Abstract
There is a growing interest in the use of contemplative science particularly mindfulness based practices in schools around the world (Greeson, 2009). Preliminary research have demonstrated how mindfulness can be used to increase the ability to concentrate and sustain attention, reduce stress and anxiety among school aged youths, increase awareness of and compassion towards other people, increase self-control/self-regulation and the ability to respond thoughtfully rather than react impulsively to situations and improve executive functions (Burke, 2010; Greeson, 2009; Brown & Ryan, 2003). To this end this paper explored the core concepts of mindfulness, the purpose of mindfulness in school and its potential efficacy among teachers and learners. Finally results from prior research findings were examined followed by recommendations.
Introduction

It is common knowledge that the state of affairs in the school system is changing all over the globe and one of such changes has been the increasing recognition that schools should not only offer children formal education but should also consider the complete well-being of the child. In order to create schools that cultivate holistic education a number of interventions used in the health care sector are being adapted to foster well-being in school communities. One such practice is mindfulness, an ancient art but now a well researched intervention used in health care settings around the world.

UNICEF (2007) report on the alarmingly low rates of well-being, both objective (eg health, educational attainment) and subjective (eg life satisfaction) among children in economically advantaged centres such as the UK and the US makes this issue imperative. Consequently, schools around the world are now actively putting into practice programmes that recognize the importance of developing a child’s social, emotional, mental, spiritual and cognitive well-being (Garrison Institute Report, 2005). However, a focus on the well-being of all children will demand going beyond the alleviation of symptoms or problem behaviours to considering methods which can benefit all children.

Well-being is defined as the combination of feeling good and functioning well (Huppert, 2009;). Feeling good includes positive emotions such as happiness, contentment, interest and affection. Functioning well includes a sense of autonomy or self-determination (i.e. the ability to make choices), competence and self-efficacy (i.e. capability in undertaking daily activities), resilience in the face of challenge or adversity which involves the awareness and management of thoughts and feelings, and positive relationships, which encompasses empathy and kindness (Ryan and Deci, 2001).

A positive technique to enhancing the well-being of children in schools, which may have advantages for many facets of well-being, is to provide training in mindfulness. As described in the Mental Health Foundation Report 2010: “Mindfulness is a way of paying attention. It means consciously bringing awareness to our experience, in the present moment, without making judgements about it.” With mindfulness, we consciously observe and acknowledge what is happening right now, in our bodies, minds and the world around us, with an attitude of gentle inquisitiveness.

A motivation for the explosion of wellness promoting programmes is stress in the school system. In countries such as Australia, depression is the most common mental health problem experienced by youths aged 12-25 years (Orygen Youth Health, 2012). If left untreated, depression and anxiety become risk factors for alcohol and drug problems as well as suicidal thoughts and actions (McGorry, Purcell, Hickie, & Jorm, 2007). By 2020, it is estimated that worldwide 1.5 million people will die each year by suicide and between 15 and 30 million will attempt it (Collins et al., 2011). It is therefore not surprising that Australian schools, in various demographic areas, are actively seeking government funding to implement wellness programmes in order to minimise the incidence of self-harm, anxiety issues, depression and lack of student engagement (Orygen Youth Health, 2012).
Stress is not only affecting children but also being felt by teachers worldwide. Teaching in the school system has become more and more unappealing with retention and wearing away a global concern (McCallum & Price, 2010). Some of the reasons given for dissatisfaction and increased stress levels within the profession include: an increased focus on standards; heavy workload; increased student demands (McCallum & Price, 2010); perception of teaching against children’s best interests and lack of control over direction and rationale for work (Gold et al., 2010). Thus, mindfulness is an approach that is being used with more frequency and is receiving acceptance around the world as a means to enhance both students’ and teachers’ wellbeing (Greenberg & Harris, 2012).

Clarification of Concepts

Mindfulness is an ancient art but now a well researched intervention used in health care settings around the world. Hirst (2003) describes mindfulness is a discourse-dependent concept that can be articulated from a number of different positions. Hence, the concept of mindfulness attracts a range of interpretations and definitions. Mindfulness refers to a way of “being” which has prescribed characteristics, activities and programmes designed to cultivate this state as well as ancient meditation techniques rooted in various religions. It is a function of an individual’s conscious, purposeful choice and ability to be fully aware in the present moment (Hanh, 1976).

