

Preparing Employers and Employees With Autism Spectrum Disorders for 21st Century Jobs

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Abstract: The global workplace has become increasingly diverse and inclusive. Students with Autism Spectrum Disorders (ASD) have social communication impairments that may prevent them from finding fulfilling employment. Simultaneously, students with ASD have unique attributes that employers could find attractive and beneficial in achieving corporate goals. Schools have an opportunity to prepare students with ASD to be career ready. A course of study that includes explicit teaching about workplace behaviors, social communication skills, and other career skills has helped prepare students for their careers. A survey conducted by a college in the northeastern United States has examined a program, known as the Employment Readiness Experience (ERE), which has proven to help students develop the skills they need to use their unique abilities to become contributing members of society. The ERE program includes direct instruction, cooperative learning, computer-based skills development, and part-time employment with specifically chosen employers to develop students' career preparedness. Completing a program like the ERE can provide employers with workers who are ready to become strong contributors and embrace the diversity in the world.

Key words: Autism Spectrum Disorders, ASD, employment, career preparation, cooperative learning inclusion, diversity

1. Introduction

The concept that neural differences are part of the human genome and are a natural part of the human population is not news. Researchers have found that as many as 1 in 5 college students are neurodivergent and may need accommodations to succeed in their educational journey (National Center for Learning Disabilities [NCLD], 2017). Educating neurodivergent college students, especially those with Autism Spectrum Disorders (ASD), is challenging because no two students are alike in their needs. According to the Centers for Disease Control (CDC), 1 in 54 people have a diagnosis of ASD (Maenner, Shaw & Baio et al., 2020). Although the diagnosis for most people in Maenner et al.'s study involved children, ASD is a neuropsychiatric condition that will persist throughout a person's life, affecting collegiate studies and their career. According to the College Autism Network (2018), half of the people with ASD experienced interruptions in postsecondary schooling and employment. "Many individuals on the autism spectrum have the capabilities businesses need, and with an under- or unemployment rate nearing 80%, they can become a key part of the solution" (Annabi et al., 2019, p. 4).

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Preparing students with ASD to become employable is imperative, not only because of the often-hidden strengths that exist but also to allow these people to contribute their unique talents to society.

2. The Workplace and Employees With ASD

ASD manifests commonly as a social communication impairment, and as such, is often a hidden disability. ASD may appear in employees as difficulties with interpersonal communication, a lack of understanding of nonverbal communication, or unexpected responses to external stimuli such as light, sound, or touch. A person with ASD may present as a persona with poor communication skills and poor understanding of interpersonal dynamics (VanBergeijk, Klin & Volkmar, 2008). Visible aspects of ASD may include unexpected hand gestures (called flapping), rocking, vocalizations, or pacing. The noticeable elements of ASD are often self-soothing behaviors, which means that they are working to self-regulate their discomfort, often unconsciously (Mazefsky, Herrington & Siegel et al., 2013). These social deficits, visible or invisible, may manifest as socially obnoxious or otherwise less-acceptable behaviors that may displease employers and colleagues, even if the person is otherwise qualified to do the work. However, people with ASD have hidden skills that may be unrecognized because of the pervasive prejudice against people who do not fit the typical employee stereotype.

Kwon (2019) noted that work environments have become more complex than ever before as innovative technologies and increasing uncertainty manifest in businesses of all types and all industries. The workplace has become more social and less programmed than ever before. According to Baron-Cohen (1991), a person with ASD could have deficits in joint attention, which pertains to multiple people paying attention to the same thing simultaneously. In the workplace, this joint attention deficit could lead to challenges stemming from the employee's recognition of the relationship between people and content and a potential deficit in professional communication's reciprocity. Jacob, Scott, Falkmer, and Falkmer (2015) commented that an employee with ASD could experience more workplace challenges, especially when experience changes needed to achieve or maintain a competitive advantage because of inherent deficits in joint attention and relational reciprocity. In the modern workforce, organizational inclusion and diversity are vital in cultivating and supporting talent (Friedman, 2020). Employees with ASD are part of a drive for inclusiveness that employers need to develop innovative solutions for their challenges.

