Healthy Children, Healthy Minds: Creating a Brighter Future

Marcel Lebrun, Plymouth State University, USA

The IAFOR International Conference on Education - Dubai 2015 Official Conference Proceedings

Abstract

Children struggle with life today. Being children in the 21st century is both taxing and exciting and yet trying to cope with all of the technology and media that surrounds them. How do we as adults provide good models? Mindfulness, exercise, focus and attention, healthy living strategies need to play a role in shaping healthy children. Educators need to become well versed in strategies that both teach short and long term behaviors that will sustain healthy living and healthy minds. Children are the future and what kind of adult do we want running our countries and the world. The article provides many strategies for educators and parents to guide children in making choices that are both empowering and allow them the flexibility to be children

Keywords: Exercise, children, mindfulness, media, focus, attention, healthy living



The International Academic Forum www.iafor.org

Introduction

"Education makes better minds, and knowledge of the mind can make better education."

-Daniel Willingham

What can be more important to the future of humanity than helping our next generation develop their minds in healthy ways? This article provides a wakeup call for adults to focus our attention on what really matters—creating healthy children with healthy minds. We must cultivate healthy minds that are thoughtful, focused on their own and others' mental, physical and spiritual health, as well as the health of other living creatures and of the environment locally and around the world. We must purposefully cultivate minds that work to improve the welfare of all citizens of the world. At the same time, we all want to see children happily playing outdoors, making friends, eating healthy food, and having purpose, drive, motivation and exuding the qualities of honesty and integrity.

Instead we are currently bombarded with images of children who are dishonest and lack integrity—who are self-absorbed, who abuse their bodies. Somewhere during the past several decades there has been a complete shift in the moral, physical, intellectual and emotional capabilities of American children—or at least the ones portrayed in the popular culture.

The 21st century generation of children and adolescents is riddled with psychological, behavioral and socio-emotional problems and challenges. The Centers for Disease Control and Prevention reported that prescription drug use among our nation's children has risen steadily since 1999 and continues to rise. The amount of children and adolescents who are on medication, failing at school, and in our juvenile prison system is staggering. The increase in youth violence and incarceration has increased tenfold from the 1950-60's.

Researchers have been overwhelmed with the amount of data that has been collected on dysfunctional children and adolescents. Failing schools have contributed to failing students. The breakdown of the family and lack of parental support has contributed to growing numbers of depressed, suicidal, anxious, confused and fundamentally troubled youth. The educational and family systems have failed to keep up with the societal changes and failed to make accommodations to this ever-growing population of disenfranchised and disillusioned youth.

The purpose of this article is to regain the energy that is needed to meet the needs of all children -- in America and around the world. We need an ongoing campaign for all educators, adults and citizens to take responsibility to raise healthy, mindful children of the 21st century. The roles and responsibilities of the present adult generation are to provide safe and healthy environments for all children to develop healthy bodies and healthy minds, so they can contribute in positive ways to the global community. The models adults present to children make lasting impressions during the formative years. Children watch adult role models in the media, at home, in their communities and at school, and try to emulate them, thus influencing their own adult later behaviors.

What are adults showing children by their behaviors? Are adults inadvertently creating a generation of dysfunctional and egotistical youth that will only care about their own immediate needs and not an iota about anyone else? Will American adults create a generation of self-absorbed monsters who are focused only on their own survival, thus reverting back to the days of the cave man where only the strongest of the species survived? If this does occur in the next generation, America will be a place where its citizens attempt to survive in any way they can, and our environment may not survive.

People need to be motivated to stop that wave of dysfunction and future destruction. We adults can and must purposefully work with children to help them develop in healthy and mindful ways. There are solutions and interventions available to direct children and youth in the right direction. The situation is not hopeless. The goal of this article is to help all educators and other adults who work with children to use these strategies to shape the minds of future generations, by modeling healthy behavior and encouraging and showing children how to be healthy and mindful, so that they can become positive, caring citizens of the world. The goal is to provide hands-on strategies that can help turn the tide of problematic, ultimately self-harming behavior that is happening in our culture to create a better place for us all to live.

