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Maggie Bredlau

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FROM RAILWAYS TO RADIATORS: HOW SUPPORT TEAMS CAN USE SPECIAL INTERESTS TO PROMOTE SUCCESS AMONG INDIVIDUALS WITH AUTISM

Student Article by Maggie Bredlau

Abstract

Autism Spectrum Disorder (ASD) is currently being diagnosed at a rate of 1 in 68 children (Katz, Malow, & Reynolds, 2016). According to the DSM-V a diagnosis of autism carries with it two identifying characteristics: 1. consistent deficits in social communication and social interaction across more than one context; 2. restricted, repetitive interests that are evident through highly fixated odd interests. Children with autism can have difficulty finding ways to incorporate these highly-fixated interests into their daily lives. Research indicated that when individuals on the spectrum can incorporate their fixations into daily interactions and routines their self-esteem, social connections, career opportunities, independence, and quality of life drastically improve ("Students with Autism," 2016). The research methods that were used to discover this concept were scholarly articles, memoirs, educational websites, and textbooks. The focus of this article is to inform the reader about the many ways in which special interests can be used to increase positive experiences for individuals on the spectrum. By educating support teams (i.e. parents, special education teachers, general education teachers, counselors, and advocates) on how to incorporate an individual's special interests into daily routines and interactions, we are creating positive learning environments that will facilitate the individual's quality of life.

Introduction

Sometimes we are so captivated by something in life that we feel as if we could not survive without it in our lives. That is what the presence of special interests (SI) is like in the lives of individuals on the spectrum. Autism Spectrum Disorder (ASD) is a neurological disorder that impairs an individual's ability to communicate and interact with others. One of the diagnostic criteria for autism is the presence of limited interests

that manifest themselves in the form of highly restrictive or fixated interests (FI) that seem abnormal or unusual in intensity. Displays of this behavior can be noted when an individual only seems to be interested in mechanical objects like radiators, ceiling fans, or vacuums and becomes extremely agitated when those objects are not available. FIs are also referred to as special interests (SI), circumscribed interests (CI), or restricted interests (RI). In this article, they will be referred to as special interests (SI) because it allows the reader to have a more flexible view.

Since SI are a fundamental part of autism, the child's support team needs to embrace an individual's SI instead of trying to change their interests to what society feels is more acceptable. Attempting to diminish the value or reduce the presence of an SI in the life of individuals on the spectrum is equivalent to diminishing or reducing a neurotypical person's ability to partake in a favorite hobby or relaxing activity. By accepting and embracing individual's SI support teams can begin to develop therapeutic and educational programs that utilize those SI. This article addresses four areas social connections, academics, adulthood, and quality of life that appear to be most affected by individual's SI and ways in which support teams can use individual's SI to increase the child's success.

Socialization

The idea of socialization is difficult for a child on the spectrum to grasp and even more difficult for them to engage. When children on the spectrum are attempting to socialize, they tend to encompass their interactions around their special interests. This tendency creates narrow opportunities for them to engage in meaningful peer interactions and be a part of routines in classrooms and the community (Jung & Sainato, 2015). Research indicated that if individuals on the spectrum do not have a systematic social intervention, they will not engage in peer interactions which leads to a lack of meaningful friendships and loneliness (Koegel, Kim, Koegel, Schwaetzman, 2013).

Due to the influx of autism diagnosis, support teams are desperately trying to implement interventions that target socialization for individuals on the spectrum. By incorporating individual special interests into social interactions, researchers have discovered an immediate and often dramatic increase in the engagement of social interactions among individuals on the spectrum (Koegel et al., 2013). Current studies that addressed increasing socialization through special interests include the Power Card Strategy and video modeling.

