Chapter 70

# Augmentative and Alternative Communication for Learners with Autism Spectrum Disorders

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## ABSTRACT

*Augmentative and Alternative Communication (AAC) is a prominent component in the development of support services for learners with Autism Spectrum Disorders (ASD). In this chapter, the authors provide parents, educators, researchers, academics, and other professionals with the most up to date and innovative information as well as practical resources regarding AAC for learners with ASD. Emphasis will be on school-age children diagnosed with ASD. Features of AAC systems as well as the benefits and challenges are presented to provide the reader with information on the current state of the field. The chapter concludes with directions for future research and provides a comprehensive list of resources and organizations.*

## INTRODUCTION

Most recently, *disability* is being conceptualized through a social-ecological lens, with the emphasis on the interaction between personal characteristics and environmental demands (Fisher & Shogren, 2012). Conceptualizing disability in this manner shifts the focus of supports and services from remediating deficits within the person to addressing the match (or mismatch) between environmental demands and personal competencies. When there is a mismatch between personal competencies and the demands of the environments in which individuals live, work, learn, and play, a need for support is created. Luckasson and Schalock (2012) defined supports as, "resources and strategies, that aim to promote the development, education, interests and personal well-being of a person and that enhance individual functioning" (p. 660). Creating systems of supports for people with disabilities helps improve their independent life functioning and promotes valued outcomes,

including meaningful relationships. AAC is a form of support that can positively influence the lives of learners with ASD.

## Learning Objectives

After completing this chapter, the reader should be able to:

1. Define and describe AAC options for learners with ASD
2. Describe the history of and legislation to support AAC
3. Explain the differences between 'low-tech' and 'high-tech' AAC options
4. Understand the features of unaided and aided AAC systems
5. Discuss the SETT framework and rationale for considering the student, the environment and the tasks required for active participation before selecting the tools needed to address the tasks
6. Describe the benefits and challenges of AAC systems

## BACKGROUND

There is much heterogeneity in the speech, language, and communication characteristics of learners diagnosed with ASD (NRC, 2001). A main characteristic of learners with ASD is a delay in receptive and expressive communication, and approximately half of these individuals do not develop speech to the degree required to meet their basic needs (Alpert & Rogers-Warren, 1985; American Psychiatric Association [APA], 2000; Cafiero, 2001; Ganz et al., 2011). These deficits, combined with increasing numbers of individuals diagnosed with ASD, have led to a need for identification of evidence-based practices. AAC systems have been implemented to compensate for deficits in functional communication and language skills in individuals with communication needs

(Ganz, Davis, Lund, Goodwyn, & Simpson, 2012). AAC systems, which are frequently implemented with individuals with ASD to enhance current communication skills or provide a primary means of communication, are empirically supported interventions; however the literature lacks clarity regarding participant specificity related to what works and for whom (Cafiero, 2001).

Children with autism have been found to have strong visual processing skills, making them good candidates for an AAC approach. One of the general trends identified in children with autism is that they are visual learners and thinkers (Dettmer, Simpson, Myles, & Ganz, 2000; Edelson, 1998; Grandin, 1995a; Mesibov, 1998; Prizant & Rubin, 1999; Quill, 1997; Wheeler & Carter, 1998). It is now widely accepted that the use of visual supports and strategies are of benefit to many individuals with autism. Qualities of visual systems for communication appear to match the cognitive strengths of students with autism (Quill, 1995). Use of AT, specifically AAC, is of great benefit to learners with ASD given their visual strengths and the communication difficulties they may experience. The use of visual supports and symbols as receptive and expressive components of an AAC system has been established as an evidence-based practice for individuals with ASD (Mirenda & Iacono, 2009).

Visual systems have been used in a variety of ways to assist children with autism- specifically aiding communication, language comprehension, self-management, and skill acquisition. Visual stimuli can be presented in a variety of forms, such as photographs, symbols, and drawings. Visuo-spatial symbols have been successfully used with children who have limited speech or who are nonverbal. Use of a graphic system may provide the child with concrete choices without a reliance on linguistic recall. Use of technology, specifically technology that relies heavily on visual input, may be of particular benefit for learners with ASD.

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