

Descriptive Children's Television:

Bridging the Gap for Blind Kids While Benefiting All Kids

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Abstract

This paper identifies a service that is currently available to blind and visually impaired television called description. Description is the use of inserted text into a video program during dialogue pauses in order to provide auxiliary information that may not be evident to blind viewers. While some research has been conducted about the benefits of description and blind adults, no empirical data has been collected as it relates to children. In this paper, literature has been reviewed to discuss first the emerging trend toward educational programming for preschool aged children then the various theories about how children learn and the implications of description for both blind and sighted children.

After determining that an argument for description is unnecessary due to the prevalence of the service already in existence, the project began to take a closer look at how description can be beneficial for all children. This paper serves as a foundation for future, needed research on this topic and calls for attention to be paid to both the social impact of description, as well as the methods used for deciding when, what and how much to describe.

Introduction

In this research project I would like to explore children's television and its educational benefits for both blind and sighted preschool viewers. As part of this exploration, I intend to study the implications of educational programming for children and offer a solution to bridge the gap between what benefits are received by blind children and their sighted peers. One relatively new approach is the use of description (also referred to as DVS or audio description). "DVS inserts carefully crafted, concise narrated descriptions of key visual elements (actions, settings, facial expressions, graphics) into natural pauses in a program or movie's dialogue" (NCIP, 2004, para 1).

The self-proclaimed "first audio describer," Joel Snyder (2004), of Audio Description Associates (www.audiodescribe.com), discusses how description can benefit both blind children and sighted children as well. At a day care facility where he was conducting research on descriptive language, Snyder notes that when reading a picture book:

a teacher trained in audio description techniques would never simply hold up a picture of a red ball and read the text: "See the ball." He or she might add: "The ball is red—just like a fire engine. I

think that ball is as large as one of you! It's as round as the sun—a bright red circle or sphere.” The teacher has introduced new vocabulary, invited comparisons, and used metaphor or simile—with toddlers!

He adds that by using audio description the “visual is made verbal” for children who are blind and that more sophisticated language skills will inevitably develop in all kids. A byproduct of description in children’s educational programming is the added multi-sensory and more profound learning opportunity that a sighted child would receive from the service as well.

It has long been established that much of what humans learn from the environment is visual. Although we employ our other senses, vision is the one most heavily valued and relied upon. If the above statement holds true then a preschool aged child would stand to learn much about the world from viewing educational television. In light of this observation, the question remains; what is the difference between the social, cultural and educational information perceived from television by blind children and their sighted peers?

For quite some time researchers, physicians, and teachers have cautioned parents about the negative impact of television viewing by young children. Even Philo T. Farnsworth, the inventor of television, worried about his son watching (McGinn, 2002). As technology increases and television becomes more violent and reality-based, there are indeed reasons for concern. In the recent past however, there has been a surge in children’s educational programming targeting children’s readiness for school. Science is now beginning to see a shift in the traditional belief that all television is harmful for the development of children. With programs like *Blue’s Clues*, *Dora the Explorer*, *Arthur*, and *Clifford the Big Red Dog* society is beginning to warm up to the possibility that educational television may not only be tolerable for preschoolers, but it may also be beneficial for them as well.

Once it is established that educational programming is of value to preschool aged children, one must look at the ways in which they receive its benefits. Many researchers theorize about the various stages of development that a child goes through, as well as the different modes of learning that influence children (Singer & Singer, 2005). It is no secret that a multi-sensory approach to learning yields outcomes indicative of substantial information absorption, rather than mere surface level knowledge (Christie, 2000). Understanding then that children can learn extensively by using their various senses, it seems appropriate that description would offer advantages to sighted children as well their blind counterparts.

Literature Review

In compiling evidence to support my assertion that description of children’s educational programming would be educationally valuable to both blind and sighted children, I have chosen to inspect sources that focus on these areas: 1) the learning benefits of children’s educational television, 2) how preschool aged

children typically learn, and 3) how visual cues or visual images contribute extensively to television viewing. The first and most important consideration to be established is the merit of children's educational television.

