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## Pre-Service Teachers' Perceptions of Disability as Represented in Children's Television Programs *RESEARCH*

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### Abstract

As colleges and universities prepare pre-service teachers to teach in inclusive classrooms, it is important to understand college students' schema of diversity. Part of creating an inclusive classroom culture is to understand how children view similarities and differences in others, and how to create a culture of acceptance. One way to create a culture of understanding is to use media representations and popular children's television shows as a springboard for conversation and acceptance, but before pre-service teachers can use media, they have to first understand the characteristics and qualification criteria for students with disabilities, and also how the community at large perceives children with disabilities. This research investigated pre-service teachers' understanding of proportionality and equality in children's television programming. University undergraduate students applying to or already admitted into teacher education programs watched several hours of children's television programs and answered questions about the number of characters they observed with disabilities, as well as the way these characters and their disabilities were presented in the show. The research showed that pre-service teachers disproportionately identified more television characters as having disabilities. Implications for practice include increasing early knowledge of IDEA categories and focusing on positive inclusive models in children's programming and media.

**Keywords:** pre-service, teachers, perceptions, disability, children's television

Pre-service teachers often state that they love children and want to help children learn when they are asked why they want to become teachers. Some pre-service teachers indicate that they want to help students with disabilities grow and learn, but few pre-service teachers initially discuss a desire to build inclusive classrooms as their main focus in wanting to be a teacher. Regardless of the models they themselves observed as students in elementary and secondary school, teachers today must be prepared to teach students with and without disabilities in an inclusive educational environment. Part of this teaching includes creating an atmosphere of inclusion, and to do this, pre-service teachers need a strong foundational knowledge of what disabilities are, how they are identified, and how students with and without disabilities can grow and learn together.

### Formation of Disability Awareness and Understanding

How children acquire their understanding of disability has been a source of speculation and research. Attitudes have been defined as cognitive schema that represent groups of individuals or ideas with some degree of positive or negative evaluation (Eagly & Chaiken, 1993). When children have a cognitive schema that represents a group (e.g., boys or girls), they come to identify whether or not a particular child is a group member. Existing literature indicates that negative conceptualizations may be formed by exposure to the concept of disability created by parental attitudes (Deal, 2003), the media (Barnes, 1992), children's literature (Pederson, 2003), peer interaction (Shakespeare, 1994), and children's textbooks (Hodkinson, 2007). As a specific example, Leicester (2007) suggests that children's literature, in absencing characters who have disabilities,

sends a message that children with disabilities are less interesting and of less value than other members of our society (Beckett, Ellison, Barrett, & Sonali, 2010). Additionally, Hodkinson (2007) concluded that the representation of disability in school textbooks was limited and “infected with models of child deficit” (Clough, 2005, p. 74).

### **Media and Disability**

Strasburger, Wilson, & Jordan (2009) discussed the phases of development of the viewing perceptions of children and the media, pointing out that preschoolers pay more attention to animation, sound effects, and lively music than do six- to seven-year-olds who attend more frequently to content related to plot. In a study by Hoffner and Cantor (1985), children were exposed to characters who were either attractive or ugly and acted kindly toward others or were cruel. Preschoolers rated the ugly character as mean and the attractive character as kind without taking into account if the character had actually behaved in a kind or cruel way. Older children, however, were able to take into account the actual behavior of the individuals in forming their opinions.

Strasburger et al. (2009) also points out that younger children are typically fixated on specific extraneous features of characters to the exclusion of other more important features. These younger children are also not able to distinguish fantasy from reality in the media, as they do not utilize context clues well in comparing fantasy situations to the reality of the world around them. Older children can focus on the feelings and behaviors of the characters and assess those features in comprehending the storyline (Strasburger, Wilson, & Jordan, 2009). As children mature, they begin to judge the existence of characters in fantasy

versus reality on the possibility of their existence in the real world.

### **Children's current preconceptions.**

In 1983, Conant and Budoff interviewed children about their awareness and understanding of different disabilities. They found that, although preschool children have ideas about and a basic understanding of what it means to have a physical disability or sensory impairment, their awareness of disabilities did not reflect the incidence of these disabilities within the population. The disabilities these children mentioned involved highly noticeable features such as adaptive equipment, or could be understood in the terms of the child's own experience with the senses, for example, being unable to see in a dark room. Similarly, Favazza and Odom (1997) reported that kindergarten children's ideas about what it means to have a disability often reflected the use of specialized equipment. When Diamond (1993) examined preschool children's awareness of disability in their peers, she found that children were most often aware of disabilities that affected motor and language skills.

