DISSERTATION


CASE STUDY OF PERFORMANCE MANAGEMENT TECHNIQUES:

VOICES OF MANAGERS AND EMPLOYEES



Submitted by

Sara R. Colorosa

School of Education



In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2016


Doctoral Committee:

       Advisor: Carole J. Makela

       Gene Gloeckner
       Pamela Dixon
       Temple Grandin

ABSTRACT

CASE STUDY OF PERFORMANCE MANAGEMENT TECHNIQUES:

VOICES OF MANAGERS AND EMPLOYEES

This study used a case study design to identify performance management techniques that are useful when managing a diverse workplace, specifically when working with adults on the Autism Spectrum (AS). The case study provided employees and managers the opportunity to share their experiences and the information gained was used to inform others who seek career options that align with their skills, abilities, and interests.

A historical literature review about the Autism Spectrum was conducted to identify what additional information is needed about the implications for having those on the AS in the workplace. In the literature, authors state that managers should familiarize themselves with how employees on the AS think, as well as their behaviors, communication styles, and overall needs so that they can be supported. The literature review exhibited how the frequency of children being identified on the AS is changing. The AS styles of learning were explored and the primary preferred styles of learning were identified to help inform managers who may be working with employees on the Spectrum.

In the field of Human Resource Development (HRD), performance management is used to address learning and overall employee performance. The literature review included three models to inform the purpose and foundation of this study. These models demonstrate how employees directly impact organizational performance and success. Managers should identify employee performance problems and solutions as related to job design, rewards, expectations, and links to organizational goals. This can be accomplished through a performance management technique known as feedback. Feedback can be provided through formal evaluations and

appraisals and day-to-day interactions. Through the use of feedback, managers and employees can ensure that their expectations are in sync and identify training needs. It is critical that managers provide specific feedback about employee job expectations and performance outcomes so employees can learn and clearly understand what is being communicated. Additionally, as the literature states, managers should be aware of their employees' diverse communication and learning styles to ensure information is shared appropriately.

A case study analyzed Blue Star Recyclers (BSR), a company that recycles electronics while providing employment for individuals with disabilities (including Autism) while investigating performance management techniques useful when managing a diverse workplace. Interviews, observations, and documents were reviewed to gain insight into BSR management practices and how they affect BSR Management and Techs (employees).

Structured and semi-structured interviews were conducted with Managers (n = 6) and Techs (n = 4). Interview responses were transcribed and participants were allowed the opportunity to review them and provide feedback. Observational data were collected about the interactions between the Techs and Management to determine how they communicated with each other, as well as behaviors of their employees, and workplace environment. Documents were reviewed to gain information about business practices related to the employee application process, job descriptions, business models, and historical information about BSR.

Using a thematic analysis, interviews, observations, and documents were studied in Nvivo for recruiting, on-boarding (first day orientation), communication, feedback, nature of work, performance standards, and success as related to the research questions. The findings were derived from the Managers' focus on goals and metrics established by the organization, not on behaviors of the Techs. These goals and metrics are established to ensure job creation,

organizational success, employee retention, and management of employee performance. BSR uses nontraditional interviews, such as tours, to assess and match the skills of individuals to a job. When working with individuals with diverse styles of learning, BSR knows that they must train Techs over a longer period of time, up to thirty days. BSR monitors performance through daily goals that may indicate performance issues of individual Techs and the need for additional assistance. Managers and Techs both stated they have fun at BSR, while focusing on organizational and individual goals. BSR has created an environment that empowers individuals at all levels to be successful and perform to their strengths, thus meeting the mission of the organization.

ACKNOWLEDGMENTS

DEDICATION

To anyone who thought they could not make a difference. You have talents to share with the

world; be the one who makes the difference for others.

TABLE OF CONTENTS

# LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

My passion as a human resources professional is to work with individuals and teams to better understand what skills they bring to an organization that help the individual, team, and organization succeed. One of the things I enjoy most about my current job is that I have the opportunity to help employees discover their passions and match them with career opportunities. My strong interest in learning more about managing job performance and people is the focus of my academic studies.

In the spring of 2011, I was asked to recruit volunteers and seasonal employees for the Colorado State Forest Service at a community college career fair. The event attracted enthusiastic young people who stopped by my table to learn about outdoor activities that would give them experience in natural resources. Two individuals came to my table looking for summer internship opportunities. During our conversation, I learned that one of the individuals was coaching the other, who was a student, on finding jobs, volunteer positions, and internships. During our discussion, I learned that the "coach" was assisting the student with communication, resume preparation and homework. The coach handed me a card with the student's contact information. The card explained that the student was autistic and friendly, thus sometimes not behaving or communicating appropriately. This student is one example of the diversity found in the changing workplace and demonstrates the importance of possessing knowledge about how an individual's social and job skills can help when discussing work-related topics.

While attending Colorado State University, I was exposed to Dr. Temple Grandin's work in Animal Sciences and how she lived her life with Autism. In the fall of 2009, I heard Dr. Grandin speak online about Autism and her theory of how the mind works. During her lecture, she mentioned the need to assist employees with Autism to better utilize their skills in the

workplace. Her declaration sounded like the perfect dissertation topic–to better understand performance management specifically pertaining to employees with Autism.

As a first step in this process, I began searching for organizations that employ individuals on the Autism Spectrum and found Blue Star Recyclers. Blue Star Recyclers (BSR) recycles discarded electronics, while employing individuals with Autism and other disabilities. BSR is committed to increasing the number of employees with autism and other disabilities who works in the recycling industry. Currently, individuals with autism and other disabilities perform fewer than 5% of the 500,000 recycling jobs in the country (Blue Star Recyclers, 2014). In 2014 BSR employed 38 adults with Autism and other disabilities for minimum wage jobs (Blue Star Recyclers, 2015a). According to a news story, BSR "boasts zero-employee turnover, zero-employee absenteeism, zero lost-time accidents, and 97 percent 'on-the-clock' work task engagement since they began in 2008" (Sommariva, 2015).

### Purpose of the Study

Managers need greater awareness of employees' individual needs for communication, interpersonal communication, and social skills, especially in environments such as the workplace. The purpose of this study is to identify performance management techniques that are useful when managing employees in a diverse workplace. This study will examine how BSR employs and manages individuals on the Autism Spectrum. Findings of this study will inform managers about performance management techniques they can use in a diverse workplace. Findings may also be useful to employees who are seeking career options that align with their skills, abilities, and interests.

The primary audience is managers and co-workers who may be working with individuals on the Autism Spectrum. As the composition of the workplace changes and becomes more

diverse, managers and co-workers need to understand how to help reduce obstacles and effectively manage performance to increase employee success.

## Research Questions

Grandin (2008) stated that people on the Autism Spectrum can get jobs, but often have difficulty keeping them. She suggests that individuals on the Spectrum should understand workplace dynamics, social/office etiquette, and office politics (2008). Grandin referenced two organizations that have created successful work environments in which individuals on the Spectrum can be successful in their careers and the business benefits from the individuals' "brilliant mind" (2008, pp. 238-239). According to Grandin, the Speacialisterne Corporation and AS-IT in Lincolnshire, England are organizations that have placed individuals on the Spectrum into positions where they are successful. These organizations have increased management's awareness of the Autism Spectrum in order to decrease "misunderstandings when social situations develop that might have previously resulted in an AS [Autism Spectrum] individual being fired" (2008, p. 238). Grandin observed two reasons that AS employees are fired: 1) a new or "unsympathetic boss" and 2) the AS employee was promoted to a job where the social skills and social interaction did not match the individual's abilities (2008, p. 238).

The use of a case study research design of BSR is one way to explore Grandin's observation. This qualitative approach was used to address the following research questions (RQ):

> RQ 1: Why are Blue Star Recyclers' Techs (employees) staying employed?
>
> RQ 2: What on-boarding (first-day orientation) and training practices are used for the Techs?
>
> RQ 3: How does Blue Star Recyclers manage performance?

RQ 4: How does management define success?

RQ 5: How do Techs define success at work?

RQ 6: What can Managers learn from Blue Star Recyclers' experiences?

## Study Settings

This study was conducted at BSR where employees, called Techs, who are on the Autism Spectrum, and Managers were interviewed. This study provides a brief overview, history, and description of associated styles of learning of those on the Autism Spectrum, and explores performance management history and techniques of BSR. This information is being used to create awareness about the workforce in order to manage performance within a diverse workplace. This study was conducted from the perspective of Human Resource Development, not from a biological, psychological, or physiological perspective about the Autism Spectrum, nor the diagnoses or treatment for the disorder.

## Assumptions

Grandin (2008) stated there is a need for employees on the Autism Spectrum to better understand workforce dynamics, and managers need to understand the diversity of employees' social skills and the work culture. My assumption is that managers are able to determine the individuality of their employees. Managers may not be aware of the diversity of individual employees' social skills; however, by communicating, observing, and asking what type of environment they work in most effectively, managers can better determine employees' needs.

Based on the research presented by Grandin (2008), many individuals on the Autism Spectrum are currently employed and working. These individuals are able to navigate the workplace with their co-workers and meet the demands of their job duties. These individuals

have developed compensatory actions and behaviors for their social skills by determining what accommodations are useful in the workplace.

Another assumption is that employees understand work culture. They are aware of the various social interactions they encounter on a regular basis and are able to communicate their needs to a manager. Managers and organizations may not fully recognize the potential that exists for more individuals on the Autism Spectrum to be employed. Managers should recognize the individual needs of employees to tailor job responsibilities and create an environment in which each employee can thrive. Just as managers need to advance employees who have demonstrated strong performance, it is assumed that employees can accept or reject new duties based on their needs and abilities, not solely on the needs of the organization. Managers should recognize and accept that their workforce is diverse and that people react differently to new opportunities.

It is my assumption that BSR offers training or group problem-solving on how to properly disassemble and recycle equipment. The process in which this occurs was explored and analyzed through this case study.

## Conceptual Framework

Little research has been done with adults who are on the Autism and Asperger's Spectrum. Additional research has been recommended to learn more about adults in the workplace who are on the Autism Spectrum (Grandin, 2008; Muller, Schuler, Burton & Yates, 2003; Schall, 2010; Wolf, Brown & Bork, 2009). For example, many books, articles, and resources have been published for children on the Autism Spectrum, as well as their parents and teachers. Many school systems and communities have various programs that help children engage in their environment. However, if students choose to obtain a postsecondary education, they must seek out and advocate for resources to assist with their learning. After high school, few

resources exist for high functioning young adults with Autism Spectrum Disorders. Wolf et al.

(2009) found,

> the matter of successful employment after graduation is typically not addressed in much depth, if at all, by DS [Disability Service Professionals] staff. … As a consequence, these students frequently encounter painful rejection after rejection from large numbers of job interviews. If they are to be hired, many face a troubled relationship with their employers (p. 175).

As the literature indicates, individuals on the Spectrum encounter difficulties in finding and

keeping work.

**Study Components**

Figure 1 (Colorosa, 2014) shows the components for this dissertation research study.

Throughout the literature review, the study components explored the Autism Spectrum (AS)

through a summary of its history and an overview of the associated styles of learning. Human

Resource Development (HRD) was defined along with a review of performance management

techniques.

The Autism Spectrum
- History
- Styles of Learning

Human Resource Development
- Performance Management
- Feedback

How Blue Star Recyclers employs individuals on the Autism Spectrum and what performance management techniques they use.
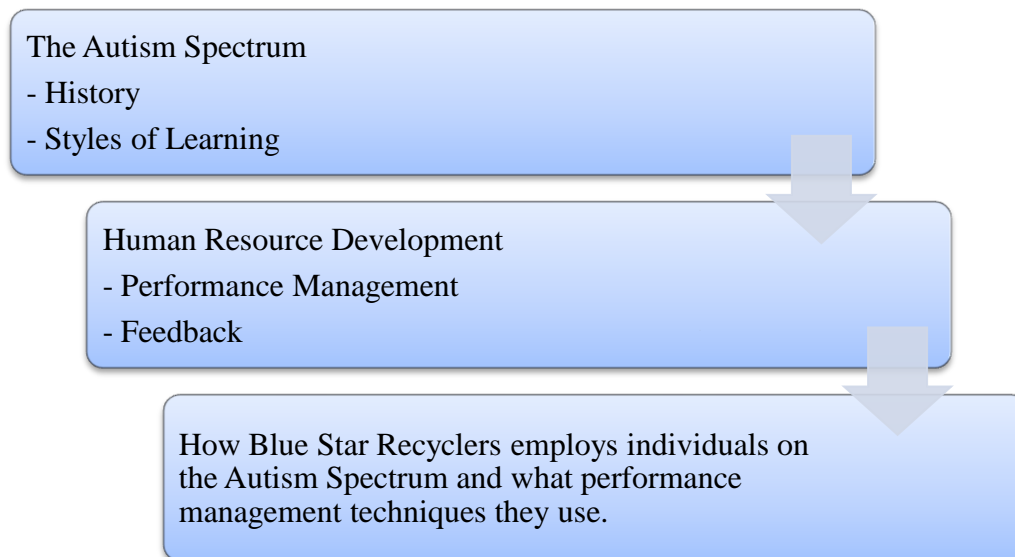
© Colorosa, 2014

*Figure 1.* Conceptual model with the three steps to conduct research study at BSR, (Colorosa, 2014).

The key components discovered through this study were used to determine how BSR employs individuals on the Autism Spectrum, and what performance management techniques were useful for these employees relative to their workplace experiences.

<div align="center">**Research Terms**</div>

The terms listed are for the purposes of this study. These terms are explored in more detail as defined and used in the literature and in previous studies.

**Autism Spectrum Disorders (ASDs)**

According to the Diagnostic and Statistical Manual Disorders (DSM-5) (2013), a new category that combines Autism, Asperger's disorder, and pervasive development disorder (PPD) on a spectrum was identified as Autism Spectrum Disorders or ASDs. When an individual is identified as being on the Spectrum, he/she may have social and communication deficits and/or fixated interests and repetitive behaviors. An individual who focuses solely on his or her desire to work on computers and play computer games is an example of someone with a fixated interest. An individual who continually taps a pen while sitting in a meeting is an example of someone with a repetitive behavior.

**Diagnostic and Statistical Manual of Mental Disorders (DSM)**

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a publication by the American Psychiatric Association (APA) of descriptions, symptoms, and other information related to mental disorders. The manual is reviewed by clinical professionals and provides criteria for disorders. The DSM establishes the diagnosis criteria for the disorders based on the research and identified risk factors (DSM-5, 2013). The intended use is to diagnose, recommend treatment, and offer research for mental disorders.

**Human Resource Development Practitioner**

The Human Resource Development (HRD) practitioner is a professional who focuses on the theories, research, and practice of organizational behavior and management (Gibson, 2004). The practitioner facilitates learning, performance, and change for individuals and organizations (Yang, 2004). The HRD practitioner may be a "consultant," who implements strategies identified to impact performance management (Robinson & Robinson, 1996).

**Learning Style**

Learning style is a term to describe how an individual processes information, behaves in situations, and feels while learning (Conti, 2009). An individual's learning style is based on preferences when engaging in learning (Kolb & Kolb, 2004). Each person's learning style can be influenced by personality, jobs, education, and experiences (Kolb, 1984).

**Performance Management**

Performance management involves goal setting, an appraisal system, and rewards that pertain to an employee's behavior and that individual's contributions to achieving organizational business goals (Cummings & Worley, 2005). According to Swanson (2007), performance "is the valued productive output of a system in the form of goods or services" measured in quantity, time, and quality (p. 27).

**Social Skills**

Individuals with ASDs tend to be impaired in social interactions, as "skills that feel involuntary for most people, such as eye contact, starting and ending conversations, and regulating interpersonal distance" may be difficult to understand and effectively perform (Wolf, Brown, & Bork, 2009, p. 17). This lack of understanding can influence how an individual on the Spectrum interprets sarcasm and figures of speech. Individuals on the Spectrum may seem

"disinterested, withdrawn, avoidant, or odd", yet this behavior is due to the lack of social comfort (Wolf, Brown, & Bork, 2009, p. 17).

For individuals who are on the Spectrum, social interaction skills need to be developed so they can successfully participate in daily activities (Howley & Arnold, 2005, p. 15). The ability to relate to others in social settings and understand appropriate behaviors are part of the interpersonal social code. Those who work closely with individuals on the Spectrum should address social skills, social understanding, social patterns, and the individual, and not solely focus on the individual (Howley & Arnold, 2005, p. 16). These skills need to be developed from an early age through adulthood and must be adapted for each social setting, such as home, school, work, and public places. Those on the AS may learn a skill, but may not be able to put the skills into the appropriate social context. An individual may learn to speak loudly when she or he tends to be shy. Yet, speaking loudly is not always appropriate. As a person comes into new relationships and social settings, she or he may need to learn the social interactions and behaviors that are appropriate specifically for those relationships. Teaching and learning appropriate behaviors and skills for social competence in various public, group, private, professional, and organizational settings are important to an individual's success (Howley & Arnold, 2005).

**Supportive Environments and Employment**

In the United States, supportive employment began in the 1980s, focusing primarily on individuals with learning and physical disabilities (Mawhood & Howlin, 1999). Supportive employment is "the process of enabling a person with a disability to secure and maintain a paid job in a regular work environment, by supplying all appropriate training support to them in the workplace where they will be doing the job" (Mayhood & Howlin, 1999, p. 231). In these

environments, supported employees are more independent, have job responsibilities, and higher job retention (Mayhood & Howlin, 1999).

**Researcher's Perspective**

I have spent eleven years as a fundraiser for a national non-profit and a state university. In both settings, I was charged with managing teams to help raise money for various programs that have an impact at the local, state, and national levels. During this time, I discovered my passion for training and development of work teams. Through this work, I saw a need to empower frontline employees to do their best every day, to build on their strengths and in turn build strong teams. However, this approach is not the typical business model. In the world of philanthropy, the rate of return is so important to support vital programs that employee development suffers. Management typically does not have the time, nor do they understand or value what it takes to develop and train staff working under such arduous demands. Under these circumstances, I found that if I took the time and invested in my employees, my team's productivity increased, and subsequently our bottom line increased. After two years at a national nonprofit, I decided I wanted to further my education in human resource studies and started a master's degree program in the field.

With my studies and my hands-on experience in the workforce, I became even more passionate about employee relations and training. After completing my master's degree, I immediately started my doctoral program. In the classroom, conversations with my classmates were intriguing and insightful, and I was able to apply the concepts learned there in the workplace. Throughout my academic career, I have been seeking a career change, and I continue to look for opportunities to apply all that I learn and follow my true passion. In the summer of 2011, I was hired as a Recruiting and Hiring Coordinator for the Colorado State Forest Service

(CSFS). I was later promoted to Manager of Human Resources. In this position, I am able to put all of my knowledge and skills to use on a daily basis. It is gratifying and rewarding to be able to hire the best qualified candidates to participate on teams that serve as stewards of Colorado's forests. My role allows me to conduct staff trainings and serve as an HR liaison between Colorado State University and CSFS staff. This position requires critical thinking at the individual, group/team, organizational, and partner levels. Anticipating the potential impacts of policies and procedures and how they will impact each level of the organization is a key component of this position. In addition, I am responsible for fostering relationships with internal and external partners who assist in achieving the mission of the CSFS, while continuing to develop human resources–our people.