Exercise: The Mind on the Move

One of the most important life lessons for children to learn for the health of their bodies and minds is the necessity of regular exercise. The evidence is consistent and powerful—Exercise is essential and one of the most important things all people can do for a healthy body and healthy brain and mind. How much and what kind of exercise is enough? How do we know? How can we encourage children to exercise enough for their body and brain development?

Nature of the issue and how it affects children

According to a report in *Medical News Today* "Less than 50% of primary school-aged boys and under 28% of girls reach the minimum levels of exercise necessary to maintain proper health" (Fitzgerald, 2013, para 1). Child and adult obesity in the U.S. is reaching epidemic proportions. Our health care costs are rising as a result of the major physical illnesses that result.

In today's video and computer game and television and media culture, children have become more sedentary in their free time. Even in school, the amount of time devoted to physical activity in physical education classes or recess has declined as greater accountability measures in the form of state testing and local, state and federal mandates have increased. In an effort to increase instructional time, children have far less time for physical play.

In addition, sports budgets have been dismantled in schools. So what happens to children? They spend most of their days sitting down. They get almost no exercise each day. Their bodies are not strong. Their hearts are not strong. Their brains are not as strong as they could be. They are out of shape and at much greater risk of childhood obesity and other health problems such as diabetes, heart disease, and so on.

Studies have found that type two diabetes in children increases their risk for heart and kidney disease and hypertension.

Alarming rates of memory issues and Attention Deficit Hyper Activity diagnoses have lead researchers to examine non-drug options to treatment. In a study conducted by Bucci and his colleagues and published in *Neuroscience* found that "Observations of ADHD children in Vermont summer camps revealed that athletes or team sports players tended to display a better response to behavioral interventions than children who were more sedentary." (Rattue, 2013).

Bucci stated in an interview in "Medical News Today" that:

"The implication is that exercising during development, as your brain is growing, is changing the brain in concert with normal developmental changes, resulting in your having more permanent wiring of the brain in support of things like learning and memory. It seems important to [exercise] early in life." (Rattue, 2013).

Exercise can help with stabilizing moods and may be useful for adolescents as they go through puberty to help with the mood swings they experience. Exercise has been shown to improve memory, improve mood, reduce stress, improve cognitive functioning, and improve overall health. It seems preposterous that something so crucial to our health and well-being and could be so helpful in improving learning and memory is being shut out of our schools—ironically for the sake of learning.

Ongoing strategies to improve the issue/problem—How can we make this better?

The US Department of Agriculture recommends that children and adolescents between the ages of 6 and 17 every day should get an hour or more of "moderate or vigorous intensity aerobic physical activity...and as a part of their 60 or more minutes children and adolescents should include muscle-strengthening activities like climbing...at least 3 days a week." Also three days a week should include very vigorous activity for 60 minutes—like running (How much physical activity is needed, para. 3). The Centers for Disease Control and Prevention have the same guidelines and suggestions. They break down the nature of the activity into the following categories:

- 1. Aerobic activity (60 minutes each day)—they suggest that 3 days should be high intensity aerobic activity
- 2. Muscle strengthening (at least 3 days/week and can be part of the 60 minutes per week)—they suggest activities like push-ups, but weightlifting with weights, lunges, squats, sit ups, etc. are also helpful
 - 3. Bone strengthening for 3 days a week as part of the 60 minutes per day. The CDC recommends activities like running or jump rope. Any jumping activities like trampoline play (be careful there are many accidents on trampolines, but children if careful enjoy and can get great exercise on them).

Children and adolescents may think they are working hard, but using a 10-point scale of "perceived exertion" may help. The goal is to try to get them to get their heart rates up to the point where they feel like they are working moderately hard (5-6 on a scale of 1-10 where 10 is the absolute maximum physical exertion a child can do) to very hard 8-9 for part of the time. That is, children need to learn to push themselves

sometimes not only for good health of their brains and minds, but also to help them learn that they can work hard and feel a sense of accomplishment from hard work. This persistence and hard work will hopefully carry through to learning and challenging tasks of their minds.

