Developing Visual Supports for Individuals with Intellectual Disabilities who are Non-Verbal to Enhance Communication in the Home, School, & Community

Dallas Phelps
dallas.phelps@longwood.live.edu

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Developing Visual Supports for Individuals with Intellectual Disabilities who are Non-Verbal to Enhance Communication in the Home, School, & Community

Dallas Phelps
Longwood University

Introduction

This annotated bibliography features journal articles and books that support the ideals of using visual supports and picture exchange communication systems (PECS) to support communication in individuals of all ages who have autism spectrum disorder (ASD) or developmental disabilities. While there are sources that delve into other types of communication systems in comparison to PECS, it is evident in my findings that PECS remains supreme in regard to initiated conversation with both prompted and spontaneous communication by the individual using PECS. The sources also list out the importance of including teachers and communication partners during the implementation of PECS and other visual supports so that the individual is receiving consistent learning and communication styles in all environments. An article also supports the ideal that a child learning problem solving skills early on during elementary years will further strengthen social and communication skills in the future. There is a clear trend in that each listed source provides examples of types of visual supports and how those supports can be implemented specifically so that it is most beneficial to the student. For example, one source offers the benefits of tailoring the visual supports to the child’s needs, such as color and organization of the support, so that it is most effective to the child during the intended environment(s). Another source offers a description of the six phases that should occur when implementing a PECS communication book to successfully improve communication and support independence during communication. Also included is information regarding the effects that having autism spectrum disorder or developmental disabilities places on an individual when trying to acquire social and communication skills naturally. Because of the deficits that individuals with autism spectrum disorder and developmental disabilities in the areas of social and communication, additional strategies are required in order to teach those skills. Furthermore, there are also sources that describe those developmental challenges faced by individuals with autism spectrum disorder are also better understood when presented with visual reinforcement, rather than aural communication alone. Because of the increased comprehension gained by individuals with autism spectrum disorder when visuals are incorporated, the demand for visual supports is high. The demand can also be credited by the increase in individuals who have autism spectrum disorder over the past years. With that known, PECS was developed to support the demand and to also support communication independence, as stated prior. While there are no discrepancies listed below on the success of PECS after proper implementation, it is implied that without following the correct steps to implement it into an individual’s daily communication routine, the success indicated by the following sources may not be present. The sources listed highly encourage taking the student’s individual wants and needs into consideration before creating visual supports so that it is tailored to them and will better aid them during communication because it is unique. The general conclusion of all of the sources combined is that students with autism spectrum or who have developmental disabilities will benefit from visual supports for communication.


This journal article explains a brief overview of the Picture Exchange Communication System (PECS) and its effectiveness. PECS is a mode of communication that is popular amongst individuals with autism because it provides visual support. The article mentioned the increase in children and adults who present difficulties in
communication functionally with others. An example of non-functional communication would include an individual gesturing or reaching for a desired object, as well as using eye gaze to signify their desire for a particular object. Children and adults who have developmental disabilities may not properly develop the speech and language skills needed to communicate effectively with others. PECS was designed for such a need so that individuals who do struggle with the development of the basic speech and language skills can have a form of communication that can relay their wants and needs to others clearly. According to the article, in order for a child to use PECS they must be able clearly indicate their wants and needs using the pictures, as well as use discrimination when selecting a picture so that they are aware of their selection and can make their choice out of the multiple pictures provided. PECS will allow for individuals with developmental disabilities to become more independent during communication and rely less on their communication partner. The PECS method can be taught using six different phases that allow the individual to become familiar with the new style of communication. As a quick overview, those phases begin with first having a second communication partner integrate using pictures as prompts when pointing or gesturing toward a desired object. It will be the job of the communication partner to be behind the individual learning so that they have help and to also prompt the individual to use PECS to communicate which item they wish to have. This phase transitions into the second, that asks the communication partner to increase their distance from the learner, but still provide support when prompting the individual to use PECS to request a desired item. In this phase, the number of communication partners is to also increase, while introducing the individual to a communication book. The third phase increases the numbers of pictures for the child to discriminate and choose from to make a desired selection. This transitions into the fourth phase, where the communication partners show the individual how to create a sentence strip using the card “I want” followed by a picture of the item that the individual wants. The fifth phase is teaching the individual how to use the sentence strip in response to a communication partner asking them what they want. Lastly, the final phase rounds out the teaching method by teaching the student how to use their communication book and the sentence strip technique to answer other simple questions. Overall, this journal article found the PECS method to be effective for children and adults who have developmental disabilities. This article, like others, supports the PECS method and expanded on the topic by including its brief history and steps to integrate it into an individual’s daily communication routine.


