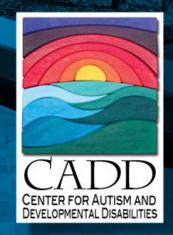
### Assessing and Teaching Job-Related Social Skills: Maximizing Success of Neurodiverse Employees

#### Dorothea C. Lerman, PhD, BCBA-D, LBA-TX



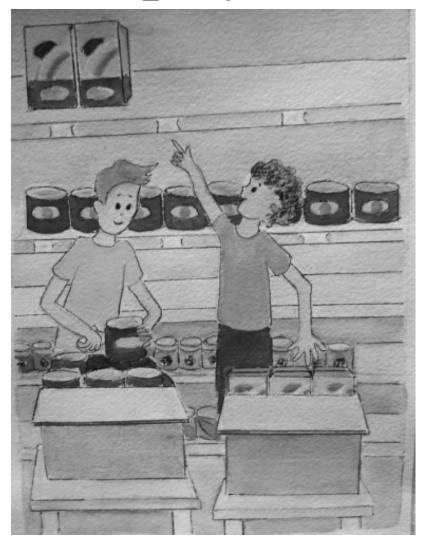
### My Collaborators

- Dr. Sarah Lechago
- Dr. Jennifer Fritz
- Kelsey Leadingham
- Clarissa Ruiz
- Amanda Davis
- Megan Dora
- Carolyn Grob
- Justin Hunt
- Megan Dora

- Channing Langlinais
- Courtney Laudont
- Trena Rouse
- Pia Som
- Loukia Tsami
- Natalie Villante
- Bridgette White
- Dan Wright



### Employment of Individuals with NDD



• Overall: 25% - 55%<sup>1</sup>



<sup>1</sup>Cameron et al., 2022; Howlin & Mash, 2012; Maslahati et al., 2022; Roux et al., 2013; Wei et al., 2015; Zhou et al., 2022



Employment and Other Day Activities

### Had a paid job in the community

14%

Worked in the community for pay in settings that also employed people without disabilities. Were in unpaid, activities in facilities

42%

Participated in unpaid activities in facilities with others with disabilities (sometimes called day programs). Had no work or activity

**27%** 

Had no work or activities in the previous two weeks in community or facility-based settings.

