# Chapter 35 Using Technology to Support Social Competence

**Brenda Smith Myles** Ohio Center for Autism and Low Incidence, USA **Amy Bixler Coffin** 

Ohio Center for Autism and Low Incidence, USA

Jan Rogers Ohio Center for Autism and Low Incidence, USA Wendy Szakacs Ohio Center for Autism and Low Incidence, USA

**Theresa Earles-Vollrath** University of Central Missouri, USA

#### ABSTRACT

Social competence includes a complex set of skills that impacts quality of life across all environments: home, school, employment, and the community. Elements that impact social competence, such as theory of mind, weak central coherence, regulation and relationship building, must be taught to individuals with disabilities, including those with autism spectrum disorder. Evidence-based interventions that incorporate low, medium and high technology have the potential to support skill development in social competence in a meaningful manner. This chapter reviews the concept known as social competence and offers a variety of practices to support its development.

#### INTRODUCTION

Technology is rapidly changing and has become increasingly accessible to all people. More importantly, the increased accessibility to technology can provide the needed supports and scaffolds to aid an individual with a disability to overcome barriers for access, participation, and independence (Dell, Newton, & Petroff, 2011). Assistive technologies (AT), a particular kind of technology that may be used by a person with a disability, is defined in the Technology-Related Assistance for Individuals with Disabilities Act (1988) for all individuals with disabilities and also in the Individuals with Disabilities Education Act (IDEA, 2004) relevant to children participating in educational programs. In both definitions, assistive technologies are not defined by specific devices, but rather by the intended function of the technology which is to "increase, maintain, or improve the functional capabilities" of an individual

DOI: 10.4018/978-1-5225-0034-6.ch035

with a disability. Further the definitions state that AT can be any item, equipment or product system, commercial, modified, or customized. This definition indicates the wide range of possibilities that may be considered assistive technology from very low-tech items such as paper picture supports to higher technology supports, such as dedicated communication devices. Devices, such as a screen readers for those with low vision, wheelchairs used by those with mobility challenges and alternative keyboards for those with computer access needs, are easy to recognize as AT. However, items such as smart phones, as well as tablets and laptop computers, which are used by the general population, may also be considered AT under certain circumstances; that is, when they allow a person with a disability to access a portion of life that might not otherwise be available. For example, a tablet computer that contains an application with customized social narratives may be instrumental in helping a person with autism develop and maintain relationships or seek help in an appropriate manner. A reminder app on some smart phones may be useful for an individual with a traumatic brain injury (TBI) who may have difficulties with memory. Again, AT is not defined by a specific product or device, but by the way it is used and needed by the individual with a disability.

Assistive technologies are not randomly chosen, selected only from available technologies found in the immediate environment, or identified based on a long process of trial and error, but rather should be selected using a systematic team assessment process that considers the strengths and needs of the individual, expected tasks for participation and environments where the tasks will occur. Those identified needs are then matched to features of technologies that can support the individual. Finally, trials are conducted of the possible AT solutions that contain the identified features to determine the effectiveness of the technology in meeting the identified needs of the individual. Two models are often used to help guide the AT assessment process. The first is framework called SETT that was proposed by Zabala (2002). This acronym refers to Student, Environment, Tasks, and Tools and is designed to help guide school team discussions about the need for assistive technology. Cook and Hussey (1995) suggested the HAAT model – an acronym for Human, Activity, and AT. This model is often used to plan and structure the AT assessment process for adults. Both models take into account the strength, needs and abilities of the individual, targeted tasks or activities and contexts and environments when determining the needed AT supports. While the terminology may be slightly different between the two models, the data gathered and considered is generally identical with a process that allows for a thorough problem-solving approach geared toward the selection of AT supports.

The remainder of this chapter will look specifically at how assistive technologies can support social performance. Assistive technologies can be effectively used to provide meaningful and relevant supports and scaffolds as well as support evidence-based practices (EBP) for those who experience social challenges related to their disability. Oftentimes technologies can replace or supplement person-centered supports by providing a more independent means of social functioning without the need to rely on others for assistance or at the very least reduce the need for person-centered supports.

It is important that strategies used to support social performance building fully appreciate the complexity of social interventions. Too often strategies tend to target only one element of the social process. Loomis (2008), however, approaches social competence in a more comprehensive manner. Specifically, he has identified 10 factors that should be considered when programming for social situations (see Figure 1). These factors provide the first step in the recognition that social skills are more than the sum of its parts (Koenig, De Los Reyes, Cicchetti, Scahill, & Klin, 2009). They vary across events, thus creating challenges that differ dependent on the social event. A brief review of these factors is provided in Table 1. For a more in-depth discussion, please refer to Loomis' excellent book, *Staying in the Game: Pro*- 18 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: <u>www.igi-global.com/chapter/using-technology-to-support-social-</u> <u>competence/151233</u>

#### **Related Content**

## Text-to-Speech Software as Assistive and Mainstream Technology: Transitioning from a Functional to a Socio-Constructivist Approach

Fiona S. Baker (2016). Special and Gifted Education: Concepts, Methodologies, Tools, and Applications (pp. 2332-2350).

www.irma-international.org/chapter/text-to-speech-software-as-assistive-and-mainstream-technology/151306

## Gender Gap in Science Education: Pedagogical Implications in a Classroom in Secondary Schools in Tanzania

Festo Nguru (2023). International Journal of Curriculum Development and Learning Measurement (pp. 1-18).

www.irma-international.org/article/gender-gap-in-science-education/327282

## A Three-Pillar Approach to Preparing Tomorrow's STEM Professionals: Developing Knowledge, Abilities, and Ways of Working

(2019). Engaging STEM Students From Rural Areas: Emerging Research and Opportunities (pp. 64-119). www.irma-international.org/chapter/a-three-pillar-approach-to-preparing-tomorrows-stem-professionals/211504

#### English Language Learners and the Response to Intervention Model

Melissa Christine Higgins (2016). Special and Gifted Education: Concepts, Methodologies, Tools, and Applications (pp. 569-593).

www.irma-international.org/chapter/english-language-learners-and-the-response-to-intervention-model/151220

# Documenting Student Representation of Indigenous HIV/AIDS Information and Integration Into the School Curriculum

Denis Sekiwuand Nina Olivia Rugambwa (2021). International Journal of Curriculum Development and Learning Measurement (pp. 11-28).

www.irma-international.org/article/documenting-student-representation-of-indigenous-hivaids-information-andintegration-into-the-school-curriculum/269745