.
- Ellis, A. (1957). Rational psychotherapy and individual psychology. *Journal of Individual Psychology*, 13, 38-44.
- Ellis, A. (2003). Early theories and practices of rational emotive behavior theory and how they have been augmented and revised during the last three decades. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 21, 33-58.
- Elias, M. J. (1995). Primary prevention as health and social competence promotion. *Journal of Primary Prevention*, 16, 5-24.
- Emmons, R.A. & McCullough, M.E. (2003). Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84 (2), 377–389, doi: 10.1037/0022-3514.84.2.377
- Ernest, P. (1986). Games: A rationale for their use in the teaching of mathematics in school. *Mathematics in School*, 15(1), 2-5.

- Feldman, D. B., & Snyder, C. R. (2005). Hope and the meaningful life: Theoretical and empirical associations between goal-directed thinking and life meaning. *Journal of Social and Clinical Psychology, 24*, 401-421.
- Feltham, C. (1997). *Time-limited counselling*. London: Sage.
- Finn, J.D. (1989). Withdrawing from school. *Review of Educational Research, 59*, 117-142.
- Fowler, R. (2010, September 8). *Positive health: Health and well-being throughout the lifespan*. Lecture presented in MAPP 700 class, University of Pennsylvania, Philadelphia, PA.
- Frankl, V. E. (1959). *Man's Search for Meaning*. MA: Beacon Press.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*, 218–226.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13*, 172 – 175.
- Fredrickson, B.L., & Losada, M.F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist, 60*(7), 678-686.
- Fredrickson, B., Cohn, M., Coffey, K. A, Pek, J., & Finkel, S. M. (2008). Open hearts build lives: positive emotions, induced through Loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology, 95* (5), 1045–1062.
- Fredrickson, B. (2009). *Positivity: Groundbreaking research reveals how to embrace the hidden strength of positive emotions, overcome negativity, and thrive*. New York: Random House.

- Froh, J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*, 213-233.
- Garber, J., Kriss, M. R., Koch, M., & Lindholm, L. (1988). Recurrent depression in adolescents: A follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 27*, 49-54.
- Gillham, J. E., Reivich, K. J., Jaycox, L. H., & Seligman, M. E. P. (1995). Preventing depressive symptoms in schoolchildren: Two year follow-up. *Psychological Science, 6*, 343-351.
- Gillham, J. E., Brunwasser, S. M., & Freres, D. R. (2008). Preventing depression in early adolescence: The Penn Resiliency Program. In J. R. Z. Abela & B. L. Hankin (Eds.), *Handbook of depression in children and adolescents*, (pp. 309 -322). New York, NY: Guilford Press.
- Gillham, J.E., Abenavoli, R.M., Brunwasser, S.M., Reivich, K.J. & Seligman, M.E.P. (2011). Resilience Education. Chapter to appear in I. Boniwell et al. (Eds.) *Handbook of Happiness*. Oxford University Press.
- Gillham, J.E. (2011). *Promoting well-being in schools: A tale of two programs*. Lecture delivered for MAPP 702, University of Pennsylvania, Philadelphia.
- Gottman, J. & Silver, N. (2000). *The seven principles for making marriage work: A practical guide from the country's foremost relationship expert*. New York: Three Rivers Press.
- Grant, A. M. (2010). How customers can rally your troops: End users can energize your workforce far better than your managers can. *Harvard Business Review, 97-103*.
- Greenberg, M.T., Kusche, C.A., & Riggs, N. (2004). The PATHS curriculum: Theory and research on neurocognitive development and school success. In J.E. Zins, R.P.