Katz and Kofkin (1997) suggest that there are four important developmental components in children's early understanding of differences among groups of individuals: awareness, identity, preferences, and stereotypes. Using race and gender as examples, preschool children are aware of differences in race and gender, use race and gender when they refer to themselves and others, and often prefer to play with same-gender and same-race peers (Ramsey & Myers, 1990). Extending this logic, it is reasonable to assume that children are also aware of differences in ability when they can see differences. How these differences are portrayed in the media is critical in helping shape children's thinking about disabilities.

In a 1976 study by Langer, Fiske, Taylor, and Chanowitz, the authors identified that when individuals without disabilities were given the opportunity to observe individuals with disabilities without interacting, they were more comfortable later interacting with the subjects with disabilities. A 1999 study by Farnall and Smith also found that perceptions of individuals with disabilities in the media were influenced positively by positive portrayals of disability.

A deepened understanding of how children developmentally become aware of disability and differences in the media provides an additional impetus for the review of disability representation in children's media in comparison to the real world of disability in the general population. To begin to understand how children with disabilities are represented in the media, university students watched children's television programming to report the number of characters they observed whom they thought had a disability.

**Purpose of this study.** While we understand that the media does not wholly form children's perceptions of disability, we recognize the powerful influence the media has on people's perceptions of the world around them (Smith-D'Areszzo & Moore-Thomas, 2010; Smith-D'Arezzo, 2003). Thus, we wanted to understand how the pre-service teachers view the representation of disability in the characters found in children's television programming.

In reviewing potential children's television programming, we considered shows or television stations produced specifically for children ages 3-13. Our research questions were: Can pre-service teachers identify characters with disabilities in children's television programming? Are the characteristics of disability identified by pre-service teachers compatible with IDEA definitions, or did they identify disability

based on some other characteristics? Are the observed number of characters identified with disabilities in children's television programming proportional to the most recent IDEA statistics?

### **Method**

A qualitative, descriptive survey was used to examine the perceptions of individuals regarding the presence of people or characters with disabilities in children's television programming. To examine the representation and perceptions of characters or people with disabilities in children's television programming, the researchers worked with pre-service teachers who were applying to or who had been accepted into teacher education programs at two state universities in the Mid-west.

**Participants.** The students were either at the beginning of their special education course work or they majored in general education and were in their first course designed to introduce disability awareness. As a result, these students had no or little formal knowledge of characteristics of people with disabilities. Participants totaled 167, with 70 students from University A and 97 students from University B. Students collected data as part of an assignment for the class and they were given the option of allowing their data to be used. All students completed the assignment for a grade regardless of participation in the study. Inclusion of their data in this study had no effect on the grade for the assignment or course.

The participants were asked to view children's television programming to see how many and which characters in a given television show were perceived by them as having a disability. To complete this task, they were given an assignment to complete that included watching a set amount of children's television programming, and then completing a survey about what they watched (see figure 1). Students

participating in the study were asked to choose shows from the following networks: Disney, Disney Junior, Disney XD, Nickelodeon, Noggin, Nick Jr, PBS, Sprout, and Cartoon Network. The researchers asked participants not to use programming on the Cartoon Network after 8 pm, since this programming is geared to older teens and adults. Students could watch shows either on television or online through the same networks' websites, or another viewer such as [www.hulu.com](http://www.hulu.com) or [www.netflix.com](http://www.netflix.com).

**Instrument.** Students completed a survey created by the first and second authors. The survey (see Table 4) included room for participants to fill in data on the children's television program they watched. The students' directions were to watch children's television shows from specified networks (see Table 2) and identify characters as having a disability. No criteria or description was given as to what comprised a disability.

The survey asked for: the network, show and episode watched, if a character with a disability was observed, what the disability was, and if the character was relevant to the story line or show. The survey also asked if a character with a disability could have been included in the show if no character with a disability was part of the storyline.

**Procedure.** Participants from University A were taught by the second researcher, and students were asked to watch a total of two hours of children's television programming and report on each show they watched through completing a paper copy of the survey as a part of a disability awareness project for class. Following IRB protocol, the instructor informed students after the assignment had been completed that they could choose to allow their completed work to be used in the research study. The research study was explained to the students and students were informed that their work

had been graded and grades had been posted so participation or lack of participation could not affect the students' grades. Students were given permissions and could choose to complete and submit those responses after final grades for the course had been submitted to ensure that no student felt pressured to participate.

An instructor who was not a part of the study taught participants from University B, and the first researcher went to the class to explain the research and then collected permissions. Following IRB protocols, students were informed that their instructor would not be aware of their participation or lack of participation in the study, and all students who completed the assignment received participation points for completing the assignment (it was an ungraded assignment for this class). Participants were given a written copy of the assignment, and also a link to the survey online, where they filled in the survey data they had collected. Students were asked to watch a total of two hours of children's television programming and report on each show they watched.