I grew up in a large family, with a total of forty cousins. Three cousins on my mother's side each have a child on the Autism Spectrum. My interest in research came from my family's experience with autism and listening to and reading Dr. Grandin's work. I formulated my topic because of the increasing number of children who are being identified on the AS, and my desire to create supportive work environments for all employees. I have told a few family members about my research and they are very supportive of my work. Some have even expressed the desire to take this journey with me to learn more about workers on the AS and their challenges and successes in the workplace.

CHAPTER 2: REVIEW OF THE LITERATURE

Though the Autism Spectrum (AS) has been studied since 1943, more information is needed to improve opportunities for those on the Spectrum in the workplace (DSM, 2011; Frith, 1991, 1993). The Centers for Disease Control and Prevention (CDC, 2014) estimates that one of every 68 children is on the Autism Spectrum. With such a high frequency of children being identified with an ASD, there are implications for managers as they advance through education and enter the workforce. Given these changes in the workplace, managers and co-workers need to be aware of learning styles and understand how to use this knowledge to inform and improve the performance of all employees.

**Individuals on the Autism Spectrum in the Workplace**

Managers and co-workers should recognize the changing work environment and create supportive environments by minimizing employment issues. According to the National Autistic Society:

> Autism is a lifelong developmental disability. It is part of the Autism Spectrum and is something referred to as an Autism Spectrum disorder, or an ASD. The word 'spectrum' is used because while all people with Autism share three main areas of difficulty, their condition will affect them in very different ways. Some are able to live relatively 'everyday' lives; others will require a lifetime of specialist support.
> (Hesmondhalgh, 2010, p. 1)

Although they are highly capable of performance, some of the challenges for those on the AS include anxiety, not understanding personal space, talking too much or not enough, lacking independence from supervisors and co-workers, being too rigid, and having poor personal habits such as lacking personal space (Mawhood & Howlin, 1999). These challenges are not solely characteristic of those on the Spectrum. Communication may be difficult for individuals on the

12

Spectrum, and they may have more difficulties with communication than other skills, according to Hesmondhalgh (2010).

Research has indicated that better understanding from managers about the AS and how to support the needs of these employees was related to employee success, retention, and satisfaction (Dew & Alan, 2007; Mawhood & Howlin, 1999). Employers and those who manage employees on the AS should be able to support the behaviors and environments of these individuals (Van Wieren, Reid, & McMahon, 2008, p. 306). Supportive work environments contribute to employee success and retention (Barnhill, 2007; Grandin & Duffy, 2004; Hendricks & Wehman, 2009; Hurlbutt & Chalmers, 2004; Mawhood & Howlin, 1999; Robinson & Smith, 2010).

Similarly, Grandin and Duffy (2004) discuss the transition into the workforce, stating that "for many on the Autism Spectrum to join the workforce, their sensory sensitivities must be 'smoothed,' communication skills built, and anxiety reduced through treatment and, sometimes, medication" (p. 11). A call to action has been put forth for adults on the Autism Spectrum to know more about their strengths, career interests, and how to navigate the culture within a company.

Adults on the Autism Spectrum experience high unemployment and underemployment, change jobs more often, make less money than their counterparts, and have issues adjusting to the workplace (Hendricks & Wehman, 2009, p. 81). Hendricks and Wehman found that research was focused on design strategies to reduce poor behaviors, matching communication needs with a job, and increasing retention (2009). Hurlbutt and Chalmers (2004) concluded that it is helpful to allow a person to discuss his or her needs and disability. However, this does not always occur, as some employees are not comfortable discussing their employees' needs in the workplace. Barnhill (2007) studied employment issues that people on the Spectrum may encounter and

found that fitting work to their abilities, maintaining employment, and developing social

relationships leads to positive outcomes (2007, p. 118). When an employee who is on the

Spectrum has the needed support services, such as training, orientation, guidelines for how and

when to get work accomplished, knowledge about the workplace environment, and a positive

working relationship with managers, the employee will be successful in the workplace (Barnhill,

2007). These studies demonstrate some of the issues employees on the Autism Spectrum face

and offer possible solutions to create supportive environments.

**History of Autism Spectrum Disorders (ASDs)**

The history of Autism Spectrum Disorders has evolved over the years. As research

uncovered new information about Autism and Asperger syndrome, the classifications have

changed, as have the diagnoses. Table 1 outlines the history of Autism and Asperger syndrome.

Leo Kanner and Hans Asperger are credited with discovering Autism (Frith, 1991; 1993).

Both of them identified the disorder, but each identified different traits (Frith, 1991; 1993). Over

the years, research was needed to develop a diagnostic tool that would align the traits for Autism

and Asperger's syndromes. As researchers learned more about the two disorders, the diagnostic

tools changed, as have the diagnostic criteria.

A task force meets every ten years to analyze the current diagnostic criteria for the

psychiatric field and publishes the information in the *Diagnostic and Statistical Manual of

Mental Disorders* (DSM). In 2013, the DSM-5 was updated, releasing new criteria for Autism

Spectrum Disorders (ASDs). The DMS-5 classification, which was used for the purposes of this

literature review, is summarized in Table 1.

Table 1.

*Historical Overview and Description of Autism and Asperger Syndrome*

| Year | Event | Source |
|------|-------|--------|
| 1943 | Leo Kanner "introduced the label *early infantile Autism* for a type of disorder hitherto unrecognized as a clinical entity, although it is possible to find earlier case descriptions" (p. 93).<br><br>Kanner determined common traits:<br>• Preference for aloneness<br>• Desire on sameness<br>• Repetitive activities<br>• Mutism or reversal of pronouns<br>• Remarkable skills in some areas with deficits in other areas | Frith, 1991, pp. 93-121 |
| 1943-1944 | Hans Asperger submitted his thesis in '43, which was published the following year. The topic was *autistic psychopathy* (p. 6).<br><br>Similar developmental disorder described, but included non-verbal communication, lack of humor, and pedantry (p.10)<br><br>The definition from Kanner and Asperger used for 40 years. | Frith, 1991, pp. 1-36 |
| 1981 | Lorna Wing describes "autistic triad"<br>• Social abnormalities<br>• Social communication abnormalities<br>• Social imagination abnormalities | Frith, 1991, pp. 93-121 |
| 1994 | First time that Asperger syndrome coded in the *Diagnostic and Statistical Manual Disorders* (DSM-IV) | Wolf et al., 2009, p. 11 |
| 2010 | Centers for Disease Control and Prevention estimates one in 150 children have Autism Spectrum Disorder | CDC, 2016 |
| 2012 | Centers for Disease Control and Prevention estimates one in 88 children have Autism Spectrum Disorder | CDC, 2016 |
| 2013 | Recommended changes to the *Diagnostic and Statistical Manual Disorders* (DSM-V)<br>• New name for the category, Autism Spectrum Disorder<br>• Include autistic disorder (Autism), Asperger's disorder childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified.<br>• "Triad" become two categories:<br>  o Social/communication deficits<br>  o Fixated interests and repetitive behaviors | DSM-5, Overview, 2011 |
| 2014 | Center for Disease Control and Prevention estimates one in 68 children have Autism Spectrum Disorder | CDC, 2016 |

No two individuals are the same, even those identified within the Autism Spectrum Disorders classification. Individuals on the Spectrum may share some characteristics, but may differ on others (Dew & Alan, 2007).

**Autism Spectrum Disorders Styles of Learning**

Learning style is a term used to describe how an individual processes information, behaves in situations, and feels while learning (Conti, 2009). An individual's learning style is based on preferences when engaging in the learning cycle (Kolb & Kolb, 2004). Each person's learning style can be influenced by personality, jobs, education, and experiences (Kolb, 1984). Managers and co-workers should be familiar with styles of learning, as employees on the Spectrum may have a preferred style of learning. However, all employees in the workplace, on the Spectrum or not, have a preferred style of learning. The associated styles of learning and behaviors for those on the AS are summarized in Table 2.

Some overlap exists for the styles of learning. The three models, Specialized Brains; Learning and Communication Styles; and Visual, Auditory, and Kinesthetic Learning Styles (VAK) models all state that visual learning is one way individuals with ASDs learn. The three models suggest that learning takes place when information is given through pictures, flow charts, images, and color (Grandin, 2006; Grandin & Duffy, 2004; Lisle, 2007; Wolf et al. 2009).

Table 2.

*Summary of Styles of Learning for Autism Spectrum Disorders*

| Learning Style | Specialized Brains | Learning and Communication Styles | VAK Model |
|---|---|---|---|
| Visual | X | X | X |
| Music/Math | X | | |
| Verbal | X | X | |
| Auditory | | | X |
| Kinesthetic | | | X |

        The Specialized Brains and the Learning and Communication Styles models indicate that some individuals with ASDs learn through verbal interactions, such as language and explanation (Grandin, 2006; Grandin & Duffy, 2004; Wolf, et al. 2009). Lisle (2007) described this style of learning as auditory, where a person learns through communication and sounds.

        All three models concur that learning takes place through verbal or auditory methods, even though the authors use different terminology to define the style. Kinesthetic is an additional learning style in the VAK model, which does not align with the other styles. A person with the kinesthetic learning style learns by listening and participating in activities and tasks (Lisle, 2007). Lastly, in the Specialized Brains Model, music/math is a style of learning that the other two models do not include, where people learn from math-oriented tasks (Grandin, 2006; Grandin & Duffy, 2004).

        To make employees more effective, managers who are responsible for performance management could use this information with employees who think and process information in various ways. Colorosa and Makela recommended that mangers understand the ASD styles of learning of employees to assist in the performance management process (2014). Managers should be familiar with these learning styles and communicate with employees to determine

learning style preferences, while acknowledging that other factors, such as behavior, may impact learning (Colorosa & Makela, 2014).

## Performance Management

Performance management, a key resource for strategic human resource departments, has developed into a sub-discipline within the broader organizational development profession. Over the last decade, performance management has evolved to address many variables, including learning and performance, within the larger human resource management arena (Yang, 2004). This development represents a slight shift in performance philosophies from typical employee evaluations, career development, and merit-based pay (Gilley, Quatro, Hoekstra, Whittle, & Maycunich, 2001). An abundance of research has been conducted on performance management. Among this research, scholars and practitioners alike have crafted models to guide managers through the performance management process. The Organizational, Learning, Performance and Change Model; the Performance Management Process Model; and the Performance Alignment Model will be covered here, as I studied these models throughout my graduate school program and used them in my work.

### Review of Relevant Models

Gilley and Maycunich (2000) published a complete and comprehensive introduction to strategic Human Resource Development (HRD), as seen in Figure 2. Within this model, they present the organizational learning, performance, and change process. This model demonstrates the complexities of strategic HRD as it relates to the learning organization. Performance management lives within the organizational performance circle and, as Gilley and Maycunich (2000) state, is the first step to improving organizational performance.

*Figure 2.* Organizational Learning, Performance, and Change Model, (Gilley & Maycunich, 2000).

Organizational performance becomes more defined at the broader level, making performance synonymous with outcomes, results, and accomplishments. A "distinguishing characteristic between ineffective and effective organizations is that ineffective firms commonly fail to achieve the [performance] results required of [their employees]" (p. 197). Simply stated, performance management processes at the individual level are instrumental in improved performance at the organizational level.

Robinson and Robinson (1996) have outlined the performance management process, as seen in Figure 3. This process is designed to uncover the root of performance problems deep within an organization. Additionally, this model helps HRD professionals identify causes of performance problems so that appropriate treatments are applied. The model (1996) shows that a relationship is first created with the practitioner/manager and employee (#1); the organization's

needs are identified in organizational terms. Goals, objectives, and the mission are identified (#2). A model of best practices is developed and performance baselines for future comparisons are created (#3 & #4).
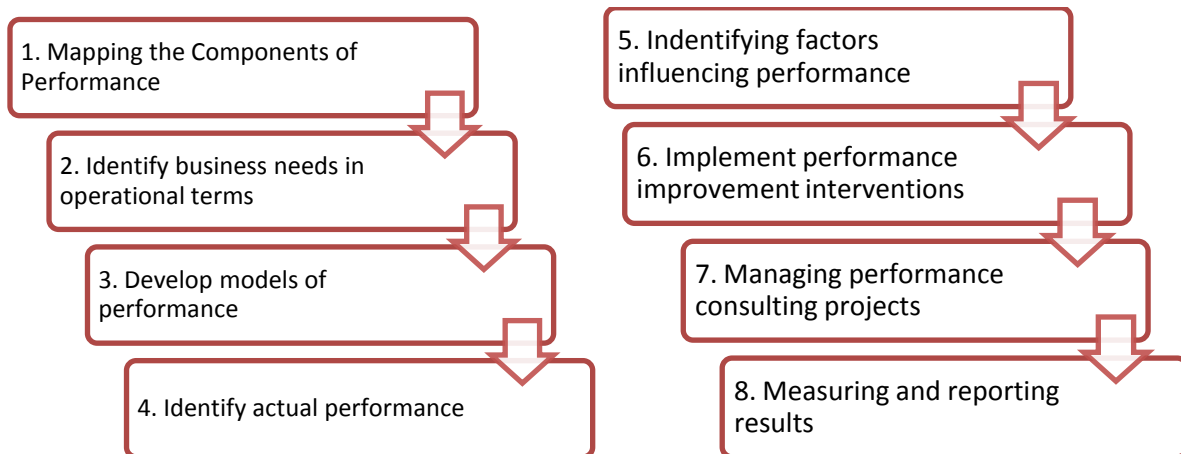


*Figure 3.* Performance Management Process Model, (Robinson & Robinson, 1996).

Next, the practitioner/manager takes responsibility for identifying and implementing factors that influence performance, including in-depth analyses of employees' skills and knowledge of the tasks to be completed (#5 & 6). The practitioner/manager manages for improvement during the performance management process (#7). The model concludes with the measurement of actions taken to analyze where gaps may exist and identify the steps that are necessary to address these gaps (#8). Much like Gilley and Maycunich (2000), Robinson and Robinson (1996) stress that when organizations address root problems at the individual performance level, organizational performance will naturally increase.

The last model reviewed was developed by Gilley, Boughton, and Maycunich (1999). The Performance Alignment Model, Figure 4, was created to address common performance challenges many organizations face. This model looks at developing a management system that successfully cultivates employees to become the organizations' greatest assets. The objective is an organization-wide approach that combines performance improvement efforts with goals,

objectives, rewards, expectations, etc. As the model suggests, this alignment process consists of

seven steps:

1. Conducting stakeholder valuation,
2. Improving job design,
3. Establishing relationships,
4. Applying performance coaching,
5. Conducting developmental evaluations,
6. Creating performance growth and development plans,
7. Linking compensation to rewards

Each of these seven steps builds upon the previous to create a comprehensive approach to

addressing performance management in organizational development and strategic HRD to

improve employee performance.
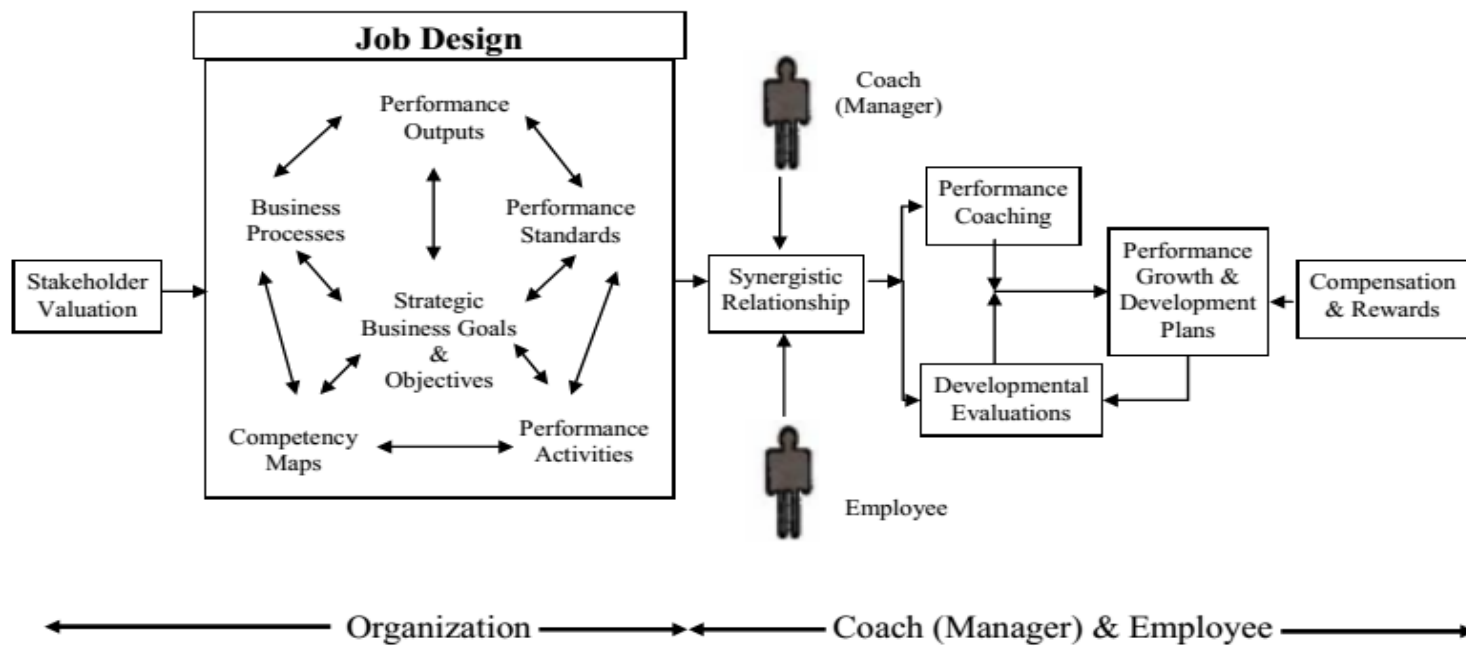
*Figure 4.* Performance Alignment Model, (Gilley, Boughton & Maycunich, 1999).

These three models inform this study, as performance management is key to organizational performance. Organizational performance can be impacted by employee performance, thus managers need to identify employee performance problems, solutions, advancement opportunities, and training needs. Manager and employee relationships are critical to both organizational and employee performance. This relationship can be seen in the job design, rewards, expectations, and links to organizational goals in the models. This study seeks to identify performance management techniques that are useful when managing a diverse workplace, as the literature states, and will seek to identify relationships between organizational and employee performance.

