**Psychometric Properties of the Responding to Feedback Knowledge Inventory**

Akshika Patel

Erin Hausser

Ritu Sharma

Weili Lu

Janice Oursler

Samantha Herrick

Sam Caruthers

Department of Psychiatric Rehabilitation and Counseling Professions

Rutgers, the State University of New Jersey, Piscataway, NJ

Co-first author

**Abstract**

Soft skills related to the workplace are essential to consider especially when seeking and maintaining employment. Responding feedback is one of the important soft skills that allows individuals to learn the ways to respond to the feedback in a work setting. The following study used a pre and posttest group design to evaluate a small group intervention that applied a Direct Skills Teaching method to teach participants in responding to feedback in work environment to person with disabilities. The intervention included four sessions in which Responding to Feedback was provided to 38 participants with disabilities by graduate counseling students in six different groups. At the end of the interventions the participants that took part in the groups reported greater confidence in responding to feedback from their potential or current employers. The participants reported a high level of satisfaction with the responding of the feedback group. This pilot study showed a positive result on soft skill intervention and supported the application to teach soft skills in groups, with a preplanned curriculum.

*Keywords:* (soft skills, disabilities, intervention, employment, satisfaction)

Soft skills assessment original scale- RTF inventory paper

**Introduction**

**BACKGROUND**: Employment leads individuals with disabilities with a good quality of life, improvement in wellness, and increase in self-esteem (Russinova et al., 2018; Simões & Santos, 2016). However, in reality if we compare the individual with and without disabilities, the people with disabilities have a challenging time to seek and maintain essential and competitive employment.

**EMPLOYMENT STATISTICS OF PEOPLE WITH DISABILITIES**

According to Bureau of Labor Statistics (2021) report for 2020, U.S Bureau of Labor Statistics shows the people with disabilities have lower labor force participation in comparison with people without disabilities. The people without a disability were 66.3% employed in 2019 compared to people with a disability with employment of 19.1% (BLS,2020,2021). People with disabilities aged 16-64 had a substantially lower employment population ratio of 30.9% compared to individuals without a disability in this age group with 74.6% (BLS,2020). Moreover, in comparing the part time employment amongst the people with and without disabilities, 32% of workers with disabilities and 17% of them without disabilities (BLS,2020). Amongst the young people with and without disabilities there is a significant gap in employment rates. For people ages 16-19 the employment gap increases from 12.4% to 23.7% for ages 20-24 (BLS,2020). Lindstrom et al. (2013) reports that people with disabilities compared to individuals without disabilities are more frequently employed and have financial difficulties resulting in living below the poverty line.

**Soft Skills and Employment**

Although people with disabilities have many barriers to employment, one of the significant barriers to this population is lack of job-related soft skills (Lindsay et al., 2012; Tulgan,2015). According to Succi and Canovi (2020) soft skills is defined as cognitive, interpersonal, and practical skills that allow people navigate professional and day to day life. These interpersonal skills have been shown to complement technical skills and beneficial for maintaining employment (Clark et al., 2018: Ju et al.,2012; Kyllonen 2013; Pierce, 2019; Succi & Canovi, 2020). According to Slawinska and Villani (2014) soft skills refer to the groups of personal characteristics, habits, attitudes and social values that make a person good and suitable for a job. Soft skills are the collection of social and interpersonal skills that are needed for an employee for some of the tasks in a job such as problem-solving, communication with coworkers, and decision-making (Grugulis & Vincent, 2009). For adolescents with various disabilities such as psychiatric disabilities, visual impairments, and autism soft skills are important for employment success. Gasser (2023) describes cognitive and social skills are key challenges for individual with autism to attain employment success which may result in isolated work opportunities The soft skills are beneficial for the employees as it could allow them to communicate effectively with their colleagues and supervisors, collaboratively promote teamwork, build creative solutions, and have shown to be higher in job satisfaction (Boreham et al., 2016; Kyllonen, 2013; Young, 2010). According to Young and Rooney (2023) the current need for soft skills around the world is important and its impact on education has been the primary focus of government and industries around the world. As some of the essential soft skills are decision-making, problem solving, communication and interpersonal skill; for people who have hearing impairments and partial hearing they need sign language, body gesture or written text to express and communicate in an employment setting (Sheh et al., 2020). People with disabilities face barriers to employment so some exercises that help with development in school-setting are projects in which students get to communicate with peers outside of classroom to enhance communication skills, role play scenarios to widen the ideas and concept, doing research, debating on ethical issues that helps to elaborate the problem solving and critical thinking skills (Mitsea et al.,2021).

**The Soft Skill of Responding to Feedback**

Scholars' definitions vary, with some focusing on soft skills such as "skills" meaning learned and trained behaviors (Albandea and Giret, 2018; Balcar, 2016; Marin-Zapata et al., 2022). Definitions of soft skills based on behavior help people develop competence through skill (Semeijn et al., 2005; Wesley et al., 2017). One notable employment-related soft behavioral skill is responding to feedback during work (Dahling and O'Malley, 2011; Garrison, 2014). Broadly speaking, responding to feedback means that the employer receives constructive feedback, acknowledges it verbally, and then communicates it appropriately (US Department of Labor and Office of Disability Employment Policy, 2012). In addition, Oursler et al. (2019) stated that this ability means that you discuss your strengths and areas for improvement in your work with your supervisor. Employers, lawyers and people with disabilities rated responding to feedback as very important or very important for the job success of people with disabilities (Lu et al., 2022). Giving and receiving feedback has been identified as a key aspect of how employees and employers manage performance in organizations (Anseel et al., 2018; Garrison, 2014). Providing feedback is an important part of the supervisor's role in the workplace. Responding to feedback is essential to the success of employees in the workplace (Agran et al., 2016; Dwyer, 2021). Ideally, receivers will listen to the feedback and try to improve or fix the areas of improvement mentioned by the superiors. However, some employees may become defensive or upset when they receive feedback (Fornalczyk, 2013; Garrison, 2014). Although many factors can influence this process, receiving and acting on feedback is critical to both success and satisfaction (Garrison, 2014). In addition, responses to feedback can be very different (Fornalczyk, 2013; Karimi, 2020; Waheed et al., 2021). A study looking at patterns of employment and unemployment found that voluntary redundancy was the main reason (59%) for workers with psychiatric disabilities leaving the workplace (Cook and Burke-Miller, 2015). In addition, 17% left their jobs due to layoffs, 10% to layoffs, and 14% to job losses.