The Power Card Strategy is similar to a social story because it involves the use of a script along with images that depict special interests and is highly visual (Jung & Sainato, 2015). The first part of the strategy involves the personalized script that is read before the interaction is to occur (Spencer, Simpson, Day, & Buster, 2008). The script contains language that is at the child's level and is focused on the special interests, contains images of interests, and the scenario about how to incorporate the interests into social interactions and a note of encouragement for the child. The Power Card is a small portable card that emulates the script, and the child can reference it when he or

she needs assistance in social situations (Spencer et al., 2008). Researchers found that when the Power Card strategy was implemented, students tended to engage in social interactions more frequently and for a longer duration. One student before the implementation of the Power Card would hide under a tree during recess while covering his eyes because he did not want to be seen. After a 10 day implementation of the Power Card that included lines from his favorite movie Cars, the boy was spending up to eight minutes actively socializing with his peers on the playground. He was seen going down the slide and climbing on the playground. He was also observed, listening to others talk without running away which had been his previous response (Spencer et al., 2008). It was also noted that the Power Card strategy created higher rates of generalization and maintenance amongst the individuals who used the strategy. This research is encouraging for families because they can use the Power Card Strategy in the home for a variety of activities like holidays, birthday parties, and even family night (Spencer et al., 2008).

Video modeling is a remarkable tool that is gaining popularity amongst the autism spectrum world. Currently, it has been used to encourage students on the spectrum how to engage in appropriate behaviors, follow routines, and other functional tasks. A study conducted on three elementary aged children used video modeling that contained the participant's special interests was used to increase their ability to interact with others. It was specifically noted that the children's interaction with others increased during circle and center time. The individual special interests were Mickey Mouse and Disney Princesses. Using an iPad the teachers recorded two other teachers who dressed up and pretended to be Micky Mouse play a game step-by-step. The same recording was done for two females who dressed up like princesses, both from the perspective of the child. The models demonstrated how to play the game including how to take turns, talk about relevant parts of the game, and give compliments (Jung & Sainato, 2015). After the implementation of the video modeling over a designated period, the children were noted to have increased in verbal and nonverbal interactions going from an average of 5% engagement to nearly 65% average engagement (Jung & Sainato, 2015, p. 206). The children continued to show the same elevated socialization skills one month after the intervention in both verbal and nonverbal social engagements with others. This data showed that using video modeling, which incorporates special interests, students can achieve dramatically increased levels of socialization that will be maintained over time (Jung & Sainato, 2015).

In the book, *Uniquely Human* by Prizant, special interests are called enthusiasm that should be used to expand and improve a child's life (Prizant & Fields-Meyer, 2016). He talks about a boy who had an enthusiasm for the cars in the school parking lot. Instead of dismissing this his enthusiasm for something obsolete, the teacher decided to use it to get the boy to interact with the drivers of those cars. Once the student matched the teacher to the car, he conducted an interview with the teachers asking them questions to get to know them better (Prizant & Fields-Meyer, 2016). At the end of the interviewing process, the boy created a PowerPoint that he presented to his class which created an opportunity for him to interact with his peers using his special interests. The student's parents were amazed at the social and academic accomplishments that their

son was making, simply because the teacher took the time to understand her student's special interests (Prizant & Fields-Meyer, 2016).

There is a great deal more research that needs to be done in socialization and special interests, but what we can see from current research is light. Right now, the light may be faint but it will continue to grow and become brighter as the research evolves showing us more ways to use special interests as a pathway in to the beautiful minds of those on the spectrum.

Academics

Researchers indicated that during the earliest years of education, preschool and elementary, individual's special interests play a huge role in the development of self-guided learning and group learning (Klin, Danovitch, Merz, Volkmar, 2007). Academics play a significant role in shaping individuals lives by setting the course for future academics, teaching learning strategies, and developing independence. If those interests are ignored instead of being nurtured, students may get lost in the everyday academic routines. It is imperative that teachers, who are a valuable part of the support team, create a learning environment that nurtures each student's individual's needs. Present day classrooms, whether special education or regular education classes, have one underlying problem: they lack a positive learning philosophy. This view enables all learners to reach their full potential by shaping the academic content around student's individual interests and using those interest as a pathway to other academic learning (Armstrong, 2012).

Instead of looking at special interests as a distraction or obstacle that needs removing, we should harness those interests using them as a pathway for learning. In the book, *The Spark*, a mother did just that with her son who showed an intense, consuming interest in astronomy, and math (Barnett, 2013). He was limited in communication, but she would often find him engrossed in astronomy books when most kids his age were reading Elmo. One day she took him to the local planetarium, and she saw him come to life describing and naming the images he saw in the planetarium (Barnett, 2013). She nurtured her son's interests, understanding that the best way for him to succeed was to create a learning environment that he could thrive. The mom took her son's interest in astronomy and built on it by introducing him to the many other facets of astronomy. He discovered a niche for math and even developed an original theory that some feel may win him a Nobel Peace Prize in the future (Barnett, 2014).