3.Preparing Students With ASD for 21st Century Employment

The process of educating a student does not end when they exit college — or any school, for that matter. Like anyone else, they continue to learn about their world and themselves. For people with ASD, they may not know where or that their social deficits exist. Similarly, students with ASD may not be aware of the unique gifts they bring to the workplace. People with ASD often have the following attributes that make them particularly attractive candidates (Nelson & Coplan, 2019):

- Deep passions, interests, and skills in a specific area
- Honesty and loyalty
- Strong detail orientation
- Preference for repetitive or highly structured tasks
- Punctuality
- Strong visual thinking, logical, and pattern identification abilities

People with ASD could be top employees if they have jobs that work with their strengths. Education plays a significant role in preparing students for employment by supporting learners' development of valuable workplace skills (Giannakaki, McMillan & Karamikas, 2018). Collegiate studies allow students with ASD to focus on and develop their innate talents into practical workplace skills.

Lombardi, Izzo, Gelbar et al. (2017) noted that students with ASD need added college support to prepare them for careers. These supports include enhanced technological skills, social skills development, and critical thinking skills. Therefore, students with ASD need more than the collegiate learning involved in reaching a degree. They need more supports to make them workplace ready, specifically explicit instruction in workplace behaviors, self-advocacy ability, and social communication skills.

4. Participant Study and Relevant Data

A study conducted from 2017–2020 at a tertiary school in the northeastern United States involved offering a collegiate course during which students spend classroom time discussing employment situations that commonly challenge people with ASD. Later the same day, the student worked at a specially chosen on-campus, paying job with a supervisor trained to observe, guide, evaluate the student's work, and then report this evaluation to the professor. The course's purpose has been to offer explicit teaching about common social behaviors and techniques for managing challenging workplace situations such as stress, interpersonal conflict, and professional development. This course has proven to improve the students' work experiences by using feedback from the employer, the professor, and the student's reflections about daily learning and successes and challenges in their daily work.

Work experiences for students in the course have included entry-level work in the following:

- Office administrative roles such as filing, supply tracking, and inventory
- Video creation in conjunction with the college's research department
- Database creation and maintenance with the college's marketing and communications department
- Administrative tasks with the college's health service department
- Image and marketing projects with the college's office of student activities and the office of internships and career placement

Students were placed in roles according to their indicated interests, aptitudes, and matches with supervisors. Students for the course interviewed with potential supervisors to decide job fit and to practice interviewing skills.

In the data gathered between 2017–2020, the following information emerged. Table 1 has demographic data about student participation in the course.

Table 1 Participant Data

Number of participants	42
Number of graduates who had taken the course.	16
Category of degrees of the graduates:	
Bachelor of Arts (B.A.)	5
Associate of Arts (A.A.)	9
Associate of Science (A.S.)	2
Percent of participants continuing with an internship or employment after taking the course	50%

Participants in the course engaged in guided discussions about their work experiences each day and reflected on both positive and challenging experiences. Another essential piece of curriculum used was an internet-based resource called “Am I Job Ready?” (PSI Services, 2020). This resource had 16 modules with vignettes, questions, and specific guidance about common job-related issues such as decision-making, teamwork, conflict resolution, and other workplace-specific topics. Students reflected daily on their work experiences in a document shared by the student, the employer, the professor, and the director of careers and internships at the college. The combination of learning, reflection, work at a paid on-campus job, and communication among the relevant personnel led to robust discussions about employment challenges for people with ASD and a chance for skill improvement. Students in the course completed an exit survey during the 2018–2019 classes. Table 2 has information captured in an exit survey in which the students self-identified their skill development due to taking the course.

Table 2 Improvement Based on Work Completed During the Course

Number of participants who completed the survey	27
Skills Assessment — self-reporting some or substantial improvement in the following areas:	
Managing stress in work situations	69%
Working in a team	53%
Problem Solving	80%
Interpersonal communication	79%
Planning and organizing work	80%

5. Discussion

This program, known as the Employment Readiness Experience (ERE) at the college, has offered students the opportunity to gain necessary job experience paired with explicit instruction and discussion about workplace challenges. Of the students who completed the program, 86% have responded that they agree or strongly agree that the ERE program made them feel better prepared to enter the job market. Similarly, 57% of students who have completed the ERE reported that the “Am I Job Ready” Strengths Assessment (a part of the computer program) helped them better understand themselves as employees. The two following case studies highlight two student’s experiences following the program.