In a rare example of a clinical trial involving exercise and its impact on children and their learning and development, Davis and her colleagues (2011) found that their "experimental data offer evidence that a vigorous after school aerobic exercise program improved executive function...among overweight children." They also found "changes in corresponding brain activation patterns [that provided] partial support of a benefit to mathematics performance." They, like many other neuroscientists support the notion that "executive function develops in childhood and is crucial for adaptive behavior and development" and exercise seems to improve this development.

Our ability to control our behavior and make decisions and problem solve is based on the development of our executive function areas of the cortex. This evidence supporting the key role of exercise in building executive function is incredibly important. We can make exercise fun and even build it into activities such as videogaming that they really like to do. A study in the *Journal of Pediatrics* reported that there are some kinds of active video games that "may provide an alternative type of exercise to prevent stationary behavior in children." (Fitzgerald, 2013).

In this study on active video-gaming ("exer-gaming"), participants used an active video console and found that participants who engaged in this activity had an "increased energy expenditure equal to moderate intensity exercise" when playing "high intensity games like the 200m hurdles on Kinect Sports." Fitzgerald references an earlier study in Archives of Pediatrics and Adolescent Medicine that showed that "children who played active video games burned over four times as many calories as when they were playing an inactive game." They also suggested that these high intensity games may end up encouraging children to be more active and receive the health benefits from moderate exercise.

What can you do right now?

Demand regular physical activity and *high quality physical education* in school. As many school districts are cutting physical education (PE) time and recess/play time, children are getting far less of the activity they need in a given week. As parents and teachers or other concerned community members, lobby for more time spent in PE courses and after-school intramural activities and organized athletics. Children should strive toward sixty minutes of physical activity per day. As most of their waking time is spent in schools, this is the logical place for this to happen.

Families that play together, stay together. Encourage families to exercise together during their time together. Schools can organize family fun times that are active hikes, walks, times to use the gym facilities. Just MOVE—often!

Top Tips for Teachers:

- 1. Be a good role model and exercise yourself and share with your students what you do. Exercise with them!
 - 2. Encourage students to be active and get 60 minutes of cardiovascular activity every day—ask them to report back to you what they did and how hard they worked.
 - 3. Build in some kind of movement into the classroom—either stretching breaks, jogging in place, opportunities to walk—even walk around the halls together or outside for even 5-10 minute breaks. Students will come back more energized and their minds more focused (especially if this becomes a regular part of the school day)

Attention: The Problem of Focus

The children growing up in the media generation believe they can multi-task effectively. They truly believe that they can listen to music, play video games while reading, talking on the phone, and doing other homework and watching television. Perhaps this is extreme, but the truth is, the brain cannot do two complex cognitive tasks at once. It can switch in such a way that it may seem like it can, but alas, it cannot. And in that time that it takes to switch attention from one cognitive task (fractions of a second) to another, accidents happen and problems occur and learning is disrupted.

As John Medina, author of "Brain Rules" wrote: "multitasking, when it comes to paying attention, is a myth. The brain naturally focuses on concepts sequentially, one at a time. At first that might sound confusing; at one level the brain does multitask. You can walk and talk at the same time. Your brain controls your heartbeat while you read a book. Pianists can play a piece with left hand and right hand simultaneously. Surely this is multitasking. But I am talking about the brain's ability to pay attention. It is the resource you forcibly deploy while trying to listen to a boring lecture at school. It is the activity that collapses as your brain wanders during a tedious presentation at work. This attentional ability is not capable of multitasking." Why is the myth of multi-tasking so problematic for children (and adults)? What are some of the learning issues associated with the myth of multi-tasking?

Nature of the Problem

Texting and even talking on the phone especially for the novice driver is so dangerous. The brain simply cannot refocus attention that quickly and completely, and for as those "expert drivers" problems happen in a fraction of a second. And because the novice driver's brain is not organized like the more "expert" driver (whose brain has automated many aspects of driving so these are not conscious), the novice driver must think through nearly every aspect of what he or she is doing consciously. Medina wrote:

A good example [of dangerous multi-tasking] is driving while talking on a cell phone. Until researchers started measuring the effects of cell-phone distractions under controlled conditions, nobody had any idea how profoundly they can impair a driver. It's like driving drunk. Recall that large fractions of a second are consumed every time the brain switches tasks. Cell-phone talkers are a half-second slower to hit the brakes in emergencies, slower to return to normal speed after an emergency, and more

wild in their "following distance" behind the vehicle in front of them. In a half-second, a driver going 70 mph travels 51 feet. Given that 80 percent of crashes happen within three seconds of some kind of driver distraction, increasing your amount of task-switching increases your risk of an accident. More than 50 percent of the visual cues spotted by attentive drivers are missed by cell-phone talkers. Not surprisingly, they get in more wrecks than anyone except very drunk drivers.