**Performance Management Techniques**

Performance management research is rich with varying insights into how we measure or assess employee accountability, but few are focused on the quality of employee performance (Ghorpade & Chen, 1995). In today's competitive marketplace, it is not enough to go through the motions of performance management; strong, well-written, and well-documented feedback systems with quality-driven performance strengthens organizations and allows them to grow (Gilley, Quatro, Hoekstra, Whittle, & Maycunich, 2001).

One method for managing performance is the use of performance evaluations or appraisals. Performance evaluations can be utilized for a variety of purposes, so it is important that appropriate evaluations be used for the desired outcomes: pay, promotability, need for development, and employee success. Performance management includes the collection of appropriate data to analyze and inform the intended purposes. Data collected could be tied to employee's goals and objectives, as related to the duties and performance outcomes for the performance cycle. Multirater feedback is one of several methods used for data collection in

recent years. Multirater feedback refers to any performance feedback system in which two or more people provide feedback to an individual employee (McLean, 2006). This approach has become one of the most popular methods for organizations that want to improve the performance appraisal system and make the data collection process more robust (Burke, 2008; Cummings & Worley, 2009; McLean, 2006).

Performance evaluations help managers provide feedback to individual employees for any number of purposes. Performance evaluations can serve as feedback systems that align employee performance to an organization's values and priorities and help link performance to reward (Cummings & Worley, 2009). Additionally, the process of conducting performance evaluations aids strategic human resource departments in pay and performance decisions, planning and organizational/workforce development, and providing necessary information about performance improvement needs and/or excellence among employees (Cummings & Worley, 2009).

**Role of Managers in Performance Management Feedback Process**

Feedback is an ongoing form of communication to reinforce good performance, manage poor performance, and celebrate successes (Ford & Wasson, 2005; Goodman & Wood, 2004). As a manager provides this information, it is up to the employee to learn from the situation, which may not occur (Van Velsor & Musselwhite, 1986). However, Ford and Wasson (2005) state that learning cannot occur if feedback is not provided to an employee. A study conducted by Goodman and Wood (2005) used an undergraduate management class to test the effects of learning with feedback specificity. Goodman and Wood (2005), in an experimental design, gave three different types of feedback treatments to the students to determine their effect on learning. They also analyzed feedback specificity on learning benefits, the situation in which feedback is

given and its implications on performance. They asked the participants to perform tasks, then the participants were given feedback based on their decisions. The level of feedback specificity is important, depending on what needs to be learned from the situation (Goodman & Wood, 2005). Additionally, "people should be given more specific feedback in the initial stages of learning" (Goodman & Wood, 2005, p. 819).

For human resource development practitioners and managers, feedback ensures the manager and employee are in sync and agree on the standards and expectations of the work to be performed (Lee, 2006). The manager can be seen as a coach for the employee, as the manager sets goals, helps the employee reach those goals, and assists the employee with overall performance (Spaten & Flensborg, 2013). According to Gilley et al. (1999), in the Performance Alignment Process Model, performance standards are developed during the job design stage. These standards share information and set expectations about work outputs (Gilley et al., 1999). Feedback can be used to ensure that employees understand how well they are doing, and that the information they receive is specific and timely about their performance as it relates to their work and outputs (Gilley et al., 1999; Pardue, 1999; Rummler & Brache, 1995).

**Role of Managers as Coach and Trainer**

The manager impacts the employees' performance in many ways. The manager's role is to provide direction, set expectations, and lead employees (Capuzzi & Stauffer, 2006; Gilley et al., 1999). The manager may take on the role of performance coach to effectively communicate expectations, be a mentor to an employee, and train employees to achieve performance goals that impact organizational goals (Gilley et al., 1999; Pardue, 1999). The manager as a coach impacts employees' attitudes and the overall relationship between the manager and employee (Capuzzi & Stauffer, 2006; Gilley, et al., 1999; Pardue, 1999).

There may be instances where employees do not possess all the knowledge and skills necessary to adequately perform their duties, even if managers assume they do. Managers who recognize that employees lack necessary knowledge and skills to perform their jobs can identify associated trainings that employees need in order to fill the gap (Gilley et al., 1999; Ladyshesky, 2010). Once trained, the employees should be encouraged and motivated to apply newly gained knowledge to their jobs (Gilley et al., 1999). Additionally, the manager can reinforce training and overall performance through feedback about what is going well and whether employees are meeting job expectations. Managers can gain input from the employees through the feedback process about how the employees perceive their skill levels and training needs.

## Managing Diversity in the Workplace

Managing diversity in the workplace is becoming more important for managers and organizations. Diversity is defined as being inclusive of individuals from a variety of socio-economic backgrounds, national origins, races, colors, ages, sexual orientations, disabilities, etc. (Aghazadeh, 2004; Dictionary.com, 2015). In 1990, The Americans with Disabilities Act (ADA) made it unlawful for private employers, and state and local governments to discriminate when hiring a qualified individual. The ADA also addresses firing, training, promoting, and other aspects of employment (U.S. Equal Employment Opportunity Commission, 2015). As the workplace diversifies with changing demographics, managers should be aware of the implications of their daily interactions with employees such as how they communicate. A diverse workplace provides many benefits for organizations for instance the creative ideas employees bring based on their previous experiences and ways in which they think.

Organizations committed to creating a diverse environment can integrate this as part of the strategic business plan, as well as performance objectives and outcomes for employees. It

demonstrates a level of social justice to those inside and out outside the organization (Aghazadeh, 2004). As the diversity of the workplace increases, leaders will find that creativity will increase as employees introduce new ideas and ways of doing business (Aghazadeh, 2004; Gilbert, Stead, & Ivancevich, 1999). Encouraging employee creativity at work leads to increased productivity and problem-solving (Aghazadeh, 2004; Gilbert, Stead, & Ivancevich, 1999). When employees are motivated at work, their commitment to the organization tends to be higher (Westover, Westover, & Westover, 2010). Organizations and managers play a key role in ensuring employee success. Managers determine the needs of the employees and provide feedback about performance, ensuring that both the organization and its employees meet expectations.

CHAPTER 3: METHODOLOGY

The purpose of this study was to examine how Blue Star Recyclers (BSR) employs and manages individuals on the Autism Spectrum. This case study was designed to identify performance management techniques that are useful when managing a diverse workplace. The value of this study and its findings is to inform managers about performance management techniques they can use in a diverse workplace. Employees seeking career options should find the information useful in determining how their skills, abilities, and interests fit within an organization.

**Research Design and Rationale**

A case study design investigates an issue through an in-depth analysis of the identified case or cases and the information gained is bound by the setting or real world. Information is gathered through the use of interviews, observations, field notes, reports, and documents. Case studies investigate a single issue or multiple issues in a variety of disciplines, such as the social sciences (Creswell, 2007, 2009; Yin, 2013). Using case study research, we learn about individuals, groups, and organizations, such as BSR.

Case studies, observation studies, interviews, and questionnaires have been used to learn about individuals on the Autism Spectrum and their experiences in education related to learning in the classroom and in the workplace. Robinson and Smith (2010) conducted an intervention case study of a thirteen year-old male on the Autism Spectrum who had a newspaper route. The researchers traced his progress over a three-month period. During this time, he received various interventions as to how to insert flyers into the newspapers, collect money, and deliver the papers, all steps the participant would need to take to be productive (Robinson & Smith, 2010).

By providing a supportive environment, the participant was able to learn the necessary tasks to be successful in his job (Robinson & Smith, 2010).

Reported in Parr and Hunter (2015), a study was conducted with adults on the Autism Spectrum to determine behaviors critical to workplace leaders and how it affects work outcomes (2015). Parr and Hunter interviewed 54 employees on the Spectrum through phone interviews, allowing the participants to review the interview questions in advance to reduce anxiety (2015). The findings showed that leaders are critical to employees with AS in the workplace, as they impact employment satisfaction, turnover, and performance (Parr & Hunter, 2015).

Hypothetical cases were developed on two individuals on the Autism Spectrum and were reviewed by coach clinicians who work with individuals on the Spectrum (Murphy, Ratey, Maynard, Sussman, & Wright, 2010). Lisle (2007) used questionnaires and interviews to better understand the learning styles of 60 participants with varied educational and work experiences. Lisle's study showed that questionnaires can help predict learning styles and that more information was needed to fully understand the validity and reliability of the findings (2007). Additionally, Muller, Schuler, Burton, and Yates (2003) conducted a pilot study using semi-structured interviews and thematic coding to understand the experiences of 18 participants who were diagnosed with an ASD and had at least one year of work experience. The finding indicated that those on the Spectrum perform better with a job coach who addresses specific needs (Muller et al., 2003). An observational study design was used to determine the play habits of children (Anderson, Moore, Goodfrey & Fletcher-Finn, 2004). Various qualitative methods have been utilized to study individuals on the AS related to the individual's work experiences.

For the purposes of this dissertation, the researcher asked structured and semi-structured interview questions and recorded observations in a notebook. The researcher also reviewed

organizational documents, such as job descriptions and training materials, about BSR (Creswell, 2007, 2009; Yin, 2013).

## Validity and Reliability

Once a person becomes aware of a situation or event, it is possible to use qualitative methods to understand the case. The researcher gathered information regarding BSR's performance management techniques through qualitative means, such as interviews, observations, and document analyses (Merriam, 1985). This case study utilized the aforementioned qualitative means and contains comprehensive firsthand accounts reported as thick descriptions (Guba & Lincoln, 1981; Merriam, 1985). The importance of ethics in data gathering and analysis is paramount to the researcher during data collection, thus minimizing bias in the process (Guba & Lincoln, 1981; Merriam, 1985). Guba and Lincoln (1981) suggest that it is important to write interview questions, analyze documents, and develop conclusions that address the intended purpose of the research.

Throughout this study, the researcher used ethical practices when conducting interviews. Because the participants had varied communication styles and capabilities, every attempt to ensure that they understood the questions and were able to respond in their own communication style. In some cases, the researcher asked probing questions to help participants understand the question and feel comfortable. With some participants, it was necessary to provide a printed copy of the interview questions so they could become familiar with the content and prepare responses before the interview sessions. In taking these steps the researcher increased the "generalizability" and "transferability" of information collected to other similar work environments (Guba & Lincoln, 1981; Merriam, 1995).

Creswell (2009) states "qualitative validity means that the researcher checks for the accuracy of the findings by employing certain procedures, while qualitative reliability indicates the researcher's approach is consistent across different researchers and different projects" (p. 190). Validity in qualitative research ensures that the findings are accurate from the viewpoints of the researcher, participants, and readers (Creswell, 2009). These steps were used to ensure validity, reliability, ethical data collection, and to check for bias in my study (Creswell, 2009):

- Check transcripts for mistakes during transcription

- Triangulate the data by checking the information from a variety of sources

- Member check the data by letting the participants review the data and themes

- Check for bias by stating the researcher perspective when developing the case and collecting data

For each participant, the researcher communicated the study's benefits and potential harms, and obtained consent. These efforts were made to eliminate potential conflicts and reduce anxiety for participants. The data were collected directly from the participants. The interviews were transcribed; the transcripts did not include the "ums" and sounds that did not inform the content, but the words provided to the reader were selected quotes for the purposes of illustrating themes (Clandinin & Connelly, 2000; Howley & Arnold, 2005; Miles & Huberman, 1994). Each interview participant was given the opportunity to create an alternative name so as to maintain confidentiality. During the interviews, if a surname was used, the data were cleansed to keep identities confidential.

## Participants

Participants were selected based on their work roles at BSR, as well as their willingness to be interviewed and observed during data collection. Two groups at BSR were identified to

participate: 6 Managers and 4 employees called "Techs" who work in the production area (Blue

Star Recyclers, 2014). BSR was asked to participate in this study and they agreed through a letter

of cooperation (Appendix A). Each member of the management team who participated in the

study signed a consent form prior to being interviewed (Appendix B). Consent was orally

received by participants when collecting observational data over a three-day period. Managers

who participated were identified based on their role in the BSR organization, according to a list

found on the BSR website. Initially, the following Managers (n = 6) were invited to be

interviewed:

- Business Development Director
- Chief Executive Officer
- Environmental Health and Safety Director (EH&S)
- Front Counter Manager
- Logistics/Warehouse Team Lead
- Production Director

Additional management members were identified during interviews and observations and were

invited to participate in the study.

According to BSR (2014), Techs dissemble equipment, such as computer towers, in

preparation for recycling. For interviews with Techs, management members recommended

individuals who would be able to communicate adequately. Interviews were scheduled with

each Tech during one of their upcoming shifts. Management allowed Techs to be interviewed

during work hours. Additional Techs were identified for interviews when they were observed in

the work environment and were asked if they would be willing to be interviewed. Each Tech

signed an individual consent form prior to being interviewed (Appendix B).

**The Setting**

Blue Star Recyclers in Colorado Springs invited me to schedule my observations and

interviews Monday through Thursday during work hours. I scheduled additional time to observe

the Techs during their lunchtime and breaks. BSR takes in donated electronics and the value of the recycled parts are used to create jobs for their Techs. The Techs sit in the main area where customers drop off items for recycling. There is a long workbench with drills and other tools, such as screwdrivers and pliers, to disassemble computer equipment. Customers are allowed to walk in and drop off electronic equipment, such as computer towers, laptops, and printers. Depending on the type of equipment that is donated, BSR may charge a recycling fee. Customers can see the Techs dissembling equipment and the machines used to destroy sensitive information from computer hard drives. In the back of the warehouse, large moving trucks, forklifts, and dumpsters are used to haul the disassembled equipment to various recycling companies who dissemble it further.

## Instruments and Data Collection

During my study, I conducted structured and semi-structured interviews, reviewed documents, and made observations. The structured interview questions and statements were adapted to the participants' communication and learning styles to ensure they understood the questions and statements and were able to respond in their own styles. Appendix C outlines the questions for each participant group. Specific questions were asked of each management team member and Tech about their perceptions related to recruiting, retention, training, work history, performance standards, feedback, on-boarding, and success.

Participants were asked interview questions about their work experiences at BSR based purpose of the research question.

RQ 1: Why are Blue Star Recyclers' Techs (employees) staying employed?

- Techs were asked questions aimed at understanding their individual employment history, why they were recruited to work at BSR, and why they stay at BSR (7 questions).

- Management was asked questions aimed at understand the recruiting strategies of BSR and management's perspective on why Techs remain with the company (4 questions).

RQ 2: What on-boarding (first-day orientation) and training practices are used for Techs?

- Techs were asked about their first day (on-boarding) and how they learned to do their job (3 questions).

- Management was asked about on-boarding and training and associated costs, time, and requirements (2 questions).

RQ 3: How does Blue Star Recyclers manage performance?

- Management was asked about performance standards and expectations for Techs and how this information is communicated with employees (7 questions).

RQ 4: How does management define success?

- Management was asked to define success for the company/organization, themselves, and from the perspective of the Techs (1 question).

RQ 5: How do Techs define success at work?

- Techs were asked to define success on the job (1 question).

RQ 6: What can Managers learn from Blue Star Recyclers' experiences?

- Management and Techs were asked what others on the Autism Spectrum can learn when entering the workplace (1 question).

Semi-structured interviews were conducted to gain in-depth explanations from the participants. From the participants' responses, the researcher was able to use probes to enhance responses. These in-depth interviews served as the primary data. The researcher altered interview questions to incorporate common terms and jargon used by BSR Techs and Managers.

Each interview was scheduled with the individual Manager and Tech as not to interrupt production. Interviews were scheduled for one-hour blocks and each participant was given an overview of the study and the types of interview questions they would be asked; no information was gathered about disabilities or health issues. At the time the interviews were scheduled, each Tech volunteering for the study was given a copy of the interview questions (Appendix C) so he or she could prepare for the interviews. Authors of research referenced earlier have suggested that if the researcher provided the interview questions in advance to the interviewee, adults on the Autism Spectrum will prepare for interviews, seek information about what types of questions will be asked during the interview, and make notes about their experiences for reference during the interview process (Grandin, 2008; Wolf, Brown, & Bork, 2009). These efforts help the interviewee prepare and ease social anxiety for participants by familiarizing them with the interview process (Grandin, 2008; Wolf, Brown, & Bork, 2009). To achieve as comfortable and familiar an interview setting as possible, I provided the interview questions to the Techs prior to meeting with them. Management helped distribute the interview questions to the Techs. Each participant met with the researcher either in their office or in the break room. Management invited me to observe regular business operations, staff routines, and customer tours. Typically, BSR provides tours to customers who drop off equipment for recycling.

As each interview was completed, the interview was transcribed and given to the participant for review. The researcher reviewed the transcriptions to ensure the information was accurate before sending the transcription to the participant. Each participant was asked to either email or handwrite comments on a hardcopy.

The researcher observed interactions between management and Techs, and among the group of Techs. I also observed several other functions at the facility: I watched the Techs dissemble equipment and interact with customers (community members), and saw them conduct tours for community members and donors. I had the opportunity to observe overall employee interactions and general productivity at BSR to see how they achieved their goals. The general workplace observations included interaction patterns of employees with one another, how they communicated verbally and nonverbally, the work environment (such as tools used), the setting, where people sat, and how formal the interaction is among employees. The field notes are open-ended and do not identify or categorize specific individuals.

Observations were recorded in a notebook so the information could be analyzed and identify themes related to the research questions. Specifically, notes about how the participants communicated with each other, how and if they provided feedback to each other, and the overall workplace environment. Photos were taken of posters and the work environment to supplement the observation notes. All identifying information such as names and faces were deleted from the photos.

The literature review included documents such as Blue Star Recyclers' 2013, 2014 and 2015 Annual Reports and the BSR website, as well as questions asked during employee interviews. While conducting interviews, the researcher requested additional documents about the history of BSR, their business model, and annual reports. In analyzing these documents, the

photos used by BSR were analyzed as well to determine themes. I also listened to radio, television, and newspaper interview reports about the organization. In some cases, documents were reviewed for initial themes related to BSR history, employment data, and trends in overall performance as an organization.

The researcher triangulated the data to see how data were supported among the interviews, observations, and documents. The information from the observations and documents provided richer content and context to support what was heard during the interviews.

### Data Analysis

The data were analyzed through thematic analysis. Merriam describes data analysis as a complex process of finding themes and categories within the data that "answers your research question(s)" (2009, p. 176). According to Riessman, "data are interpreted in light of thematics developed by the investigator, the data themselves, political commitments, and other factors" (2008, p. 54). The primary data analysis was accomplished using these concepts and the NVivo software to organize the data. Table 3 and Table 4 show the initial codes that relate to the interview questions. The second level of coding, the nodes, were identified as possible outcomes from the participant groups. These codes and nodes were derived from the literature and my professional experience from working in the Human Resources field. These codes and nodes were used to conduct the analysis based on the interview questions for BSR managers and Tech participants. Managers and Tech transcripts were coded and analyzed separately, with the potential to explore overlap and consistency, and synthesize the second level code findings later.