- Weissberg, M.C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 170-188). New York, NY: Teachers College Press.
- Gregory, K., & Clarke, M. (2003), High-stakes assessment in England and Singapore. *Theory into Practice*, 42 (1), 66-74.
- Haidt, J., & Gable, S. (2005). What (and why) is positive psychology? *Review of General Psychology*, 9 (2), 103-110. doi: 10.1037/1089-2680.9.2.103
- Harrington, R., Fudge, H., Rutter, M., Pickles, A., & Hill, J. (1990). Adult outcomes of childhood and adolescent depression. *Archives of General Psychiatry*, 47, 465–473.
- Hawkins, J.D., Smith, B.H., & Catalano, R.F. (2004). *Social development and social and emotional learning*. In J.E. Zins, R.P. Weissberg, M.C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 170-188). New York, NY: Teachers College Press.
- Hektner, J. M., Schmidt, J. A., & Csikszentmihalyi, M. (2007). *Experience Sampling Method: Measuring the quality of everyday life*. Thousand Oaks, CA: Sage.
- Hoy, W. K. (2002). Faculty trust: A key to student achievement. *Journal of School Public Relations*, 23 (2), 88-103.
- Hudley, C., & Graham, S. (1993). An attributional intervention to reduce peer-directed aggression among African American boys. *Child Development*, 64, 124–138.
- Huizinga, J. (1950). *Homo ludens: A study of play-element in culture*. Boston, MA: Beacon Press.
- Hunter, J. P. (2003). The positive psychology of interested adolescents. *Journal of youth and adolescence*, 32 (1), 27.

- Hutcherson, C. A., Seppala, E. M., & Gross, J. J. (2008). Loving-kindness meditation increases social connectedness. *Emotion, 8*, 720-724.
- Jackson, P. W. (1968). *Life in classrooms*. New York: Holt, Rinehart & Winston.
- James, W. (1892/1984). *Principles of psychology: Briefer course* (pp. 125-138). Cambridge, MA: Harvard University Press.
- Kahn, W. (1992). To be fully there: Psychological presence at work. *Human Relations, 45*(5), 321-349.
- Kamins, M.L., & Dweck, C.S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology, 35*, 835–847.
- Karpicke, J. D., Butler, A.C., & Roediger, H. L. (2009). Metacognitive strategies in student learning: Do students practice retrieval when they study on their own? *Memory, 17*, 471-479.
- Kaslow, N. J., & Thompson, M. P. (1998). Applying the criteria for empirically supported treatments to studies of psychosocial interventions for child and adolescent depression. *Journal of Clinical Child Psychology, 27*, 146–155.
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*, 207–222.
- Kolb, D.A. (1984). *Experiential learning experience as a source of learning and development*. New Jersey: Prentice Hall.
- Larson, R., Jarrett, R., Hanse, D., Pearce, N., Sullivan, P., Walker, K., Watkinsd, N., & Wood, D. (2004). Organized youth activities as contexts for positive development. In Linley, P.A. & Joseph, S. (eds). *Positive psychology in practice* (pp 540 -560). Hoboken, New Jersey: John Wiley & Sons.

- Lee, F. (1997). When the going gets tough, the tough ask for help? Help seeking and power motivations in organizations. *Organizational Behavior and Human Decision Processes*, 72, 336-363.
- Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. A. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology*, 102, 133-144.
- Lewinsohn, P. M., Clarke, G. N., Seeley, J. R., & Rohde, P. (1994). Major depression in community adolescents: Age at onset, episode duration, and time to recurrence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 33(6), 809-818.
- Locke, E. A. (1996). Motivation through conscious goal setting. *Applied & Preventive Psychology*, 5, 117-124.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57, 705–717.
doi:10.1037/0003-066X.57.9.705
- Lopez, S. J., Snyder, C. R., Magyar-Moe, J. L., Edwards, L., Pedrotti, J. T. Janowski, K., Turner, J. L., & Pressgrove, C. (2004). Strategies for accentuating hope. In Linley, P. A. & Joseph, S. (Eds.), *Positive psychology in practice* (pp. 388-404). Hoboken, NJ: Wiley.
- Luther King, M. (1947). The Purpose of education. Paper written whilst studying at Morehouse College.
- MacIntyre, A. (1981). *After virtue*. Notre Dame, IN: Notre Dame University Press.
- Masten, A. S. & Reed, M. J. (2005). Resilience in development. In: CR Snyder & SJ Lopez (eds). *Handbook of positive psychology*. New York: Oxford University Press.
- McCullough, M. E., & Snyder, C. R. (2000). Classical sources of human strength: Revisiting

an old home and building a new one. *Journal of Social and Clinical Psychology, 19*, 1–10.