Thus, mindfulness can be defined as a personality trait where one has the propensity to be open to novelty, attentive to distinctions, sensitive to context, aware of multiple perspectives and oriented in the present. Mindfulness can further be conceptualized as a cognitive state, or a process, where mindfulness trait components are more readily employed on certain occasions and under certain conditions (Zuckerman, 1976). Having the individual propensity and opportunity to continually process information from various perspectives can add to one’s knowledge base and increase levels of creativity

Mindfulness is being balanced, being still, being open to the moment, being clear, being accepting, and being playful (MindfulnessNow, 2010). It also commonly is referred to as teaching paying attention. Kabat-Zinn (2003), Ph.D., Professor of Medicine Emeritus and founding director of the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School defines mindfulness more clinically as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experiences moment by moment.” In more layman terms, mindfulness awareness turns an individual’s attention to what is happening right now, including our thoughts, feelings and emotions. Through mindfulness, children initially learn to bring their awareness to their breath and then also to sounds, sensations, thoughts and feelings. It is important to understand that cultivating mindful awareness is similar to physical exercise in that it takes repeated practice/exercise to see benefits. Just as physical exercise produces visible changes in our body, mindfulness as mental exercise produces actual physical changes in our brains. There is therefore a need to identify and or articulate the values and purposes of mindfulness.
Mindfulness has also been defined as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). It is the cognitive propensity to be aware of what is happening in the moment without judgment or attachment to any particular outcome. Also, mindfulness may be simply described as a natural human capacity, which involves observing, participating and accepting each of life’s moments from a state of equilibrium or loving kindness. It can be practiced through meditation and contemplation but may also be cultivated through paying attention to one’s every day activities, such as, eating, gardening, walking, listening and school based activities such as class work.

The Relevance of Mindfulness Training in Schools

The purpose of mindfulness seems to be mirrored within the practices of school-based mindfulness programmes. Researchers from the Garrison Institute Report (2005) found that initiators of the programmes and mindfulness teachers aim, in the long term, to nurture qualities such as compassion, empathy and forgiveness in student populations. Short term goals include: enhancing student engagement and academic performance; improving the school’s social climate and promoting a wide range of wellness outcomes, such as positive body image through to environmental awareness. The programmes have been debated to share a common set of outcomes consistent with those of mainstream education (Garrison Institute Report, 2005).

Over the last two and half decades, mindfulness, largely influenced by the teachings of Eastern religious traditions, has been incorporated into psychological theory and practice (Brown & Ryan, 2003) and cultivating mindfulness has become an integral element in a number of multifaceted therapies (Skinner et al., 2008), categorized as “third wave behaviour therapies” (Shapiro et al., 2006). The therapies include: Mindfulness Based Stress Reduction (MBSR); Mindfulness Based Cognitive Therapy (MBCT); Dialectical Behaviour Therapy (DBT); Mindfulness Based Eating Awareness Training (MB-EAT) and Acceptance and Commitment Therapy (ACT). Following the medical triumph of third wave therapies around the world, it has been a natural progression for school-based psychologists to incorporate and adapt mindfulness for specialist treatment with children.

When a student is mindful, he or she becomes able to approach learning situations from a novel perspective while drawing upon previously learned material. If students can learn to be “fully-present,” they can increase the quality of their learning performance by being more focused, and become better able to deal with stressful situations (Langer, 1989).

When we are mindful, we can both secretly and openly (1) view a situation from several perspectives, (2) see information presented in the situation as novel (3) attend to the context in which we are perceiving the information, and eventually (4) create new categories through which this information may be understood (Kabat-Zinn, 2003). Schools that employ mindfulness-based training generally view students and teachers as partners in the learning experience. When students use mindfulness in their learning processes, they utilize creativity, experience cognitive flexibility, and are able to better use information to enhance memory for instructional retention.
These traits make individuals tend to feel more in control of their lives (Langer, 1989).

Traditionally children have been taught to commit to memory course content and view what is being presented in the classroom from the teacher’s perspective. As much as we like to see things from a different standpoint, we also become ensnared in habits of seeing things in the same way over and over, vetting out much of our individual experiences. This screening out process dramatically limits the integration of new material with the old. Children need to make sense of what they learn instead of solely memorizing facts. When we nurture our sensitivity to experience, we enhance the integration of creativity and flexibility, or right brain activity, in tandem with sequential ordering and analytic ability, or left brain activity. When students are taught from within a mindfulness framework, the teacher also benefits from becoming amenable to the students’ many perceptual frameworks for instructional materials.

As opposed to solely memorizing a plethora of facts, children can be taught in a manner where they may experience surprise and pleasure which stimulates the learning experience. In a study of teachers who practiced mindfulness in the classroom, Napoli (2004) found that teachers who developed a mindfulness practice were able to create positive transformations both in and out of the classroom. Students who engaged in mindful breathing in those teachers’ classrooms reported benefits as well. They were better able to focus and relax, reduce anxiety before taking a test, make better decisions when in conflict, and were more easily able to redirect their attention when off-task.

Increasing children’s capacity to pay attention is the goal of mindfulness training; yet, there are other residual benefits that have been found. The programmes that have been implemented incorporating mindfulness with children have shown success in reducing anxiety and disruptive behaviour, and improved concentration and self-control in children (Ryan & Deci, 2001).