The researcher coded the observation notes to identify the interactions between management and the Techs and the Techs with each other based on the established themes for this study. The document content was coded to identify the intended audience, such as

management, the Techs, or the general public; how the information informed the workplace; the types of performance management standards and expectations documented; and information related to the company overall. Photos taken during taken during the observations and while reviewing the documents were analyzed to compare and contrast to themes found in the other data collected.

Codes can be descriptive and interpretive and used to find patterns (Creswell, 2003). Descriptive codes characterize a class or phenomenon. For example, interpretive codes come from the meaning determined by the researcher (Ladyshewsky, 2010). Codes that identify patterns or themes come from the literature. For the purposes of this study, all three coding sources were used.

The themes identified from the interviews, documents, and observations were integrated and analyzed to determine commonalities and differences between the Techs and Managers for the purpose of managing employee performance. The analysis extrapolated data based on the research questions and themes, highlighted by individual quotes from Managers and Techs.

Table 3.

*Codes for Tech Participants*

| RQ # | Question # | Code | Nodes (Outcomes) | Analysis |
|------|-----------|------|-----------------|----------|
| 1 | 1 | Recruiting | Media, In-person, Personal Connections | Thematic |
| 1 | 2 | Retention | Years, Dates | Thematic |
| 1 | 3 | Work history | Professional Experiences, Personal stories | Thematic |
| 1 | 4 | Work history | Number | Thematic |
| 1 | 4a | Work history | Years, Dates | Thematic |
| 1 | 4b | Work history | Volunteer, Intern, Hourly, Full-time, Part-Time | Thematic |
| 1 | 4c | Work history | Professional, Personal, Other | Thematic |
| 1 | 5 | Nature of work | Motivation, Incentives, Benefits, Culture/Social, Type of work, Location | Thematic |
| 1 | 6 | Retention | Motivation, Incentives, Benefits, Culture/Social, Type of work, Location | Thematic |
| 1 | 7 | Work history | Motivation, Incentives, Benefits, Culture/Social, Type of work, Location | Thematic |
| | | | | |
| 2 | 13 | On boarding | Orientation, Meeting Co-workers, First impressions, Tours, Documents | Thematic |
| 2 | 14 | Training | Training, Video, Manuals, Previous Experience, Ask Questions | Thematic |
| 2 | 14a | Training | Yes, No | Thematic |
| 2 | 14b | Training | One-time, On-going | Thematic |
| 2 | 15 | Feedback | Training, Video, Manuals, Previous Experience, Ask Questions | Thematic |
| 2 | 15a | Feedback | Training, Video, Manuals, Previous Experience, Ask Questions | Thematic |
| 2 | 15b | Feedback | Training, Video, Manuals, Previous Experience, Ask Questions | Thematic |
| | | | | |
| 5 | 24 | Success | Professional Goals, Personal Goals | Thematic |
| | | | | |
| 6 | 26 | Recruiting | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |

Table 4.

*Codes for Management Participants*

| RQ # | Question # | Code | Nodes (Outcomes) | Analysis |
|---|---|---|---|---|
| 1 | 8 | Recruiting | Media, In-person, Personal Connections | Thematic |
| 1 | 9 | Nature of work | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |
| 1 | 10 | Retention | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |
| 1 | 11 | Employee feedback | Yes, No | Thematic |
| 1 | 11a | Employee feedback | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |
| 1 | 11b | Employee feedback | Rationale | Thematic |
| 1 | 12 | Nature of work | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |
| 2 | 16 | On boarding | Orientation, Meeting Co-workers, First impressions, Tours, Documents | Thematic |
| 2 | 16a | On boarding | Hours, Days | Thematic |
| 2 | 16b | On boarding | Techs, Managers, Others | Thematic |
| 2 | 16c | On boarding | Outcomes | Thematic |
| 2 | 17 | Training | Hours, Days | Thematic |
| 2 | 17a | Training | Techs, Managers, Others | Thematic |
| 2 | 17b | Training | In-house, Offsite | Thematic |
| 2 | 17c | Training | Technical knowledge, Safety | Thematic |
| 2 | 17d | Training | Costs | Thematic |
| 2 | 17e | Training | Hours, Days | Thematic |
| 2 | 17f | Training | Feedback, During, After | Thematic |
| 2 | 17g | Training | Oral, Written, Hands On, Demonstrations, Photographs, Videos | Thematic |
| 3 | 18 | Performance standards | Past performance, Industry standards, Weight, Competitors, Revenue | Thematic |
| 3 | 18a | Performance standards | Individual, Group | Thematic |
| 3 | 19 | Performance standards (expectations) | Oral, Written, Hands On, Demonstrations, Photographs, Videos | Thematic |
| 3 | 20 | Performance standards (feedback) | Oral, Written, Hands On, Demonstrations, Photographs, Videos | Thematic |
| 3 | 21 | Performance standards (evaluations) | Oral, Written, Hands On, Demonstrations, Photographs, Videos | Thematic |
| 3 | 22 | Performance standards (rewards) | Monetary, Gifts, Days Off, Employee Recognition | Thematic |
| 3 | 23 | Performance standards | Disciplinary policy, Counseling/Coaching, Problem Solving | Thematic |
| 3 | 23a | Social and Behavioral | Disciplinary policy, Counseling/Coaching, Problem Solving | Thematic |
| 3 | 23b | Productivity | Disciplinary policy, Counseling/Coaching, Problem Solving | Thematic |

| 4 | 24 | Success | N/A | Thematic |
|---|---|---|---|---|
| 4 | 24a | Success (words) | Past performance, Professional Goals, Personal Goals | Thematic |
| 4 | 24b | Success (company/organizational) | Past performance, Industry standards, Weight, Competitors, Revenue | Thematic |
| 4 | 24c | Success (yourself) | Professional Goals, Personal Goals | Thematic |
| 4 | 23d | Success (techs) | Professional Goals, Personal Goals | Thematic |
| 6 | 26 | Recruiting | Motivation, Incentives, Benefits, Culture/Social, Type of Work, Location | Thematic |

CHAPTER 4: RESULTS

**Steps to Analysis**

A case study design was used to identify performance management techniques used by

BSR. The value of this design is that it informs managers about performance management

techniques they can use in a diverse workplace. Employees seeking career options should find

the information useful in determining how their skills, abilities, and interests fit within an

organization.

Upon receiving Institutional Review Board (IRB) approval (Appendix H), the first visit

to BSR was on October 6, 2015. Techs' work is scheduled at BSR based on the quantity of

equipment donations. Due to limited equipment donations, the management canceled the Techs'

workday while I was traveling to BSR. Therefore, during this visit, the researcher interviewed

the Production Manager and scheduled additional visits for interviews and observations. Data

collection occurred on October 6, 13, 14, and 15. Over the course of these four days, the

researcher conducted interviews, made observations, and collected documents. Table 5 shows the

number of interviews conducted on each of the four days, with most of the interviews occurring

on the third day.

Table 5.

*Participants Interviewed*

| Participant | Day 1 | Day 2 | Day 3 | Day 4 | Total |
|---|---|---|---|---|---|
| Managers | 1 | 0 | 6 | 1 | 8 |
| Techs | 0 | 0 | 4 | 0 | 4 |

Between interviews, the researcher collected observational data by noting the setting,

interactions with fellow Managers and Techs, and the overall production system.

The recorded interviews were transcribed while interviewing continued. Afterward, the researcher reviewed the transcripts to ensure that responses were complete, and sent them to Managers via email and the mail for their review. Transcripts were also mailed to the Techs for their review. Managers were given two weeks to review the transcripts; the researcher received one confirmation with no changes. An additional contact via email was made with the Managers about reviewing their transcripts. The instructions stated that if they did not respond to the researcher it would be assumed they approved the data. Each manager was given a firm date to respond.

Another request to visit BSR was made to have the Techs review their transcripts and seek additional volunteers for interviews. Emails had gone unanswered, so a phone call was made to the Production Manager. The Manager informed me that I was welcome to come back to the facility in Colorado Springs, but due to a lack of work for the Techs, work shifts had been canceled. On many occasions, BSR management canceled work shifts with less than 24 hours' notice.

To get transcripts reviewed and recruit additional Tech volunteers, the researcher asked the Production Manager to assist with the following (Appendix G):

- Distribute individually marked envelopes to the Techs. These envelopes contained a letter explaining they could review the transcript. Also included was the researchers' contact information (email, phone, mail), a self-addressed stamped envelope, and a copy of the transcript. The Tech participants were given a response date and indicated that if the researcher did not receive feedback from them by that date it would be assumed they approved the transcripts. No feedback was received from Tech participants.

- Distribute envelopes seeking additional Tech volunteers to participate in the study. Enclosed was a letter asking for volunteers, along with my contact information for those interested in responding (email, phone, mail), a self-addressed stamped envelope, a consent form, and the interview questions with space to write in responses. No additional volunteers were obtained.

Additional documents were reviewed, including a job application, a training outline, and sections of the BSR policy manual on environmental management, which covered safety and waste management protocols. Some of the Techs are nonverbal or did not volunteer to participate in the interviews. However, their work experiences were observed and analyzed as to inform the study. Through the interviews, document review, and the observations of the Techs' interaction with other Techs and Managers, the data saturation requirement was met pertaining to the Managers and Techs.

## Thematic Analysis

A thematic analysis was used to analyze the data. The themes were developed based on content from the transcripts, observations, and documents gathered at the research site (Merriam, 2009; Riessman, 2008). The researcher accomplished the primary data analysis using these concepts and the NVivo software to organize the data shown in Table 3 and Table 4. Each research question was analyzed. The initial codes were revised based on the participants' interview responses. The following codes and nodes were added in NVivo:

- Under the recruiting code, disability and opportunities were added as nodes. Media was an established node, "other outlets" was added to the media node.

- The reason Techs come to BSR was added as a new code

- VERN (Vocational Electronic Recycling Network) was added as a new code

- Under the VERN and History codes, BSR was added as a new node

- Additional Stories was added as a code with two nodes, learning and disabilities

**Profile of Blue Star Recyclers**

Blue Star Recyclers was established in 2009 when the CEO was working in a day rehab facility for people with disabilities (Blue Star Recyclers, 2016). At the CEO's former facility, a small group of individuals stayed in the back of the room disassembling computer equipment that had been donated. The CEO watched these individuals and saw their talents; he said he could see "an innate love for the tasks." After doing some research, the CEO developed a business plan to create a partnership with a disability service provider and a recycler. Having worked in the rehab facility, the CEO knew that the individuals disassembling the equipment were on the Autism Spectrum and their unemployment rate was approximately ninety percent.

BSR started with a Denver, Colorado-based recycler, which paid them five cents per pound of equipment. Within one year, the CEO noticed the change in employees' behavior compared to that at the day rehab facility. The employees were not distracted by the noise of the environment, but were attracted to the work. The CEO found a family who donated a truck and additional equipment for disassembly. BSR has found success within the concept they created–providing opportunities for individuals with disabilities–which had been lacking.

BSR is part of VERN, the Vocational Electronic Recycling Network. VERN focuses on how to make e-waste recycling financially sustainable through a fee schedule and employing people with disabilities. Through VERN, newly established organizations are able to learn from the challenges BSR faced when they started their business. VERN helps develop business plans and provides consultation to create businesses that employ individuals with disabilities. This is

the model that BSR uses to help replicate their business model in other communities (Blue Star Recyclers, 2015a).

**Profile of Study Participants**

According to the BSR Production Manager, the company employs a total of 12 Techs at the Colorado Springs location. The Production Techs (n = 4) who were interviewed for this study, disassemble computers for recycling. The other Techs working in the Production area and in the BSR warehouse were observed. The Production Techs work approximately 4 to 16 hours a week, or one to four hours each workday. Four of the 12 Techs volunteered to be interviewed. The Production Manager stated that even though BSR does not ask about an employee's disability, typically those with Autism work on the production line disassembling computer equipment. This is due to the type of work being performed. Other jobs at BSR require the ability to quickly problem-solve and manage logistics; no volunteers from these areas of the organization participated in my study. Some of the Techs work one day a week due to the amount of money they can earn without penalty and loss of other sources of income. Two Techs work alternative schedules due to school commitments (i.e., they work in the afternoons). One Tech was not coming to work due to conflicts at work; no additional information was given about this situation. Other Techs were very focused on completing their jobs and did not take an interest in volunteering for the study; some were not verbal and did not make eye contact with me during the observations. However, observations of all the Techs were made about their working relationships with other Techs and Managers, how they communicated, and how they completed their work.

A mix of upper- and mid-level Managers participated in this study. Interviews included

Managers (n = 6) who oversee the production, logistics, safety, procurement, and overall

business practices for BSR.

<div align="center">**Research Questions Analyzed**</div>

The six research questions were analyzed using the coded interview data, observation

notes, and organizational documents. The findings are presented supplemented by quotes and

summarized themes.

**Employment Longevity**

RQ 1: Why are Blue Star Recyclers' Techs (employees) staying employed?

To address this research question, Tech participant responses were coded using the codes

for analysis, including recruiting, retention, work history, and nature of work. All nodes were

combined for RQ #1. For example interview questions 1 and 26, the codes for recruiting, were

combined. Questions 2 and 10 for retention also were combined.

Three of the four Techs mentioned that they started working at BSR due to a personal

connection, such as a family member. All four of the Techs interviewed spoke about previous

work experiences that were not positive. One Tech talked about their work experiences by

sharing that:

> Originally it started out as a volunteer job [job coach] was helping me starting to
> do volunteering because I refuse to do the typical, disabled person works in
> grocery store and we were just looking around and I don't know how she did it
> but she found out about this and then I volunteered here for about a year roughly
> maybe two years and then I got hired on last year and I've been working here a
> year.

Another Tech stated that:

> I was in need of one [job] and this was the closest one I could find since most
> other places usually require a full day's work such as Target or Walmart and other
> places they are not very flexible with my schedule, BSR has been the only job so

far that I have had that has been incredibly flexible with my ever-changing schedule.

One Tech mentioned working in a janitorial position for about three months. This individual felt

like a slave and it was not a good fit for them.

When the Techs were asked about their experiences at BSR, why they stay and a few

"good" things about their experiences, the responses were positive.

Responses included statements, such as:

- "Just thought it would give me something to do really because most of the time I am at home being bored and cleaning house so why not try something different."

- "I love helping people and it's a good way to help the environment; I love the people here, I love having fun."

- "I like the work atmosphere it's a very healthy work atmosphere we can play jokes yet still it's professional and have fun and the bosses are so chill I like a boss who is very relaxed but yet can be serious yet you know you can come to him and say hey I don't think this is right do you think you can look at it with me, I like that."

- "The employees, we get along great we are like this is my second family from my real one and we help the community that's one other thing I love about BSR and best of all we all get to have fun while working."

- "Everyone was really nice and I thought it was a really good fit because it was in the field that I like."

For Managers, codes used to address research question #1 included recruiting, nature of

work, retention, and employee feedback. The culture and how employees' skills are used at BSR

was integral to retention from the Managers' perspectives. One Manager stated,

> … obviously with our population there is circumstances that come up where we just, I think we understand as an organization that the person is going to have a lot of difficulty finding a job elsewhere so I think we take that responsibility pretty seriously and try to understand what is the root cause of the issue and looking at what can we do from the employers perspective, is there accommodations to allow the person to be successful. Ultimately at the end of the day we are not receiving any funding from the government, we have to be sustainable as a business and a person has to be able to sustain their own job and certainly there

are circumstances where that's not the case and certainly just from the behavioral stand point there are individuals that are maybe not in a place where they are employable. But we want to, we know why we exist and this is for the mission and if we can't make it work then the reality is that the next employer is probably not going to be able to make it work and so we want to give the person every opportunity we can.

Another Manager talked about recruiting Techs and finding a place for them at BSR:

…when they [future Techs] walk in here for their interview I have absolutely no interest in what's wrong with them I don't ask them what their diagnosis is I don't ask them where they have been and what they have done it's a brand new day with a brand new conversation I say are you interested in being part of a team or interested in contributing and being accountable to your team and if they say yes that's good enough and when they start from there and so I think we enjoy this massive advantage over our brethren in the service provider side because the context of the relationship is upside down. If I could wave a magic wand over this population I would say that all of them get a chance to do something like this first and three months later, six months later let's talk about the other services that might be necessary do you need help cooking or shopping do you need some help with a place to live the trouble we are talking about all that stuff first and we are leaving out the job and what I've learned from this gang is they would much rather be employed than have services provided.

The culture at BSR regarding management of Techs can be summed up this way: "I think it's our culture [they] get respect and they get treated the way you treat anybody else, it's literally to be able to joke with us and it takes a while for them to trust you a little bit but once they trust you they just adore you." Techs best described the day-to-day management at BSR as a fun and laid-back environment with little micromanaging.

Managers explained that they do not have to recruit for Tech positions. BSR is atypical in how they recruit, interview, and hire employees. BSR's recruiting and hiring techniques are unique to their organization, as potential employees walk in and tour the facility, which acts as their interview. A BSR Manager described the organization's techniques for hiring Techs this way:

[I do not have to do a lot of recruiting] I've gotten the word out a couple of times to various organizations and advocacy groups and that sort of thing and when I do that I am absolutely flooded with applications so I actually need to be pretty careful when I put the word out there because I want to be able to get each applicant the time they deserve and when I'm flooded with applications I can't do it, but we get applicants from a ton of different places Division of Vocational Rehabilitation, Transition program schools, walk ins like mom or dad recycled something with us and learned a little more.

[Family] recycled with us and that's how [Tech] came here so like any employer we are going to hire as we have need and based on the application and some work experience if we they will schedule a tour and that's mostly so they can come in and see the facility, it's a warehouse it's loud it's dirty and if that's an environment that the individual feels comfortable I want them to be able to experience it first hand and see maybe someone is like nope I want to stock shelves or have more of an office setting or something so if that's for you great but that's not what BSR is so the value of them experiencing it first hand and then the interview is a non-tradition a traditional interview is sitting across from someone and it's tell me about your strengths, qualities that sort of thing it's very verbal and the guys we hire it's not a strong suit of theirs but what the strong suit is following a set of tasks that have been shown usually visually so they are following me I'll do a demonstration and then turn over the tools and say show me what you got.

Another Manager added, "[Tech] came from just a walk in" when discussing how a Tech started at position at BSR.

When asked why employees (Techs) stay at BSR, Managers said that they identify issues and communicate with employees before the issues become problems, which may contribute to the high retention rate. BSR does not currently conduct exit interviews because "as part of the culture here we are very tightly knit so I didn't have to ask that person who retired why are you retiring we have had conversations upon conversations before they were leaving so we don't do them." Thus far, only one Tech has resigned from the BSR production position.