5.1 Case study 1

Student A completed the program, graduated from the college, and performed an on-campus internship at Landmark College’s research center. In 2018, he joined SAP’s Neurodiversity Institute Summer Program. In 2019, he completed a credit-bearing paid internship at Prudential and returned for continued employment at Prudential in summer 2020.

5.2 Case Study 2

Student B completed the program and enrolled in an on-campus internship. Upon completing his bachelor's degree, he secured employment with a local food processing corporation doing production work and later secured a more responsible position.

The ERE program has grown from a single offering in January 2017 to sessions offered semiannually as of 2019. Class sizes include ten or fewer students to promote individualized instruction and camaraderie among the students in each cohort. Students have the daily opportunity to reflect on the previous workday’s experiences and

engage in cooperative learning with their peers and instructor to strategize about handling workplace challenges.

The ERE program met challenges. The college's challenges in running this program for students with ASD have been finding supervisors who are willing to offer students the guidance they need to succeed at their worksites. Additionally, students sometimes do not have career-ready skills, such as understanding nuances about confidentiality and social behaviors, including bodily hygiene. However, the students have reflected that it was better to make the mistakes in a school setting than in real-world employment.

6. Actions Employers Could Take Now

In the evolving culture of inclusivity in the workplace, hiring diverse employees is gaining momentum. Employers such as Microsoft, Ernst & Young, SAP, and many others are starting to realize the benefits of neurodiversity as another avenue in which they may find exceptional employees. "The business case for diversity has highlighted the importance of 'diversity of thought' – get people with different perspectives, backgrounds, and experiences in a room, and your team will be more innovative and creative" (Chartered Institute of Personnel and Development [CIPD], 2018, p. 4). During this time of significant social change, employers who use neurodiversity are beginning to realize the value that employees with ASD may bring. The question becomes one of how to prepare college students with ASD for employment.

Employers have a unique opportunity to hire a person with ASD because of the innate skills and strengths that these people have. The employer must take care to select and screen these people, as they likely do with other employees, to ensure that they choose the right candidate for a job. Suggestions for current and potential employees include the following:

- Share the interview questions with the prospective employee before the interview. This promotes a level of predictability that allows a person with ASD to prepare answers appropriately.
- Provide meeting topics in advance to allow employees with ASD to know what to expect. Doing so will reduce employees' anxiety about potential ambiguity that commonly exists during workplace meetings.
- Please collaborate with the employee to develop a list of tasks that they should complete and explicit directions for multi-step tasks. This allows the employee with ASD to have the facts they need to conduct their assignments.
- Allow employees to have items, such as noise-canceling headphones, to allow them to remove sensory distractions. This will mitigate anxiety about the sensory issues people with ASD may experience.
- Supply explicit written directions about tasks. This practice removes ambiguity for everyone involved and avoids miscommunication. If ambiguity in an assignment is inevitable, then address that fact to prepare the employee.
- Be aware that employees with ASD may need a coach for social and emotional intelligence in the workplace. This coach could offer direction and guidance to help the employee succeed.
- When providing feedback to the employee with ASD, be direct and fact-based. This approach will appeal to the employee with ASD because of the common preference for factual, honest explanations.

By practicing these suggested behaviors, employers promote inclusion and social justice in an increasingly neurodivergent world, creating opportunities that help the business and its stakeholders. For 21st-century employers, the challenge is to include talent, whatever form it takes, and dispel antiquated notions of "normal" because neurodivergence is now the standard. Rising to this challenge is not simply good business. It is the new

best practice that helps all people involved.

7. Conclusion

Preparing students with ASD to use their unique skills in fulfilling employment has increased in importance as employers strive to create inclusive, diverse workplaces. In running this multi-year study, the school validated what researchers have found about preparing people with ASD for employment: They need explicit guidance, an opportunity to develop their skills, and the chance to build their social communication abilities. Given that 20% of college students have ASD, offering specifically designed courses to these students has become imperative to promote inclusive, diverse workplaces. Schools should implement and deliver an employment-preparation system so that all students have the chance to contribute their unique skills to an increasingly diverse workforce.

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