This book explains the importance of implementing visual supports into the school setting for students with autism spectrum disorder (ASD) to enhance their learning and communication experiences, but can also be used with any student regardless of intellectual ability. Visual supports can be used in a variety of ways, but have been often seen to help explain instructions, allow students to understand expectations, and for the student to communicate thoughts and feelings. It reports that visual supports are highly effective for individuals with ASD, whether that be high functioning students or those who experience more severe impairments. It goes on to explain that students with ASD are visual learners, meaning they would have an increased difficulty with auditory learning. By using pictures and symbols on a visual support system, they will better be able to learn and later recall information. This is because students with ASD difficulty differentiating between different environmental sounds. For example, sounds that are relevant in the environment, such as the teacher speaking, may be shuffled in amongst songs that are irrelevant, such as the noise of a lawnmower outside of the school building. In order to find the most effective visual support for each student, determine which type would be most beneficial to the student’s success, including the types of pictures that should be used, if color coding is necessary, the size of the visual support, and where the visual support will be located. Similar to other journal articles and books surrounding the topic of visual supports, this book continues to advocate for the use of visual supports in the school and at home to enhance learning and communication for an individual with ASD.

This journal article focuses on the importance of children developing problem solving skills at a young age. The article mentions that having the skills to problem solve grants children the foundation on which to build other social competency skills. As mentioned in previous articles, individuals with ASD may experience deficits in social and behavioral skills. With situations that require problem solving occurring in practically every setting, supports are needed to help individuals with ASD to better acquire problem solving skills. Interventions, such as visual supports, will help those students to not only learn how to problem solve, but provide them with the confidence and the knowledge to use those skills on their own. The article mentions that this can children with ASD can attain those skills by participating in interventions that are facilitated by an adult and that provide clear, stepped instructions to help them to understand how to analyze a scenario and decide how they would problem solve. This type of instruction should include children’s literature and role-playing activities to involve the child on their cognitive level. Another type of visual support that has been found to provide a level of support for students with ASD learning problem solving techniques is providing direct instruction with corresponding pictures, such as on a poster. The visual supports help children with better understanding the concept of problem solving since individuals with ASD are visual learners. After participating in problem solving intervention, children with ASD will be able to apply the strategies they have learn so that they can recognize and assess a problem, as well as provide the best resolution to the problem. After they complete those tasks, the article says that they should be able to also be able to understand whether or not their chosen solution was successful or unsuccessful. This article argues that visual supports would be beneficial to helping children with ASD to learn problem solving skills, in agreement with other articles.


This journal article supports the use of visual supports for children with autism spectrum disorder (ASD) in the home, at school, and in the community. The article explains that ASD is a disorder that encompasses a wide variety of disabilities, including but not limited to disabilities to an individual’s communication and behavior. The rise of children with ASD in the recent years has warranted researchers new and innovative ways to help them to have additional resources to support their development in social and behavioral skills. The article poses a great a thought-provoking comparison between visual supports for children and visual supports for adults, which is that since adults use visual supports for daily routines (e.g., calendars,) children should have access to visual supports also. The article goes on to explain, similarly to other journal articles and books that support visual support the use of visual supports, that incorporating those supports for children with ASD could greatly benefit their learning and communication skills in and out of the classroom. When selecting visual supports, this article recommends considering what would be important to the child’s individual needs to ensure success. There are numerous types of visual supports out there; for example, visual schedules or scripts are two of many options that are available to children with ASD. The article continues by stating that in order for the child to have access to the correct type of visual support, the teacher or parent should take note of what types of visual cues (i.e., pictures, words, drawings, etc.) the child would most likely respond to in the visual support. By assessing which type of pictures to include, the child will most likely be able to make associations between the photo and the activity or object it represents. The article suggests either observing the child’s behavior while in their natural environments to gather information for visual supports, or involve the child when selecting the visuals that are going to be included on the visual supports. With that being said, the article argues that the environments surrounding the child (i.e., classroom, house, etc.) should also be modified to best suit the child’s learning style. Children with ASD are more likely to process information that includes visual supports more easily than others. This is due to children with ASD having increasing difficulty when processing, comprehending, and later recalling information that was provided through oral instruction. The article, like others on this topic, mentions that there has been greater success for students with ASD when their teachers incorporate visual supports as a part of their teaching method and has also shown to help the student with communication and social interactions as well.

This journal article explains how alternative communication, such as augmentative communication systems, can improve communication for children who communicate using nonverbal gestures or cues. While those systems can help students, this article argues that using such systems could ultimately cause some students to begin to rely more heavily on their communication partner to initiate conversation and to provide physical prompts. This article supports the ideal that the picture exchange communication system (PECS) would better benefit children with autism spectrum disorder (ASD) because of its design. It is structured to support independence in communication so that the individuals using PECS would not rely on their communication partner as much as compared to using an augmentative communication system that does rely on the communication partner for cueing. According to this article, PECS is designed to allow individuals to communicate their wants and needs with others by using the provided pictures. It also supports the ideal that communication is initiated by both communication partners, not just answering prompts, more accurately representing natural communication. PECS includes a variety of pictures that encapsulate the wants and needs of the individual. The article argues that by using PECS, individuals with ASD can communicate their wants and needs more spontaneously and without necessary cueing by the communication partner. This article provided a study where elementary-age participants in grades kindergarten and preschool were taught how to use PECS. Over the course of the study, it was shown that each student used PECS to communicate with communication partners during prompted and spontaneous incidents, thereby supporting PECS as an alternative mode of communication for children with ASD. This article is in agreement with other articles that PECS is an appropriate mode of communication for children with ASD.