McKinsey Report (2010, June 24). How the world's most improved school systems keep getting better. Retrieved from

http://www.mckinsey.com/clientservice/Social_Sector/our_practices/Education/Knowledge_Highlights/~/_media/Reports/SSO/Education_Intro_Standalone_Nov%2026.ashx

Miller, J. B., & Stiver, I. P. (1997). *The Healing Connection*. Boston: Beacon Press.

Ministry of Community Development, Youth and Sports (MCYS). (2004). Marriage and Parenthood study. Retrieved from

<http://app1.mcys.gov.sg/PressRoom/MarriageandParenthoodStudy2004.aspx>

Ministry of Education (MOE). (1997, December 1). Desired Outcomes of Education (DOEs).

Retrieved from <http://www.moe.gov.sg/education/files/desired-outcomes-of-education.pdf>

Ministry of Education (MOE). (2001, September 12). Thinking Schools, Learning Nation (TSLN). Retrieved from <http://www.moe.gov.sg/about/#our-vision>

Ministry of Education (MOE). (2010, March 8). Competencies for the 21st century. Retrieved from <http://www.moe.gov.sg/committee-of-supply-debate/files/nurturing-our-young.pdf>

Montessori, M. (1967). *The absorbent mind*. New York: Holt Rinehart and Winston.

Mueller, C. & Dweck, C.S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology, 75* (1), 33–52. doi:10.1037/0022-3514.75.1.33

Murray, C. (2002). Supportive teacher-student relationships: Promoting the social and emotional health of early adolescents with high incidence disabilities. *Childhood*

- Education*, 78, 255-260.
- National Institute of Mental Health. (2000). *Depression in children and adolescents: A fact sheet for physicians*. Retrieved April 2004, from <http://www.nimh.nih.gov/publicat/depchildresfact.cfm>.
- Newmann, F.M. (Ed.). (1992). *Student engagement and achievement in American secondary schools*. New York: Teachers College Press.
- Oldfield, B. (1991). Games in the learning of mathematics. *Mathematics in School*, 20(1), 41-43.
- Pargament, K. I. (2011). *Understanding spirituality: an irreducible dimension of life*. Lecture delivered for MAPP 702, University of Pennsylvania, Philadelphia, USA.
- Park, N. (2004). Character strengths and positive youth development. *The Annals of the American Academy of Political and Social Science*, 591, 40-54.
- Park, N., Peterson, C., & Seligman, M. E. P. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology*, 23, 603-619.
- Park, N., & Peterson, C. (2005). The values in action inventory of character strengths for youth. In K.A. Moore & L.H. Lippman (Eds.), *What do children need to flourish? Conceptualizing and measuring indicators of positive development* (pp. 13–23). New York: Springer.
- Patrick B., Hisley J., Kempler T. (2000). What's everybody so excited about? The effects of teacher enthusiasm on student intrinsic motivation and vitality. *The Journal of experimental education*, 68(3), 217-236.
- Penner, L. A. (2002). The causes of sustained volunteerism: An interactionist perspective. *Journal of Social Issues*, 58, 447-467
- Perkins, D.N., (1998). *Understanding teaching for understanding*. San Francisco: Jossey-Bass.
- Peterson, C. (2006). *A Primer in positive psychology*. New York: Oxford University Press.

- Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of Happiness Studies*, 6, 25-41.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513-563.
- Quinn, R., & Dutton, J. (2005). Coordination as energy-in-conversation: A process theory of organizing. *Academy of Management Review*, 30(1), 38-57.
- Radke-Yarrow, M., Zahn-Waxler, G., & Chapman, M. (1983). Children's prosocial dispositions and behavior. In P. H. Mussen (Ed.), *Handbook of child psychology*, Vol 4, (pp. 469-545) New York: Wiley.
- Ragins, B. R. & Verbos, A. K.. (2007). Positive relationships in action: Relational mentoring and mentoring schemas in the workplace. In J. E. Dutton & B. R. Ragins (Eds.) *Exploring positive relationships at work: Building a theoretical and research foundation*, (pp. 91-116). New York: Lawrence Erlbaum Associates.
- Rathunde, K., & Csikszentmihalyi, M. (2005a). Middle school students' motivation and quality of experience: A comparison of Montessori and traditional school environments. *American Journal of Education*, 111, 341-371.
- Rathunde, K., & Csikszentmihalyi, M. (2005b). The social context of middle school: Teachers, friends, and activities in Montessori and traditional school environments. *Elementary School Journal*, 106, 59-79.
- Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Belknap Press.
- Reschly, A.L., Huebner, E.S., Appleton, J.J., & Antaramian, S. (2008). Engagement as flourishing: The role of positive emotions and coping in student engagement at school

- and with learning. *Psychology in the Schools*, 45(5), 419-431. doi: 10.1002/pits.20306
- Reivich, K. & Shatté, A. (2002). *The Resilience Factor: 7 essential skills for overcoming life's inevitable obstacles*. New York: Broadway Books.
- Renninger, K. A. (2000). Individual interest and its implications for understanding intrinsic motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 375–407). New York: Academic.
- Roberts, L. M. (2007). From proving to becoming: How positive relationships create a context for self-discovery and self-actualization. In J.E. Dutton, & B.R. Ragins (Eds.) *Exploring positive relationships at work: Building a theoretical and research foundation* (29-46). New York: Lawrence Erlbaum Associates.
- Rohde, P., Lewinsohn, P.M., Seeley, J.R. (1994). Are adolescents changed by an episode of major depression? *Journal of American Academic Child Adolescent Psychiatry*, 33, 1289-1298.
- Rogers, C. R. (1951). *Client-centered therapy*. New York: Houghton Mifflin.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1–28.
- Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 15-36). Washington, D.C., US American Psychological Association.

- Saltzberg-Levick, J. (2011, February 15). *Resilience & optimism*. Lecture delivered for MAPP 708 class, University of Pennsylvania, Philadelphia.
- Salzberg, S. (1995). *Loving-kindness: The revolutionary art of happiness*. Boston: Shambhala.
- Seligman, M.E.P. (1998). *Learned Optimism*. New York: Pocket Books (Simon and Schuster).
- Seligman, M.E.P. (2002). *Authentic Happiness*. New York: Free Press.
- Seligman, M.E.P. (2004). *Can happiness be taught?* Daedalus.
- Seligman, M.E.P. & Peterson, C. (2004). *Character strengths and virtues: A handbook and classification*. Oxford: Oxford University Press.
- Seligman, M. E. P., Steen, T., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, *60*(5), 410-421.
doi: 10.1037/0003-066X.60.5.410
- Seligman, M.E.P. (2008). Positive Health. *Applied Psychology: An International Review*, *57*, 3-18. doi: 10.1111/j.1464-0597.2008.00351.x
- Seligman, M.E.P., Ernst, R.M., Gillham, J., Reivich, K. & Linkins, M. (2009). Positive education: positive psychology and classroom interventions. *Oxford Review of Education*, *35* (3), 293-311. doi: 10.1080/03054980902934563
- Seligman, M.E.P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York: Simon & Schuster.
- Sherhoff , D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff , E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly*, *18*, 158–176.