Many people have begun to recognize the educational impact of programming designed to target preschoolers. McGinn (2002) looks at the new, more positive view that parents have of today's educational programming. Parents are beginning to recognize the value of educational programming in the effort to ready their kids for school. McGinn also discusses the many strides to which producers are now going to create quality shows for their audience. For instance, a researcher for Nickelodeon's *Dora the Explorer* takes a team to a childcare facility to view each future episode of the show before it is finalized and released. The researcher records the children's responses when they are prompted to interact with the show's characters and reports back to the producers of the show. Based on the field-testing the producers make changes to the show before it is aired. The interaction in these shows encourages children to develop language and physical skills while providing an entertaining environment as well. McGinn further notes how parents are using these programs to help teach their children the skills they'll need in school (2002).

Similarly, McGinn discusses a group of students from Yale University who watch an episode of *Barney* and identify the "teaching elements" seen, in categories of vocabulary, numbers, and sharing. Their research findings so far indicate "the higher an episode's score, the more accurately children will be able to recount the plot and use the vocabulary words" (McGinn, 2002). McGinn recognizes the shortcomings of even the educational television for children, but he also celebrates the vast improvements made in recent years.

It is certainly true that the producers of children's television have a dual objective in mind when they create programming targeted to preschoolers. While the shows are tested and re-tested to determine their educational effectiveness, there also exists another goal of the producers to ensure ratings stay where they are most profitable. When the ratings are high, program merchandise will unquestionably fly off store shelves. Nevertheless, with parents and educators demanding more quality programming for children, producers are forced to stay within the confines of entertainment and education.

As educators continue to search for new and innovative methods to teach young children, some are turning to educational programming. St. Clair and Schwetz (2003) describe their experiences using the PBS program *Between the Lions* in their kindergarten and first grade classrooms to help foster a better understanding and enjoyment of reading. "Some of the segments in the show have become part of our classroom vocabulary as we talk about and play with letters, sounds and words" (St. Clair & Schwetz 2003). They further discuss the many ways in which they have incorporated this program into their classroom routines, using a "view-read-do" (St. Clair & Schwetz 2003) approach where they view the

program, read the book and do activities, which creates a fun and interactive environment for their students. This is just one way in which safe, educational programming is having a positive impact on children in the classroom.

A recent study was conducted by researchers at the University of Texas, which studied the viewing habits of nearly 200 children between the ages of 2-7 over a three year period (“The Benefits of TV,” 2001). They sought to determine a relationship between what the children watched and their academic test scores. The study showed that children who watched educational television had higher test scores than those who watched mainly entertainment programming and the strongest impact was on children between the ages of 2 and 3 (“Benefits of TV,” 2001).

Still further, Newman (1991) reports that after the children’s program *Sesame Street* had proven its educational worth, “preschool-kindergarten curricula were updated on the presumption that children already knew basic reading readiness principles taught on television” (Newman, 1991, p 6). Newman encourages teachers to incorporate television into the classroom “to enhance children’s interest in stories” (Newman, 1991, p 200).

Over the years, many studies have been conducted to determine the educational value of the children’s program, *Sesame Street*. In “*G* is for Growing Thirty Years of Research on Children and *Sesame Street*” (2001), Meilke discusses the cumulative results of the studies, specifically noting that “early research on the cognitive effects of *Sesame Street* laid to rest the truly basic question of feasibility; that is, whether it is possible to achieve worthwhile outcomes from preschoolers’ voluntary home-based viewing of educational television programming. The answer is yes” (Meilke, 2001, p 93). Meilke also examines a study that reconnected with *Sesame Street* viewers some 10-15 years after they stopped watching the program. The study indicates that these children continue to get better grades than their peers in the study that did not watch the program.