In general, both the Managers and Techs felt that the reason employees were staying employed at BSR was due to the way BSR recruits. BSR uses nontraditional recruiting methods to assess the strengths of future employees. Through working interviews such as tours, BSR has

created a meaningful workplace for Techs compared to some of their previous work experiences. The primary reason why BSR is able to keep their employees is that Managers and Techs have fun while working.

**On-boarding and Training Practices**

RQ 2: What on-boarding (first-day orientation) and training practices are used for the Techs?

To address this research question, the nodes used for Tech responses included on-boarding, training, and feedback. BSR has step-by-step processes for disassembling equipment. The Production Manager works closely with new Techs as they learn the processes, until they are able to disassemble equipment on their own. One Tech said "I remember my first day kind of taking a tour of the place and getting used to the warehouses and all that stuff and I remember my second day of the job my goal is doing five laptops I did like seven, eight laptops."

Codes for manager data included on-boarding and training. Managers train the Techs through hands-on demonstrations. Because BSR hires employees with very specific skill sets, many of whom are on the Autism Spectrum, Managers typically do not present training material using traditional delivery methods, such as a PowerPoint. Instead, at BSR, Techs usually are trained in approximately one month using hands-on demonstrations. The training teaches Techs how to disassemble equipment and helps them understand safety protocols. The safety manual, called *Environmental Management System Policy and Protocol Reference Manual*, includes two sets of protocols: 1) information that Techs need to know and how to act in specific situations, and 2) additional steps that are required by Management to mitigate situations (Blue Star Recyclers, 2015b). The document binder includes details about environmental policy, emergency action plans, data security policy, reuse policy, material management policy, authorized and unauthorized waste protocol, data security protocol, workplace violence protocol, and accidental

breakage of Cathode Ray Tube (CRT) glass. Cleanup procedures following the breakage of CRT glass provides an example of how the protocols differ for Techs and Managers. If breakage occurs where Techs are working, they are to notify the Manager and the Manager performs the cleanup. Some of BSR's safety protocols require Managers to make more decisions and follow additional steps to mitigate hazards.

Part of the safety guidelines at BSR is to ensure that Techs properly dissemble the equipment. When computer equipment is assembled, there are processes and procedures to properly put the pieces together. As Techs dissemble the equipment, they are shown the processes to safely take the equipment apart. Managers show the Techs steps to dissemble the equipment as to ensure that the material needing to be recycled is in its purest form to meet the downstream vendor requirements.

Figure 5 is a photo illustrating BSR data security steps. The poster is hung in a location that is clearly visible to all Techs, Managers, and customers.
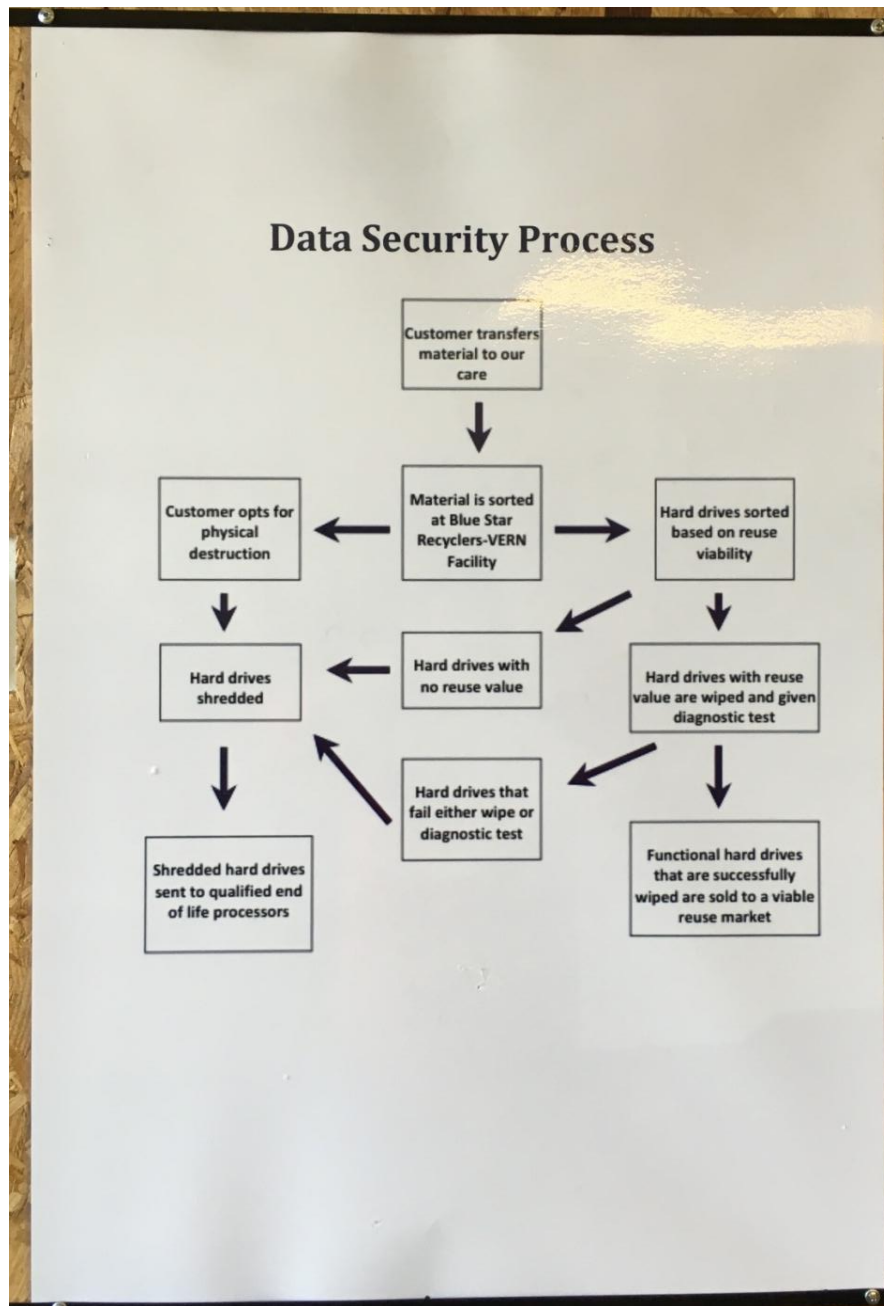
*Figure 5.* This Data Security Process poster hangs in the entryway at BSR.

*Figure 6.* A banner at BSR regarding third-party guidelines hangs in a location that is visible to customers.

Effective compliance is critical to BSR for a number of reasons. BSR follows voluntary

third-party certifications, as seen on the banner in Figure 6, as a Manager stated,

> …[they] have to be able to demonstrate that [BSR] are not just out there as a
> social enterprise saying support our mission because we are helping people with
> disabilities. We really have to show that we are operating at the same level of
> competency in terms of environmental management and health and safety as any
> other recycler so it is very important for us to be able to demonstrate that through

a third party so we actually pay to have an auditor come in and they do four or five days a year where they will look at all of our policies and all of our operations and do employee interviews then essentially sign off on us being competent in the management of this material.

This level of detail is important to BSR management because as described by a Manager:

…doing that [level of safety] with people with disabilities involves a complexity that other traditional businesses really don't have to deal with so we had to get a little bit more creative about that because the scope of those certifications really lay over every aspect of what we do and that is from the technician level the supervisor level all the way through. We had to be able to be very detailed about what each job requires and do so with the mindset of understanding that the assets and liabilities of the population that we works with.

When working with employees who have disabilities, BSR Managers know that communication is critical to their operations and the safety of the Techs. Managers talked about how they manage issues around safety and production within BSR. Because some of the Techs are not able to verbally communicate their needs, Managers regularly monitor production data. BSR Management has established production data to measure performance outcomes of each Tech. Typically, performance outcomes are based on how many computer towers or laptops Techs disassemble each day. These data are important because BSR uses the information to calculate units to be recycled, downstream revenue, and operational costs, such as hourly wages. These data are important to Managers for use in tracking behavioral issues. If a Tech's performance is declining, the data may indicate to Managers that:

…[the Techs] are having issues, they are not going to be asking for help, if there is something going on at home that is interfering with the job they are not going to be communicating that but a lot of those issues can become evident once you start looking at the data if you see a stark change in their level of production then the Production Managers knows something is going on and he kind of has to play detective and figure out what exactly it is because of those liabilities in communication. We are constantly looking at the day to day production, weekly, monthly, quarterly and looking for is that person continuing to develop and get better and if they are not than that is a clue that there is something going on and they are communicating based on that production level.

Generally, the training for Techs is focused on ensuring they understand how to disassemble the equipment in a safe manner, "the whole point is to get it apart efficiently, safely and the computer wasn't forced together at a manufacturer so we don't need to force it apart systematically you can get it apart safely" as stated by a Manager.

To ensure information is communicated correctly and understood during training processes, a Manager said they:

> …explain [the steps] verbally but I'm also going to do a demonstration they are right there with me, so I'm going to have them repeat after me what the part is that I'm taking out because categorizing is huge, we need to be able to categorize the parts correctly because that's what our downstream needs from us but again people typically on the spectrum are very good at setting categories and following step processes and that's what I'm looking for in the interview process so again that's not to say that someone that is not Autistic couldn't do this job but it tends to be a strength that comes with this disability.

One Tech said that during training a Manager explained the process this way, "You put the starbit screwdriver into the starbit screw and then you twist opposite to get it out. It took me a few times because I had to remember lefty loosey righty tighty."

At BSR, on-boarding and training practices include hands-on demonstrations and instructions to ensure Techs know the processes to safely take apart equipment. There are safety steps for both Managers and Techs based on the decisions needed to address a situation. Techs' performance is managed through metrics where Managers are able to assess issues a Tech may not be able to verbally communicate. These metrics can communicate a Tech's misunderstanding of how to do their job. Managers use this information to address issues and inform training.

**Managing Performance**

RQ 3: How does Blue Star Recyclers manage performance?

During the interviews, management were asked questions related to this aspect of the research study. The nodes established for this research question were performance standards, social and behavioral issues, and productivity.

Tracking production is the most important performance standard that has been established at BSR. Each day, Techs see what they are responsible for disassembling. They also see a tally of the team's progress on an established monthly goal. These numbers are posted on a white board in the production area, per Figure 7. Stacked under the board, Managers palletize the corresponding equipment that needs to be disassembled. The goals are visually represented through numbers and the stack of equipment, which serves as a feedback mechanism for the Techs, both individually and as a team. Each Tech knows his or her quota for the day and what the team has accomplished for the month to date. These numbers equate to the overall goal, which relates to performance and jobs created. Throughout the day, the Techs and Managers mentioned progress on the goal, reinforcing the importance of the goal in a positive manner by congratulating the entire team.

*Figure 7.* Production data on a white board over pallets of computers to be disassembled.

While observing the Techs and Managers in the production and disassembly area at BSR, it was noted that the Techs arrive early so they can start their day on time. While some Techs drive to work, many take metro mobility bus service, or have parents or guardians drive them. When each Tech arrives, he or she pulls a box from an assigned locker. The box contains basic tools such as a screwdriver, pliers, gloves, safety goggles, and, in some cases, smaller plastic containers for screws and wires. Each morning, the Managers welcome the Techs and start the day by doing something fun, such as stretching or push-ups. The Managers tell the Techs to have a great day and they all start their work.

All the Techs watch the clock as it nears lunchtime, at 11:30. One Tech walks over to the team-made gong, as seen in Figure 8; the Tech strikes the gong and everyone goes to lunch. In the lunchroom, the Techs are free to eat and do as they want. Some talk with fellow Techs and some watch videos on TVs provided by BSR. One Tech uses a handheld device to watch TV. They talk about sports, plans for the weekend, and other activities in which they are involved. During lunchtime, some of their social behaviors were observed, such as moaning and outbursts; these behaviors were minimal during work time. The Production Manager stated that it is typical to see behavioral issues during lunch, but it is rare to see them while Techs are focused on their tasks during work hours. Lunchtime ends at 12:30 and each Tech goes back to work without any prompting from management.

The Techs work at a long table in the entryway of BSR. As customers enter the building to drop off items for recycling, they can see the Techs at work, as in Figure 9. Techs stand or sit depending on what they are disassembling and what is most comfortable for them. The Techs who disassemble hard drives that have smaller parts tend to sit throughout the day. The Techs who disassemble the larger computer towers and computer servers stand, as the machines are

larger and the Techs need to walk to the recycling bins to distribute materials. As the Techs

remove parts from the equipment, they place the items in various bins and large boxes

throughout the warehouse, per Figure 10 and Figure 11. Each bin and box is individually labeled

so the Techs know exactly which components to place in each box. Managers then send the bins

and boxes for further recycling downstream.



*Figure 8.* This team-made gong is used to alert the Techs for lunch or a break.

*Figure 9.* Techs working in the production area at BSR.

*Figure 10.* Bins are clearly labeled so the Techs know where to deposit various components.



*Figure 11.* Computer parts are sorted into a large box for recycling downstream.

The Managers discussed how they have used the skills and talents of each Tech to create

performance outcomes. One Manager stated, "We have created a system that is meaningful to the

[Techs] and they understand what that chart means and so the goal is to see where we are at the

end of the day and that's where it's going to be communicated and that's done daily at the end of

the day." Another Manager emphasized,

> Working with this population you have to have that because like with [Tech] he
> has a hard time retaining information from one day to the other so constantly he
> will be asking questions almost every day two or three questions and he'll call me
> even if I'm out and about and even if he's been there before he'll be calling me
> for little simple stuff and you have to be there for him though it's repetitive.

The Managers know that some people with motor skill limitations may not be a good fit for BSR.

However, the learning styles and abilities of others are a good match for these jobs and the Techs

learn the processes quickly.

Performance is critical to the success of BSR, which ships material downstream to

generate revenue. BSR watches the market to determine what consumers are purchasing and to

assess the value of the recycled material, which translates into production data at BSR. BSR

calculates the recycled market value of the items and the additional organizational costs, such as

Workers' Compensation and payroll processing. In some cases, Managers may give Techs more

complex or more valuable items to disassemble to help justify their positions, particularly if they

are slower at disassembling other types of equipment.

When managers were asked about performance evaluations, the Managers said they do

not conduct performance evaluations for the Techs; however, the leadership does provide

performance evaluations for the Managers. Through the analysis of this research question with

the data collected through interviews, observations, and review of documents, it was determined

that BSR manages performance through production goals. These goals are created for

organizational success corresponding to Tech job creation based on market trends for these

materials. BSR uses numbers to communicate job expectations and celebrates achievement of these goals. The productivity and social and behavioral code was not used when analyzing the data since BSR focuses on numeric goals for managing performance.

**Management Defining Success**

RQ 4: How does management define success?

Managers defined success at the organizational and personal levels, and discussed how they thought Techs would define success. When customers, Techs, and Managers enter BSR, they can see a banner showing what success has meant at BSR, as seen in Figure 12.



*Figure 12.* BSR has a celebration banner hanging in the entryway of their building.

Managers defined success for the organization and for the Techs by stating:

- BSR defines success as keeping this company together and doing all the right things especially with the recycling aspect and all the environmental issues …. to do great for the environment and keep these [Techs] working and keep these doors open

- Consistently exceeding quotas overcoming new challenges and obstacles and of course bonding with other co-workers.

- I think ultimately most of us that work here are motivated by fun and I think the most important thing for me is if this continues to be a fun atmosphere and if we are not hav[ing] fun we have gone off track … I don't think the [Techs] care anymore about e-waste recycling than we do. Everybody is here because it is a family and ultimately when everybody is going about their job in a joyful way than up to this point we have always been able to make it and that's the key.

A word cloud was created to illustrate how the Managers at BSR define success. In Figure 13, the words most used by the six Managers are presented. The key words, such as fun, numbers, job, production, guys (refers to the Techs), and individual, are all positive and show how the culture at BSR influences how the Managers define success. There appears to be a good balance between production outcomes and having fun in the workplace. This was evident during my three days of observations.



*Figure 13*. A word cloud depicting how BSR Managers define success.

Management defined success based on how they have created a playful atmosphere with and for the Techs. For example, a red phone hangs on the wall in the production area. The phone is not connected to a phone line, but the Techs and Managers make playful pretend calls to the president of the United States, the cops, and parents, tattling on one another. Everyone laughs and giggles at the jokes. However, when it is time to work, Techs focus on emptying their pallets and meeting their goals. Goals are celebrated at the end of every day. All Managers come out to the production area where music is played at the highest volume and the Managers read aloud the totals that each Tech completed that day. The data on the board is updated, and many Techs exceed 100% of their goals.

**Techs Defining Success**

RQ 5: How do Techs define success at work?

Figure 14 shows a word cloud for how the Techs define success. The Techs responded to this interview question with statements about wanting to do good things, meeting their goals or quotas, and improving their performance. It is clear they take a lot of pride in the work they do at BSR. They describe their experiences as fun and they like being able to joke with their mangers and fellow Techs.

*Figure 14.* A word cloud depicting how BSR Techs define success.

Figure 15 depicts a combined word cloud created from the words the Mangers and Techs used to define success (Figures 13 and 14). This illustration shows that both Managers and Techs spoke about success in relation to jobs, the "guys" which a term frequently used at BSR for the Techs, production, environment, doing better, and doing good.



*Figure 15.* A word cloud depicting how both Managers and Techs define success.

**Organizational Experiences**

RQ 6: What can Managers learn from Blue Star Recyclers' experiences?

When Managers were asked about sharing what other Managers can learn from their

experiences at BSR, they spoke about providing opportunities for people, learning from mistakes

to make the organization better, and empowering people to do their best. These themes were best

described by these quotes:

- Well I really think this approach that's based on empathy … every single person here is leading here because of empathy not sympathy. We don't pat people on the head and say oh poor person has a disability… empathy drives everything and it keeps the focus on the mission instead of on the dollars and on the numbers we need all three but it's empathy that always keeps your folks here. As long as [Tech] is happy I'm happy, if [Tech] is not happy, I'm not happy so I would say even if we got a check for a million dollars today and [Tech] is sitting out there and [Tech's] not having any fun this is not working and I would say that would be the thing I would ask other leaders why are they doing what they are doing.

- I think certainly we have a lot to teach in terms of being able to set somebody up for success, especially in terms of people with disabilities. I think we've gotten pretty creative in ways that we do identify assets and the ways that we accommodate liabilities. I think we certainly set up a culture where we are getting the best out of our [Techs] in terms of accountability in terms of level of focus and motivation. I think a lot of this is just the organic nature of us being dependent upon each of those [Techs] and there are also certain methodologies that we've developed certain ways of establishing those expectations that I think other companies can learn from.

- I'm sounding like a broken record but if I see people having fun and they are smiling even if they are the [Techs] that are a little non-verbal they are still smiling or they got that extra skip in their step or giving high fives. High fives are awesome but production numbers are good I can't just let that go. I always have to keep an eye on those numbers but those production numbers if people are having fun production is up it's just if you like your job you are probably going to be better at it and if you hate your job and I've had jobs that I've hated and I didn't do a very good job I didn't want to be there.

