

**Introduction : Electronic Media Use in the Lives of Infants, Toddlers, and Preschoolers**

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# Introduction

## Electronic Media Use in the Lives of Infants, Toddlers, and Preschoolers

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**Recent years have seen** an explosion in electronic media marketed directly at the very youngest children in our society: a booming market of videotapes and DVDs aimed at infants aged 1 to 18 months, the launching of the first television show specifically targeting children as young as 12 months old, and a multimillion dollar industry selling computer games and even special keyboard toppers for children as young as 9 months old. Despite this plethora of new media aimed at very young children, very little is known about young children's use of such media or the impact of such media use on their development. Few existing studies focus on the media use of children younger than age 5.

The striking dearth of empirically based knowledge stands in stark contrast to popular, policy, parental, and academic interest in the impact of media on young children. Given that the recent explosion in availability and affordability of many forms of electronic technology can reasonably be expected to increase, perhaps even accelerate, in the next 20 to 50 years, this lack of knowledge is particularly troubling. However, the lack of scientific knowledge in this area does not seem to have prevented as yet unsubstantiated claims regarding the positive impact of interactive media on young children's development. Toy and video companies prey on the belief of parents that such toys have important effects and have fostered notions that simply watching certain videos or listening to tapes can enhance infant IQ and reading ability. In 1999, the American Academy of Pediatrics (1999) recommended that television viewing should be discouraged for children younger than the age of 2. This recommendation rests on the assumption that television viewing takes time away from social interactions with parents and caretakers. Although this assumption may be valid, it is

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essentially an empirical question, because research on young children's television viewing is scarce. Clearly, a body of literature focusing on young children's media use and its impact is sorely needed.

This issue of *American Behavioral Scientist* will begin to close this gap in our knowledge. This edited collection brings together several new important studies of infants, toddlers, and preschoolers' uses of television, videos, and computers and the impact on their development.

Anderson and Pempek review the extant literature on the impact of television on young children's development. Their review focuses on an important conceptual distinction between foreground and background television. Foreground television is designed for young children, and they attend to it in a sustained manner. In contrast, background television is not attended to overtly by young children, largely because it is not produced for them and, thus, is difficult for them to understand. Anderson and Pempek offer some important early findings on the impact of background television on very young children. Specifically, they find that in the presence of background television, toddlers spend less time in focused play and more time in unfocused movement around the room than when the television is not on; yet they pay attention to television that is produced for them. Anderson and Pempek suggest that children younger than age 2 have difficulty comprehending television content, which may result in little learning from television before age 2. This article offers a rich conceptual framework for pursuing further research on the impact of television and video content on very young children.

In an exploratory study, Jordan uses Bronfenbrenner's ecological perspective to explore two critical contexts of media use during childhood: the home and the school. In-depth interviews were carried out with the parents or guardians of 42 low-income, minority children aged 3 to 5 attending an inner-city preschool. In addition, observations of the children at preschool and interviews with teachers were conducted. Television use at home is substantial. On average, these preschool children spend 3 hours with television each day; and although the parents reported reading to their children almost everyday, the amount of time spent reading is below the national average. The schools differentially privilege reading over television with great emphasis on using books for learning, whereas television is used primarily to help the children transition from one activity to another during the course of the preschool day. The schools studied here apparently do not regard educational television programming as important media content for young children.

Several articles in this issue analyze data from the 2003 Kaiser Family Foundation national survey of young children's uses of media titled *Zero to Six: Electronic Media in the Lives of Infants, Toddlers and Preschoolers* (Rideout, Vandewater, & Wartella, 2003). Because so little is known about media use among very young children, two studies specifically focus on sociodemographic factors influencing such use.

Anand and Krosnick examine demographic factors that predict young children's media use overall. They find that African American children, children with less-educated parents, and older children tend to use media more frequently. However, they find no differences in media use by gender or by family income, two rather surprising findings. Overall, age was the strongest predictor of very young children's media use.

Calvert, Rideout, Woolard, Barr, and Strouse focus specifically on socioeconomic predictors of young children's computer use. They find that for many children (one fifth of the sample) computer use begins before age 2 and increases linearly up to age 6. More than three quarters of the 5- to 6-year-olds surveyed had used a computer. Although most of these infants and toddlers' computer use occurs with babies sitting on their parents laps, by age 3½, young children are much more autonomous in using computers. They find that the digital divide still persists in young children's access to computers.

Vandewater and colleagues examine the family context of media use. Vandewater, Bickham, Lee, Cummings, Wartella, and Rideout report that 35% of the children in their sample live in a home where the television is on "always" or "most of the time." Across the age range from birth to age 6, children from heavy-television households watch more television and read less than other children.

Calvert, Strong, and Gallagher report an experimental investigation of the effect of user control on young children's (4- and 5-year-olds) attention to and learning of content presented in an interactive computer story. They find that the children pay less attention to computer stories when adults control the mouse and, thus, the interactive nature of the study; yet there were no differences across user control conditions for children's memory of the story content. The authors speculate on the role of user control in engaging children with interactive stories.

In another analysis of the outcome of young children's media use, Vandewater, Park, Huang, and Wartella examine the impact of parental rules on young children's television use. More parents report rules regarding which programs their young children can watch (88%) than report rules regarding how much time their children can watch television (67%); and parents with higher socioeconomic status are more likely to have rules regarding television use. They find that rules can have an impact on the amount and nature of young children's television use.

Linebarger and Walker report on a longitudinal study of 51 children whose television use was recorded by their parents every 3 months from age 6 months to age 30 months. In addition, children's language development was assessed for vocabulary development and expressive language skills. They find a rather complicated relationship between television use and language development and most important, only specific types of programs and content type supported vocabulary and expressive language development. Watching *Dora the Explorer*, *Blue's Clues*, *Arthur*, or *Dragon Tales* resulted in greater vocabularies and

higher expressive language scores by 30 months of age. Other programs were not positively related to language development.

Taken together these articles represent a substantial increase in our knowledge of the prevalence and impact of television and other audiovisual media on very young children. They also underscore the need for more research to understand how use of media by infants, toddlers, and preschoolers may affect their development. This collection of articles reveals that even the very youngest children are living in a media-saturated world. Thus, it is clear that both the magnitude and the nature of the media experiences of the current generation of preschool children are unlike that of any previous generation. Moreover, given the increasing role that technology and electronic media play in our day-to-day lives, this experience is only likely to increase in future cohorts. How such early media use may affect longer term developmental trajectories is simply unknown at this point. Taken together, these articles compellingly demonstrate the need for a major research effort on the developmental impact of media on the very young.

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