



SCHOOL OF SOCIAL WORK  
**LEVEL UP LAB**  
UNIVERSITY OF MICHIGAN

# 2022 REPORT: VIRTUAL JOB INTERVIEW TRAINING IN SPECIAL EDUCATION

---

University of Michigan  
School of Social Work  
1080 South University Ave.  
Ann Arbor, MI 48109-1106

Dr. Matthew J. Smith, PhD  
Director  
[www.leveluplab.org](http://www.leveluplab.org)  
Twitter: @leveluplab1

# TABLE OF CONTENTS

3	OUR TEAM
4	LEVEL UP: EMPLOYMENT SKILLS SIMULATION LAB
5	MEET THE VIRTUAL HIRING MANAGERS
6	OUR FOCUS ON SPECIAL EDUCATION
7	TAILORING VIRTUAL INTERVIEW TRAINING FOR AUTISM
11	VIRTUAL INTERVIEWING FOR STUDENTS WITH DISABILITIES
14	IMPACT ACROSS BOTH STUDIES
16	WHAT STUDENTS THINK
17	WHAT TEACHERS THINK
18	STRATEGIES USED
19	BEST PRACTICES LEARNED
20	COMMUNITY PARTNERS
22	ACKNOWLEDGEMENTS
23	REFERENCES

# OUR TEAM

## LAB DIRECTOR



Dr. Matthew Smith,  
PhD

## LAB MANAGER



Brittany Ross

## PROGRAM MANAGER



Katherine Tucker

## RESEARCH STAFF



Meghan Harrington



Sagun Sharma



Jeffery Johnson

## LAB TRAINEES



Dr. Ed-Dee Williams, PhD



Kari Sherwood

# LEVEL UP: EMPLOYMENT SKILLS SIMULATION LAB

2017



The Lab is founded by Dr. Matthew J. Smith, PhD, to help bridge the equity gap in employment opportunities for underserved groups. The lab was first centered on developing virtual reality job interview training (VR-JIT) for adults with serious mental illness where trainees interviewed with virtual hiring manager Molly [1].

2017-2021



National Institute of Mental Health grant (NIMH; R34 MH111531) is awarded to Dr. Smith to partner with the autism community to tailor VR-JIT (**Molly**) to meet the needs of autistic youth and young adults and evaluate its effectiveness when delivered in special education pre-employment transition services (Pre-ETS).

**Rita Muniz & Travis Bishop** are now featured as the new virtual hiring managers.

2017-2020



Kessler Foundation awards a grant (1003-1958-SEG-FY2016) to Dr. Smith to study the potential impact of **Molly** when added to Pre-ETS. After sponsor approval, this project switched from **Molly** to **Rita & Travis**.

2019-2024



SIMmersion LLC and Dr. Smith receive an NIMH grant (R44 112625) to develop a new virtual day at work for autistic youth and adults to practice conversations in the work setting!

# MEET THE VIRTUAL HIRING MANAGERS



## MEET MOLLY

Virtual hiring manager, Molly Porter, is prepared to ask hundreds of common interview questions. When Molly asks a question, the trainee will have a wide range of possible answers, just like in real life. Molly will remember what is said, and shape the interview around what the trainee has chosen to share.

Interviewing with Molly lets the trainee practice skills and learn from common mistakes in a safe, private format.

---

## MEET RITA & TRAVIS

Similarly, virtual hiring managers, Rita Muniz & Travis Bishop, can help a trainee practice entry- and mid-level job interviews to gain job interviewing skills, build confidence, and secure the next job position.



# OUR FOCUS ON SPECIAL EDUCATION

Pre-employment transition services (Pre-ETS) consist of 5 areas of service to help prepare students with disabilities for the transition from secondary education to employment [2].

1

workplace  
readiness  
training

2

work-based  
learning  
experiences

3

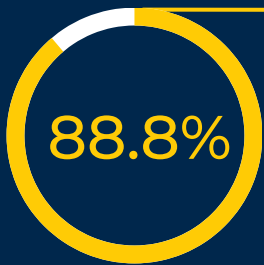
job  
exploration  
counseling

4

post secondary  
education  
counseling

5

self-  
advocacy



A study of 656 youth receiving Pre-ETS revealed that 88.8% of employed youth completed an interview prior to obtaining their job suggesting that navigating job interviews is critical to obtaining employment [3].