One of the main reasons teachers need to be aware of their student's special interests is because they are one of the main components of any student's support team. Teachers typically spend several hours a day with students, which is more than some spend with their families. Teachers can accomplish the same greatness that the mother in *The Spark* did when they discover those interests, harness them, and then build on those interests. In that sense, it is vital that teachers become proactive trailblazers for the utilization of special interests instead of continually focusing on their

disabilities. If all our students ever experience is learning that is based on their negatives, then their potential in life will be severely compromised (Armstrong, 2014).

In the creation of a positive learning environment, we are taking the best parts of special education classroom, regular classroom, and the interests of the students, and creating the ideal environment for academic success (Armstrong, 2012). Teachers, as part of the support team, need to educate themselves about the strengths that their students possess to mold the learning environment into one that ensures student success (Armstrong, 2012). According to Klin et al. (2007), special interests are typically expressed through verbal memorization which can be a valuable tool in the classroom. Teachers can take that skill and expand on it by creating activities that utilize verbal learning and verbal assessment (Klin et al., 2007).

Special interests are just that, special and so are students. Using their special interests to enhance their learning will benefit educators and students' lives. Their interests are what make them unique: individual humans deserving nothing but the best that their support teams can offer. Yes, it can be overwhelming, and sometimes we may just want to have a moment that does not involve spiders or ceiling fans, but that is not reality when dealing with individuals on the spectrum. When we learn to create academic environments that encourage those interests, everyone benefits, especially the students.

Adulthood

Adulthood poses several obstacles for individuals on the spectrum and their potential caregivers. By incorporating their special interests into this new and often complex stage of life, individuals on the spectrum will have unlimited possibilities including employment, relationships, housing, and an overall sense of independence. During adulthood, there seems to be a shift in how individuals use their preferred interests. Adults still engage in their preferred interest at an increased level, but they are found to use those interests at a higher rate to engage others in conversation, develop relationships, and find careers (Koenig & Williams, 2017).

In a recent survey of adults on the spectrum, they stated that they see their preferred interests as a "lifeline" and that professionals should support these interests since many the jobs they have to encompass their preferred interest (Koenig & Williams, 2017, p 7). The support of interest by employers is necessary because current employment rates and the longevity of those jobs are unfortunate (Koenig & Williams, 2017). Individuals on the spectrum also seem to have the lowest rates of post high school job employment with the average at only 55% (Kirchner & Dziobek, 2014, p. 78). Temple Grandin (2015) is one of the most well-known individuals with autism spectrum disorder who has successfully channeled her preferred interest of cattle into a career. Her obsessive interest in cattle and the manner in which slaughtering occurs has revolutionized the cattle industry. Grandin continues to use her preferred interests to create and consult others on humane cattle organization and slaughtering methods.

Every human being, regardless if he or she is on the spectrum, wants and deserves to be involved in meaningful and emotionally connected relationships. Suskind, author of *Life Animated*, had a son Owen, who was diagnosed at the age of two with autism, could form several such relationships through his special interests. One relationship was formed at college in a Disney Club that Owen formed based on his obsession with all things Disney. His club was a raging success that allowed like minds to come in and discuss their similar love of Disney. As a mature young man in college, Owen was drawn to a girl attending his club by the name of Emily. They struck up a conversation at one of the club meetings, and that relationship has maintained for several years and continues to grow thanks to their similarities in special interests (Suskind, 2016).

Being able to live independently is a main component of adulthood and individuals on the spectrum may require different accommodations. Those accommodations were explored by the Housing Design for Adults with Autism. The study researched the concept of how people-centered housing developments impacted individual on the spectrum (Lowe, Gaudion, Mcginley, & Kew, 2014). The results indicated that when individuals on the spectrum can live in an environment that catered to their special interest, their quality of life increased dramatically. Often, individuals' special interests as a child could be seen as a hindrance ("Students with Autism," 2016), but this study shows that those interests when harnessed can make living independently a more successful experience. When adults on the spectrum can live in an environment that has taken into consideration their special interests, it can increase motivation, confidence, and ownership. These are just a few of the key components of adulthood that all individuals should be able to access (Lowe et al., 2014).