**Purpose of the Study**

This study evaluated the psychometric properties of a scale that measured the soft skills of responding to feedback in people with disabilities. The aim of this work was to find out the psychometric properties of the feedback information card for people with disabilities.

**METHOD**

**Study 1**

**Participants**

Eighty-five individuals living with disabilities were recruited from mental health and vocational rehab vocational rehabilitation (VR) agencies. Eligibility criteria included being able to speak and read basic English, be at least 18 years old and have interest in finding employment. The participants had an average age of 40.1 (range 18–67, SD = 14.0), 43(50.6%) were male, 38 (44.7%) were female, for four participants, their gender identity was missing and some of them were transition-age youth (ages 18-24) with disabilities. The study had a total of six groups, with group sizes ranging from 4 to 10 participants. Most groups were held in person at the agency (33 groups), while a few were done remotely (five groups) via HIPPA-compliant videoconference (Zoom conferencing; Zoom, 2019). The study was approved by a University Institutional Review Board, and all participants gave informed consent. Participants completed questionnaires before and after the group sessions, and a satisfaction questionnaire at the end. On average, the group had 11.9 years of education (range 10–14, SD = .6). The majority identified as European American (range 10–14, SD = .6), followed by African American (n = 24, 28.2%). Other participants identified as Hispanic (21.2%), Asian American (7.1%) and other (2.4%). The primary disability type was psychiatric (30.6%), followed by substance use (23.5%). Other types of disability included dual diagnoses (psychiatric and substance use; 14.1%), developmental (10.6%), learning (9.4%), and physical disabilities (4.7%) (see Table 1).

**Measures**

The data for participants' demographics and individuals living with disabilities was obtained by agency records. To assess participants' confidence in responding to feedback, a tool called Responding to Feedback Knowledge Inventory (RFKI; Oursler et al., 2020) was used from a supervisor at work or other relevant settings where feedback may be given. The RFKI consists of 20 self-report items, which participants are rated on a five-point Likert scale (“strongly disagree” to “strongly agree”) administered during pre-and-post group. Sample items asked about common areas for feedback, (a) I know what the common areas are that supervisors are likely to give feedback about on the job, (b) it is likely the supervisor will get angry if a worker asks a lot of questions about how to do a job, and (c) I feel I can use feedback to learn more about myself. The scale’s reliability, measured by Cronback’s alpha, was .9 based on data from 85 participants, however, the validity of the inventory is currently. Additionally, participants completed satisfaction surveys that evaluated group quality, the groups leader’s knowledge, and confidence in using the skills learned. These satisfaction surveys also included five open-ended questions to gather more detailed feedback: (a) What did you like about the group? (b) What would you change or improve about the group? (c) What will you do differently as a result of attending the group? (d) What other information would be helpful to include in the group? and (e) Any other comments?

***The Occupational Self-Efficacy Scale- Short Form (OCCSEFF; Schyns & von Collani, 2002)***

The correlation between self-efficacy in the workplace and actual job performance was evaluated using the OCCSEFF, a self-efficacy measure. The OCCSEFF was developed by incorporating items from the General Self-Efficacy Scale (Sherer et al., 1982; Schwarzer, 1994), the State Hope Scale (Snyder et al., 1991), and the Heuristic Competence Scale (Stäudel, 1988). Participants' belief in their ability to effectively perform occupational tasks was assessed using a 6-point Likert scale consisting of 20 items, ranging from "not at all true" to "completely true". By having 85 participants with a scale that demonstrates high internal consistency with a Cronbach’s alpha of 0.9, the example items during the self-efficacy measure includes evaluating resourcefulness in handling unforeseen situations, ability to think of solutions when in trouble at work, remaining calm during difficulties by relying on abilities, finding multiple solutions when faced with job-related problems, capability to handle any challenges, feeling well-prepared for future occupational prospects based on past experiences, achieving self-set goals in the job, and feeling prepared to meet job demands.

***Job-Related Social Skills Checklist (Reganick, 1995)***

Participants are asked to indicate whether they possess certain work-related skills by answering "yes" or "no" on an 11-item checklist. These skills include asking questions, problem solving with coworkers, accepting assistance, offering assistance, and accepting criticism. The reliability and validity of this scale is currently unknown, but Cronbach's alpha for the current sample was 0.9. The total score is calculated based on the number of positively endorsed items.

***Career Adapt-Abilities Scale-Short Form (CAAS-SF; Savickas & Porfeli, 2012)***

A 5-point Likert scale was used to assess perceived proficiency in certain occupational skills through a 12-item measure. The items included making decisions for oneself, taking responsibility for one's actions, seeking personal growth opportunities, considering options before making a choice, and observing different ways of doing things. Moreover, in relation to the 85 participants in the Responding to Feedback group, the Cronbach's alpha coefficient for the current sample was 0.9 (McIlveen et al., 2018; Savickas & Porfelli, 2012). More information is needed for the current study of the ‘Responding to Feedback’ curriculum.