The same is true for school and schoolwork—although not as immediately life threatening. Children and adolescents (and adults for that matter) who are learning new ideas, skills, concepts, and content must think carefully and consciously about these—that is, they must devote a great deal of cognitive effort to these. Any interference is problematic and disrupts attention on the process.

Turn off the competition. We've had many students say "but I MUST have the television on when I study...or music...it's just background noise." Here's the problem with this statement. If you need background noise get a sound machine or play white noise or a fan. You can also play music that does not have words—or music that you do not know well. However, once you know the music or have television with dialog, your brain will flip flop back and forth between the different verbal information—that which you are supposed to be "reading" and the words of the song or dialog on the television or the texts coming through or the emails. The brain will retain virtually nothing from the task that is cognitively more demanding (reading, writing, mathematics, problem solving or other school work) when multitasking with something that is less cognitively demanding (listening to music, watching television, texting, talking on the phone).

For effective and efficient work, the brain needs to eliminate opportunities for distraction. Can the brain handle any distraction? How much is too much? What about those with attention problems? How can we improve our attention? At what point are attention problems truly problems?

Brain Function: Selective Attention

To interact effectively with the people around you, your brain must constantly process large amounts of more or less complex information. However, it can only carry out a limited number of tasks at a time, so it needs to select the most relevant information, based on your needs at any given moment. (Brain Center America, 2013). Certain functions governed by the brain are fairly automatic and unconscious -- for example vital functions like breathing or highly developed skills such as competitive running. As a result, you don't have to specifically focus on the level of oxygen in your blood in order to activate your diaphragm and fill your lungs.

Other functions require constant supervision. When you are reading a text or sign it means a more or less conscious and sustained mental effort and attention. Your attention span varies depending on the type of information you're looking for, and it relies on the proper function of much of your brain. Exercising your attention span by performing a variety of specifically designed exercises promotes the proper functioning of many areas of the brain. (Brain Center America, 2013).

Your prefrontal cortex, located at the front of your brain, governs attention span and provides additional supervision; in other words, it determines what information is to

be given priority and which cognitive resources are needed to analyze this information and eliminate any distractions. It does a wonderful automatic job of sorting and categorizing for you as to where you will need to focus your attention. Human beings are not natural multi-taskers; the brain functions at optimal level when it only does one thing at a time. Male and female alike, if you ask it to do two somewhat complicated tasks at the same time, your performance levels for each will be reduced by half. People whom we admire for their multitasking ability are actually high-performance individuals who can quickly and efficiently complete each of the tasks one after the other. (Brain Center America, 2013). Generally they have very efficient and high-speed brains. Often they are experts in one of the areas in which they are multi-tasking.

The ability to focus on some things at the expense of others is crucial for functioning in a complicated world. But studies show there can be a downside to this focus — too much attention to one thing may make us seemingly "blind" or "deaf" to other stimuli in the environment. We are curious and want to try to understand and hear everything that is happening at once. The brain tries very hard to take in what it can .Our brains recreate an internal map of the world we see through our eyes, mapping our visual field onto specific brain cells.

Humans and our primate relatives have the ability to pay attention to objects in the visual scene without looking at them directly, (Farran et al, 2013). "Essentially, we 'see out of the corner of our eyes,' as the old saying goes. This ability helps us detect threats, and react quickly to avoid them, as when a car running a red light at high speed is approach from our side, (Mangun 2013). Even though we can see from the corner of our eye we are not able to attend to all of the stimuli that are present within our personal bubble space, which is about 3-5 feet around us.