BSR uses an atypical job interview process to assess the skills and interests of potential new

employees. When people come to BSR to tour the facility and express an interest in working

there, the Managers can have the person fill out an application. When the Managers were asked

about working with individuals who have Autism Spectrum Disorders and other disabilities, they

shared these comments:

- Man they've taught us more than I have ever taught them. I think the reason our interview process goes so well is we do a tour before we get down to business by the end of the tour they are like 'this is really cool.' That's the way it should be so if a person with Autism or a person with a disability is sitting home thinking the only job they could get would be licking stamps or sorting hangers for Goodwill, don't settle. I think they are more likely to settle than we are … but they really settle because they just don't get a chance so I would say come to town and interview.

- I think the key for our [Techs] is having an outlet to really be something more than what the expectations that have been set for them by virtue of their disability. It's understanding that ultimately they are going to be defined by how they overcome their liabilities and how they can contribute to others. I think a lot of our [Techs], they might not be able to articulate why they are so frustrated in that support network but where they've had success is just by somebody finally taking the leash off and go you're a man, you're a woman, you are somebody that is accountable, you're somebody that can have value and allowing them to be either be successful or not be successful but define themselves.

Some of Techs made comments to share with others who want to enter the workplace or

Managers who will be employing people with disabilities.

- Go out and try finding it, find your niche with it and if it doesn't work for you try something else. My job might not be for everyone but just keep asking and go ask around, go do research online that's how I found out how to repair my phone screen. Do research, ask your neighbor, ask your third cousin on whatever side of the family. Ask, look and keep asking even if you sound like the most annoying person known to man keep asking because you will eventually get that answer. Definitely don't count the odd ball person out I remember from high school because when you have that boring nine to five job just remember there are the ones having fun and you are probably thinking man I wish I would have never made fun of them because they are probably having more fun than you ever will with their jobs. I love [my job]. I work with other people who have disabilities some more severe, some not severe as I do and I think that is how we do really well with making this business successful it's like we all have our level of knowing what needs to be done and I think that is how we do it. It's like a well-oiled machine.

Throughout the interviews and observations, the Techs shared pride in their work, the fun they

have while working, and the sense of accomplishment they have in their jobs.

Another important component of the culture at BSR revealed is their rewards and recognition systems. These systems are in place for all employees; Techs recognize and cheer on other Techs, and the Managers support and congratulate each other and the Techs. Management takes the time to celebrate the achievements of the workforce. During my observations and data collection, many Techs and Managers spoke about how the CEO recently took everyone to a baseball game. They shared stories about the game, the food they ate, and how they got in a peanut fight. Additionally, Managers mentioned how the CEO recognizes them in times of need. For example, the CEO provided new phones when it was mentioned that the current phone was not working. The CEO also purchased tickets for a weekend getaway for one of the Managers. This team approach has created a support system both in and out of the workplace.

## The Purpose Realized

The purpose of this study was to conduct a case study about how Blue Star Recyclers employs and manages individuals who have various needs, and to identify performance management techniques useful when managing a diverse workplace. Out of necessity, BSR focuses on production goals as a means of creating revenue to sustain the organization and keep Managers and Techs employed. However, the focus is not just on production numbers. Managers have created a sense of purpose and value for Techs through the culture of the organization. Leadership appreciates the skills, abilities, and creative thinking that Managers and Techs bring to their jobs. Techs understand the importance of disassembling the equipment, and they enjoy the work and their co-workers. Managers focus on production, yet they take the time to celebrate a job well done, ensure safety, and have fun each day.

Mangers wanted to share with others these thoughts about the workforce they employ:

- I would say you need to hire these people because they are the best work force out there but you have to also treat them with respect and don't see them as disabled. See them as

maybe having different abilities than you do. Be able to communicate with them and really have a lot of patience.

- I would say the biggest thing is communication style. A gentle accountability so not slamming down the hammer if something goes wrong but again recognizing what an individual is working to the best of their ability so recognizing their ability and pushing the maximum of that ability and pushing them to the next level and hold them accountable to what the best of their ability is and have fun.

- My passion for this was not the operational stuff, I still haven't developed a passion for recycling electronics. I have a passion for employing this population to do this work. I mean the environmental impacts are wonderful we love that, but the day-to-day activities involved in electronic recycling are not rewarding. You're moving a bunch of material around and there is no love in it, it's just stuff and that stuff is a means to an end. If tomorrow you told me that I could employ more people from this workforce by baking bread, we would get out of this business in a heartbeat. Baking bread would be a lot more fun and at least it smells better. Electronics recycling is definitely the platform for what we are doing, it's one of the things [Techs] do very well so that's really the thing I think that makes this work. BSR is one of the few electronic recyclers I think in the country that can boast that we have a team that is not miserable; all the other ones we work with are pretty miserable.

When Managers were asked if they manage the Techs at BSR differently than employees without disabilities, they all agreed they do not. BSR uses the skills and abilities of their employees to achieve the goals of the organization, focusing on its mission as a team. They all contribute to production – from the Manager who is responsible for acquiring computer equipment for recycling, to the Manager overseeing the disassembly process, to the Manager who is responsible for safety, and to the Techs who are responsible for disassembly–each has a specific responsibility and has contributed to the success of BSR.

Managers in other organizations can learn from BSR about how their focus on established goals and metrics have led to organizational success. The Managers regularly monitor and analyze the metrics to establish goals for the Techs, thus managing performance outcomes. Jobs are created through these goals, yet the culture of BSR is largely based on meeting and exceeding the goals at the individual and team level - - in other words, it is focused

on its people. Managers play an integral part in maintaining the positive culture, as they establish a fun work atmosphere for the Techs that allows them to succeed based on their skills.

The Managers at BSR do not focus on behaviors, but instead manage situations as they arise. BSR treats all employees equally and creates a fun atmosphere that inspires them to work hard every day. For those who are considering employing individuals with Autism Spectrum Disorders or other disabilities, the lessons learned from BSR are important. BSR understands that Managers need to adapt their communication styles to ensure that individual employees receive and understand important messages about safety and doing their work. BSR Managers create individualized goals that are easily understood and in exchange they have a workforce that is skilled in achieving the mission of the organization.

CHAPTER 5: CONCLUSION

A case study design was used to identify performance management techniques employed at Blue Star Recyclers (BSR) for managing a diverse workplace. The value of this study and the findings is that they can be used as a tool to inform managers about performance management techniques applicable in a diverse workplace. Employees seeking employment options should find the information useful in determining how their skills, abilities, and interests fit within an organization and its culture.

## Findings Related to the Literature

For this case study, six research questions were developed and answered through qualitative data collection, reviewing and interpreting data from interviews, observations, and documents. Based on the data, one of the major findings is that BSR is a successful organization. BSR has tailored jobs and tasks for their employees based on their skills and abilities. BSR manages performance by setting organizational goals and objectives. If employees are not achieving individual goals, management knows that a behavioral issue may need to be addressed; behavioral issues may be related to a situation at home or how an employee is feeling that day. BSR focuses on production and not the behaviors of the employees. According to Aghazadeh (2009), when a company diversifies its workforce, the organization will be more creative by employing different ideas, thus increasing productivity. BSR has created a consistent environment, while accommodating the varying skills and abilities of employees. As stated in the literature review, employees tend to be more successful in the workplace when management supports their skills and behaviors; this is especially true for individuals with an Autism Spectrum Disorder (Barnhill, 2007; Dew & Alan, 2007; Grandin & Duffy, 2004; Hendricks &

Wehman, 2009; Hurlbutt & Chalmers, 2004; Mawhood & Howlin, 1999; Robinson & Smith, 2010; Van Wieren, Reid, & McMahon, 2008).

BSR has been able to link organizational goals to individual goals through tailored jobs and tasks in which employees' skills fit the jobs (Gilley, Boughton & Maycunich, 1999; Gilley & Maycunich, 2000; Robinson & Robinson, 1996). Performance targets are displayed visually, which fit the communication styles of the employees (Grandin, 2006; Grandin & Duffy, 2004; Lisle, 2007; Wolf et al. 2009). BSR has focused on creating a fun atmosphere in which employees' goals are connected to team and organizational goals. This atmosphere motivates the employees, who enjoy going to work. BSR engages in day-to-day performance management rather than conduct traditional performance evaluations. This has been a successful model for BSR, as it allows Managers to correct specific issues and immediately reinforce performance (Goodman & Wood, 2005).

During the interviews with BSR leadership, they commented about how each Manager is expected to run a particular area. Organizational goals are established and communicated to each Manager at meetings; Managers meet on a weekly basis to discuss goals, team objectives, and overall production. One Manager commented:

> …every single person here [that is a leader] is here because of empathy not sympathy we don't pat people on the head and say oh poor person has a disability we empathize. I empathize because I've been a throw away at fifty-two nobody wanted me so I know exactly how those [Techs] feel. Every one of us has experienced that some point in our life of being without value so we come to work with this empathy and it drives everything and it keeps the focus on the mission instead of on the dollars and on the numbers. We need all three but it's empathy that always keeps your folks here. [Name] is why I'm here because as long as [a Tech's] happy I'm happy if [a Tech's] not happy I'm not happy so I would say even if we got a check for a million dollars today and [a Tech] is sitting out there and [a Tech's] not having any fun this is not working. And I would say that would be the thing I would ask other leaders why are they doing what they are doing.

This Manager said that leadership does not micromanage other Managers, but allows each to run their work areas based on their knowledge and skills. The way performance is managed from the organization mission to the individual is best described by the Organizational Learning, Performance and Change Model (Gilley and Maycunich, 2000), Performance Management Process Model (Robinson and Robinson, 1996), and Performance Alignment Model (Gilley, Boughton and Maycunich, 1999), Figures 2, 3 and 4. These models demonstrate how organizational goals are linked to unit and individual goals, which outline performance goals and measures for performance evaluations. BSR has strategically and thoughtfully linked its organizational goals to its unit goals, particularly in the production unit. The Production Manager establishes individual performance goals for Techs, which ultimately creates jobs.

In linking the interviews, observations, and document review, data was triangulated which revealed some interesting trends (Creswell, 2009). Two themes, represented in Figures 16 and 17, were visually triangulated to show how "fun" and "goals" appeared in the interviews, documents, and observations. Managers and Techs talked about fun when describing the overall work atmosphere and why they like coming to work each day. During the review of the BSR Annual Reports, it was immediately noticed the photos of smiling Managers and Techs giving thumbs-up signs. As noted during the observations, Techs walked by one another and gave high-fives after disassembling computers. Techs laugh at each other's jokes and nonverbal communications, such as playfully slamming down heavy objects. The interviews confirmed how Managers and Techs enjoy their work and the environment through the stories told about having fun.

Goals were triangulated through interviews as Techs talked about the importance of personally meeting and exceeding their daily quotas. They talked about how they wanted to do

better and be able to disassemble different types of computer equipment. Each morning, the

Managers told the Techs to have a good day and encouraged them to exceed their goals. At the

end of the day, the Production Manager played loud music and read aloud the number of

computers each Tech dissembled, as well as the total for the group. The atmosphere in the facility

was celebratory, as other Managers high-fived and hugged the Techs in celebration of their

accomplishments. The BSR printed materials discuss goals and accomplishments as a means to

provide employment to individuals with disabilities.
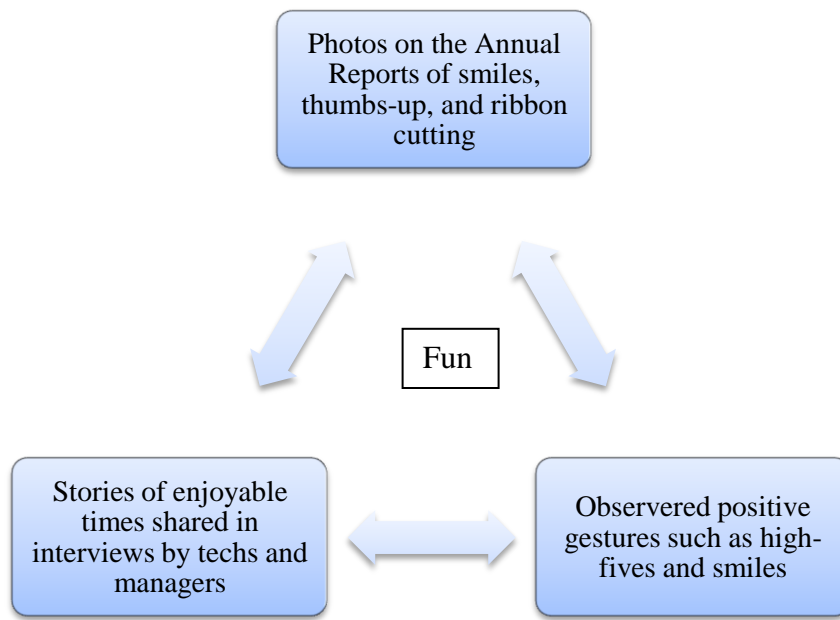


*Figure 16.* Triangulated data from interviews, document reviews, and observations of fun.
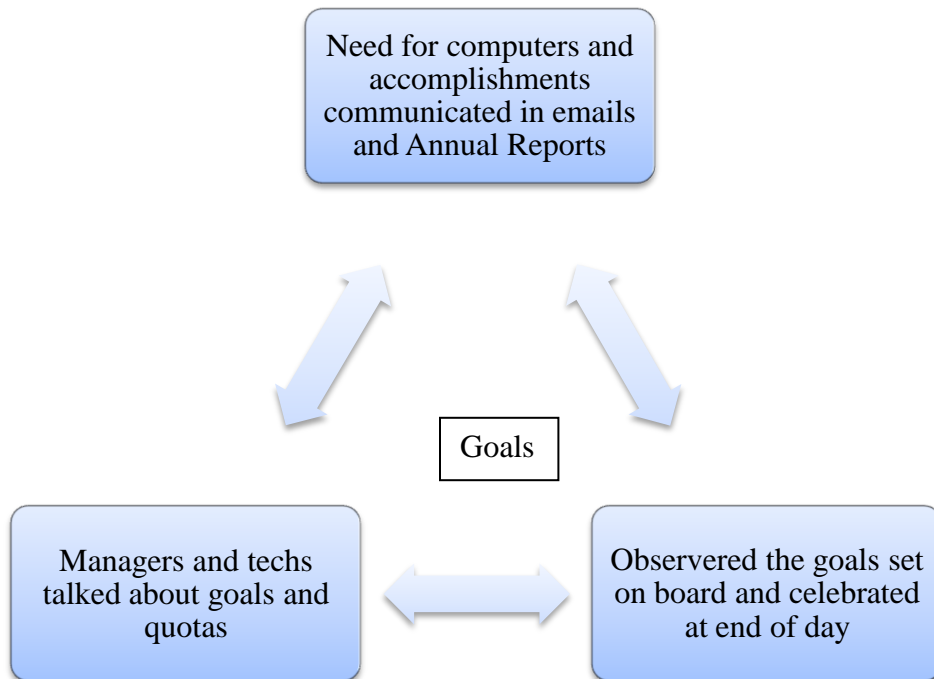
*Figure 17.* Triangulated data from interviews, document reviews, and observations of goal-setting.

Throughout the interviews with the Managers and while observing the Techs, it was interesting to see how the skills of each Tech were used. When two Managers were asked if the Techs' disabilities were a factor, they said:

- You [a manager] don't see it.

- We want to employ people not because they are working around what they can't do but recognizing the strength that comes along with their disability and employ them for that.

To further explore how Managers utilize the skills of the Techs, the two Managers were asked if BSR treats their Techs different than other employees in the workplace. One of the Managers replied as follows:

> Everyone has their strength but I think so many times in employing a non-traditional work force, the focus has been on what can this person not do and try to fit them into a mold based on what they can't do. And what we want to do is look at the strength that comes with that the attention to detail the affinity for a repetitive task the recognizing of the mechanical way these things go together and

since the people that we employ have such a strength in that area that's why we hire them.

BSR has found performance management techniques that work for their organization. They have created a culture that allows all employees to uses their skills and abilities, which focus on organizational outcomes. Everyone within BSR knows what the goals are, yet the enjoyment they get from their work, their co-workers, and accomplishing their performance goals provide the motivation for many of the Managers and Techs to come to work each day. This business model may not be applicable to other organizations, as behaviors such as giving high-fives and joking around would not be acceptable. However, organizations tend to be more successful when they have leaders who create a culture in which employees know what the goals are, how the goals will be measured, and how they contribute to the outcome. These organizations focus on the metrics and deliverables of employees through constant feedback, while creating an environment where employees enjoy working and are able to use their skills and abilities.

## Limitations of the Study

Tech interview times were much shorter than expected, and most of the interviews and observations resulted in similar content. From these interviews and the observations of the work environment, rewards/recognition systems, reasons people gave for working there, what hasn't worked before for employment opportunities, insights into the organizational culture, and production goals/standards, additional or longer interviews likely would not have altered the findings of the case study, as the observational data supplemented and supported the information gathered during the interviews.

The most significant limitation to this study was access to Tech participants. Additional attempts to recruit Techs volunteers for interviews were made, as having more Techs involved would have made the findings richer. In some cases, Techs were observed who did not volunteer

for the interviews. Observations were made about how nonparticipants interacted as part of the team, their involvement in the recognition process, and their nonverbal acknowledgments of others, such as high-fives.

The codes developed while reviewing the literature were not as useful once the research started coding and analyzing the interviews and observational data. This could be a result of how BSR runs the human resources aspects of its business compared to traditional human resources performance management techniques. For example, BSR does not use traditional application, interview, selection criteria, and on-boarding processes. Instead, BSR allows people to tour the facility and determine whether the type of work they do fits the individual's interests and skills; these tours are like an interactive interview where the "applicant" is interviewing BSR as much as BSR is interviewing the applicant. Thus, the coding from traditional HR practice did not apply and the codes needed to be adjusted to fit the case study for BSR.

Once the data were entered into NVivo, it was found that it would have been beneficial to code them differently in order to run more effective queries. Due to my lack of knowledge with the software, additional analyses were conducted by re-reviewing the data. Having reviewed the interview transcriptions while listening to the recording, the researcher became more familiar with the content. Additionally, by entering the data into NVivo, additional insights and themes became more apparent.

## Recommendations for Future Research

Opportunities for research include analyzing other organizations that have been successful in performance management. These organizations may or may not have diverse populations, yet it may be beneficial to compare why employees stay or leave the organization and how managers impact employee performance. Analyzing why employees and the

organization are successful in relation to performance management provides another avenue for further research.

As the guidelines for Autism Spectrum Disorder are modified and the laws change for employing individuals with disabilities, research can focus on how employers cover the increasing costs for health care and any associated liabilities.

