

The Great Input Deficit How the Communication Revolution is Teaching our Children to Remain Silent

By Wendy Calise
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Communicate [Latin *communicare* – to share, impart, partake]. What do these words have in common? They involve giving or receiving, an exchange between people. The cornerstone of communication, that skill advanced to its highest form by the human race alone.

But, is it possible that amidst the most advanced technology for communication in the history of mankind – in a time when one man in Chad can communicate simultaneously with an unlimited number of people in an unlimited number of places in an inordinately short period of time – is it possible in the midst of this time that our children are becoming *less* adept at communicating?

I propose that it is possible, that it is happening – in fact, has already happened. A significant number of young children appear to be lacking the fundamental hallmarks of communication. It is not that they can't talk, though some struggle with this as well. Many children are not aware that they should respond when their names are called. They don't know to look at a person when being spoken to. They do not initiate or maintain eye contact. They don't seem to understand that the words directed to them have any practical meaning. They are not able to attend long enough to hear both the beginning and the end of a sentence and consequently often walk away in the midst of a communication. They don't seem to realize that there is anything in this thing *communication* for them at all. And this is not referring to the rudeness of a society in a constant hurry. Children are not refusing to do these things. They simply don't know they should. They have not learned the process. It is as if they have been raised in near isolation and missed the critical period for the development of these patently human skills. It is as if they are suffering from a Great Input Deficit. Far too many children are not constructing in the first years of life the necessary framework upon which communication is built and without which it cannot stand.

So what exactly is going on? At once too much and too little. Many young children are being over-stimulated by everything except other human beings. They are getting far too much television, too much computer time, too many videos, too many toys that talk and buzz and whirl. And far too little of simple human interaction.

How do we know this is happening? A 2004 survey indicated that more than half of a group of parents asked believed that videos were “very important to children’s intellectual development.”¹ In 2003 there were approximately 140 video products targeted for children under two. As of 2006: 750.² In the homes of 30% of Americans the television is on for the majority of the day.³ Before the age of two, 25% of toddlers have a TV in their bedroom.⁴ At only three months of age 40% of infants are regularly viewing DVDs, videos or television; by two nearly 90% of toddlers are in front of the TV for between two and three hours per day.⁵ In an average week, children spend more than one full day watching television.⁶ Children between the ages of two and five years are on average in front of a screen for more than 32 hours per week.⁷ “...two-thirds have a television set in their bedrooms, half have a VCR or DVD player, half have a video game console, and almost one-third have Internet access or a computer,” reports *Science Daily* about American youth.⁸ Seventy percent of day-care centers are allowing children to watch television on a daily basis.⁹

The result? What are our young children gaining from all the advances of the 21st century? Researcher Dr. Dimitri Christakis has been exploring this question with some rather unsettling conclusions. For every hour of television the amount of conversation between a baby and parent decreased by 15%.¹⁰ Put the accent on the word *between* in the previous sentence. We tend to focus exclusively on the effect screen time has on the child alone. But the larger problem is the effect it has on the family experience. The problem is not just that the toddler isn’t talking - no one is. For every hour a television was on in a house, babies heard 770 fewer words from an adult.¹¹ The number of vocalizations made by the baby also decreased. Whether we like it or not, our babies are learning. The question is whether we like what it is that they are learning.

What does the young child learn about reciprocity, the basis of human communication, from television or DVDs? The programming has its own pace, its own mood, its own tone, its own rhythm, its own agenda, and never will it be altered by the needs or reaction of the child who is watching. Reciprocity is zero. Yet, reciprocity is the framework of communication: an exchange between two sentient beings. Can we assume that nothing is being lost?

Even more disturbing, Christakis describes the inner workings of the infant mind as one that is hard wired to attend to novel stimuli, something which a television provides at a rate of between twenty-five to sixty distinct images per minute. Rather than loving or concentrating on videos as many parents have come to believe, it is likely that babies simply cannot turn away from the constantly changing landscape of television and DVD programming.¹² It is no wonder then that the Academy of Pediatrics recommends no television for children under two years. None. The government of France has gone so far as to prohibit the creation of programming targeted for children younger than three years.

Christakis further found that the likelihood for attention difficulties later in childhood increased with the amount of time spent in front of the television before three years of

age. Specifically, chances for later attention problems increased at a rate of 10% with each additional hour of TV per day for children less than three years.¹³

Another study conducted by Patricia Kuhl at the University of Washington indicated that children exposed to the Mandarin language by video, audio, or not at all had the same recognition of Mandarin sounds, which was none. In contrast, those babies who were played with by a Mandarin speaking adult for only twelve 25 minute sessions over four weeks did recognize the sounds of the Mandarin language.¹⁴ A great deal of what babies are learning about communication in their earliest years includes emotion, facial expressions, and attempts to determine what those around them feel. It appears that in the case of early childhood, there is no substitute.

One thing we know about the developing brain is that synapses that are not used are eliminated. And the young mind is connecting and eliminating these synapses at an incredible rate. In 1950 the average vocabulary of a child entering 1st grade was 4000 words. In 1990 the average had dropped to 1000.¹⁵ The average 14 year old in 1950 had a vocabulary of 25,000 words. In 1999, only 10,000.¹⁶ Assuming the trend continues, this puts us on a rather alarming trajectory.