The problem of consciousness continues to be a subject of great debate in cognitive science. Synthesizing decades of research, The Conscious Brain written by Jesse Prinz advances a new theory of the psychological and neurophysiological correlates of conscious experience. Prinz's account of consciousness makes two main claims: first consciousness always arises at a particular stage of perceptual processing the intermediate level, and, second, consciousness depends on attention. Attention changes the flow of information allowing perceptual information to access memory systems. Neurobiologically this change in flow depends on synchronized neural firing. Neural synchrony is also implicated in the unity of consciousness and in the temporal duration of experience.

Prinz also explores the limits of consciousness. We have no direct experience of our thoughts, no experience of motor commands, and no experience of a conscious self. All consciousness is perceptual, and it functions to make perceptual information available to systems that allows for flexible behavior.

Do Television and Video Games Affect Attention?

Some experts have argued that watching too many fast-paced television programs and video games may actually increase the likelihood of attention problems. If the brain becomes accustomed to constant stimulation by rapidly changing visual effects, it may easily become impatient with tasks that require closer attention. Television also makes fewer demands on attention than do reading, studying, or playing a game. Without enough of these more challenging activities, the brain may "get out of shape." (Human Diseases and Conditions, 2013). The brain will typically choose the path of least resistance or cognitive strain, and if given a steady diet of tasks that require little to no cognitive strain, it will be difficult to make the brain work hard on a more cognitively challenging task.

However, the reverse may be true. Children and adults with limited attention resources may be attracted to intense stimulation and therefore may be captured by television or video games. Less intense activities may not hold the focus of individuals with attention deficits. More research is needed to better understand this issue

We don't pay attention to boring things. What we pay attention to is profoundly influenced by memory. Our previous experience predicts where we should pay attention. Culture matters too. Whether in school or in business, these differences can greatly affect how an audience perceives a given presentation.

We pay attention to things like emotions, threats and sex. Regardless of who you are, the brain pays a great deal of attention to these questions: Can I eat it? Will it eat me? Can I mate with it? Will it mate with me? Have I seen it before? The brain is not capable of multi-tasking. We can talk and breathe, but when it comes to higher level tasks, we just can't do it.

Driving while talking on a cell phone is like driving drunk. The brain is a sequential processor and large fractions of a second are consumed every time the brain switches tasks. This is why cell-phone talkers are a half-second slower to hit the brakes and get in more wrecks. (Medina, 2012).

Workplaces and schools actually encourage this type of multi-tasking. Walk into any office and you'll see people sending e-mail, answering their phones, Instant Messaging, and on MySpace—all at the same time. Research shows your error rate goes up 50% and it takes you twice as long to do things. (Medina, 2012). When you're always online you're always distracted. So the always online organization is the always unproductive organization.

Ongoing Strategies

There are a variety of strategies that can be used with students, employees and family members when it comes to attention and focus. Below you will find some suggestions. The list is not exhaustive and it is recommended that the correct strategy be chosen for the right individual.

There are nine types of adaptations for anyone who is experiencing attention problems. These adaptations can work in a school or professional work environment.

- 1. Size: Adapt the number of items that the learner/ worker is expected to learn or complete.
- 2. Input: Adapt the way the instruction or training is delivered to the learner.
- 3. Participation: Adapt the extent to which the learner/worker is actively involved in the task.
- 4. Time: Adapt the time allotted and allowed for learning, task completion and/or testing.
- 5. Difficulty: Adapt the skill level, problem type, or the rules on how the learner/worker may approach the work.
- 6. Alternate Goals: Adapt the goals or outcome expectations while using the same materials.
- 7. Level of Support: Increase the amount of personal assistance with a specific learner/worker
- 8. Output: Adapt how the learner/ worker can respond to instruction or training.
- 9. Substitute Curriculum-Content: Provide different instruction and materials to meet a learner/worker's individual goals. (Indiana University 2010).