**Intervention**

The "Responding to Feedback" curriculum was created by experienced clinicians and HR professionals who work with people with disabilities. It was also reviewed by VR experts and professionals with experience in a wide range of disabilities. The curriculum focuses on teaching participants how to respond to feedback from supervisors in the workplace and implementing the behavior skills needed to apply this skill such as when participants receive feedback. It covers four key behaviors: (a) identifying feedback occasions, (b) clarifying feedback information, (c) providing feedback on feedback, and (d) following up on feedback. The curriculum is designed to be self-explanatory and includes detailed instructions. The content outline, in the appendix, included the skill definition, benefits, steps, and situational use. The lesson plans in the curriculum gave detailed instructions on teaching each behavior and using the skill as a whole.  
**Procedure**

The group intervention consisted of four weekly sessions lasting 60-90 minutes each. The sessions followed the ROPES (Review, Overview, Presentation, Exercises, and Summary) method and utilized outreach techniques to maintain participation (Cohen et al., 1985). Graduate-level rehabilitation counseling students facilitated the groups, guided by instructors and a structured manual. The manual included (a) a list of materials, (b) activity/exercise forms, (c) time allotments, and (d) detailed instructions on delivering the content for each session and both in-person and telehealth groups used the same materials and curriculum design. Oursler et al. (2020), the RFKI was used before and after the intervention to measure changes in how participants perceived their skill in responding to feedback. After each session, group facilitators completed a standardized open-ended questionnaire to evaluate how well they followed the curriculum. The questionnaire included questions about (a) session notes modules covered/session length, (b) modification/adaptations from session outline, (c) overall impressions of the group, and (d) recommendations for future groups.

The measures were given pre and post intervention. Only the pre-intervention data was used for this analysis.

Study 2

Participants

Measures

Background and Disabilities Diagnoses. At baseline, the baseline interview will include items from the Uniform Client Data Inventory (Tessler et al., 1982) to assess demographic information and clinical history. We will collect student demographic information on gender, race, reduced/free lunch status (as an SES indicator), English learner (EL) designation, participation in special education program and bilingual education programs, and home language. Past employment history will be collected by self-report as part of the demographic data collection interview. Past employment history is defined as how many months the individual worked in a competitive employment setting for the past five years. Psychiatric diagnosis will be based on self-report with validation from self-reported psychotropic medications or diagnosis-specific symptoms, a stragegy used in previous research on employment and psychiatric disabilities (Russinova et al., 2018).

The Behavior and Symptom Identification Scale (BASIS-32) (Eisen et al., 1994), a 32-item self-report measure of symptoms and functioning in the following domains: daily living/ role functioning, relation to self and other, depression/anxiety, impulsive/ addictive behavior, and psychosis with internal consistency above .90, was used to assess psychiatric symptoms.

Employment subjective outcomes will be measured by the Work-related Self-efficacy Scale (WSS; Waghorn et al., 2005),a 37- item measure of self-efficacy for persons with psychiatric disabilities. The scale measuresfour domains of the employment process, including: 1) vocational service access and career planning, 2) job acquisition, 3) work-related social skills, and 4) general work skills. This scale uses a structured interview process that allows individuals to assess themselves on 37 work related tasks. Alpha coefficients ranged from .85 to.96 for subscales and total scale.

The Job Related Social Skills Checklist (JRSS; Reganick, 1995) is an 11-item checklist of skills related to work. Sample items include, “I know how to ask questions” and “I am able to accept criticism.” It has been used with youth with EBD (Reganick, 1995). Respondents endorse either “yes” or “no” to the items (Tsang & Pearson, 2000).

The Short Employment Hope Scale (EHS-14) (Hong & Choi, 2013) is a 4-factor measure consisting of 14 items, revalidated from the original 2012 6-factor 24-item scale using confirmatory factor analysis. This scale aims to measure four factors having to do with employment-related psychological self-sufficiency, including 1) psychological empowerment, 2) futuristic self-motivation, 3) utilization of skills and resources and 4) goal-orientation. Data for this scale is collected using self-report surveys, in which participants evaluate themselves on the 14 items by self-rating using a Likert-type scale, with responses ranging from 0 (low: “strongly disagree'') to 10 (high: “strongly agree”) . The Short Employment Hope Scale has an overall Cronbach’s alpha = .926, while Alpha coefficients range from .715-.889 for subscales.

The Occupational Self-Efficacy Scale (Schyns & von Collani, 2002) is a 20-item measure of self-efficacy in persons across various occupational fields, set in relation to four personality constructs including 1) general self-efficacy, 2) self-esteem, 3) internal control beliefs, and 4) neuroticism. This scale uses a structured questionnaire format that allows individuals to assess themselves on the 20 items, requiring them to respond using a Likert-type scale with answer options ranging from 1 (low: “completely true”) to 6 (high: “not at all true”; Cronbach’s alpha = .92).

Perceived Employment Barriers Survey (PEBS; Hong et al., 2014) is a 27-item measure. The survey has 5 subscales of the barriers that low-income jobseekers perceive when securing a job, including: 1) physical and mental health barriers, 2) labor market exclusion barriers, 3) childcare barriers, 4) human capital barriers, and 5) soft skills barriers. For the soft skills barriers, the five items include: 1) problems with getting to jobs on time, 2) lack of self-confidence, 3) lack of support systems, 4) lack of coping skills, and 5) anger management. This survey uses a 5-point scale (*1-not a barrier* to *5-strong barrier*) which respondents use to describe the extent to which one perceives the item acting as a barrier that limits their ability to secure a job. Coefficient alpha scores ranged from .725 to .916 for subscale scores (Hong et al., 2018).

· Petruzziello, G., Chiesa, R., Guglielmi, D., van der Heijden, B. I., de Jong, J. P., & Mariani, M. G. (2022). The development and validation of a multi-dimensional job interview self-efficacy scale. *Personality and Individual Differences*, *184*, 111221.

f. Employment Outcome. The criterion measure for employment outcome will be the discrete dichotomous variable of whether or not an employment goal was achieved. Therefore, the employed group is defined as having obtained employment in either a part-time or full-time competitive job during the 6-month and 12-month intervals. The not-employed group includes those participants who did not obtain employment throughout the study at each interval. We will also enter wages earned in the past 6 months and hours worked during the 6-month and 12-month intervals as continuous variables.

g. Education Outcome. Participants will be asked about enrollment in educational programs, their academic progress (number of classes taken) and attainment (grades and number of classes completed).