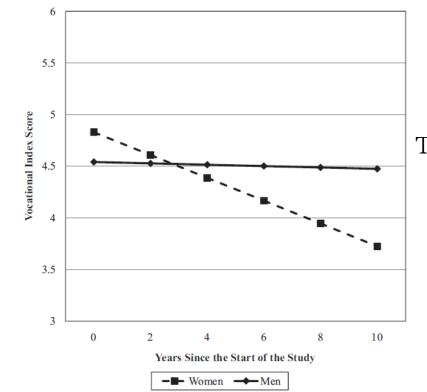
National Autism Indicators Report, 2017



### Employment of Individuals with NDD



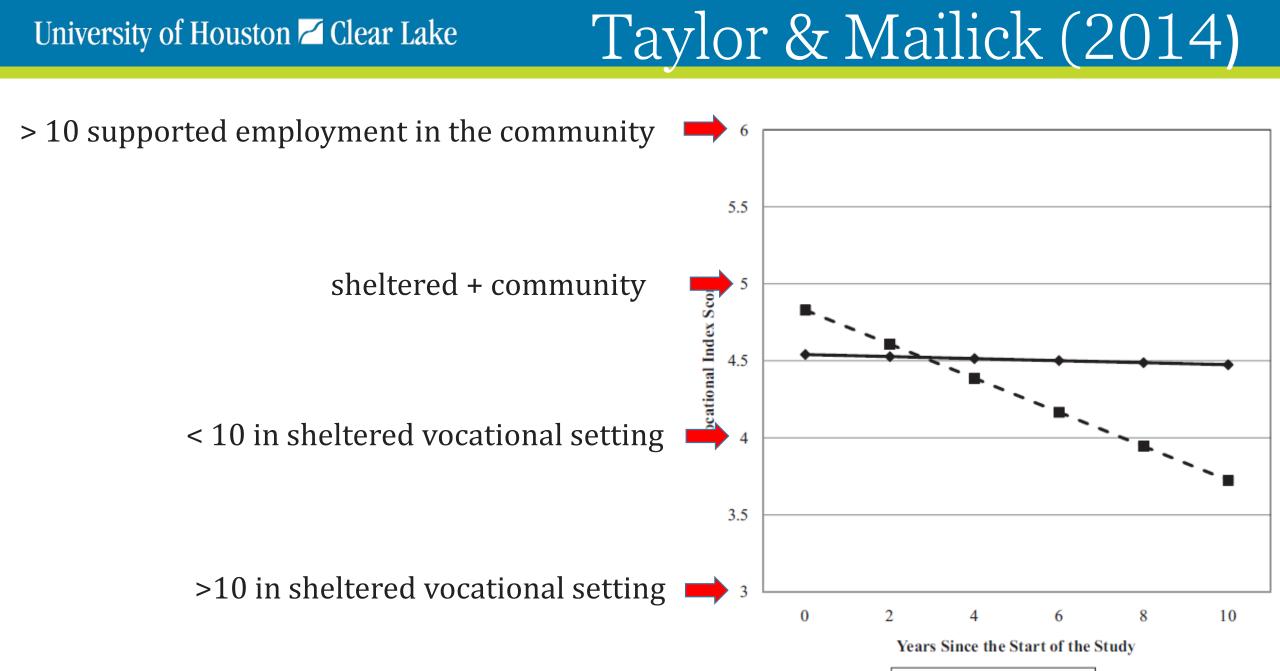
• With VR services:  $37\%-60\%^2$ 



Taylor & Mailick (2014)



<sup>2</sup>Alverson & Yamamoto, 2017; Roux et al., 2016; Taylor & Mailick, 2014



- Women - Men

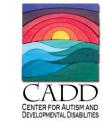
DEVELOPMENTAL DISABILITIES

### Employment of Individuals with NDD



• Less likely to receive <u>job-placement</u> and <u>on-the-job support</u> services<sup>1</sup>





<sup>1</sup>Nye-Lengerman, 2017

### Why Vocational Difficulties?









### Why Vocational Difficulties?





Butterworth & Strauch, 1994; Cheney & Foss, 1984; Ford et al., 1984; Greenspan & Shoultz, 1981; Mueller, 1988



### We Can Help!!!!





### WELLS FARGO

Southwest'

J.P.Morgan

Goldman Sachs



### Potential Targets: What Should We Teach?

#### Securing Employment

- Completing applications
- Interviewing

#### General Vocational Skills

- Following instructions
- Managing time
- Navigating job site

#### Job-Specific skills

#### Job-Related Social Skills

- Asking for assistance
- Responding appropriately to feedback

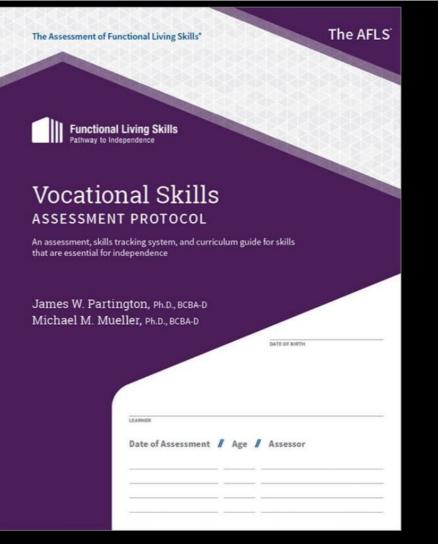
#### Problem Solving

Hygiene/Grooming



### Prerequisites for Job-Related Social Skills and Problem-Solving Skills

- Follows instructions
- Has functional communication skills
- Can complete some jobs
- Remains on-task for short periods





### Assessing Job-Related Social Skills









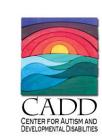
### Vocational Social Skills Assessment (VSSA)

- Evaluates skills directly and efficiently
- Measures performance via direct observation
- Embedded within authentic work experiences
- Utilizes arranged situations
- Identifies essential job-related social skills and associated targets
- Guides goals, intervention planning, and progress monitoring











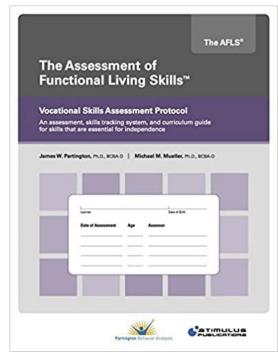
Situation	Brief Description	
Task Interrupted	The supervisor interrupts an ongoing task to ask the learner to switch to a different task that must be completed immediately.	
Materials Needed	The learner encounters broken or missing materials or runs out of materials that are needed to complete a task.	
Vague Instructions	The supervisor assigns a new task that can be completed multiple ways without clearly describing or demonstrating how to complete it.	
Task Not In Repertoire	The supervisor asks the learner to complete a task that the learner does not know how to do.	CA ENTER FOF DEVELOPMENT

Situation	Brief Description
Feedback Provided	The supervisor delivers corrective task feedback that is clear, vague, or conflicts with the original instructions.
Task Completed	The learner completes tasks and does not know what to do next.
Supervisor Unavailable	The learner needs assistance but supervisor is missing from office or otherwise temporarily engaged.
Multiple Tasks Assigned	The supervisor asks learner to complete 2 or more tasks in a fixed or variant sequence.