There are a variety of general accommodations for students with attention/behavior problems. It is important to remember that not all of these accommodations or strategies will work for all students. The individual needs of each student need to be taken into consideration before the application of these strategies. This is but a short list of possibilities

Literacy:

- 1. Second Set of books at home
- 2. Books on tape
- 3. Interactive CD reading programs
- 4. Hand held spell checker Writing:
- 1. Computers
- 2. Graph paper
- 3. Dictate responses
- 4. Pencil or pens with rubber grip
- 5. Form filling software
- 6. Keyguards
- 7. 7. Color coded notebooks
- 8. Give photocopied notes
- 9. Have student use highlighter
- 10. Outline of key points of presentation or lesson Groups
- 1. Work in cooperative mixed ability groups
- 2. Peer Assistance pairings
- 3. Clear rules and expectations for group behavior
- 4. Assign job or specific responsibility
- 5. Headphones for privacy
- 6. Taped instructions
- 7. Buddy system
- 8. Five minute warning for transitions

Presentations/ discussions/ Questioning:

- 1. Alternative methods of presentation (visual, videotape, graphs, maps, pictures)
- 2. Provide visual aids
- 3. Provide model of previous work or examples
- 4. Detail descriptions or checklist of project components
- 5. Place student near or in front of teacher or audience
- 6. Provide stimuli –reduced environments
- 7. Repeat question before answering
- 8. Provide time to process before answering questions

When making accommodations for a child with attention issues it is imperative that the strategy matches the age level and learning level of the student. Being aware of these simple factors can accelerate behavior problems and power struggles. As a teacher one must use a variety of visual and auditory teaching techniques to stimulate interest and maintain focus. Teachers and parents must use close proximity control to assist the student in focusing on the directions and understanding the task that is being asked of them. If the adult wants to modify the child's behavior one needs to catch the student being good and/or doing the right thing. Giving immediate praise or rewards will often shape behavior in way that allows the child to meet the expectations.

Sometimes children and young adults have attention challenges that go beyond those that are based on the environment. However, sometimes children have attention disorders that are not helped by basic interventions such as increasing mindfulness and meditation. Attention Disorders fall into 3 types: Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder, and Not Otherwise Specified Attention Disorder. Students can exhibit Predominantly Inattentive Type, Predominantly Hyperactivity/Impulsive Type, and the combined type.

Effects of the disorder within the classroom can be seen in behavioral problems, becoming frustrated and aggressive, experiencing failure on tests and assignments. A very large impact of having an attention challenges is that it impairs social relations whereas the student struggles with social interactions because of the lack of social skills. These students are often disorganized and lose their materials frequently.

The effects of this disorder at home can be manifested by children not listening to their parents and waging in battles over the smallest detail. Both parties become argumentative over daily chores, roles and responsibilities. Often time there is frustration on both adult and child because the child is unable to complete even the simple tasks without supervision or support. Teachers and parents alike should be on the look-out for pervasive patterns of attention problems that cannot seem to be managed well by typical levels of support.

Three Tips for Teachers:

Remember that students don't pay attention to boring things—keep students engaged with interesting lessons and help them see the relevance of what they are learning and make connections as much as possible.

Encourage parents to set limits on children's interactions with television and other video games/screens and spend more time on cognitive tasks that are challenging without these distractions

Make sure that drivers of all ages realize how dangerous it is to text, talk on the phone or engage in other cognitive tasks competing for attention and encourage them to avoid distracted driving.

Mindfulness, meditation, and sleep

One of the best strategies we can teach our children to improve their brains and minds as well as their safety, happiness, mental health and overall healthy development is the art of mindfulness. One strategy that can improve mindfulness is meditation, but mindfulness goes beyond just purposeful meditation. During meditation, the brain is still active, but quieted (at least for our consciousness) during sleep, and sleep is so important for brain and mind health.

The question is—how do mindfulness, meditation and sleep help children in their development? How important are they? How might building more mindfulness and meditation into a child's life help their developing brains and minds? How can we create healthy sleep patterns for children?

Nature of the issue and how it affects children

When children are young, they naturally function "in the moment." They tend not to focus on the past (partly because they do not have much of a past) or the future (perhaps because their abstract thinking, language and executive functioning centers are not as well developed). It is not until these areas of the brain become well-developed that our minds pull us out of the present moment and focus our attention on the running language-laden monolog in our heads. This voice pulls us into thinking about the past or the future—neither of which we can change or control. We often dwell on the past or worry about the future—but we can do nothing to change the past and we cannot predict the future.