All data received from students were compiled into a single data file and reviewed for completeness. Participants from University A watched a combined total of 203 children's television shows and students from University B watched a total of 341 children's television shows, for a total of 544 children's television shows watched. After thorough review of the data sets, any data that did not include complete information (the questions about a show were not all answered) or did not make sense (students listing incorrect characters for a show) was removed from the data set. This brought the total number of children's television programs used in the data set to 385. Data was analyzed for duplications. In cases of duplication, one data set was retained in the data table, and the duplicates were removed to a secondary table to be

used to analyze agreement. After the duplicates were removed, the total number of television shows analyzed was 345.

Using the refined data table, the researchers analyzed the data for both the number and types of characters identified by students as having a disability. Analysis included analyzing proportionate representation of disabilities as compared to the most recent data from the U.S. Department of Education indicating the number of disabilities served in public schools. Data were interpreted based on comparative analysis to IDEA year data and disability categories.

### Results

In analyzing the data, the researchers found that pre-service teacher participants reported that of the shows they watched, 286 shows had no characters with disabilities and 60 shows had a character or characters with a disability (see Table 1). Shows were representative of the breadth of shows currently being viewed on networks that focus on children's television programming (see Table 2). Participants watched shows from Disney, Nickelodeon, Noggin, Sprout, and PBS, as well as children's shows on Fox, with the majority of shows being watched on Disney, Nickelodeon, and PBS. For comparative data about how many children with disabilities are actually in the general population, we used IDEA 2004 data.

Looking at the data as a whole, IDEA 2004 data reported a prevalence rate of 8.8% children with disabilities in the general education population. Pre-service teacher participants completing the survey found a rate of 17.34% of characters with disabilities in shows.

One of the questions in the survey was specifically targeted to analyze participants' views of inclusivity of characters. Overall, participants observed

that the characters they reported as having disabilities were included as part of the cast in 60 out of 87 shows, for a total of 69% of shows watched. Participants reported that characters they observed with disabilities were not part of the cast in 27 out of 87 shows, or 31% of shows.

To further analyze how participants looked at characters and disability, the researchers took the IDEA categories and divided them into "visible" and "invisible" disabilities in Table 3. The researchers acknowledge that this categorization of "visible" and "invisible" is not a perfect one, as language impairments are more "invisible" than visible, but after lengthy debate, an attempt was made to place each disability within the best fit of the two categories. Any disability that might involve a difference that could be seen by another, such as a person who used a wheelchair or glasses or a walker, were put in the "visible" category of disabilities (Invisible Disabilities Association, 2013). Speech and language impairments were also added in this category, since many speech errors could be heard regardless of an evaluation of the content of that speech. Those disabilities that could not be seen upon first observation of a group of children or students, but might be found through student work samples or upon observing behaviors over a period of time were placed in the "invisible" category. In deciding on categories, the researchers used this consideration: if an adult without special training were to observe a group of children for a few moments, where they could hear the children speak and see them move, would he or she say that child had a disability? Given that lens, the researchers placed students in the categories listed below.

In the "visible" disabilities category, the researchers included deaf-blindness, hearing impairments, multiple disabilities, orthopedic impairments, speech or language

impairments and visual impairments. In this category, participants identified 10.66% of characters in children's television shows as having a disability (see Table 3). IDEA data shows that 2.11% of the school population has a visible disability. When asked to define why that character had a disability, participants noted characters who wore glasses or had crutches.

In the "invisible" disability category, the researchers included autism, developmental delay, emotional disturbance, intellectual disability, other health impairments, specific learning disability and traumatic brain injury. In this category, participants identified 6.63% of characters as having a disability, as compared to the IDEA representation of people with invisible disabilities representing 6.69% of the population. Did participants comment on why these characters were assigned as having an invisible disability?

### Discussion

Pre-service teachers' understanding of and attitudes towards inclusion are important indicators of their feelings of success in the classroom (Bandura, 1982; Pace, 2003; Sze, 2009). While practicing teachers support the idea of inclusion, few teachers felt they had the skills or time needed to provide inclusive instruction (Scruggs & Mastropieri, 1996; Sze, 2009). Given this, it is imperative that pre-service teachers have a clear understanding of what constitutes a disability and have the tools needed to provide inclusive education and create a culture of inclusion in their classrooms. One way to evaluate pre-service teachers' understanding of disability is to have them view the same programming that their students are viewing and indicate if they feel that the characters they are observing have disabilities or not, tell how they felt the disability was manifested (thus assessing their understanding of IDEA

categories), and to say if they thought those characters that they identified as having disabilities were part of the cast (included) or randomly included characters who were not part of the show.