There is no doubt that children today are still reaping the cognitive rewards of this program. There is no question that shows like *Sesame Street*, *Dora the Explorer*, and *Between the Lions* have measurable benefits for children. Now it is critical to review ways in which preschool aged children learn best, to get a clearer picture of the need for description.

Browne (1999) supports the theories of the Russian psychologist Lev Vygotsky that claim that children are taught in a social and cultural context in which the role of the caregiver or teacher is key to his or her “‘scaffolding’ children’s experiences in the social construction of knowledge” (Browne, 1999, p 6). Given this understanding of child development, Browne goes further to emphasize that through discussion adults can help children interpret what they see on television. Browne is thus making a claim for description, in that with description of what is happening on the television screen children are more likely to understand the meaning of the scene. Browne also explores the idea that with the visual cues provided in television,

children are able to better understand situations that, read in print alone, would be too difficult to comprehend. Using visual cues “young viewers are able to see the story unfolding before their eyes” (Browne, 1999, p 88). Browne further asserts that using visual cues gives children the social knowledge about how things work and she gives an example of a child mimicking the movements of a beaver after having watched it on the television. Additionally, a child gains social experience and knowledge from television and here Browne uses a striking example of a child watching a character die during a television program and then asking myriad questions relating to death.

Other researchers such as Singer & Singer (2005) support the scaffolding theories of Vygotsky as well. These authors go further and suggest that there is a “lower limit, what a child can do alone, and an upper limit, what a child is capable of with guided instruction” (Singer & Singer, 2005, p 28). This theory is Vygotsky’s “Zone of Proximal Development” and can be also be viewed from the descriptive video perspective, in that the guided instruction provided can help the child reach the upper limit of what he or she is capable of. Singer & Singer also suggest that formal features of television such as audio and visual devices “influence comprehension by selectively guiding attention to content” (p 64). These devices help the child “make sense of” the program (p 64). Again, the examples offered here are yet other good reasons for description. Not only can the blind child have equal access to the same visual information as the sighted child, but also the sighted child will benefit as well from the added meaning of the scene provided by the description of it.

Forman & Kushner (1977) take a different, yet equally valid approach in explaining the ways in which young children learn. As supporters of Jean Piaget, they discuss the Swiss scientist’s theory that children must pass through a series of developmental stages and although they may spend only a little time (or a large amount of time) in a given stage, they must go through them all in a sequential manner. Piaget believed that preschool aged children were in what he termed the “preoperational stage.” According to Forman and Kushner (1977), during the preoperational stage “children are deceived by appearances” (p 74). The authors go on to describe a scenario in which a child who pushes a portion of food into a narrow, yet tall pile, will believe that they then have less food in the pile. Or the child may believe that because the pile is higher, they then have more food. The point here is that preoperational children believe what they see with their eyes and are not yet able to understand abstractions such as conservation. This theory also makes room for the value of description, because due to the preoperational child’s inability to comprehend more complex, abstract ideas presented to them they could benefit from additional verbalization of television programming with more complex stories.

Just as Forman & Kushner discuss Piaget’s stages of development, Howe (1975) discusses the idea of “perceptual learning,” a learning that takes place by observation of one’s environment and then imitating the observation. The child can then store this learned observation for future use as a social construct (Howe, 1975 p 75). This is yet one other reason to support descriptive video, because blind or visually

impaired children cannot physically see (or see clearly) what action is taking place on the television screen; thus it would be much more difficult for the child to perceptually learn and develop schemas. “Observational learning takes place when an individual acquires a habit or skill through witnessing its performance by another person” (Howe, 1975 p 136).

In a very provocative article, Christie (2000) discusses the physiological functioning of the brain. He makes connections between the left and right hemispheres and the learning of various skills. He also suggests that most of the time parents and teachers give information by using a single approach, but by incorporating multi-sensory experiences into the learning environment children will have a more absorptive and deeper layered understanding of the concept being taught. He offers the notion that, “More simply, by using multi-sensory techniques, we, as educators, will be able to stimulate more neural pathways within the brain.”