***Career Adapt-Abilities Scale-Short Form (CAAS-SF; Savickas & Porfeli, 2012)***

The CAAS-SF is a 12-item assessment scored on a 5-point Likert scale that measures the capability of executing specific occupational skills. Some items on the scale include making decisions for myself, taking responsibility for my actions, looking for opportunities to grow as a person, investigating options before making a choice, and observing different ways to do things. The CAAS-SF has displayed reliability between .75 and .92 across different countries and is strongly correlated with the full CAAS (Maggiori et al., 2017). Cronbach’s alpha was 0.91 using the pre-intervention data for the current sample.

**Needs Assessment of Job Related Social Skills (NAJRSS, Reganick, 1995)**

The NAJRSS is an 11-item Likert scale ranging from 1 (Strongly agree) to 4 (Strongly disagree). Items include, “I know how to ask questions,” “I can accept assistance,” and “I am able to apologize.” Reliability/validity

**Patient Health Questionnaire (PHQ-9)**

The PHQ-9 is a 9-item Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). Participants were asked to report how often they are bothered by any of the following problems, including, “Little interest or pleasure in doing things,” “Feeling tired or having little energy,” and “Trouble concentrating on things, such as reading the newspaper or watching television.” Participants were also asked to rate how difficult any of the reported problems are on a 4-point Likert scale from “Not difficult at all” to “Extremely”. Reliability/validity

**Brief Version of the Internalized Stigma of Mental Illness Scale (ISMI-10)**

1. The ISMI-10 is a 10-item Likert scale ranging from 0 (Strongly disagree) to 3 (Strongly agree). Participants were asked to rate their agreement on feelings toward oneself.

Items include, “People with mental illness tend to be violent,” “Having a mental illness has spoiled my life,” and “I can have a good, fulfilling life, despite my mental illness. Reliability/validity

**Responding to Feedback Knowledge Inventory (RFKI)**The RFKI is a 20-item Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” Participants were asked to circle their agreement on questions regarding job-related feedback and asked to circle their rating of the responding to feedback group in the study. They were also asked to self-report open-ended responses. Reliability/validity**Adverse Childhood Experience (ACE) Questionnaire**

**Perceived Conversation Easiness Questionnaire (PCEQ)**

**Soft Skills Open-ended Inventory (SSOI)**

**Multi-dimensional Job Interview Self-Efficacy Scale (MJISE)Perceived Interview Preparedness Questionnaire (PIPQ)**

**Help-Seeking Knowledge Questionnaire (HSKQ)**

Statistical Analysis

Correlate tables in APA

Which ones to include in table?

**Analysis**

Data integrity and outliers were examined through descriptive statistics, the tables (1, 2, 3) and inspection of original research records before statistical analysis. The analysis looked at the combined results from both the in-person and telehealth groups. However, the available data sets didn't provide sufficient information to draw meaningful conclusions.

**RESULT**

The reliability and validity of the Responding to Feedback curriculum were determined using the 20-item pre and post group questionnaire assessing the participant’s level of knowledge before and after the group curriculum (see Appendix). The same 20 questions were used for the pre and post group questionnaires to promote standardization for accurate interpretation of changes in the result responses. The participant responses were coded and analyzed in SPSS based on a five-point Likert scale; 1- “strongly disagree,” 2- “disagree,” 3- “not sure,” 4- “agree,” and 5- “strongly agree.” These responses were utilized to gauge the participants receptiveness and understanding of their ability to appropriately respond to feedback in workplace settings before and after the Responding to Feedback curriculum. Some of the statements from the questionnaire included: “I know what the common areas are that supervisors are likely to give feedback about on the job,” "It is likely the supervisor will get angry if a worker asks a lot of questions about how to do a job,” and “I know the difference between formal and informal feedback.” All of the statements were coded the same in SPSS except for items 5, 6, and 10 which were reverse coded. The questionnaire had a Cronbach’s Alpha of 0.90 in this sample using pre-intervention data which indicates acceptable reliability (See Table 2). Cronbach’s Alpha of 0.90 indicates the positive correlation between the Responding to Feedback curriculum and knowledge obtained by the participants.

**Convergent validity**

Table 3 demonstrates the convergent validity of Pearson correlation between the Responding to Feedback (RTF) scale utilizing the results from the pre and post group questionnaires and the Job-Related Social Skills (JRSS) scale, Occupational Self-Efficacy Scale (OSSES), and the Career Adapt-Abilities Scale (CAAS). The RTF curriculum demonstrated weak correlation with the JRSS at r= 0.15. The RTF curriculum demonstrated a weak correlation with the OSSES at r= -0.69. Lastly, the RTF curriculum demonstrated a strong correlation with the CAAS at r= 0.80. In the future, it would be beneficial to further research and hypothesize why the CAAS and the Responding to Feedback curriculum were the only assessments to result in a strong correlation.

**Reliability**

Reliability was determined using the data from pre and post group questionnaires (N=85). As expected, the post group questionnaire results demonstrated strong correlations with the success of the Responding to Feedback (RTF) curriculum and feedback from participants with r= 0.90. The strong correlation is based on the pre group questionnaire and the post group questionnaire which determined the level of knowledge each of the participants gathered from the group in terms of responding to feedback from others in the workplace considering the participant's co-occurring psychiatric and substance use diagnosis.

**DISCUSSION**

The study reviewed the results from 85 participants before and after completing the Responding to Feedback group curriculum led by graduate students. The Responding to Feedback curriculum was conducted in four sessions with the majority of the sessions having been completed in person at the graduate student’s agency (see Table 1). The participants ranged in diagnoses; however, more than half of the participants either had a psychiatric diagnosis, substance use diagnosis, or a “dual diagnosis” (see Table 1). To create the data, we input the background information of the participants along with the 20-item pre group and post group questionnaire responses into a spreadsheet. After accounting for errors in data entry, the researchers itemized the data and reverse coded questions 5,6, and 10 of the 20 questions (see Table 2). Once the data was set, it was input into SPSS to calculate the validity of the curriculum. To confirm the validity of the curriculum, the data compared the participant’s responses before the group and after the group utilizing the pre and post group questionnaires. As expected, the results indicate a strong correlation between knowledge of responding to feedback after participating in the Responding to Feedback curriculum. All the 20-item questions were statistically significant with results of r= 0.90 or r=0.91 (see Table 2). The significant increase in understanding, confidence, and implementation of the subject responding to feedback is proven with the significant correlation between the pre group and post group questionnaire. Our study suggests that implementing a curriculum focusing on the skill of “Responding to Feedback” would be beneficial for individuals with disabilities to gain meaningful skills and apply their knowledge to practice in the workplace.