Individuals develop patterns of stress response from birth through continued interaction with the environment. Physiologist Walter Cannon (1939) alluded to the acute stress, or “fight or flee (flight)” response in terms of the autonomic emergency response to an individual sensing danger. The hormone epinephrine (adrenaline) floods through every tissue in the body, which is fundamentally critical in an emergency situation and prepares an individual to fight or flee). When the emergency response process is occurring, learners tend to utilize more of the midbrain, which is responsible for controlling sensory processes. During periods in which the midbrain is primarily engaged, higher-ordered cognitive processes are generally inactive. Generally, during these stressful occurrences, meaningful learning is infrequent. Too often teachers and children activate this emergency response for non-emergency situations, such as being late for an appointment, preparing for a test, or misplacing a book. If these stress hormones are continually released, the body remains in a physical state of overdrive, which may eventually result in a depleted immune system and a cycle of exacerbated stress.

With the increase in external social problems, stress-related health problems such as asthma, stomach disorders and headaches are increasing in children. Schools are now constrained to address this prevalent problem. Teaching children the techniques for
dealing with stress may be particularly important in schools surrounded by environmental stressors such as violent neighbourhoods, insecure or ramshackle housing and worries related to obtaining adequate resources to meet basic needs. Stress-reduction skills are also crucial for children who experience stressors related to classism, racism and religious tyranny (Napoli, Krech, & Holley 2005).

The Need for Mindfulness Training in Nigerian Schools

Education systems in Africa and Nigeria in particular have been shaped by historical events, cultural traditions, political agendas, community practices and economic realities. Schools are social spaces within which the power relationships, domination and discrimination practices of the wider society are reflected. Violence against children in educational institutions draws from violence in other parts of children’s lives, in the family, in the community and in society. It embeds social and cultural norms around authority, hierarchy, gender discrimination and discipline.

From the available statistics on the rate and prevalence of school violence, in Nigeria and several countries of the world, it is obvious that school violence is a serious problem and of great concern to all (Omisore et. al, 2012). This is not surprising as the period of adolescence has been described as a period of ‘storm and stress’. It has been indicated that the stress these children go through result in anger and violent behaviour, conduct disorders, and various types of anxiety, including competition and test anxiety. As a result, these adolescents often join a gang as a way of dealing with social and psychological stressors in their lives. The proliferation of adolescent students’ involvement in gang membership is a growing social and public health concern for parents and society in general.

It has also been indicated that anxiety can negatively impact students’ school performance, disrupt their thinking, and interfere with their learning (Shapiro, Schwartz, & Bonner, 1998). An analysis of the Senior School Certificate Examinations (SSCE) showed that only a small proportion of the candidates passed at credit level and above in all subjects examined. Statistics of performance of candidates in SSCE (1991-2005) reveal that an average of 17.39% of the entire population who sat for the examination passed English language at credit level. The data is presented below.
Indeed, studies show that learner-centred classrooms that use mindfulness as a core ingredient in the student’s learning experience lead to students who are able to transfer material learned to new and novel situations, are more creative, and think independently (Shapiro et al., 2007). Mindfulness training thus is one strategy that has the potential to assist students to alleviate the negative effects of environmental stressors by focusing their attention on the moment so that they can fully focus on classroom activities. If students develop their attention skills, teaching and learning can become more meaningful. Bringing mindfulness into Nigerian classrooms can increase students’ ability to maintain their attention, which evidence suggests will lead to decreased stress and increased learning.

The Efficacy of Mindfulness Training for Teachers and Learners

The specific benefits of mindfulness for cognitive function include improvements in focused and selected attention (Jha, Krompinger, & Baime, 2007). Benefits for mental health including the reduction of symptoms of distress have been demonstrated in both clinical and non-clinical populations (Ma & Teasdale, 2004). There is also evidence of the enhancement of well-being including positive mood (Shapiro, Oman & Thoresen, 2008), self-esteem and optimism (Bowen et al., 2006) and self-compassion and empathy (Shapiro, Schwartz, & Bonner, 1998). Mindfulness-based interventions have also shown substantial benefits for physical health, including the management of chronic pain (Morone, Greco, & Weiner, 2008), improved neuroendocrine and immune functioning (Davidson et al., 2003) and improvements in health-related behaviours such as reductions in binge eating (Kristeller & Hallett, 1999) and substance misuse (Bowen et al., 2006).

The benefits of mindfulness for interpersonal relationships may derive from severe aspects of the practice. Responding rather than reacting may reduce negative
interpersonal behaviours such as anger or aggression. Increased awareness of the behaviour and feelings of others may lead to greater appreciation of positive behaviours such as affection, generosity, or humour, and an increased understanding of the other’s difficulties, such as sadness, anger or confusion (Baer, 2003; Mental Health Foundation, 2010).