Still other researchers (Smith, Anderson & Collins, 1999) take a more literal approach to determine the visual implications of children’s television viewing. In their in-home study of 50 individuals (both children and adults) they sought to examine the physical act of looking at the television as a means to determine the cognitive and attitudinal influence of TV. This study further emphasizes the understanding of how children look at TV and how this can help the future design of educational programming (Smith, et. al, 1999).

In summary, the literature that I have selected to review for this paper clearly demonstrates the potential benefits for description. Researchers who support both Piaget’s and Vygotsky’s theories as they relate to child development, call for adult intervention when it comes to explaining what a child sees. Through the distinct addition of description, both blind and sighted children will come away with more depth in their understanding of educational programming.

Method

After an exhaustive search, I have been unable to locate any research related to the effects of descriptive video service and children. There is information available to support the theory that description is both useful and beneficial for adults and there are a large number of descriptive programs for all ages yet, no studies have been conducted to prove that children are gaining any benefits from the service.

Although there has been a minimal amount of research to quantify the experiences of adult description users there is at least one study that reveals the advantages for blind adults who use description. In a 2001 study (Schmeidler & Kirchner), blind adults viewed two science programs with description to determine what, if any, were the implications of adding the service. In summary, the authors concluded that:

The study documented that adding description to these two programs significantly increased the factual information the participants learned and enhanced the participants' evaluation of the

programs and their level of comfort in discussing the programs with sighted people. These findings suggest wide benefits from adding description.

Their findings are consistent with testimonials from the website of the Boston PBS station, WGBH (www.wgbh.org), which suggest a high level of satisfaction and interest among blind adults and the families of blind children. Still though, no empirical data has been collected to support the anecdotal information regarding children and description.

I feel that examining the experiences of children who use the feature would be helpful in determining its value, which may help in securing additional funding for future programming. Further, by examining both blind and sighted children and the implications of description more concrete arguments can be made for its relevance in the home and in the classroom. This is an area where I feel much can be learned, and yet little continues to be done to evaluate and regulate description as we know it today.

In an attempt to conduct my own preliminary research, I have chosen to perform a case study to examine firsthand the benefits of descriptive video. Additionally, I will collect anecdotal information regarding the experiences of current users of description. Furthermore, I will review additional literature, to provide even more basis upon which to build a sound argument that it is not just blind children who can benefit from description. These methods of study are not meant to be scientific; however, it is my hope that they will serve as the beginning framework for future investigation.

Case Study

For this study I chose to observe a five-year-old female child who regularly watches about two hours daily of educational programming on the PBS network without description. The child has visual acuity of 20/30 in her left eye and 20/60 in the right eye (with correction). By conventional standards this child would be considered slightly visually impaired, but able to function with no auxiliary aides. The child is both educationally and socially on par with children of the same age and she demonstrates no lag in psychological development. For the purposes of this study I observed her while she watched the same programs that she normally watches, but with the description turned on. At two separate times observations were made and information was noted about the program to evaluate what, if any, additional benefits were gained from the service.

The first observation was made on Tuesday, October 25, 2005. The program viewed was *Clifford the Big Red Dog*, on the PBS network. The program was viewed for approximately one half hour beginning at 7:30 AM. The subject was seated approximately three feet away from the television. The second observation was made on Thursday, October 27, 2005. The program viewed was PBS's *Dragon Tales* and like the previous program, it was viewed for approximately one half hour. Once again the child was seated at a distance of approximately three feet from the television. The program was viewed at 5:30 PM.

Both programs target children aged 3-7 years and are educational with many social and cultural messages as well. There were implications during the viewing with description that suggest the overall benefit from the service, but perhaps the most striking instance was at a point during both programs when new information was obtained and the child's demeanor heightened and she displayed a sense of pleasure at learning something new.

