

Chapter 8

Creating Inclusive Functional Content Using Dot-Codes: An Exploration of Multistep Recipes for Individuals With Autism in Post-Secondary Settings

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ABSTRACT

The purpose of this chapter is to assist educators in understanding how to create handmade content to support functional skills, following a multi-step recipe will serve as the example, while the application of dot codes can be applied to other content areas as well as support transfer of skills to the home environment. Students are using the speaking-pen in both the home and classroom conditions to support repeated trials in their natural environment. A succinct description of implementing dot-codes into the classroom to support functional skills specific to individuals with ASD will be shared. This chapter will focus on following a multi-step recipe; however, the implementation can be applied to multiple areas of functional instruction.

DOI: 10.4018/978-1-7998-7053-1.ch008

INTRODUCTION

Calls for equity in education for historically marginalized student groups, including students with Autism (ASD) are continuous and long-standing as access to high-quality education remains elusive for far too many. An ASD is categorized by persistent challenges with social communication that spans across the lifelong continuum. Many people with ASD have difficulty with executive functioning (EF) and may have trouble with skills such as planning, staying organized, sequencing information, and self-regulating emotions. Challenges with EF affect many aspects of life including functional skills such as cooking that can lead to proper nutrition and a healthier lifestyle. Additionally, the cost of providing services to individuals with ASD is surpassing \$200 billion annually, some of this is related to postsecondary supports including independent living which includes nutrition, cooking, grocery shopping, and appropriate food intake. Some of these challenges with nutrition can be related to lack of understanding on how to cook, follow a recipe, and struggles to multi-task and follow multi-step instructions. These challenges are often part of a co-morbid condition with EF skills. Executive functioning (EF) is responsible for following direction, focus on a given task, memory retrieval and self-monitoring (e.g. keeping track of what they are doing or following multi-step directions). Unfortunately, research on nutrition for individuals with ASD is limited and recently it was noted that feeding patterns and nutrition intake is unknown (Hyman et. al., 2012). Further, Marshall, Hill, Ziviani & Dodrill, (2014) stated that parents of children with ASD commonly reported concerns regarding feeding difficulties and poor nutrition. Concerns were related to feeding difficulties that were consistent with undesirable mealtime and skill deficits. The skill deficits were related to independent cooking which lead to poor nutrition which can have an impact on health outcomes (Marshall, et. al., 2014). Moreover, consistent challenges with nutrition can be related to EF challenges which also effect postsecondary outcomes which has been related to inclusion for students with ASD. Working on the development of EF skills in the context of inclusive classes and classes that specifically target functional skills for those with ASD and ID as they work on transition skills such as cooking and nutrition. Finally, evidenced-based health promotion programs for youth with an intellectual disability (ID) and/or ASD remain absent from transition programs.

Barriers to support evidenced-based health programs include a lack of understanding of how to adapt existing evidence-based programs and practices tailored to meet their needs, maximize inclusion and support mutual goals of health and autonomy for independent living. One such method that may support inclusion and nutrition is the incorporation of a G-speak pen to support autonomy, executive functioning, and nutrition in collaboration with a Nationally recognized program *Cooking Matters*. Today, many classes under the family consumer sciences have been eliminated from schools that support independent living and those remaining such as a culinary arts program often is not inclusive of students with more significant disabilities.

BACKGROUND

Inclusion in Nutrition Programs for Students with Autism and Intellectual Disabilities

There is a rising prevalence of ASD among children; currently, one out of every 59 individuals are diagnosed with an Autism Spectrum Disorder (Center for Disease Control, 2014). Individuals identified

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