It is posited that mindfulness training offers a new generation of professional teacher development. Mindfulness instructors and research suggest that before teachers can feel comfortable and effectively teach mindfulness in the classroom they need to embody and practice mindfulness in their own lives. Mindfulness practices have been shown to help teachers: reduce their stress levels; assist with behaviour management strategies and improve self-esteem. Some teachers also found they were able to gain a holistic view of the curriculum and thus impart key concepts to children – rather than feeling overwhelmed by the large number of learning outcomes they were expected to teach. (Roeser et al., 2012).

Evidence for the benefits of mindfulness training in adults has been summarised in several major reviews and meta-analyses (Baer, 2003). Mindfulness interventions are usually administered to adults in the form of Mindfulness-Based Stress Reduction (MBSR) (Kabat-Zinn, Lipworth, & Burney, 1985) or Mindfulness-Based Cognitive Therapy (MBCT) (Segal, Williams, & Teasdale, 2002) both of which typically involve an 8-week programme with group sessions of around 2 hours per week and individual daily home practice of around 40 minutes per day, usually guided by listening to a CD.

Prior Research Findings on Mindfulness Training

Almost all the published research with adolescents has targeted those with problems, including learning difficulties (Beauchemin, Hutchins & Patterson, 2008), conduct disorder (Singh et al., 2007) and externalising disorders such as attention deficit and autistic spectrum disorders (Zylowska et al., 2007). These studies report a range of benefits in attention and emotion regulation and improvement in social skills. Emerging consensus suggests that mindfulness may be a trait and self-regulatory skill that can be cultivated intentionally to promote greater levels of health and well-being (Baer, 2003).

Napoli, Krech & Holley (2005) reported the results of integrated mindfulness and relaxation work with 225 children with high anxiety, aged between 5 - 8 taking part in the ‘Attention Academy Programme’ in a school context. The intervention constituted 12 sessions of 45 minutes each. The children showed significant decreases in both test anxiety and ADHD behaviours and also an increase in the ability to pay attention.

Huppert and Johnson (2010) reported the outcomes of the Mindfulness in Schools Project’s (hereafter MiSP) pilot mindfulness programme with 14 to 15 year-old male students. Conducted in two English independent boys’ schools, a four-week mindfulness training produced significant effects on mindfulness, ego-resilience or well-being among students who regularly did 10 minutes of home practice a day and smaller changes among those who did not.
Other studies in a school setting with particular focus on learning and associated cognitive processes, such as attention, focus and executive function (an umbrella term for the higher order mental processes that govern tasks such as working memory, planning, problem solving, reasoning and multi-tasking) include the following:

Schonert-Reichl and Hymel (2007) reviewed the “MindUP” programme which fosters the development of well-being traits using social, emotional, attentional and self-regulation strategies, including mindfulness exercises. Teachers noticed improvements in 9 to 13 year-olds’ behaviour, attention and focus.

Saltzman and Goldin (2008) reported an 8-week MBSR intervention with 31 children, aged 9 to 11, who participated with their parents. The teachers were experienced mindfulness instructors. Analysis indicated feasibility, and improvements for children and parents in attention, emotional reactivity and some areas of meta-cognition, based on self and parent report measures, and objective measures of attention.

Beauchemin, Hutchins and Patterson (2008) looked at the feasibility of, attitudes toward, and outcomes of a 5-week mindfulness meditation intervention administered to 34 adolescents diagnosed with learning difficulties. All outcome measures showed significant improvement, with participants who completed the programme demonstrating decreased state and trait anxiety, enhanced social skills, and improved academic performance. The authors hypothesised that mindfulness meditation decreases anxiety and negative self belief, which, in turn, promotes social skills and academic outcomes.

**Conclusion and Recommendations**

This paper has explored the concept of mindfulness, the purpose of mindfulness in schools and its potential efficacy among teachers and learners. The paper has also taken a glimpse at the Nigerian education system in a bid to explain why mindfulness training is imperative in Nigerian schools. Prior research findings on mindfulness indicate that incorporating stress reduction programmes into the school curriculum is associated with improvement of academic performance, self-esteem, mood, concentration and behaviour problems. In lieu of this, the following recommendations have been put forward:

1. Mindfulness training should be made an integral part of the school curriculum in Nigeria;
2. Awareness programmes on the efficacy of mindfulness training should be mounted all over the federation;
3. The Nigerian educational system should provide Mindfulness based interventions in the treatment of common behavioral concerns in school settings;
4. Studies dealing with practical aspects of mindfulness should be carried out in various locations in the country;
5. Teachers should be made to embody and practice mindfulness in their own lives in order to enable them teach mindfulness effectively
References