Another study could be conducted on other e-waste recyclers who employ nondisabled people to determine what, if any, differences exist between disabled and nondisabled workforces. The study could compare the organizations and how the success of employees impacts the overall organization.

BSR does not have a formal training program for their Techs. Research could be conducted on training techniques that help educate all employees and groups. Based on the findings of the research, training manuals could be developed and used for training opportunities in many situations and organizations. For example, trainings could focus on the steps that need to be taken to safely disassemble different types of equipment, appropriate behaviors in the workplace, the roles of a manager, and how to establish performance metrics and goals to create jobs.

### Conclusion

BSR has created a successful organization that happens to employ individuals with disabilities. Managers focus on the abilities of their employees and on the production necessary to meet the mission of the organization, while also creating a fun work environment. In doing so, they have experienced almost no turnover or absenteeism. Other organizations can use the model BSR has developed of focusing on the outcomes and objectives of employees, linking individual goals to organizational goals, and creating an environment in which employees like to work.

The themes identified from the interviews, document review, and observations were used to develop the executive summary, an oral presentation for BSR Managers, and journal articles to inform managers about performance management techniques that can be used in diverse workplaces.

Organizations looking to realize similar successes as BSR should focus on the skills and strengths of their employees with measurable goals for their employees. BSR has found nontraditional methods to hire, train, employ, and manage individuals who have difficulties finding and keeping employment. Through the performance management methods at BSR, Managers have successfully created an environment that empowers all employees to be successful and perform their jobs using their skills and strengths; they stopped focusing on the behaviors and started focusing on the measurable outcomes. BSR has made an effort to manage work production and have teams focused on goals; each individual can see their contribution all the way to completion. At BSR, all employees contribute as a team, where they impact the mission of the organization, and they have a good time doing it.

REFERENCES

Aghazadeh, S. (2004). Managing workforce diversity as an essential resources for improving organizational performance. *International Journal of Productivity and Performance Management*, *53*(6), 521-531. doi:10.1108/17410400410556183.

Anderson, A., Moore, D., Goodfrey, R., & Fletcher-Flinn, C. (2004). Social skills assessment of children with Autism in free-play situations. *8*(4), 369-385. doi:10.1177/136231304045216.

Autism Spectrum Disorders (ASDs). (2016). Retrieved from Center for Disease Control and Prevention http://www.cdc.gov/ncbddd/autism/data.html.

Barnhill, G.P. (2007). Outcomes in adults with Asperger syndrome. *Focus on Autism and Other Developmental Disabilities*, *22*(2), 116-126. doi:10.1177/10883576070220020301.

Bauminger, N. (2002). The facilitation of social-emotional understanding and social interaction in high-functioning children with Autism: Intervention outcomes. *Journal of Autism and Development Disorders*. *32*(4), 283-298.

Beresford, B., Tozer, R., Rabiee, P., & Sloper, P. (2006). Desired outcomes for children and adolescents with Autistic Spectrum disorders. *Children & Society, 21*, 4-16. doi: 10.1111/j.1099-0860.2006.00008.x.

Blue Star Recyclers. (2014). Blue Star Recyclers 2013 Annual Report. Retrieved from www.bluestarrecyclers.org.

Blue Star Recyclers. (2015a). Blue Star Recyclers 2014 Annual Report. Retrieved from www.bluestarrecyclers.org.

Blue Star Recyclers. (2015b) *Environmental management system policy and protocol reference manual.* Colorado Springs, CO: Blue Star Recyclers.

Blue Star Recyclers. (2016). Blue Star Recyclers 2015 Annual Report. Retrieved from www.bluestarrecyclers.org.

Bolton, R., & Grover Bolton, D. (1996). *People styles at work: Making bad relationships good and good relationships better*. New York, NY: Ridge Associates, Inc.

Buckingham, M. (Producer) (2006). *Trombone Wanted*. [Informational Series]. Beverly Hills, California.

Buckingham, M. & Clifton, D. (2001). *Now discover your strengths*. New York, NY: The Free Press.

Buckingham, M. & Coffman, C. (1999). *First, break all the rules: What the world's greatest managers do differently*. New York, NY: Simon & Schuster.

Burke, L. & Hutchins, H. (2007). Training transfer: An integrative literature review. *Human Resource Development Review*, 6, 263-296. doi: 10.1177/1534484307303035.

Cannon, M. & Witherspoon, R. (2005). Actionable feedback; Unlocking the power of learning and performance improvement. *Academy of Management Executive*, *19*(2), 120-134.

Capuzzi, D. & Stauffer, M. (2006). *Career Counseling: Foundations, Perspectives, and Applications.* Boston, MA: Pearson Education, Inc.

Carlyn, M. (1997). An assessment of the Myers-Briggs Type Indicator. *Journal of Personality Assessment, 41*(5), 461-473.

Clandinin, D.J. & Connelly, F.M. (2000). *Narrative inquiry: Experience and story in qualitative research.* San Francisco, CA: John Wiley & Sons, Inc.

Colorito, R. (2010). Autism enters into the equation. *Workforce Management*, *89*(11), 3-4.

Colorosa, S. & Makela. C. (2014). Integrative literature review: Styles of learning for Autism Spectrum disorders and human resource development: Informing performance management. *International Journal of Business and Social Science.5(13),* 1-12.

Conti, G. (2009). Development of a user-friendly instrument for identifying the learning strategy preferences of adults. *Teaching and Teacher Education*, *25*(6), 887-896. doi:10.1016/j.tate.2009.02.024.

Contugno, A. (2009). Social competence and social skills training and intervention for children with Autism Spectrum disorders. *Journal of Autism Developmental Disorders*, *39*, 1268-1277. doi:10.1007/s10803-009-0741-4.

Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. (2009). *Research design: Qualitative, quantitative and mixed methods approaches*. Thousand Oaks, CA: Sage Publications, Inc.

Cummings, T.G. & Worley, C.G. (2008). *Organization development and change* (9th ed.). Mason, OH: South-Western.

Dew, D.W. & Alan, G.M. (Eds.). (2007). *Rehabilitation of individuals with Autism Spectrum disorders* (Institute on Rehabilitation Issues Monograph No. 32). Washington, DC: The George Washington University, Center for Rehabilitation Counseling Research and Education.

Diversity. (2015). Retrieved from Dictionary.com. http://dictionary.reference.com/browse/diversity

DSM-5 Overview: The Future Manual. (2013). Retrieved from *American Psychiatric Association DSM-5 Development*: http://www.dsm5.org/about/Pages/DSMVOverview.aspx.

Elkins, S. (2003). Transformational learning in leadership and management positions. *Human Resource Development Quarterly*, *14*(3), 351-358.

Estes, B., & Wang, J. (2008). Integrative literature review: Workplace incivility: Impacts on individual and organizational performance. *Human Resource Development Review*, *7*: 218-240. doi: 10.1177/1534484308315565.

Facts About the Americans with Disabilities. (2015). Retrieved from U.S. Equal Employment Opportunity Commission. http://www.eeoc.gov/eeoc/publications/fs-ada.cfm

Ford, K. & Wasson, D., (2005). Learning reinforcement-feedback. In Cartwright, S. (Ed.), *The Blackwell Encyclopedia of Management*. Hoboken, NJ: Wiley

Frequency Asked Questions. (2011a). Retrieved from the U.S. Department of Labor: http://webapps.dol.gov/dolfaq/dolfaqBYsubtopic.asp?subtopicid=163&topicid=11

Frequency Asked Questions. (2011b). Retrieved from the U.S. Department of Labor: http://webapps.dol.gov/dolfaq/dolfaqbytopic.asp?topicID=11.

Frith, U. (1991). Asperger and his syndrome. In U. Frith (Ed.), *Autism and Asperger Syndrome*. (pp. 1-36). New York, NY: Cambridge University Press. Retrieved from http://sites.google.com/site/utafrith/publications-1/autism.

Frith, U. (1993). Autism. *Scientific American. 268*, 108-114.

Gallup, Inc.: StrengthsFinder 2.0 Report and Reference Guide (2008). Retrieved from Gallup, Inc. https://www.gallupstrengthscenter.com

Ganz, J., Earles-Vollrath, T., Heath, A., Parker, R., Rispoli, M., & Duran, J. (2011). A meta-analysis of single case research studies on aided augmentative and alternative communication systems with individuals with Autism Spectrum disorders. *Autism Developmental Disorders*, *42*: 60-74. doi: 10.1007/s10803-011-1212-2.

Gegenfurtner, A., Veermans, K., Festner, D., & Gruber, H. (2009). Integrative literature review: Motivation to transfer training: An integrative literature review. *Human Resource Development Review*, *8*, 403-423. doi: 10.1177/1534484309335970.

Ghorpade, J., & Chen, M. M. (1995). Creating quality-driven performance appraisal systems. *Academy of Management Executive*, *9*(1), 32-41.

Gibson, S. (2004). Social learning (cognitive) theory and implications for human resource development. *Advances in Developing Human Resources*, *6*(2), 193-210. doi: 10.1177/1523422304263429.

Gilbert, J. A., Stead, B., & Ivancevich, J.M. (1999). Diversity management: A new organizational paradigm. *Journal of Business Ethics*, *21*, 61-76.

Gilley, J. W., Boughton, N. W., & Maycunich, A. (2000). *The performance challenge: Developing management systems to make employees your organization's greatest asset*. Cambridge, MA: Perseus Publishing.

Gilley, J. W., & Maycunich, A. (2000). *Organizational learning performance and change: An introduction to strategic human resource development*. Cambridge, MA: Perseus Publishing.

Gilley, J. W., Quatro, S. A., Hoekstra, E., Whittle, D. D., & Maycunich, A. (2001). *The manager as change agent: A practical guide for developing high-performance people in organizations*. Cambridge, MA: Perseus Publishing.

Goodman, J., & Wood, R. (2004). Feedback specificity, learning opportunities, and learning. *Journal of Applied Psychology*, *89*(5), 809-821. doi:10.1037/0021-9010.89.5.809.

Grandin, T. (2006). *Thinking in pictures: My life with Autism*. New York, NY: Random House.

Grandin, T. (2008). *The way I see it: A personal look at Autism and Asperger's*. Arlington, TX: Future Horizons.

Grandin, T. & Duffy, K. (2004). *Developing talents: Careers for individuals with Asperger syndrome and high-functioning Autism*.  Shawnee Mission, KS: Autism Asperger Publishing Co.

Gray, C. (2010). *The new social story book*. Arlington, TX: Future Horizons.

Guba, E.G., & Lincoln, Y.S. (1981). *Effective Evaluation.* San Francisco, CA: Jossey-Bass.

Hendricks, D.R., & Wehman, P. (2009). Transition from school to adulthood for youth with Autism Spectrum disorders: Review and recommendations. *Focus on Autism and Other Developmental Disabilities*, *24*(2), 77-88. doi: 10.1177/1088357608329827.

Hesmondhalgh, M. (2010). Autism at work. *Occupational Health*, *62*(2), 32-34.

Howley, M., & Arnold, E. (2005). *Revealing the hidden social code*: *Social stories for people with Autistic Spectrum disorders*. Philadelphia, PA: Jessica Kingsley Publishers.

Hurlbutt, K., & Chalmers, L. (2004). Employment and adults with Aspergers Syndrome. *Focus on Autism and Other Developmental Disabilities*, *19*(4), 215-222. doi: 10.11177/10883576040190040301.

Hyman, M. (2005). Business wants a piece of Charlie. *BusinessWeek*, (3964), 56-57.

Kennedy, R.B., & Kennedy, D.A. (2004). Using the Myers-Briggs type indicator in career counseling. *Journal of Employment Counseling*, *41*:38-44.

Kolb, A.,& Kolb, D. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, *4*(2), 193-212.

Kolb, D.A. (1984). *Experiential learning: Experience at the source of learning and development.* Englewood Cliff, NJ: Prentice-Hall, Inc.

Ladyshewsky, R. (2010). The manager as coach as a driver of organizational development. *Leadership & Organization Development Journal*, *31*(4), 292-306. doi:10.1108/01437731011043320.

Lee, C. (2006). Feedback, not appraisal. *HRMagazine, 51*(11), 111-114.

Lisle, A.M. (2007). Assessing learning styles of adults with intellectual difficulties. *Journal of Intellectual Disabilities*, *11*(1), 23-45. doi:10.1177/1744629507073997.

Mahmud, A., Armstrong, S., & Zhichang, Z. (2004). The influence of learning styles on knowledge acquisition in public sector management. *Educational Psychology*, *24*(4). 549-571. doi:10/1080/0144341042000228898

Mawhood, L., & Howlin, P. (1999). The outcome of a supported employment scheme for high-functioning adults with Autism or Asperger's syndrome. *Autism*, *3*, 229-254. doi:10.1177/1362361399003003003.

McLean, G. N. (2006). *Organization development: Principles, processes performance*. San Francisco, CA: Berrett-Koehler Publishers.

Merriam, S. (1985). The case study in educational research: A review of selected literature. *The Journal of Educational Thought (JET), 19*(3), 204-217.

Merriam, S. (2009). *Qualitative Research: A Guide to Design and Implementation.* San Francisco, CA: John Wiley & Sons, Inc.

Miles, M., & Huberman, A.M. (1994). *An Expanded Sourcebook: Qualitative Data Analysis.* Thousand Oaks, CA: Sage Publications, Inc.

Muller, E., Schuler, A., Burton, B., & Yates, G. (2003). Meeting the vocational support needs of individuals with Asperger syndrome and other Autism Spectrum disabilities. *Journal of Vocational Rehabilitation*, *18*(2003), 163-175.

Murphy, K., Ratey, N., Maynard, S., Sussman, S., & Wright, S. (2010). Coaching for ADHD. *Journal for Attention Disorders*, *13*, 546-552. doi: 10.1177/1087054709344186.

Myers-Briggs Basics. (2014). Retrieved from The Myers-Briggs Foundation http://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/

Nesbitt, S. (2000). Why and why not? Factors influencing employment for individuals with Asperger syndrome. *Sage Publications and The National Autistic Society*, *4*(4), 357-369. doi:10.1177/136231300004004002.

Pardue, H. (1999). Performance Appraisal as an Employee Development Tool. *SHRM Information Center.* Retrieved from http://www.shrm.org/hrresources/whitepapers_published/CMS_000104.asp

Parr, A., & Hunter, S. (2015). Enhancing work outcomes of employees with Autism disorder through leadership: Leadership for employees with Autism Spectrum disorder. *Autism, 18(5),* 545-554. doi: 10.1177/1362361313483020.

Quenk, N. (2009). *Essentials of Myers-Briggs Type Indicator Assessment, Second Edition.* Hoboken, NJ: Wiley.

Rath, T. (2007). *Strengths Finder 2.0*. New York, NY: Gallup Press.

Rath, T. & Conchie, B. (2008). *Strengths bases leadership*. New York, NY: Gallup Press.

Riessman, C.K. (2008). *Narrative methods for the human sciences*. Thousand Oaks, CA: Sage Publications, Inc.

Roberts, K. (2010). Topic areas to consider when planning transition from high school to postsecondary education for students with Autism Spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, *25*(3), 158-162. doi: 10.1177/1088357610371476.

Robinson, D.G., & Robinson, J.C. (1996). *Performance consulting: Moving beyond training*. San Francisco, CA: Berrett-Koehler.

Robinson, K.A., & Smith, V. (2010). A specific vocational training program for an adolescent with Autism. *Developmental Disabilities Bulletin*, *38*(1-2), 93-109

Robotham, D. (2004). Developing the competent learner. *Industrial and Commercial Training*. *36*(2), 66-72. doi: 10.1108/00197850410524833.

Rotheram-Fuller, E. & Kasari, C. (2011). Peer Relationships: Challenges and Interventions. In Hollander, E., Kolevzon, A., & Coyle, J. (Eds.), *Textbook of Autism Spectrum Disorders* (pp. 555-564). Arlington, VA: American Psychiatric Publishing, Inc.

Rummler, G.A., & Brache, A.P. (1995). *Improving Performance: How to Manage the White Space on the Organizational Chart.* San Francisco, CA: Jossey-Bass.

Scattone, D. (2007). Social skills interventions for children with Autism. *Psychology in the Schools*, *44*(7), 717-726. doi: 10.1002/pits.

Schall, C.M. (2010). Positive behavior support: Supporting adults with Autism Spectrum disorders in the workplace. *Journal of Vocational Rehabilitation*, *32*, 109-115. doi: 10-3233/JVR-2010-0500.

Sommariva, K. (2015, April 5). E-Recycler with Autism Spectrum workforce expands to Denver. *9News*. Retrieved from http://www.9news.com/story/news/2015/04/09/e-recycler-with-workers-on-autism-spectrum-expanding-to-denver/25533921/

Spaten, O.M., & Flensborg, W. (2013). When middle managers are doing employee coaching. *International Coaching Psychology Review, 8*(2), 18-39.

Spek, A., Scholte, E., & Berckelaer-Onnes, I. (2009). Theory of mind in adults with HFA and Asperger syndrome. *Journal of Autism Development Disorder*, *40*, 280-289. doi:110.1007/s10803-009-0860-y.

Sperry, L. & Mesibov, G. (2005). Perceptions of social challenges of adults with Autism Spectrum disorder. *Autism*, *9,* 362-375. doi: 10.1177/1362361305056077.

Swanson, R. (2007). *Analysis for improving performance: Tools for diagnosing organizations and documenting workplace expertise*. San Francisco, CA: Berrett-Koehler Publishers, Inc.

Tierney, W. (1994). *On method and hope. Power and Method*. London, UK: Routledge.

Torraco, R. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, *4,* 356-367. doi:10.1177/1534484305278283.

Towgood, K., Meuwese, J., Gilbert, S., Turner, M., & Burgess, P. (2008). Advantages of the multiple case series approach to the study of cognitive deficits in Autism Spectrum disorder. *Neuropsychologia*, *47,* 2981-2988. doi: 10.1016/j.neuropsychologia.2009.06.028.

True Colors™ FAQ. (2013). Retrieved from True Colors™ International http://truecolorsintl.com/about-us/.

Unger, D. D. (2002). Employers' attitudes toward persons with disabilities in the workforce: Myths or realities? *Focus on Autism and Other Developmental Disabilities*, *17*(1), 2-10. doi:10.1177/108835760201700101

Van Wieren, T., Reid, C., & McMahon, T. (2008). Workplace discrimination and Autism Spectrum disorders: The National EEOC American with Disabilities Act Research project. *Work: A Journal of Prevention, Assessment, and Rehabilitation*, *31*(2008), 299-308.

Ward, L.P. (2005). Learning styles of radiography students during clinical practice. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. UMI 3401001).

Westover, J., Westover, A., & Westover, L.A. (2010). Enhancing long-term worker productivity and performance: The connection of key work domains to job satisfaction and organizational commitment. *International Journal of Productivity and Performance Management*, *59*(4), 372-387. doi:10.1108/17410401011038919.