While the researchers understand this is not a perfect way to teach students about disabilities, especially compared to having students observe actual students who are in the Response to Intervention process, or review case studies, this method of analyzing pre-service teachers' understanding of disabilities through the viewing of children's television programming does have multiple benefits. For one, it models non-traditional teaching methods using current media to get students engaged in a conversation about key content in their field. Using an assignment such as this engaged university students in non-linear thinking about disabilities and required them to think about IDEA categories of disability and how that might be portrayed for children. It also allowed them to spend time exploring popular media targeted to the students they want to teach, thus giving them new connections to student interests, and helping expand their knowledge of current student interests and language. This type of assignment also helped university students recognize that disabilities affect not only a student's academic day, but also an individual's home life, friendships, and social settings.

In this study, the researchers found that participants observed a larger number of characters in children's television programs as having visible disabilities than are actually found in the general population. In addition, they observed a slightly smaller number of characters with invisible disabilities than are in the general public. This distinction is important, as it demonstrates that pre-service teachers need more exposure to the IDEA categories and qualifying criteria, as many participants in



the study noted characters as having disabilities who would not qualify for services under IDEA requirements. For example, participants frequently identified characters as having a disability if they were wearing glasses, had crutches or engaged in silly behavior on the show. On the other hand, the data could be interpreted to note that participants were willing to accept students' need for accommodations whether they had significant needs or less intense needs (such as students who need glasses might need less support in the classroom than other students with more significant health, behavioral, sensory, or intellectual support needs).

In addition to needing more training and practice in identifying students with disabilities based on IDEA categories, the data pointed to another interesting conclusion. Participants found many examples of students with physical disabilities, and actually identified more students being represented in children's television shows than are found in the general population based on IDEA data. Conversely, they identified fewer characters as having invisible disabilities such as autism, emotional disabilities, specific learning disabilities, and intellectual disabilities than are found in schools. This may indicate a need to provide additional help in identifying how students might

demonstrate needs for support. It also points to a possible lack of appropriate representation of characters with these disabilities in children's television programming. Making pre-service teachers aware of this phenomenon can have the added benefit of helping them advocate for equal representation in children's television programming.

### Limitations

Participants in the study were pre-service teachers. There were no controls in place to ensure an entire show was watched. There were no specific definitions of disability provided, so some participants qualified characters wearing glasses or using crutches as having a disability.

### Conclusions

Pre-service teachers need to understand the qualifying descriptors of disabilities based on IDEA criteria so that they can detect and explain inaccurate characterizations of disability in children's television programs when they teach their students. In addition, pre-service teachers who have pertinent knowledge of the characteristics of disability should help to advise programmers in children's television to assign realistic attributes to the characters they create.

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**Table 1***Results of counts of characters identified with a disability*

<b>Disability</b>	<b>Count of Observed Disabilities in Sample</b>	<b>Percentages of Disabilities Specifically Observed in Sample</b>	<b>Percentage Disability Observed Within Entire Sample</b>	<b>IDEA Percentage SPEC ED of GEN ED Population</b>	<b>Difference Between Sample Observations and IDEA Data Per Disability Area and Total</b>
Autism	3	5.00%	0.87%	0.44%	0.43%
Emotional Disturbance	5	8.33%	1.45%	0.62%	0.83%
Hearing Impairments	1	1.67%	0.29%	0.11%	0.18%
Mental Retardation (Intellectual Disability)	4	6.67%	1.16%	0.71%	0.45%
Orthopedic Impairment	20	33.33%	5.78%	0.09%	5.69%
Other Health Impairment	1	1.67%	0.29%	0.97%	-0.68%
Specific Learning Disability	10	16.67%	2.89%	3.77%	-0.88%
Speech or Language Impairments	5	8.33%	1.45%	1.68%	-0.23%
Visual Impairment	11	18.33%	3.18%	0.04%	3.14%
None	286	0.00%	82.66%	91.20%	-8.54%
<b>Grand Total</b>	<b>346</b>	<b>100.00%</b>	<b>100.00%</b>	<b>8.80%</b>	<b>8.54%</b>

17.34% With Disabilities in Sample

8.8% With Disabilities in IDEA Data

82.66% Without Disabilities in Sample

91.2% Without Disabilities in GENED Population Per IDEA Data

**Table 2**

*Data analyzed for inclusivity based on question, “Was the character with a disability part of the cast?”*

<b>Television networks</b>	<b>No</b>	<b>Yes</b>	<b>Grand Total</b>
Cartoon Network	1	6	7
Disney	8	13	21
Fox		3	3
Nickelodeon	11	23	34
Noggin		1	1
PBS	7	13	20
Sprout		1	1
<b>Grand Total</b>	<b>27</b>	<b>60</b>	<b>87</b>

*Note:* response of *No* indicated the student felt the character he or she identified as having a disability was not a part of the cast. Response of *Yes* indicated the student felt the character he or she identified as having a disability was a part of the cast.