**Implications for Rehabilitation Counselors**

Direct Skills Training (DST) has been proven to be an impactful intervention for populations of individuals seeking to enhance their skills in the workforce (Tschopp et al., 2011). Finding ways to gain and maintain employment can help individuals with disabilities in recovery by providing them with financial benefits and other resources (Tschopp et al., 2011). Responding to feedback is a skill that can be hard for individuals with disabilities to navigate, especially considering the severity of their symptoms as well as their intellectual capacity. The current study utilized DST as a method for leading groups teaching responding to feedback as a skillset that can help individuals gain and maintain employment. Studies have continued to prove how implementing the knowledge, education, and practice of soft skills such as responding to feedback can result in more successful and meaningful experiences in the workforce for individuals with disabilities (Baartman & de Bruijn, 2011). In this study, the group curriculum for Responding to Feedback discussed positive responses to feedback, how to interpret feedback, and ways to effectively respond to feedback in a workplace setting. The results from the pre and post questionnaire demonstrate the benefits of promoting soft skills training in responding to feedback on the job for the growth of individuals with disabilities in preparation for workplace experiences. It is also useful to consider how responding to feedback skills can transfer to non-employment settings. To sustain any kind of interpersonal relationship, it is important to be able to respond to feedback from others in a non-defensive and understanding manner. Transferring the skills taught in the Responding to Feedback group curriculum to individuals living with disabilities can benefit their overall sense of wellbeing in creating and sustaining meaningful relationships. As a clinician, quality of life should be taken into account when guiding clients on their path to employment and recovery in general. Considering responding to feedback as a life skill can be a helpful framework to encourage individuals living with disabilities to find meaning in applying the skills to their life inside and outside of work.

**Limitations and Future Directions**

The limitations of this feasibility study must be considered. First, the study sample was relatively small and missing data points may have influenced the results (see Table 2). Second, graduate students completing practicum requirements led groups, which may bring different motivations to their group work compared to agency staff. Additionally, group leaders were not licensed therapists and may not have the same level of teaching skills as experienced teachers. Third, no measures of fidelity were used, which limits understanding of how well student tutors adhered to the curriculum. Evaluation of feedback behavior can be strengthened by evaluator observations. Work-Related Disability Training for People with Disabilities 241 This study only assessed participants' perceptions of response knowledge, not actual response ability. In addition, this study did not use a randomized controlled design and did not include a control group, which did not allow for a stronger causal interpretation (Harris et al., 2006). 51.7% of participants were between the ages of 36 and 72, and this group was mostly made up of adults with 12 years of education and 6.9 years of previous work experience, and 19 % of participants were currently employed and employed. Therefore, it is possible that this was a group with relatively strong feedback skills in relation to work life. In future studies, the most appropriate model should be selected, which is possible considering the circumstances with the inclusion of a control group. No long-term follow-up was conducted to understand retention of participants' skills and/or employment outcomes. Our findings suggest that participants may have understood the interplay of social norms at work and felt comfortable responding to feedback at work, which may influence the approach of future research. Future research could also assess agency staff's ability to use this intervention and whether "responding to feedback" increases job retention success. Finally, future studies would benefit from larger and more diverse samples, including a wider range of ages, work experience, job experience, and disability types. Despite the stated study limitations, this study supports the feasibility of an intervention (Response to Feedback) designed by rehabilitation counseling students to help people with disabilities. The practicality of group interventions is also supported by low cost, minimal training and equipment requirements, and the versatility of the curriculum. Overall, there was some support for the feasibility and utility of the DST group interventions in response to feedback.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 1** |  |  |  |  |
| *Demographic and Diagnostic Characteristics of Study Participants (N=85)* |  |  |  |  |
|  |  |  |  |  |
|  | N | % |  |  |
| **Gender** |  |  |  |  |
| Male | 43 | 50.6 |  |  |
| Female | 38 | 44.7 |  |  |
| Missing systems | 4 | 4.7 |  |  |
| **Age range** |  |  |  |  |
| Age 18-24 | 15 | 17.6 |  |  |
| Age 25-35 | 26 | 30.6 |  |  |
| Age 36-45 | 17 | 20.0 |  |  |
| Age 46-55 | 12 | 14.1 |  |  |
| Age 56-72 | 15 | 17.6 |  |  |
| **Race/Ethnicity** |  |  |  |  |
| African American | 24 | 28.2 |  |  |
| European American | 34 | 40.0 |  |  |
| Hispanic | 18 | 21.2 |  |  |
| Asian American | 6 | 7.1 |  |  |
| Other | 2 | 2.4 |  |  |
| Missing System | 1 | 1.2 |  |  |
| **Disability Type\*** |  |  |  |  |
| Psychiatric | 26 | 30.6 |  |  |
| Substance Use | 20 | 23.5 |  |  |
| Dual Diagnoses | 12 | 14.1 |  |  |
| Developmental | 9 | 10.6 |  |  |
| Learning | 8 | 9.4 |  |  |
| Physical | 4 | 4.7 |  |  |
| Attended all sessions | 36 | 42.4 |  |  |
| Currently working | 1 | 1.2 |  |  |
| Ever employed | 23 | 27.1 |  |  |
| **Group modality** |  |  |  |  |
| Remote | 5 | 5.9 |  |  |
| In-person | 33 | 38.8 |  |  |
|  | M | SD | Range |  |
| Age | 40.1 | 14.0 | 18-67 |  |
| Years of Education | 11.9 | 0.6 | 10~14 |  |
| Years of Employment | 6.9 | 7.0 | 0~21 |  |
| *\*Note. Some participants had more than one type of disability.* |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 2** |  |  |  |  |
| Item Statistics of the Responding to Feedback Knowledge Inventory Scale |  |  |  |  |
|  | Mean | Std. Deviation | N | Cronbach's Alpha if Item Deleted |
| 1. I know what the common areas are that supervisors are likely to give feedback about on the job. | 3.73 | 0.98 | 64 | 0.91 |
| 2. Everyone who has a job can expect to get feedback from the supervisor about work on the job. | 3.92 | 0.96 | 64 | 0.91 |
| 3. When I get feedback on the job, I make sure I understand the feedback by repeating back to the supervisor the important parts of what the supervisor said. | 3.83 | 0.92 | 64 | 0.91 |
| 4. After receiving feedback, it is important to think about how to improve work on the job. | 3.86 | 0.87 | 64 | 0.91 |
| 5. It is likely the supervisor will get angry if a worker asks a lot of questions about how to do a job | 3.41 | 1.11 | 64 | 0.91 |
| 6. When I make a mistake on the job, a good approach is to blame someone or something else | 4.50 | 0.67 | 64 | 0.91 |
| 7. If I am not sure how to do a job task the way the supervisor wants, I should ask for more information. | 4.22 | 0.74 | 64 | 0.91 |
| 8. If I get criticism about my work, I know how to keep a positive attitude about my job. | 3.50 | 1.11 | 64 | 0.90 |
| 9. It is important to thank my supervisor after receiving feedback about work on the job. | 3.94 | 0.85 | 64 | 0.91 |
| 10. I do not feel confident about what to say when I get feedback about how I am doing my job. | 3.20 | 1.01 | 64 | 0.91 |
| 11. I can recognize when it is important for me to talk to an outside person about my feelings about supervisor feedback. | 3.20 | 0.95 | 64 | 0.91 |
| 12. I know the difference between formal and informal feedback | 3.05 | 1.06 | 64 | 0.91 |
| 13. It can be helpful to spend time thinking about how well I am doing my job tasks. | 3.64 | 1.01 | 64 | 0.90 |
| 14. I know how to present my thoughts on feedback respectfully to my supervisor. | 3.69 | 1.05 | 64 | 0.90 |
| 15. When I am not sure about how well I am doing on a job task, I go ahead and ask for feedback. | 3.58 | 1.10 | 64 | 0.91 |
| 16. I think in advance about what feedback my supervisor might give me. | 3.06 | 1.02 | 64 | 0.91 |
| 17. It is OK to ask for feedback if I am not sure how well I am doing on the job. | 3.83 | 0.97 | 64 | 0.90 |
| 18. I feel I can use feedback to learn more about myself. | 3.94 | 0.85 | 64 | 0.90 |
| 19. After receiving feedback, it helps to follow up to ask if I have improved on that job task. | 3.86 | 0.83 | 64 | 0.90 |
| 20. I feel confident I know what to say when I get feedback about how I am doing on the job. | 3.36 | 0.97 | 64 | 0.90 |
| Note. Items 5, 6, 10 were reversely scored items. |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 3** |  |  |  |  |
| Convergent Validity Table of Pearson Correlations of Scales |  |  |  |  |
|  |  |  |  |  |
|  | RTF | JRSS | OSSES | CAAS |
| Responding to Feedback (RTF) | 1.00 |  |  |  |
| Job Related Social Skills (JRSS) | 0.15 | 1.00 |  |  |
| Occupational Self-Efficacy Scale (OSSES) | -0.69 | 0.06 | 1.00 |  |
| Career Adapt-Abilities Scale (CAAS) | 0.80 | 0.34 | -0.41 | 1.00 |