And none of this takes into account the amount of time adults spend on the cell phone or computer, both activities that contribute precious little input for the developing mind.

Human beings were built to be learning to communicate from the moment of birth (and many believe even before). By the time the human child is only one year old, he has come to understand that communication is a reciprocal endeavor. He knows that it involves eye contact, vocalization, and physical touch. He knows that it can bring pleasure or pain. By only three, he has acquired the language(s) of his culture to the extent that he can express his thoughts in syntactically complex, correct sentences. Most important to note, however, is that communication is comprised of far more than words. It is the human connection with another. It is the expression of joy, love, fear. It is the expression of imagination. It is the making real of the bond that is exclusively human.

Or so it was. The reality is that more children seem to lack skills so basic that one hardly knows where to start in order to teach them. How does one construct the foundation of human communication retroactively? Can it even be done? To be sure there have been vast and varied changes over the last 50 years, and there are many variables that are impacting our children. How much of it is media? That is yet to be fully explored. But of the many things buffeting today's family, it is one of the few over which the parent of a young child has complete control.

What would happen if we turned the TV off in presence of young children? Would the vocabulary development return to that of earlier times? What was so different about the past? Did parents have a plan to help their children learn to communicate? Not likely. In fact, if asked, parents will say they didn't work on it at all. They just did it naturally. They talked to their babies and toddlers. They told them what they were doing. They explained the way things worked. They had conversations with other family members in

their presence. The children were in attendance in mind, body and spirit when the carryings on of the day - the washing, the raking, the shopping, the cooking, the arguing and problem solving - took place.

What infants and young children are learning in the first years of life is profoundly human. It is the time when the foundation is laid for emotional connection. And the young child relies solely on input from other living, breathing, loving people. Input, not just presence. Input cannot be replaced. And the consequences of the lack of this input cannot be exaggerated or ignored. The long history of research that confirms that developing children rely on the physical, social, verbal, and emotional interaction with other human beings to construct themselves would take pages to cite. It is indisputable. Communication is our past; it is in our genes, in our DNA. Perhaps it is time that we consider more carefully not only the innumerable ways that technology has improved the human condition but also the ways in which it has diminished it. Perhaps it is time that as families we cleave together once again, as we have in the past, the recent past, the distant past, since time immemorial, since the dawn of humanity. It is likely that our future will depend on it.

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Endnotes

¹ Kaiser Family Foundation Study(2004), as quoted in Pamela Paul, “Getting Sharp: Want a Brainier Baby?,” *Time*, January 8, 2006, <http://www.time.com/time/magazine/article/0,9171,1147180,00.html>, (December 3, 2009).

² Pamela Paul, “Getting Sharp: Want a Brainier Baby?,” *Time*, January 8, 2006 <http://www.time.com/time/magazine/article/0,9171,1147180,00.html>, (December 3, 2009).

³ Alice Park, “Study: TV May Inhibit Babies’ Language Development,” *Time*, June 1, 2009 <http://www.time.com/time/health/article/0,8599,1902209,00.html> (December 3, 2009).

⁴ Kaiser Family Foundation and the Children's Digital Media Centers, “Zero to Six: Electronic Media in the Lives of Infants, Toddlers and Preschoolers,” 2003, as quoted in tvturnoff.org, “Screens and Young Children Factsheet,” http://www.tvturnoff.org/index.php?option=com_content&task=view&id=22&Itemid=10 (December 3, 2009).

⁵ Frederick Zimmerman and Dr. Dimitri Christakis, as quoted in Alice Park, “Baby Einsteins: Not So Smart After All,” *Time*, August 6, 2007, <http://www.time.com/time/health/article/0%2C8599%2C1650352%2C00.html#ixzz0XYvMB6ZQ> (December 3, 2009).

⁶ Nielsen, as quoted in Matea Gold, “Kids Watch More than a Day of TV Each Week,” *Los Angeles Times*, October 27, 2009, <http://articles.latimes.com/2009/oct/27/entertainment/et-kids-tv27>, (December 3, 2009).

⁷ Matea Gold, *Los Angeles Times*, October 27, 2009.

⁸ Victor C. Strasburger, M.D., as quoted in “Easier Access to Media By Children Increases Risk For Influence On Numerous Health Issues,” *Science Daily*, June 3 2009, <http://www.sciencedaily.com/releases/2009/06/090602111814.htm>, (December 3, 2009).

⁹ Billy Tashman, as quoted in “Screens and Young Children Factsheet.”

¹⁰ Alice Park, *Time*, June 1, 2009.

¹¹ Alice Park, *Time*, June 1, 2009.

¹² Pamela Paul, *Time*, January 8, 2006.

¹³ “Zero to Six,” 2003, as quoted in “Screens and Young Children Factsheet.”

¹⁴ Patricia Kuhl, as quoted in “Getting Sharp: Want a Brainier Baby?”

¹⁵ Richard R. MacMahon, Ph.D., “Evolution, Population, and Humans”, Contents of Curriculum Unit 98.07.07, Yale-New Haven Teachers Institute, <http://www.yale.edu/ynhti/curriculum/units/1998/7/98.07.07.x.html> (November 29, 2009).

¹⁶ “Matters of Scale - Attention Deficit Disorder,” *World Watch Magazine*, January/February 2000, Volume 13, No. 1, <http://www.worldwatch.org/node/755>, (November 29, 2009).