"Job interview skills is a critical component of job readiness training."

U.S. Department of Education, Office of Special Education and Rehabilitative Services, 2017 [4]

Only 1 'PROMISING PRACTICE'

available to help job interview skills based on a small study with 14 participants.

National Technical Assistance Center on Transition: the Collaborative [NTACT:C] [5]

Level Up Lab seeks to partner with school districts and schools to further inform evidence-based practice for special education Pre-ETS through our development and evaluation of virtual job interview training.

# TAILORING VIRTUAL INTERVIEW TRAINING FOR AUTISM

## LEVEL UP LAB PARTNERS WITH

45

STAKEHOLDERS  
FROM THE AUTISM  
COMMUNITY

28  AUTISTIC TEENS, &  
YOUNG ADULTS

17  PARENTS, TEACHERS,  
& EMPLOYERS

This NIMH-funded study (R34 MH111531) reviewed and provided suggestions to tailor Rita & Travis to meet the specific needs of transition age youth with autism [6].

CRITICAL  
RECOMMENDATION

"Diversify the hiring managers"

## IN RESPONSE



We created Ms. Rita Muniz and Mr. Travis Bishop to feature in the youth version of virtual interview training.



Then we partnered with 5 pre-employment transition services (Pre-ETS) programs in Michigan & Ohio.

After training local teachers, we enrolled 71 transition age youth with autism as participants in a randomized controlled trial to test the effectiveness of Rita & Travis [7].

# TAILORING VIRTUAL INTERVIEW TRAINING FOR AUTISM

	<b>PRE-ETS ONLY</b> <b>(N=23)</b> 	<b>PRE-ETS+RITA &amp; TRAVIS</b> <b>(N=48)</b> 
<b>AVG. AGE (IN YEARS)</b>	19	20
<b>SEX ASSIGNED AT BIRTH</b>	87% Male 13% Female	79% Male 21% Female
<b>RACE</b>	57% Caucasian/White 35% Black/African American 9% More than one race	54% Caucasian/White 22% Black/African American 13% Hispanic and/or Latino 10% Other
<b>CO-OCCURRING DISABILITY</b>	39% Other Health Impairment 23% Specific Learning Disability 23% Emotional Disturbance 15% Intellectual Disability	34% Other Health Impairment 17% Specific Learning Disability 17% Emotional Disturbance 31% Intellectual Disability