- Sherhoff, D.J., & Csikszentmihalyi, M. (2008). Flow in schools: Cultivating engaged learners and optimal learning environments. In R. Gilman, E. S. Heubner, and M. Furlong (eds.), *Handbook of positive psychology in the schools* (pp. 131-146). NJ: Erlbaum.
- Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M. et al. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22, 399–421. doi: 10.1093/jpepsy/22.3.399
- Snyder, C. R., Cheavens, J., & Michael, S. T. (1999). Hoping. In C. R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 205–231). New York: Oxford.
- Snyder, C. R., McDermott, D., Cook, W., & Rapoff, M. (2002). *Hope for the journey: Helping children through the good times and xx* (revised edition). Clinton Corners, NY: Percheron Press.
- Steger, M. & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. *Journal of Counseling Psychology*, 52 (4), 574 –582. doi: 10.1037/0022-0167.52.4.574
- Steger, M. F., & Dik, B. J. (2010). Work as meaning. In Linley, P. A., Harrington, S., & Page, N. (Eds.), *Oxford handbook of positive psychology and work* (pp.131-142). Oxford, UK: Oxford University Press.
- Steger, M. F. (in press). Experiencing meaning in life: Optimal functioning at the nexus of spirituality, psychopathology, and well-being. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning* (2nd Ed). New York: Routledge.
- Stephens, J.P., Heaphy, E., & Dutton, J. (2003). High Quality Connections. In K. Cameron and G. Spreitzer (Eds.), *Handbook of Positive Organizational Scholarship*. Cambridge: Oxford University Press.

- Strunk, D. R., & DeRubeis, R. J. (2001). Cognitive therapy for depression: A review of its efficacy. *Journal of Cognitive Psychotherapy. Special Review of Cognitive Behavioral Therapy, 15*, 289–297.
- Steinberg, L.D., Brown, B.B., & Dornbusch, S.M. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York: Simon & Schuster.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology: In Session, 65*, 467-487. doi: 10.1002/jclp.20593
- Tschannen-Moran, M. & Hoy, W. (1997). Trust in schools: a conceptual and empirical analysis. *Journal of Educational Administration, 36*(4), 334-352.
- Tugade, M. M. & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*, 320-333. doi: 10.1037/0022-3514.86.2.320
- UNICEF Survey (2001, May 15). The state of the world's children. Retrieved from <http://www.unicef.org/sowc2001/>
- Weissman, M.M., Wolk, S., Wickramaratne, P., et al. (1999). Children with prepubertal-onset major depressive disorder and anxiety grown up. *Archives of General Psychiatry, 56*, 794-801.
- Wenger, E. (2000) Communities of practice and learning systems. *Organization, 7* (2), 225-246.
- Whalen, S. P., & Csikszentmihalyi, M. (1991). *Putting flow theory into educational practice: The Key school's flow activities room*. Report to the Benton Center for Curriculum and Instruction. Chicago: University of Chicago.

- White, M. (2010). *Positive education in Geelong Grammar School*. Lecture delivered for MAPP 600 class, University of Pennsylvania, Philadelphia, USA.
- Wickramaratne, P.J., Weissman, M.M., Leaf, P.J. & Holford, T.R. (1989). Age, period and cohort effects on the risk of major depression: results from five United States communities, *Journal of Clinical Epidemiology*, *42*, 333-343.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, *17*, 601-617.
- Workforce Development Agency (WDA). (2002). Annual report for year 2002/2003. Retrieved from <http://www.wda.gov.sg/2002/AnnualReport.html>
- von Glasersfeld, E. (1992). A constructivist approach to experiential foundations of mathematical concepts. In: S. Hills (ed.), *History and philosophy of science in science education* (pp. 551–571), Kingston, Ontario: Queen's University.
- von Krogh, G., Ichijo, K. & Nonaka, I. (2000). *Enabling Knowledge Creation*. New York: Oxford.
- Ybarra, O., Burnstein, E., Winkielman, P., Keller, M. C., Manis, M., Chan, E., & Rodriguez, J. (2008). Mental exercising through simple socializing: Social interaction promotes general cognitive functioning. *Personality and Social Psychology Bulletin*, *34*(2), 248-259. doi: 10.1177/0146167207310454
- Yearley, L. H. (1990). *Mencius and Aquinas: Theories of virtue and conceptions of courage*. Albany, NY: State University of New York Press.