Wolf, L., Thierfeld Brown, J., & Kukiela Bork, G. (2009). *Students with Asperger syndrome: A guide for college personnel*. Shawnee Mission, KS: Autism Asperger Publishing Co.

Yang, B. (2004). Can adult learning theory provide a foundation for human resource development? *Advances in Developing Human Resources*, *6*(2), 129-145. doi: 10.1177/1523433204263325.

Yin, R. (2013). *Case Study Research: Design and Methods*. Thousand Oaks, CA. Sage Publications, Inc.

Zula, K., & Chermack, T. (2007). Integrative literature review: Human capital planning: A review of literature and implications for human resource development. *Human Resource Development Review, 6*, 245-262. doi:10.1177/15344843072303762.

APPENDIX A: LETTER OF COOPERATION

April 15, 2015

Colorado State University
Institutional Review Board
321 General Services Building
Campus Delivery 2011
Fort Collins, CO  80523-2011
Attention:  IRB Office


Dear Institutional Review Board;

I am aware that Sara Colorosa, a graduate student in the School of Education at Colorado State University, is conducting a research study entitled:  "Case Study of Blue Star Recyclers: Informing Performance Management Techniques."  She has shared with me the details of the study.  The company understands the purpose of this research study is to collect data and feels that the participants, managers and technicians, will be adequately protected through the research process.  I give Sara Colorosa permission to conduct this study at our company.

The Company will be involved in the research study by allowing Sara to do the following:
- Observe and take notes of managers and technicians while working on the production floor
- Interview key employee. Participating in these interviews will be completely voluntary yet will not present any harm to those volunteering.  Each participant will complete an informed consent to participate in the study for their voluntary participation. Interviewees may include but will not be limited to:
  - Sample
  - Sample
  - Sample
- Provide a list of other management, board members and technicians who Sara may ask to voluntarily participate in the research study.
- Documentation about the company's history, business model, annual reports, etc. that will inform the study will be available to Sara during her visits
- Dates and times will be coordinated for interviews and observations upon IRB approval. Holidays, special closing, and leave patterns for managers and employees will be coordinated with accordingly.

If there are any questions, please contact my office.

Sincerely,

APPENDIX B: RECRUITMENT EMAIL FOR MANAGERS

Date

![Colorado State University logo]

Dear Participant,

We are conducting a research study about, employees with "dis*Abilities*" to understand performance management techniques. The title of our study is Sharing your work experiences at Blue Star Recyclers.

We would like you to participate in interviews at Blue Star Recyclers. We will find a time that is comfortable and convenient for you. Participation will take approximately one hour for the first interview. After the first interview you will have the opportunity to read a transcription of the interview; you will have up to two weeks to respond with comments and edits. An additional interview may be scheduled to clarify questions and better understand your experiences. You will have the opportunity to read the transcribed second interview as well.

While there are no direct benefits to you, we hope to gain more knowledge to support performance in the workplace especially with employees with "dis*Abilities*."

There are no risks in participating in this study. It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

If you have any questions, please contact Sara Colorosa or Carole Makela, Ph.D. If you have any questions about your rights as a volunteer in this research, contact Evelyn Swiss, Senior IRB Coordinator.

To schedule your interview, please reply to this email and let Sara know what dates and times that you are available starting October X, for Tuesdays, Wednesdays, and Thursdays from 9 am-3:00 pm.


Sincerely,

Carole J. Makela, Ph.D.       Sara R. Colorosa, M.Ed.
Principal Investigator         Co-Principal Investigator

APPENDIX C: RECRUITMENT POSTER FOR TECHS

# Share why you work at Blue Star Recyclers!

Looking for interested Techs and managers to be interviewed about their work experience. The interview will last about one hour and be at Blue Star Recycling.

Share your experiences working at Blue Star Recyclers. Sara will ask you about your job and to share your stories with others who want to work, like you! Your name will not be shared with others.

If interested, fill out the cards below to be contacted for more information and scheduling of your interview. Place completed cards in the box.

Blue Star Recyclers is willingly participating in this study.

For questions please contact:
Carole J. Makela, Ph.D.                          Sara R. Colorosa, M.Ed.
Principal Investigator                            Co-Principal Investigator

Blank Cards

Name _____

Phone Number _____

Circle Days Available for interview at Blue Star Recyclers
 Tues.    Weds.     Thurs.

Circle what time would you like your interview
Morning          Afternoon

Put completed form in the sealed box. Sara will contact you on the phone to schedule your interview. You may return the call when possible. Your contact information will only be used to schedule the interview and will not be used in the data collection. Questions, contact Sara

Name _____

Phone Number _____

Circle Days Available for interview at Blue Star Recyclers
 Tues.    Weds.     Thurs.

Circle what time would you like your interview
Morning          Afternoon

Put completed form in the sealed box. Sara will contact you on the phone to schedule your interview. You may return the call when possible. Your contact information will only be used to schedule the interview and will not be used in the data collection. Questions, contact Sara

Name _____

Phone Number _____

Circle Days Available for interview at Blue Star Recyclers
 Tues.    Weds.     Thurs.

Circle what time would you like your interview
Morning          Afternoon

Put completed form in the sealed box. Sara will contact you on the phone to schedule your interview. You may return the call when possible. Your contact information will only be used to schedule the interview and will not be used in the data collection. Questions, contact Sara

APPENDIX D: CONSENT FORM FOR MANAGERS

**Consent to Participate in a Research Study**
**Colorado State University**

**TITLE OF STUDY:** Sharing your work experiences at Blue Star Recyclers.

**PRINCIPAL INVESTIGATOR:** Carole J. Makela, Ph.D., School of Education

**CO-PRINCIPAL INVESTIGATOR:** Sara Colorosa, M.Ed., School of Education

**WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?** We would like you to participate in interviews about working at Blue Star Recyclers. Sara wants to hear about your experiences as a manager at Blue Star Recyclers.

**WHO IS DOING THE STUDY?** Sara Colorosa will meet with you during the interviews.

**WHAT IS THE PURPOSE OF THIS STUDY?** The reason for this study is better understand the workplace and how managers support performance of employees.

**WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?** Sara will schedule a one hour appointment that is comfortable and convenient for your work schedule. The interviews will take place at Blue Star Recyclers.

**WHAT WILL YOU BE ASKED TO DO?** These interviews will take about one hour for the first interview. After the first interview you will have the opportunity to read a written transcript of the interview; you will have up to two weeks to respond with comments and edits. An additional interview may be scheduled to clarify questions and experiences from the first interview. You will have the opportunity to read and respond to the transcript from the second interview as well.

**ARE THERE REASONS WHY I SHOULD NOT TAKE PART IN THIS STUDY?** Taking part in this study is voluntary.

**WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?** It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

**ARE THERE ANY BENEFITS FROM TAKING PART IN THIS STUDY?** There are no direct benefits from participating in this study, however there are anticipated benefits for BSR and others who want to learn about managing performance of employees with "dis*Abilities*".

Page **1** of **2** Participant's initials _____ Date _____

**DO I HAVE TO TAKE PART IN THE STUDY?** Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

**WHO WILL SEE THE INFORMATION THAT YOU GIVE?** We will keep private all research records that identify you, to the extent allowed by law.

This study is anonymous. For this study, we are not obtaining your name or other identifiable data from you, so nobody (not even the research team) will be able to identify you or your transcripts. We may be asked to share the research files for audit purposes with the CSU Institutional Review Board ethics committee, if necessary.

**WHAT IF YOU HAVE QUESTIONS?**
*Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, Sara Colorosa. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: RICRO_IRB@mail.colostate.edu; 970-491-1553. We will give you a copy of this consent form to take with you.*

**WHAT ELSE DO I NEED TO KNOW?**
Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 2 pages.

_____      _____
Your signature agreeing to take part in the study          Date

_____
Your printed name agreeing to take part in the study

_____      _____
Name of person providing information to participant        Date

_____
Signature of Research Staff

APPENDIX E: CONSENT FORM FOR TECHS

# Consent to Participate in a Research Study
## Colorado State University

**TITLE OF STUDY:** Sharing your work experiences at Blue Star Recyclers.

**PRINCIPAL INVESTIGATOR:** Carole J. Makela, Ph.D., School of Education

**CO-PRINCIPAL INVESTIGATOR:** Sara Colorosa, M.Ed., School of Education

**WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?** We would like you to share your job experiences working at Blue Star Recyclers. Sara will ask you questions about your job at Blue Star. Your replies and stories will help us understand your experiences and to share your stories with others who want to find a good job.

**WHO IS DOING THE STUDY?** Sara Colorosa will meet with you during the interview.

**WHAT IS THE PURPOSE OF THIS STUDY?** The reason for this study is better understand the workplace and how employees do their work and become good at their jobs.

**WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?** Sara will find a time that is comfortable and works with your work schedule. The interviews will take place at Blue Star Recyclers.

**WHAT WILL YOU BE ASKED TO DO?** Your interview will take about one hour for the first interview. After the first interview you will have the opportunity to read a written copy of the interview; you will have up to two weeks to respond with comments and notes. An additional interview may be scheduled to better understand you replies in the first interview. You will have the opportunity to read the copy of the second interview as well.

**ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?** We have not identified reasons not to take part. Taking part in this study is your choice and voluntary.

**WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?** It is not possible to identify all potential risks in research events, but the researcher(s) have taken reasonable safeguards tominimize any known and potential, but unknown, risks.

**ARE THERE ANY BENEFITS FROM TAKING PART IN THIS STUDY?** There are no direct benefits from participating in this study, however there are likely benefits for others who want to learn about Techs' experiences at Blue Star Recyclers or in similar work situations

**DO YOU HAVE TO TAKE PART IN THE STUDY?** Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.  Your manager will not be notified if you participate or stop participating in this study.

**WHO WILL SEE THE INFORMATION THAT YOU GIVE?** We will keep private all research records that identify you, to the extent allowed by law.

Page **1** of **2** Participant's initials _____ Date _____

This study is anonymous. We are not obtaining or recording your name or other individual data from you, so nobody (not even the research team) will be able to identify you or your transcripts. We may be asked to share the research files for review purposes with the CSU Institutional Review Board ethics committee, if necessary.

**WHAT IF YOU HAVE QUESTIONS?**
*Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now.  Later, if you have questions about the study, you can contact the investigator, Sara Colorosa. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at:  RICRO_IRB@mail.colostate.edu; 970-491-1553.  We will give you a copy of this consent form to take with you.*

**WHAT ELSE DO I NEED TO KNOW?**
Your signature acknowledges that you have read the information stated and willingly sign this consent form.  Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 2 pages.

_____          _____
Your signature agreeing to take part in the study                     Date

_____
Your printed name agreeing to take part in the study

_____          _____
Name of person providing information to participant                     Date

_____
Signature of Research Staff

APPENDIX F: INSTRUMENTS

RQ1: Why are Blue Star Recyclers' Techs (employees) staying employed?
Tech –

1. How did you learn about Blue Star Recyclers?
2. How long have you worked here?
3. Tell me about your first job.
4. How many others places have you worked? (If BSR, skip to #5)
   a. How long did you work there?
   b. Were you paid or unpaid (volunteer, intern, hourly, full-time, part-time)
   c. Why did you leave this position?
5. Why did you come to work at Blue Star Recyclers?
6. Why do you stay at Blue Star Recyclers?
7. What are 2-3 "good" things about working at Blue Star Recyclers?

Management   –

8. What are your recruiting, selection criteria, and hiring strategies?
9. From your perspective, why do employees come to work for Blue Star Recyclers?
10. From your perspective, why do the techs stay at Blue Star Recyclers?
11. Tell me about your exit or stay interview process.
    a. What have you learned from these interviews about the employee's experiences at Blue Star Recyclers, the recruiting strategies, and why they may have left their position?
    b. If they don't have these interviews, why not?
12. When recruiting new employees, what characteristics do you look for?

RQ2: What are the on-boarding (first day orientation) and training practices used for Techs?
Tech –

13. Tell me about your first day at Blue Star Recyclers. If it was some time ago that you started, what do you remember about starting to work here?
14. How did you learn to do your job at Blue Star Recyclers?
    a. If they say "training," was it helpful? Tell me about it.
    b. Was it one-time or on-going?
15. What do you do if you have a question about
    a. Your job?
    b. How to take apart equipment?

Management –

16. What is the on boarding process like for the employee?
    a. About how long does the on boarding process take?
    b. Who is involved during the process?
    c. How does the intended outcome compare to the actual outcome of the process?
17. How long are employees trained and retrained?
    a. Who is involved in trainings?
       i. Do experienced techs train new techs?
    b. Where is the training conducted in-house or offsite?
    c. How is training required to perform basic job functions and changes in the job (primary responsibilities, new equipment, and safety)?

d. What are the costs associated for the trainings for Blue Star Recyclers?
e. What is the time associated for the trainings from the work day?
f. Do you solicit feedback?
   i. During the training?
   ii. After the training?
g. What ways do you share information that needs to be learned – oral, written, hands on activities, demonstrations, photographs, videos?

RQ3: How does Blue Star Recyclers manage performance?
Management –
18. How do you establish performance standards?
   a. Are these established for the individual or group or both?
19. How do you communicate expectations to your employees?
20. How do you let employees know if they are or are not performing to standards/expectations?
21. What performance evaluations are in place?
22. What performance reward systems are in place? Recognition?
23. How to you handle performance issues on a daily basis?
   a. Social and behavioral issues
   b. Productivity

RQ4: How does management define success?
24. Define success
   a. What words to you use to define success?
   b. At the company/organizational level
   c. For yourself
   d. In your opinion for techs

RQ5: How do Techs define success?
25. Define your success on the job. What do you like about your job?

RQ6: What can Managers learn from Blue Star Recyclers' experiences?
26. What can others on the AS learn when entering the workplace?

1.  How did you learn about Blue Star Recyclers?

2.  How long have you worked here?

3.  Tell me about your first job.

4.  How many others places have you worked? (If only BSR, skip to #5)

    a.  How long did you work there?

    b.  Were you paid or unpaid (volunteer, intern, hourly, full-time, part-time)

    c.  Why did you leave this position?

5.  Why did you come to work at Blue Star Recyclers?

6.  Why do you stay at Blue Star Recyclers?

7.  What are 2-3 "good" things about working at Blue Star Recyclers?

8.  Tell me about your first day at Blue Star Recyclers. If it was some time ago that you

    started, what do you remember about starting to work here?

9.  How did you learn to do your job at Blue Star Recyclers?

    a.  If they say "training," was it helpful? Tell me about it.

    b.  Was it one-time or on-going?

10. What do you do if you have a question about

    c.  Your job?

    d.  How to take apart equipment?

11. Define your success on the job. What do you like about your job?

1.  What are your recruiting, selection criteria, and hiring strategies?

2.  From your perspective, why do employees come to work for Blue Star Recyclers?

3.  From your perspective, why do the techs stay at Blue Star Recyclers?

4.  Tell me about your exit or stay interview process.

    a.  What have you learned from these interviews about the employee's experiences at Blue Star Recyclers, the recruiting strategies, and why they may have left their position?

    b.  If they don't have these interviews, why not?

5.  When recruiting new employees, what characteristics do you look for?

6.  What is the on boarding process like for the employee?

    d.  About how long does the on boarding process take?

    e.  Who is involved during the process?

    f.  How does the intended outcome compare to the actual outcome of the process?

7.  How long are employees trained and retrained?

    a.  Who is involved in trainings?

        i.  Do experienced techs train new techs?

    b.  Where is the training conducted in-house or offsite?

    c.  How is training required to perform basic job functions and changes in the job (primary responsibilities, new equipment, and safety)?

    d.  What are the costs associated for the trainings for Blue Star Recyclers?

    e.   What is the time associated for the trainings from the work day?

    f.   Do you solicit feedback?

        i.   During the training?

        ii.   After the training?

    g.   What ways do you share information that needs to be learned – oral, written, hands on activities, demonstrations, photographs, videos?

8. How do you establish performance standards?

    b.   Are these established for the individual or group or both?

9. How do you communicate expectations to your employees?

10. How do you let employees know if they are or are not performing to standards/expectations?

11. What performance evaluations are in place?

12. What performance reward systems are in place? Recognition?

13. How to you handle performance issues on a daily basis?

    c.   Social and behavioral issues

    d.   Productivity

14. Define success

    e.   What words to you use to define success?

    f.   At the company/organizational level

    g.   For yourself

    h.   In your opinion for techs

15. What can others on the AS learn when entering the workplace?

APPENDIX G: ADDITIONAL RECRUITMENT COMMUNICATIONS

November 12, 2015


Thank you again for meeting with me a few weeks ago and for volunteering to be interviewed for my research study. I learned a lot about Blue Star Recycling and enjoyed meeting with everyone.

Attached is the transcription from our interview. Please review it and make any changes you see fit. Once you are finished reviewing the document, you can mail any changes or write a note on the document that you approve the transcript; please return the document using the stamped envelope. You can also email me. I ask that you please respond by November 25th; if you do not respond I will assume that you have approved the transcript.


If you have any questions, please do not hesitate to contact me.

Again, thank you for volunteering!

Sincerely,



Sara R. Colorosa, M.Ed.
Co-Principal Investigator

APPENDIX H: INSTITUTIONAL REVIEW BOARD APPROVAL

| | |
|---|---|
| **From:** | Evelyn.Swiss@ColoState.EDU |
| **Sent Date:** | Wednesday, September 30, 2015 15:54:36 PM |
| **To:** | Carole.Makela@ColoState.EDU, Sara.Colorosa@ColoState.EDU |
| **Cc:** | |
| **Bcc:** | |
| **Subject:** | The following Protocol has been Approved: 15-5807H |
| **Message:** | |

The IRB has approved your protocol referenced below:

Protocol ID: 15-5807H
Principal Investigator: Makela, Carole

Protocol Title: CASE STUDY OF PERFORMANCE MANAGEMENT TECHNIQUES: VOICES OF
MANAGERS AND EMPLOYEES
Review Type: EXPEDITED
Approval Date: September 29, 2015

This is not an official letter of approval. Your approval letter is available to you in the "Event History" section
of your approved protocol in eProtocol. Note that specific information regarding the approval and any conditions
of approval are available below the signature line in the footer of the approval letter.

IMPORTANT REMINDER: If you will consent your participants with a signed consent document, it is your
responsibility to use the consent form that has been finalized and uploaded into the consent section of eProtocol
by the IRB coordinators. Failure to use the finalized consent form available to you in eProtocol is a reportable
protocol violation.

If you have any questions regarding this approval, please contact:

CSU IRB: RICRO_IRB@mail.colostate.edu; 970-491-1553
Evelyn Swiss: Evelyn.Swiss@Colostate.edu ; 491-1381
Tammy Felton-Noyle: Tammy.Felton-Noyle@colostate.edu; 491-1655

TO ACCESS THIS PROTOCOL, LINK TO:
https://csu.keyusa.net/