# References

Agran, M., Hughes, C., Thomas, C. A., & Scott, L. A. (2016). Employment social skills: What skills are really valued? Career Development and Transition for Exceptional Individuals, 39(2), 111–120. <https://doi.org/10.1177/2165143414546741>

Albandea, I, & Giret, J. F. (2018). The effect of soft skills on French post-secondary graduates’ earnings. IDEAS Working Paper Series from RePEc, 39(6), 782–799. <https://doi.org/10.1590/> S1807-76922012005

Anseel, F., Strauss, K., & Lievens, F. (2018). How future work selves guide feedback seeking and feedback responding at work. In D. L. Ferris, R. E. Johnson, & C. Sedikides (Eds.), The self at work: Fundamental theory and research. https://doi.org/10.4324/9781315626543

Baartman, L. K. J., & de Bruijn, E. (2011). Integrating knowledge, skills and attitudes: Conceptualising learning processes towards vocational competence. Educational Research Review, 6(2), 125– 134. <https://doi.org/10.1016/j.edurev.2011.03.001>

Boreham, P., Povey, J., & Tomaszewski, W. (2016). Work and social well-being: The impact of employment conditions on quality of life. The International Journal of Human Resource Management, 27(6), 593–611. <https://doi.org/10.1080/09585192.2015.1027250>

Bureau of Labor Statistics. (2020). Labor force statistics from the current population survey. https:// [www.bls.gov/opub/mlr/2020/home.htm](http://www.bls.gov/opub/mlr/2020/home.htm)

Bureau of Labor Statistics. (2021). Persons with a disability: Labor force characteristics-2020. Press Release. <https://www.bls.gov/news.release/pdf/disabl.pdf>

Clark, K. A., Konrad, M., & Test, D. W. (2018). UPGRADE your performance: Improving soft skills of students with disabilities. Journal of Vocational Rehabilitation, 49(3), 351–365. <https://doi.org/>10.3233/JVR-180979

Cohen, M., Danley,, K., & Nemec, P. B. (1985). Psychiatric rehabilitation practitioner package: Direct skills teaching. Boston University, Center for Psychiatric Rehabilitation.

