

Visual Media and Young Children's Attention Spans

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"May I have your attention?"--with that request made daily in thousands of classrooms across the country, teachers make an interesting assumption: Attention must be given from within the child. The ability to mentally focus, attend, and sustain concentration over a period of time is an internal process which must be developed. All the right ingredients in the external world will ensure that development. The wrong ingredients will hinder it. Can today's children growing up bombarded by fast-paced visual media be receiving the wrong ingredients? Can U.S. children who watch an average of 4 hours of television daily get enough of the right ingredients? Over the past ten years I have scoured dusty library shelves at Universities, to find information on what I consider, an obvious link to the increased numbers of children who have trouble paying attention.

In her now classic contribution to understanding media's impact on brain development, Dr. Jane Healy states in *Endangered Minds*: "A 'good' brain for learning develops strong and widespread neural highways that can quickly and efficiently assign different aspects of a task to the most efficient system...Such efficiency is developed only by active practice in thinking and learning which, in turn, builds increasingly stronger connections. A growing suspicion among brain researchers is that excessive television viewing may affect the development of these kinds of connections. It may also induce habits of using the wrong systems for various types of learning."

A mature attention span comes with a mature brain. As children develop "those widespread neural highways," Healy refers to, they also develop control and focus of higher level cortical function...namely an attention span. Yet, with the continuing over-diagnosis and mis-diagnosis of ADD, it seems as if an attention span were some magical treasure only to mature in a select few, instead of a normal, natural process. Recent research at the National Institute of Mental Health conducted by Peter Jensen concluded, "Extensive exposure to television and video games may promote development of brain systems that scan and shift attention at the expense of those that focus attention."

To many parents and teachers this is not a new revelation. In countless homes and classrooms we see children: with more impulsive behaviors, less willing and able to persevere through challenging mental tasks, hyperactive, reactive, with little or no impulse control. Research confirms that children who watch TV or play video games for more than two hours daily will most likely exhibit one or more of these characteristics.

Let's take a look at how this works inside the brain and what we can do about it.

First of all, visual images must be noticed. Do an experiment: In the evening with the lights low, put your head at an angle to the television. Wait for a commercial. Then try not to look. Try as hard as you can. What you will find out is that it is virtually impossible not to look. The quick change of images on the screen activates the brain's

"orienting response," discovered by Pavlov in 1927. We humans are programmed to look at abrupt changes in our visual field---even in our peripheral vision. It's part of our survival mechanism. The colorful, quick images on TV or a video game are difficult for low brain systems to resist.

Secondly, the earlier children acquire a passive TV habit, the more likely attention span will not develop normally. Young children can be entrained to keep watching TV. The faster pace of the images they are watching, the more likely they will keep watching and the more likely the child's attention span will be jerked around. The pacing of the TV program or movie determines that the child will watch one image for 3 seconds; another for seven seconds; another for five seconds, and so on. Since the images change rapidly so does the shift of the child's attention. Contrast this externalized control of attention with the internal control required while participating in a self-directed play activity. The child, not a scriptwriter or producer, determines how long he or she will attend to individual tasks.

And the last, important point is: displacement of self-directed, challenging mental tasks ensures an undeveloped attention span. When youngsters are in self-directed activities such as playing or doing homework, they are talking to themselves, making choices, and directing their own attention. Metacognitive abilities are blossoming along with mindfulness. But, in over 90% of American homes, the television is on for 7 hours and 44 minutes each and every day!! A major distraction from the internal landscape! As children try to focus their attention on a mental challenge in the 3-D world, the 2-D world blares and beckons. Children continually stop what they are doing and look at the screen. A constant stream of interruptions disengages the child's inner speech during the self-directed experience. Concentration and sustained attention become more and more fragmented, eventually disappearing. Now the child is no longer constructing personal meaning internally through thinking processes and self-talk--the child's attention has been "captured" by the saliency of the external image. Internal control of the attention span diminishes as the child becomes a spectator. When this happens for hours every day throughout childhood, the likely outcome is a rambunctious brain.

What We Can Do

1. Children under the age of 12 need much more time doing than viewing. Practicing concentration and attention skills is best done through concrete experiences in the 3-D world. The more self-directed these activities, the more opportunities for the attention span to develop. Time spent as a spectator of the 2-D world of TV and video must be limited, ideally to 5-7 hours a week.
2. Provide mental challenges on an on-going basis. These can seem simple to adults but such parental actions as giving youngsters choices, asking them questions, providing materials for play rather than a lot of expensive toys, will require that the child pays attention. A puzzle instead of a video game; a trip to an art museum instead of a movie sometime; an aquarium

for the child's bedroom instead of a TV---these are gifts which will ensure a healthy attention span.

3. Don't fill children's time every minute. Being afraid of boredom won't serve our children. Boredom, or down time, is a necessary part of developing intrinsic motivation, along with deep understanding of one's own creative process. To develop the ability to concentrate, youngsters must be left alone to develop ingenuity and inventiveness. As the poet Eve Mermaid said, "It takes a lot of slow to grow!"
4. The temptation to fill leisure moments with TV should be avoided. One great alternative is to plug youngsters into a story on audio cassette, instead. It's can be as convenient as television for most parents and it is so much more effective for nurturing young attention spans. With the visual image, there is no need to use the imagination. Listening to the symbolic system of language, however, requires attention processes to conjure up the images, along with sequencing them into a coherent whole. Reading aloud to children and talking with them often will have the same effect. In fact, if we had to answer the question: "What's the one best thing I can do to help my child's attention span?" the answer would be: "Make sure your child spends twice the amount of time immersed in language activities than he or she spends watching TV."
5. Choose TV programs and videos which have a slower pace and mimic real-world rhythms more closely. A steady diet of sensational, fast-paced images will trigger more reactions than responses and can make children at risk for learning and attention problems later. Also, refrain from purchasing any video-game system before the child is ten, if at all possible. By then, children would be much less likely to be conditioned by video games and it will be so much easier for parents to enforce time limits and game choices.

Our youngsters can develop the mature attention spans they need for effective thinking and problem-solving skills in today's complex world, given the time and space to do so. We can share this message with parents and teachers we know. When a teacher says, "But the kids don't have an attention span, so I teach in 10-minute bites"...or parents assume their children can't entertain themselves without a TV, point out: The normal course of human brain development naturally leads to a well-developed attention span. Let's make sure we give our children brain-compatible activities on a regular basis, no matter how challenging that is for us in a media age. If parents and educators start mimicking the unreality of the visual media, we have no one but ourselves to blame when our children cannot effectively deal with their reality.

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