The first instance was during the show *Clifford the Big Red Dog*. Once during the program one of the main characters, T-bone, has a dream that he is jumping over a high bar. The narrator providing the description describes the action and says "T-bone jumps over a high bar." At this point the child exclaims that she didn't know that was called a high bar. The second instance, very similarly, occurred during the viewing of *Dragon Tales*. During the program one of the show's characters, Max, is trying to learn how to tie a knot. After repeated failures, he tries one more time and succeeds and the narrator once again describes the scene and says, "Max successfully ties a slip knot." Once again, the child exclaims that she didn't know that was called a slip knot. Both of these new pieces of information opened up much dialogue about what both things were and the child was genuinely interested in the discoveries and their uses, etc.

What's more, these learning experiences created a greater social and cultural awareness for the child that, with the visual image alone, she would not have received. Neither of these discoveries was based on information that the child did not receive visually, but on the depth of information provided with descriptive video. With more focused studies it is likely that similar and more far reaching results will inevitably be obtained.

Conclusion

In the onset of this project my goals were to argue the need and benefit of description for preschool aged blind children. To this end I began researching first the nature of educational programming targeted toward children in this age range and the high level of visual cues and imagery used to engage the viewer. By exploring the various theories about how children learn I intended to argue the effectiveness of description for not just blind children, but their sighted counterparts as well.

The further I researched described video and its vast availability, the more I discovered that an argument for the service was a moot point. Description is currently available on Nickelodeon, PBS, The Disney Channel, TNT, and TMC with programs ranging from preschool-targeted to adult-targeted. There is no shortage of description and it is increasingly being produced and distributed via cable and network television as well as VHS, DVD, and over the Internet.

What there is a shortage of, however, is a vast lack of dissemination regarding the existence of description for popular television shows. I at first intended to conduct a mass survey via a listserv for parents of blind

children to determine what benefits children are receiving from the service as well as any remarkable changes in learning since using description. When I posted a first “feeler” email to the listserv calling all interested parents to respond with demographic information, I was terribly surprised by the results.

I received only two responses from this national listserv. Both of the responses were very much not in favor of description as a means of augmenting the educational experience of blind children. One message read “[*Recorded description*] cannot replace the description by a caring parent” (email communication September, 2005), while the other more specifically scorned the use of television in general. The respondent suggested that the parent of a blind child should take a child to a fire station to “see” a fire truck, rather than hear it described on television. While these opinions are admirable, they are not realistic. **Note: the respondents are parents with older blind children who did not have the advantage of educational television with description.** As previously mentioned, it is inevitable in today’s busy world that children will watch television. The quality of television aimed at preschoolers is improving and has a markedly more educational approach. If blind children are watching these shows it is only appropriate that they have every opportunity for learning alongside their sighted peers.

At a later date (October, 2005) I posted a similar email message to a listserv for blind parents. Many parents responded that they enjoy viewing videos and DVDs with their children (blind or sighted) and many of these parents were unaware that description exists for children’s educational programming on television.

As I continued to research description I found many resources available to create the service and distribute the product to television networks. One company, www.narrativetv.com estimates that “60% of their customer base is fully sighted people even though the programs are designed for the blind,” and they assert that, “In all of these populations, description has been shown to increase the educational, socialization, and entertainment benefits of television and movies. Description is also used by sighted individuals enabling them to turn away from the television and perform other tasks while still following their favorite programs.”

Through this project and case study I have learned the following: I have discovered that based on confirmed theories about how preschool aged children learn, description can enhance the learning experience for blind and sighted children alike. I have also learned that there is a gap in the availability of description and the dissemination of the program to audiences who may benefit from it.

This study was limited in scope and nature and meant only as a foundation for future research about description and children’s programming. With additional investigation I believe that more benefits of the service will surface and already hypothesized benefits will undoubtedly be validated. In future study it would be advantageous to also closely examine the language used for description as well as the

standardized methods of deciding when, where, and what should be described. I feel that this project has laid groundwork for this and other future studies to be conducted.

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