Communications. (2019). Zoom HIPAA compliant guide. <https://zoom.us/docs/doc/> Zoom- hipaa.pdf

Cook, J. A., & Burke-Miller, J. K. (2015). Reasons for job separations in a cohort of workers with psychiatric disabilities. Journal of Rehabilitation Research and Development, 52(4), 371–384. <https://doi.org/10.1682/JRRD.2014.10.0260>

Dahling, J. J., & O’Malley, A. L. (2011). Supportive feedback environments can mend broken performance management systems. Industrial and Organizational Psychology, 4(2), 201-203. https:/ /doi.org/10.1111/j.1754-9434.2011.01327.x

Department of Labor, & Office of Disability Employment Policy. (2012). Soft skills to pay the bills. <https://www.dol.gov/sites/dolgov/files/odep/topics/youth/softskills/softskills.pdf>

Dwyer, L. P. (2021). Turning the table: Developing students’ skills in receiving feedback. Management Teaching Review, 6(4), 317–329. <https://doi.org/10.1177/2379298119900149>

Fornalczyk, A. (2013). Psychological aspects of responding to feedback in the coaching process. Forum Oświatowe, 2(49), 57–72. <http://forumoswiatowe.pl/index.php/czasopismo/article/view/74>

Garrison, L. L. (2014). Mental models and feedback reactions: How knowledge and belief structures relate to the acceptance of feedback [Doctoral dissertation]. Colorado State University.

Gasser, D. (2023). Evaluation of Soft Employability Skills in Students with Disabilities attending a Vocational Training Program.

Grugulis, I., & Vincent, S. (2009). Whose skill is it anyway? ‘Soft’ Skills and polarization. Work, Employment and Society, 23(4), 597–615. https://doi.org/10.1177/0950017009344862

Harris, A. D., McGregor, J. C., Perencevich, E. N., Furuno, J. P., Zhu, J., Peterson, D. E., & Finkelstein, J. (2006). The use and interpretation of quasi-experimental studies in medical Informatics. Journal of the American Medical Informatics Association, 13(1), 16–23. <https://doi.org/> 10.1197/jamia.M1749

Ju, S., Zhang, D., & Pacha, J. (2012). Employability skills valued by employers as important for entry-level employees with and without disabilities. Career Development and Transition for Exceptional Individuals, 35(1), 29–38. <https://doi.org/10.1177/0885728811419167>

Karimi, H. (2020). Exploring the soft skills gap of undergraduate STEM students entering the healthcare industry: Employer perspectives and strategies for improvement (Order no. 28157003) [Doctoral dissertation]. Sullivan University. ProQuest Dissertations & Theses Global.

Kyllonen, P. C. (2013). Soft skills for the workplace. Change, 45(6), 16–23. <https://doi.org/10.1080/> 00091383.2013.841516

Lindsay, S., Adams, T., McDougall, C., & Sanford, R. (2012). Skill development in an employment training program for adolescents with disabilities. Disability and Rehabilitation, 34(3), 228–237. <https://doi.org/10.3109/09638288.2011.603015>

Lindstrom, L., Kahn, L. G., & Lindsey, H. (2013). Navigating the early career years: Barriers and strategies for young adults with disabilities. Journal of Vocational Rehabilitation, 39(1), 1–12. <https://doi.org/10.3233/JVR-130637>

Lu, W., Oursler, J., Gao, N., Herrick, S. J., Mariani, J., Socha, C., & Beninato, J. (2022). Service needs assessment of employment-related soft skills for transition age youth with disabilities. Journal of Vocational Rehabilitation, 56(1), 69–79. <https://doi.org/10.3233/JVR-211173>

Maggiori, C., Rossier, J., & Savickas, M. L. (2017). Career Adapt-Abilities Scale–Short Form (CAAS-SF): Construction and validation. Journal of Career Assessment, 25(2), 312–325. <https://doi.org/10.1177/1069072714565856>

Marin-Zapata, S. I., Román-Calderón, J. P., Robledo-Ardila, C., & Jaramillo-Serna, M. A. (2022). Soft skills, do we know what we are talking about. Review of Managerial

Science, 16(4), 969–1000. <https://doi.org/10.1007/s11846-021-00474-9>

McIlveen, P., Perera, H. N., Hoare, P. N., & McLennan, B. (2018). The validity of CAAS scores in divergent social occupations. Journal of Career Assessment, 26(1), 31–51.

<https://doi.org/10.1177/1069072716679922>

Mitsea, E., Drigas, A., & Mantas, P. (2021). Soft Skills & Metacognition as Inclusion Amplifiers in the 21st Century. *International Journal of Online and Biomedical Engineering*, *17*(4), 121-. <https://doi.org/10.3991/ijoe.v17i04.20567>

Oursler, J., Lu, W., Herrick, S., & Beninato, J. (2020). Responding to feedback knowledge inventory [In Preparation]. Oursler, J., Lu, W., Herrick, S., & Harris, K. (2019). Using direct skills teaching to improve jobskills for persons with disabilities. Journal of

Employment Counseling, 56(2), 69–84. <https://doi.org/10.1002/joec.12113>

Pierce, D. (2019). What employers want: employers are looking to community colleges for help in teaching soft skills. Community College Journal, 89(3), 20–25. <https://eric.ed.gov/?id=EJ1200812>

Reganick, K. (1995). Using adventure-based cooperation training to develop job related social skills for adolescents with severe behavioral and emotional problems.

Russinova, Z., Bloch, P., Wewiorski, N., Shappell, H., & Rogers, E. S. (2018). Predictors of sustained employment among individuals with serious mental illness: Findings from a 5-year naturalistic longitudinal study. The Journal of Nervous and Mental Disease, 206(9), 669–679. <https://doi.org/10.1097/NMD.0000000000000876>

Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. Journal of Vocational Behavior, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>

Semeijn, J., Boone, C., van der Velden, R., & van Witteloostuijn, A. (2005). Graduates’

personality characteristics and labor market entry an empirical study among dutch economics graduates. Economics of Education Review, 24(1), 67–83.

<https://doi.org/10.1016/j.econedurev.2004.03.006>

Schwarzer, R. (1994). Optimism, vulnerability, and self-beliefs as health-related cognitions: A

systematic overview. Psychology & Health, 9(3), 161–180.