CENTER FOR AUTISM AND DEVELOPMENTAL DISABILITIES

• Correct responses to situations:

 Focuses on appropriate replacements for inappropriate behavior
 Drawn from Butterworth & Strauch (1994); Ju et al. (2012); Montague & Lund (2017); Partington & Mueller (2015) and others
 Tailored to likely/current job placement





Situation Name	Skill
Task Interrupted	Switches immediately to new task, notifies supervisor, completes original task.
Materials Needed	Searches for materials, searches for supervisor (if needed), explains problem, asks for help.
Vague Instructions/Task Not in Repertoire	Searches for supervisor, asks for help.
Multiple Tasks Assigned	Transitions independently across tasks.

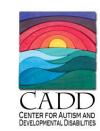


Situation	Skill
New Task Assigned	Confirms understanding
Feedback Provided	Acknowledges feedback, asks for clarification (if needed), confirms understanding, corrects mistakes.
Task Completed	Seeks supervisor, emits "done" statement, inquires about next step
Supervisor Unavailable	Searches for/completes other work



### **Possible Other Behaviors**

- Orienting toward others
- Providing unsolicited assistance
- Remaining on-task
- Completing tasks accurately
- Greeting others
- Complimenting others
- Thanking others
- Responding to safety hazards
- Standing an appropriate distance from others
- Waiting turn to speak
- Asking appropriate questions

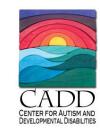






•Is this target critical to obtaining or maintaining employment?

• Is this something that the learner would like to target?





RESEARCH ARTICLE

#### A Clinic-Based Assessment for Evaluating Job-Related Social Skills in Adolescents and Adults with Autism

Dorothea C. Lerman<sup>1</sup> · Bridgette White<sup>1</sup> · Carolyn Grob<sup>1</sup> · Courtney Laudont<sup>1</sup>

*Journal of* Applied Behavior Analysis

JOURNAL OF APPLIED BEHAVIOR ANALYSIS

2019, **52,** 150–172

NUMBER 1 (WINTER)

ASSESSING AND TEACHING JOB-RELATED SOCIAL SKILLS TO ADULTS WITH AUTISM SPECTRUM DISORDER

Carolyn M. Grob, Dorothea C. Lerman, Channing A. Langlinais and Natalie K. Villante

UNIVED SITV OF HOUSTON CLEAD LAVE















# Typical Tasks

- Folding shirts
- Rolling/sorting silverware
- Sorting objects
- Stuffing envelopes
- Stapling papers
- Alphabetizing books/folders/envelopes
- Cleaning room
- Stocking shelves
- Computer-related jobs (e.g., data entry, web searches, typing)



### Vocational Social Skills Intervention (VSSI)

### **Research on Vocational Interventions**

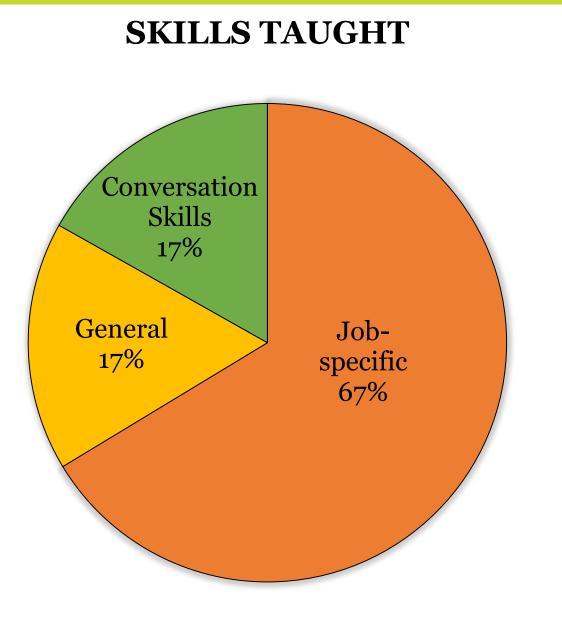
- Focus on those with more severe disabilities
- Few target "soft skills" related to job retention



## Anderson, et al., 2017

Interventions

- 50% Behavioral Skills Training
- 28% Video-Based Instruction
- 22% Self-Management