Mindfulness is paying close attention to what is happening and what one is experiencing in the present moment. Taking time to focus on what one is doing, eating, reading, saying, hearing, and so on. In mindfulness we are fully present in the present moment. The present moment is where we live and exist, yet our older adult (and even older child) brains are rarely focused there. When in the present moment, children can be naturally more mindful. A keen attention to the present is an essential part of mindfulness that can contribute to success in school and at home or on the playground or playing field. Children who are more mindful have an easier time in these spaces.

Flow is a concept that has been described and written extensively about by Mihály Csíkszentmihályi. When in a state of "flow" we are completely single-minded in focus with our positive energy focused on a particular task or experience. People experience a sense of joy and peace when in this state. Athletes discuss being in a state of flow when they lose track of time and are singularly focused on the sport they are playing. They are fully present in the moment without any distractions of anxieties or worries. People sometimes call this experience in athletics as "being in the zone." But the truth is, this experience can happen reading a book, doing a school project, giving a talk, eating a great meal, spending time with friends, meditating, etc.

For flow to be achieved Csíkszentmihályi argues that there are generally three conditions:

- 1. involvement in an activity with clearly set goals and progress and structure
- 2. those doing the task receive clear and immediate feedback about their performance a good balance between one's perception of his/her skills/abilities and the task at hand—one must have confidence about his/her abilities. (Csikszentmihalyi, Abuhamdeh & Nakamura, 2005)

We can create opportunities for children to experience flow in their lives by helping them balance their abilities, confidence levels with activities they enjoy, are good at and for which they can get immediate feedback to improve their skills and performance. We hope that students can have these kinds of experiences in school and in school-related activities. And if they cannot experience flow in school, we hope that parents can find ways to help them achieve their flow experience in healthy ways through arts/music /dance or other experiences outside.

As Daniel Willingham argues in his book Why Don't Students Like School? "contrary to popular belief, the brain is not designed for thinking. It's designed to save you from having to think, because the brain is actually not very good at thinking." (p. 3). As we teach children to become more mindful, they can become more purposeful in their thinking—that is, they can become better able to direct and control their thinking.

The notion of mindfulness is the idea that we focus on our experience of reality as it exists in the present moment. That we pay close attention to our experiences and what is going on around us. We become keen observers of our emotional states and what our minds are doing. If you watch a very young child, he or she will tend to be very focused on what is going on at the present moment. This is why they will often ask questions about what is happening to them or what they notice "I'm hungry" or "What makes the car go?" or "Why do dogs pant?" or "This ice cream is delicious."

When they start to get older and more aware of past and future and their role in it, they start to focus more on what happened in the past or what might happen in the future. Children may start to become upset about events in the past or anxious or worried or excited about the future.

As adults we are guilty of this past and future focus too. Our brains are so busy thinking about what has happened or what might happen that they are seldom focused on what is currently happening. We all know those times when we are in a "zone" and

so focused on the present moment (usually doing what we love, or times of high emotion, or intense pain).

As children age, we spend so much time encouraging them to focus on the future. With all this time focused on the past and future, it is no wonder that as children get older, they have greater difficulty paying full attention to what is happening now. If children are not paying full attention to what they are doing in the moment, they are at greater risk of accidents. They are also more likely to have difficulty paying attention to what is happening (or what they are supposed to be learning) in the classroom.

They have greater difficulty controlling their emotions and making good decisions. They may have sleep difficulties as well because they cannot shut their brains down enough to sleep. A tired mind has great difficulty focusing on the present moment. It is easily distracted. Sleep is essential for the brain and mind to function properly.

5 Tips for Healthy & Happy Mind

1. Meditation/Mindfulness

Research has shown the profound effects that meditation has on the mind, but how many people actually do it on a daily basis? When you meditate, you are giving your mind time to clear, reformat itself for all the new information that is going to be taken in the following day, or day ahead.