<https://doi.org/10.1080/08870449408407475>

Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. European Journal of Work and Organizational Psychology, 11(2), 219–241.<https://doi.org/10.1080/13594320244000148>

Sheh, Y. S., Hanapi, Z., Mustapha, R., & Kiong, T. T. (2020). Soft Skills Among Hearing

Impaired Graduates for Sustainability and Well-Being in Workplace. *International Journal of Academic Research in Business and Social Sciences*, *10*(5).

<https://doi.org/10.6007/IJARBSS/v10-i5/7187>

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W.

(1982). The Self-Efficacy Scale: Construction and validation. Psychological Reports. <https://doi.org/10.2466/pr0.1982.51.2.663>

Simões, C., & Santos, S. (2016). Comparing the quality of life of adults with and without

intellectual disability. Journal of Intellectual Disability Research, 60(4), 378–388.

<https://doi.org/10.1111/jir>. 12256

Sławińska, K., & Villani, C. S. (2014). Gaining and strengthening ‘soft skills' for employment. *Edukacja Ustawiczna Dorosłych*, *3*(86), 44-53.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. Journal of Personality and Social Psychology, 60(4), 570–585. [https://doi.org/10.1037/0022-](https://doi.org/10.1037/0022-3514.60.4.570) 3514.60.4.570

Stäudel, T. (1988). Der kompetenzfragebogen-überprüfung eines verfahrens der selbsteinschätzung der heuristischen kompetenz, belastender emotionen und verhaltenstendenzen beim lösen komplexer probleme [The Kompetenzfragebogen (competency questionnaire) test of an instrument for assessing self-estimates of heuristic competency, stressful emotions and behavior tendencies in complex problem solving]. Diagnostica, 34, 136-148.

Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students and employers’ perceptions. Studies in Higher Education, 45(9), 1834–1847. <https://doi.org/10.1080/03075079.2019.1585420>

Tschopp, M. K., Perkins, D. V., Wood, H., Leczycki, A., & Oyer, L. (2011). Employment considerations for individuals with psychiatric disabilities and criminal histories: Consumer perspectives. Journal of Vocational Rehabilitation, 35(2), 129–141. https://doi.org/10.3233/JVR-2011-0560

Tulgan, B. (2015). Bridging the soft skills gap. In Bridging the soft skills gap: How to teach the missing basics to today’s young talent. Jossey-Bass. <https://doi.org/10.1002/9781119171409>

Waheed, S. A., Gilani,, Dr. N., & Zafar, S. (2021). Responding to supervisory feedback: Doctoral students’ understanding of supervisors’ attitudes and improvement of the feedback. Research Journal of Social Sciences and Economics Review (RJSSER), 2(1), 365–374. <https://doi.org/10.36902/rjsser-vol2-iss1-2021(365-374>)

Wesley, S. C., Jackson, V. P., & Lee, M. (2017). The perceived importance of core soft skills between retailing and tourism management students, faculty and businesses. Employee Relations, 39(1), 79–99. <https://doi.org/10.1108/ER-03-2016-0051>

Young, H. (2010). Making an impact: Measuring and encouraging the progress of individuals in voluntary sector youth projects. Newcastle: Northern Rock Foundation. Zoom Video

Young, K., & Rooney, D. (2023). Developing soft (employability) skills and work experience opportunities to prepare students with intellectual disability for open employment. *British Journal of Special Education*. <https://doi.org/10.1111/1467-8578.12484>

**Disclosure.** The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

**Funding**. The work is supported by Rutgers SHP Dean’s Intramural Grant.

Correspondence regarding this article should be directed to Weili Lu, PhD, Department of Psychiatric Rehabilitation and Counseling Professions, Rutgers-The State University of New Jersey, 675 Hoes Lane- 8th Floor Research Tower, West Piscataway, New Jersey 08854, USA. E-mail: [luwe1@shp.rutgers.edu](mailto:luwe1@shp.rutgers.edu)

**APPENDIX**

**Responding to Feedback Content Outline**

**Skill:** Responding to feedback Definition: Responding to feedback means discussing with your supervisor your strengths and areas for improvement on your job.

**Benefit:** Responding to feedback helps you (and your supervisor) to learn more about what you are doing well on the job and areas where you can improve and how you might do that.

**Behaviors:**

1. Identifying feedback occasions

2. Clarifying feedback information

3. Providing feedback on feedback

4. Following up on feedback

**Condition:** When you and your supervisor talk about how you are doing on the job

**Group on Responding to Feedback: Pre-Group & End of Group Questions**

1. I know what the common areas are that supervisors are likely to give feedback about on the job.
2. Everyone who has a job can expect to get feedback from the supervisor about work on the job.
3. When I get feedback on the job, I make sure I understand the feedback by repeating back to the supervisor the important parts of what the supervisor said – Do not code
4. After receiving feedback, it is important to think about how to improve work on the job.
5. It is likely the supervisor will get angry if a worker asks a lot of questions about how to do a job.
6. When I make a mistake on the job, a good approach is to blame someone or something else.
7. If I am not sure how to do a job task the way the supervisor wants, I should ask for more information.
8. If I get criticism about my work, I know how to keep a positive attitude about my job.
9. It is important to thank the supervisor after receiving feedback about work on the job.
10. I do not feel confident about what to say when I get feedback about how I am doing my job.
11. I can recognize when it is important for me to talk to an outside person about my feelings about supervisor feedback.
12. I know the difference between formal and informal feedback.
13. It can be helpful to spend time thinking about how well I am doing my job tasks.
14. I know how to present my thoughts on feedback respectfully to my supervisor.
15. When I am not sure about how well I am doing on a job task, I go ahead and ask for feedback.
16. I think in advance about what feedback my supervisor might give me.
17. It is OK to ask for feedback if I am not sure how well I am doing on the job.
18. I feel I can use feedback to learn more about myself.
19. After receiving feedback, it helps to follow up to ask if I have improved on that job task.
20. I feel confident I know what to say when I get feedback about how I am doing on the job.