Nearly 50 years ago, Hans Asperger stated, "Able autistic individuals can rise to eminent positions and perform with such outstanding success...their narrowness and single-mindedness, as manifested in their special interests, can be immensely valuable and can lead to outstanding achievements in their chosen areas" (as cited in "Students with Autism," 2016, p. 3). This quote is a testament of the potential that those on the spectrum have in adulthood. It is limitless.

Quality of Life

What is life if it has no purpose, drive, or meaning? Everyone, regardless of ability, deserves to live a life full of purpose and meaning. For those on the spectrum, this can sometimes be an oversight by outsiders, but the quality of life is equally if not more important for those on the spectrum. Special interests provide an elevated opportunity for individuals to experience the best quality of life. Instead of assuming we know what they need and placing them in a situation that may not be conducive to their wants and desires, we can use their special interests to facilitate the most productive meaningful life that is possible. The quality of life for those on the spectrum can be hindered when they are experiencing extreme levels of anxiety or stress, feel discouraged, or like they are not valued. By incorporating their special interests into their daily lives, anxiety can be reduced, greatness encouraged, and they can become empowered.

Anxiety is one of the most common co-morbid diagnosis associated with autism. Individuals with ASD have been found nearly at 30% increased likelihood to develop anxiety versus the general population (Koegel et al., 2013, p. 2122). Higher rates of anxiety in individuals with autism can reduce when special interests are implemented. Situations that can be particularly anxiety-inducing for individuals on the spectrum are new or different situations, changes in scheduling, or environment and social encounters.

If a child is having a hard time dealing with social situations like the lunchroom, bus, or parties, incorporating their special interests can be very effective in reducing their anxiety. For example, Mason became very anxious when he encountered an environment that was loud or chaotic. Typically he would simply avoid these areas or not interact with others if forced to find himself in said situation. Mason's special interest was cockroaches, so his teacher gave him a plastic cockroach with the phrase "I will survive" written on it. The teacher discussed with Mason how cockroaches have a remarkable ability to survive virtually any situation no matter how frightening. Mason carried the plastic cockroach in his pocket to continually remind him that he can survive, his anxiety almost instantaneously disappeared (Kluth & Schwarz, 2012).

Reaching greatness is a matter of perspective and for individuals on the spectrum reaching greatness can be drastically different from a neurotypical person's idea of greatness. Special interests can be the pathway for individuals on the spectrum to reach greatness and incredible achievements. By encouraging individuals on the spectrum to build on, mold, and engage in their special interests we are in turn allowing them to construct that road to possible greatness. Take, for example, greatness to someone who is obsessed with, hoarding things may define his or her greatness as the ability to keep items like broken pencils and old coins. On the other hand there may be an individual who is obsessed with all things Disney and has a gift for drawing (Suskind, 2016). Their idea of greatness may involve working as an artist whose creations become part of the Disney legacy. After all, the majority of the "greats" that have been accomplished, whether it is buildings, sports, or discoveries, required someone to be persistent and perseverant (Kluth & Schwarz, 2012).

Creating an environment that fosters quality of life is essential for all human beings. Those on the spectrum may have different ideas and ways to reach that status that we refer to as quality of life, but that does not mean it is not just as valuable or meaningful.

Conclusion

This article demonstrated how SI can be used by support teams in four areas (social connections, academics, adulthood, and quality of life) to promote success for individuals on the spectrum. As previously stated, SI is a main characteristic of autism and is not going to disappear. Just as each individual on the spectrum is unique, so are their SI. The use of SI can be easily implemented in virtually any setting making it an invaluable resource and tool. Researchers continue to study how support teams can

embrace SI and how as a society how we can begin to incorporate those same ideals and find a place for SI in the community. Future research may begin to include more businesses, schools, and living communities that incorporate individuals' SI.

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