2. Media

The media is very centered on pain and negativity. This fuels pessimism, and ideally it's best to avoid subjecting the mind to it regularly. There is no point in being stressed or worried about something you have limited control over; it's a pointless waste of energy. Beware of brainwashing; all is not necessarily as it seems, and the media are great at exaggerating and bending the truth.

3. Surround yourself with people who give you opportunities to grow.

Friendships and relationships are based on love, and love is energy. When the frequencies change, you will find that particular friends and relationships may drop away, or you don't feel you have anything in common with them any longer. If you continue to hold on to relationships which no longer serve you, they sap your energy resources or distract you from focusing your mind. Don't be afraid to let go if you feel the time is right; you will find that new opportunities will arise as a result. You never know who that next amazing person/teacher/friend/lover/mentor is going to be!

4. Eat healthy

Eating healthy and staying hydrated are really important for brain function.

5. Spend your time doing something you LOVE! (And find some physical, cardio-vascular activity that you LOVE and do it regularly)

The most important thing of all is to ensure you spend time doing a hobby or activity you love. When we participate in doing something we love, we radiate so many positive emotions, all magnetizing out into the universe to bring you back more joy and happiness. So many people get stuck in a rut and lose focus on what is important and brings them pleasure. Find something you love to do, and do it daily. Make time

for it, and even better, make a career out of it! Life is supposed to be an enjoyable experience. (Rushforth, 2012).

Healthy and mindful children will create a healthier society that will become more involved in the welfare, supervision and care of their neighbors locally and globally and the environment in which we all live. Presently the track we are on will result in future generations that are physically unhealthy with large portions of society fighting obesity, mentally unbalanced individuals who are unable to connect and develop social relationships and an increase in violence and aggression where the amount of murders and physical attacks upon others will become the norm. Gun violence will be the solution rather than negotiation, communication and problem solving. Is this what we really want for our children and grandchildren? Every adult who interacts with children must become a role model for healthy patterns or actions.

References

Brain Center America (2013) Selective Attention: retrieved August 15, 2014 from http://www.braincenteramerica.com/selectatt.php

Csikszentmihalyi, M.; Abuhamdeh, S. & Nakamura, J. (2005), "Flow", in Elliot, A. Handbook of Competence and Motivation, New York: The Guilford Press, pp. 598–698

Davis, C., Tomporowski, P., & McDowell, J. (2011). Exercise Improves Executive Function and Achievement and Alters Brain Activation in Overweight Children: A Randomized Controlled Trial. *Health Psychology*, 30(1), 91-98.

Farran Briggs, George R. Mangun, W. Martin Usrey. (2013) Attention enhances synaptic efficacy and the signal-to-noise ratio in neural circuits. Nature, 2013; DOI: 10.1038/nature12276

Fitzgerald, K. (2013). Active Video Games Act As Exercise For Children. *MedicalNews Today: Health News*. Retrieved June 7, 2014, from http://www.medicalnewstoday.com/articles/260651.php

Human Diseases and Conditions, (2013). Attention. Retrieved August 16, 2014, from http://www.humanillnesses.com/Behavioral-Health-A-Br/Attention.html

Indiana University (2010). Nine Types of Adaptations. Center for School and Community Integration, Institute for the study of Developmental Disabilities.

Medina, J. (2012) Brain Rules. Pear Press

Medina, J. (2008). Brain Rules: 12 Principles for Surviving and Thriving at Work, Home and School. Pear Press, Seattle, WA.

Medina, J. (n.d.) Rule number 7: Sleep well, think well. Retrieved October 13, 2014 from http://www.brainrules.net/sleep

Prinz, J.J. (2012) The Conscious Brain: How Attention Engenders Experience. Oxford University Press.

Rattue, P. (2013). Exercise Affects The Brain. *Medical News Today: Health News*. Retrieved October 7, 2014, from http://www.medicalnewstoday.com/articles

Rushforth, C. (2012). Mind Body Green. Retrieved Ocotber 1, 2014 from http://www.mindbodygreen.com/0-5589/5-Tips-for-a-Happy-Healthy-Mind.html

Willingham, D.T. (2009). Why Don't Students Like School? A Cognitive Scientist Answers Questions about how the Mind Works and What it Means for the Classroom. John Wiley and Sons: San Francisco, CA.