



6840 Seaview Road, Sechelt, BC V0N 3A4

www.zonein.ca

Have We Dropped the Ball When it Comes to Child Education?

Many children struggle with learning. Up to 30% of elementary classroom children have learning difficulties. Whether it's printing, reading, math or simply paying attention in class, today's children are facing challenges that teachers often find confusing and difficult to understand. In the classroom, children's bodies seem to need to move all the time, yet at home, can watch TV and play videogames for hours on end. While today's child can remember many phrases from the latest Harry Potter film, they can't remember what their homework is, much less to remember to bring it home. While some children might be expert at gross motor tasks such as soccer, they haven't a clue how to hold a pencil or make their letters.

In looking for answers to these dilemmas, we should consider the impact that technology has had on our children's development and their ability to learn. North American children watch on average 6.5 hours of TV and videogames (TVVG) per day, resulting in physical and emotional developmental delays, attention difficulties, and poor school performance. In order to help our children, we need to go back to the basics of nature. For generations human beings have engaged in heavy work, and sensory stimulation was nature based and calming. We moved to survive; chopping wood, hauling water, plowing fields...listening, looking and smelling nature. Advances in technology and transportation have resulted in a physically sedentary human body that is bombarded with chaotic and complex sensory stimulation. While watching TVVG may be compelling and interesting, burying our heads in technology is causing *sensory deprivation* and a "disconnect" from our world. Parents spend on average 3.5 minutes per week in meaningful conversation with their children. Is virtual reality now home and teacher to our children? Are we crippling our children mentally and physically, by allowing them to watch 6.5 hours per day of TVVG?

While the answer to these questions are largely speculative, Cris Rowan, Pediatric Occupational Therapist and Sensory Specialist spent a decade working with children in a school based setting and observed that up to 30% of primary classroom children have delays in printing and reading and ability to pay attention. Sedentary home lifestyles, as well as decreased school gym, supervised recess, and organized sports, have contributed to observed delays in sensory and motor development. Consequently these delays have an effect not only on children's ability to print and read, but also impacts their energy states, creating either hypo or hyper active children with subsequent huge attention difficulties. Why is this? When children are sedentary, their vestibular sensory system is not active. The vestibular system is responsible for determining trunk tone and stability, coordination of both sides of the body and eyes, as well as obtaining optimal arousal states, so a child's energy will neither be too sleepy or too charged to learn. Printing, reading and paying attention are all related to a functional vestibular system, stimulated largely by movement.

As a society of parents, teachers and professionals, we need to work together to address how we can assist children to balance technology with vestibular stimulation and exercise. For example, schools could work toward increasing resistive type movement in the classroom with desk isometrics (hand push/pull), or in recess and gym time with activities such as tug of war, climbing ropes, or carpet square races. Schools could also reduce sensory stimulation by decreasing classroom visual and auditory "clutter", creating sensory hideouts, as well as could improve children's ability to attend by utilizing sensory tools and techniques for optimizing energy states. Teachers may want to ask themselves the question "Does my teaching style reflect the needs of

today's child"? Traditional classrooms appear to be a thing of the past, e.g. children sitting in nice even rows of desks, quietly performing their school work. Traditional teaching doesn't seem to work for today's child in today's classroom. We have children with energy all over the map, from sleepy and lethargic, to charged and hyper, leaving teachers struggling to develop teaching tools and techniques that help children learn. Many children show up at the teacher's door with one or even two hours of TVVG "on board" either too sleepy or too hyper to do school work. In Dr. Dimetri Christakis 2007 study found that every one hour of TVVG a child watches increases their chance of having Attention Deficit Disorder by 10%. Dr. Christakis alarmingly discovered that the average amount of TVVG a child age 0-2 engages in is 2.2 hours per day!! Dr. Christakis goes on to report that early TVVG uses causes an infant and toddler's brain to become "hard-wired" for high speed stimulation, not exactly what today's teacher is capable of simulating!

In an effort to cut down on TVVG use, teachers may want to consider first educating their students on the detrimental effects of TVVG, and then trialing a period of a week of "cold turkey". Classrooms may want to consider a competition, with a prize given to the classroom who watches the least amount of TVVG during the trial week. As The American Academy of Pediatrics recommends no more than one to two hours per day of TVVG for an elementary age child, schools may then want to assist families to create a family schedule where each week of TVVG use is planned in advance. Schools may want to also offer educational workshops for parents regarding the detrimental effects of TVVG on children's developing sensory and motor systems. The TVVG Dependency Scale, "Survivor Unplugged Challenge", and supporting research are free downloads designed to address TVVG addiction can be found at www.zonein.ca/resources/tvvg.php.

So while the pace of technology is accelerating, now is the time to create balance between technology and exercise. Children are the future of our planet. Through modern technology, we have unconsciously created a "virtual reality" for our children to call home, a reality devoid of connection and human interaction. TV, videogames and computers have now become the teachers of our children, not parents, resulting in an alarming increase in attachment and developmental disorders. Now is the time to plant the seed for children to learn in a new and conscious way. Teaching children to bring awareness to themselves, so they know who they are, creates a strong healthy foundation for learning. Using their energy in positive productive ways, children learn to create balance and wholeness of body, mind and spirit.

Cris Rowan has been an Occupational Therapist for 20 years, and a Sensory Specialist working in schools with children for the past decade. Cris has recently developed two new educational programs, Zone'in and Move'in, for use in schools and at home. Zone'in is derived from Sensory Integration theory and helps children get their energy *Zone'in to Learn!* Move'in is based on Fine Motor Development theory and is designed to help children print and read by taking them on a *Printing Adventure!* For more information please see www.zonein.ca, or contact us at info@zonein.ca or 1-888-896-6346.