

Chapter 55

Engaging in Play through Assistive Technology: Closing Gaps in Research and Practice for Infants and Toddlers with Disabilities

Fiona S. Baker

Emirates College for Advanced Education, UAE

ABSTRACT

The importance of play for all infants and toddlers should not be underestimated. However, owing to barriers and tensions in Assistive Technology (AT) in early intervention, opportunities are often limited for infants and toddlers with special needs to play, and where early intervention exists, it is slow to develop with AT. This chapter first discusses the importance of play and then draws attention to some issues and tensions that limit play and AT in early intervention for infants and toddlers with special needs. It then discusses how crucial it is to explore the potential of play for infants and toddlers with disabilities and gives research and practice-based suggestions to enact the spirit of the law: the Individuals with Disabilities Act (IDEA): Part C – Early Intervention program for infants and toddlers using AT. It concludes with some thoughts for the future of AT through research, early intervention play-based practices, and on-going education and development of early intervention providers and parents of infants and toddlers with special needs.

INTRODUCTION

As early as infancy and toddlerhood, children may be identified as being at risk for cognitive, social-emotional and physical difficulties. Some have inherited disabilities, and others may be born pre-term leading to special needs such as intellectual disabilities, cerebral palsy, and hearing or vision loss. Such infants and toddlers may be slower in

developing their functional and learning abilities and may be eligible for early intervention services in their natural environments: home and child care. In the U.S., the Individuals with Disabilities Act (IDEA): Part C – Early Intervention program for infants and toddlers, was designed to provide a broad array of services to children with special needs, from birth through three years of age, and their families. Anyone who has a concern about

DOI: 10.4018/978-1-4666-8200-9.ch055

an infant or toddler's development may make a referral for Early Intervention services. A team, including parents, draw up an Individual Family Service Plan (IFSP) which is a document designed to identify supports and strategies for achieving outcomes that will enhance a child's academic, communication, developmental and functional needs. The Department for Children and Families Agency of Human Services in Vermont, for example, reported that in 2013, there were approximately 20,000 children from birth to three eligible for Early Intervention services statewide. Based on estimated prevalence, approximately 3% (or 600 children) may be eligible for early intervention services. Of this population, approximately 400 infants and toddlers are receiving early intervention services statewide (2% of the birth to three population). Assistive technology (AT) provision is dependent on services and AT use is reported on IFSPs for only a small percentage of infants and toddlers which, as Wilcox, Guimond, Campbell, and Weintraub Moore (2006) suggest, means that services should improve. A comparison of the Office of Special Education Programs Annual Reports to Congress from 1998 to 2002 indicated that AT is consistently listed as a service for only approximately 4% of infants and toddlers nationally (U.S. Department of Education, 2012). Additionally, there are infants and toddlers who have delays not severe enough to be eligible for early intervention services, yet would benefit from AT. Even if the AT device is used for only a brief period of time; it may give an infant or toddler the extra support they need to develop and use skills on their own which are essential to early childhood play. Regrettably, many infants and toddlers do not experience AT as an option.

The Purpose of this Chapter

The purpose of this chapter is to discuss the importance of play for infants and toddlers, including those with special needs. It discusses how AT can help those infants and toddlers with special

needs experience the benefits of play by making important adaptations to the infant and toddler's natural environment accessible; explains how to position an infant and toddler for play with the use of low- and high-tech AT adaptations in the home and preschool, and gives examples of adaptations for toys. It makes suggestions for some easily applied practical solutions for providers and parents to demystify AT use and discusses some of the tensions that currently limit the provision of AT and services for infants and toddlers. This chapter ends by explaining where efforts should be made to provide more opportunities for children with special needs to enjoy and learn through play in natural settings.

It is anticipated that this chapter will bring current issues and tensions into focus and stimulate further research and debate. Most importantly though, it will contribute to the future of play for infants and toddlers with special needs by providing the impetus for those involved in early intervention to work toward enacting the spirit of the law in AT practice for infants and toddlers with special needs, especially for the development of pedagogical play-based practices.

BACKGROUND

The Importance of Play in Early Childhood

Play is the main preoccupation in early childhood (Parham & Primeau, 1997). Children explore their natural environment through play and as Rogers (2011) states, "there is a substantial well-documented empirical and theoretical research literature to support the view that play is a highly significant activity in human experience and development" (p. 9). As children interact with objects and materials, they start to establish relationships with an understanding of control and causality which means that they repeat and modify their actions. Children communicate as they explore

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/engaging-in-play-through-assistive-technology/126106

Related Content

Gestural Articulations of Embodied Spatiality: What Gestures Reveal about Students' Sense-Making of Charged Particle Dynamics in a 3D Game World

Lai Har Judy Lee and Yam San Chee (2013). *International Journal of Gaming and Computer-Mediated Simulations* (pp. 17-47).

www.irma-international.org/article/gestural-articulations-of-embodied-spatiality/102614

Learning by Playing: Is Gamification a Keyword in the New Education Paradigm?

Eduardo Díaz San Millán and Rubén Gutiérrez Priego (2015). *Gamification: Concepts, Methodologies, Tools, and Applications* (pp. 2063-2112).

www.irma-international.org/chapter/learning-by-playing/126161

"Nervousness and Maybe Even Some Regret": Videogames and the Cognitive-Affective Model of Historical Empathy

Liz Owens Boltz (2019). *Exploring the Cognitive, Social, Cultural, and Psychological Aspects of Gaming and Simulations* (pp. 228-251).

www.irma-international.org/chapter/nervousness-and-maybe-even-some-regret/218802

Six Factors That Determine the Conceptualization of Persuasive Strategies for AdvergAMES: The Case Study of "Tem de Tank"

Teresa de la Hera Conde-Pumpido (2014). *Cases on the Societal Effects of Persuasive Games* (pp. 51-70).

www.irma-international.org/chapter/six-factors-that-determine-the-conceptualization-of-persuasive-strategies-for-advergAMES/113482

Effects of Cognitive Load and Game Involvement on Affective Responses in Branded Entertainment

Ayegül Sakaya Güngör and Tüce Özansoy Çadrcı (2019). *International Journal of Gaming and Computer-Mediated Simulations* (pp. 42-58).

www.irma-international.org/article/effects-of-cognitive-load-and-game-involvement-on-affective-responses-in-branded-entertainment/252172