### Ideal interventions

- Efficient, low-cost, nonintrusive
- Transfer from teaching setting to job site
- On-site supervisors willing to implement



### **Potential Interventions**

Instructions (Spoken/Written) and Rules Behavior Skills Training

Feedback

Prompts (Spoken, Visual, Technology)

Reinforcement



### But First....

- Ensure that correct task completion  $\rightarrow$  reinforcement (S<sup>R</sup>)
  - Is task completion per se a conditioned  $S^{R}$ ?
  - Is praise/social approval an effective  $S^{R}$ ?
  - Is delayed/intermittent reinforcement S<sup>R</sup>?
    - If not, are tokens a viable option?







### Instructions (Spoken/Written) & Rules

- Concise descriptions with rationales
- Access to written product on job site

If the supervisor tells you to fix your work and you don't understand how to fix it:

1. Thank your supervisor for the feedback

2. Ask your supervisor to show you how to fix your work.

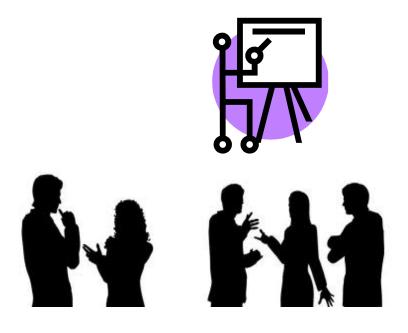
3. Tell the supervisor you will fix the task

4. Fix your mistakes and finish the task.



## Behavior Skills Training

- Instructions + modeling + practice with feedback
- Video modeling
- Establish performance criterion (e.g., 3-6 correct responses in a row)





### Feedback

• Provide descriptive praise and corrective feedback



"Nicely done! You let me know when you had finished your task and asked what you could do next." "You went to the break room when I was unavailable but you should have found other work to do."



Quick model, opportunity for practice

• Plan for fading



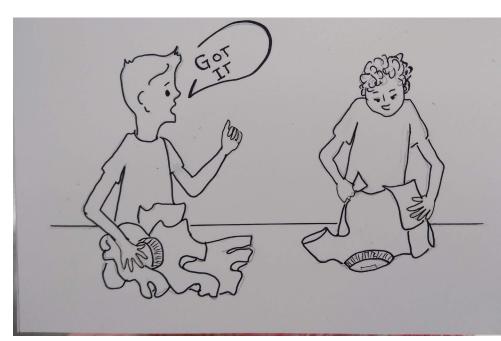
### Prompts

### <u>Modalities</u>

- Spoken
- Visual
  - Gestures
  - Models
  - Text
  - Pictures









### Prompts

### <u>Modalities</u>

- Spoken
- Visual
  - Gestures
  - Models
  - Text
  - Pictures

Can you show me how?

### Could you demonstrate it?

I need a model.

How do I do it?



### Prompts

- Technology
  - Videos
  - Automated reminders
  - Messaging







## Prompts

• <u>Modalities</u>

OWhat is feasible and acceptable on job site?
OWhat has been effective for learner in past?
OHow easy to fade?

• <u>Timing</u>

o Before / after opportunity to respond

- Prompt Fading
- o Delay prompt
- Reduce amount of prompt
- o Transition across prompts



### Reinforcement







#### Food/drink

Videos

#### Music

Praise and other forms of attention

Positive performance evaluations

Additional or extra-long breaks

Assistance with tasks

Choice of tasks

Early dismissal or late start

Extra vacation days

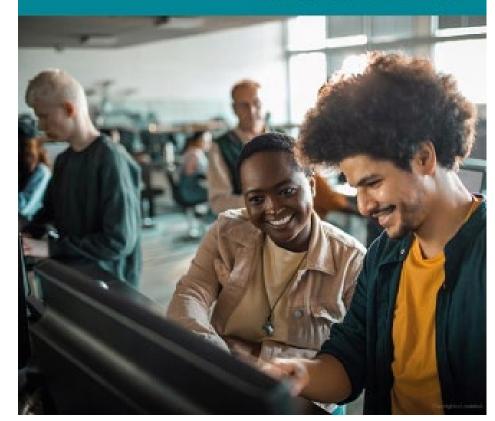
Money, gift cards, tokens, and other types of conditioned (generalized) reinforcers



#### Neurodevelopmental Disabilities and Employment

Helping Learners Prepare for Social Demands in the Workplace

#### Dorothea C. Lerman



### Thank you!

Questions? Dorothea C. Lerman, PhD Lerman@uhcl.edu