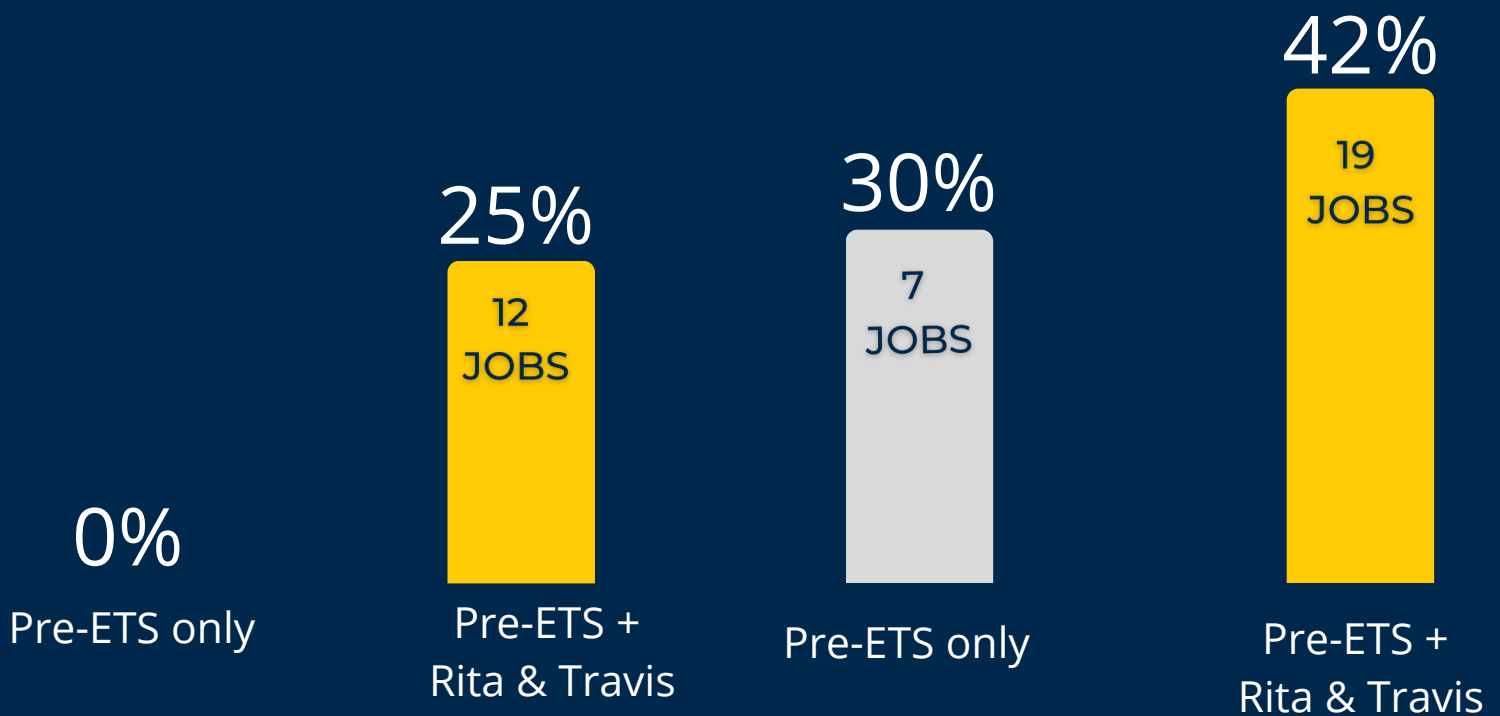


# TAILORING VIRTUAL INTERVIEW TRAINING FOR AUTISM

## EMPLOYMENT BY 6-MONTH FOLLOW-UP

### COMPETITIVE & INTEGRATED JOBS

### ANY JOB



**NOTE:** Competitive and integrated jobs refer to jobs in the community that were not set aside or obtained after completing an internship or volunteer position with that employer [7].

Any job refers to obtaining either a competitive or non-competitive job (i.e., a job carried over from internship or volunteer position) [7].

# TAILORING VIRTUAL INTERVIEW TRAINING FOR AUTISM

VIRTUAL INTERVIEWING LEVELS UP STUDENTS' SKILLS AND COMFORT



+19%

IMPROVEMENT  
IN JOB  
INTERVIEW  
SKILLS

-19%

REDUCTION  
IN JOB  
INTERVIEW  
ANXIETY



It was nice to see how an interview works and **to get better.**

[My favorite thing was] getting a **good idea of what was proper to say during an interview.**

I feel that the program **helped me learn the skills** needed to have a successful interview, which **helped me get a job** at our local zoo. I feel without this program, I would've been very nervous and wouldn't be able to do a successful interview. It **taught me different types of ways** to make sure I don't feel nervous and make my anxiety go through the roof.

It helped me **learn not to be afraid** for a real interview.



# VIRTUAL INTERVIEWING FOR STUDENTS WITH DISABILITIES

Kessler Foundation grant (1003-1958-SEG-FY2016) to the Level Up Lab supported the implementation of Virtual Interview Training.



**GOAL:** REACH 60 SCHOOLS  
**OUTCOME:** REACHED 56 SCHOOLS



**GOAL:** SERVE 1000 YOUTH WITH DISABILITIES AGES 16-26

**OUTCOME:** SERVED 804 YOUTH WITH DISABILITIES AGES 16-26



USED BOTH MOLLY & RITA/TRAVIS

The NIMH & Kessler Foundation approved the switch from Molly to Rita & Travis.

2019 National Employment Rate for youth with disabilities was 18% [8].



**GOAL:** INCREASE EMPLOYMENT FROM 18% TO 32%

**OUTCOME:** INCREASED EMPLOYMENT FROM 18% TO 37%

**NOTE:** Outcomes were collected only for 749 participants due to COVID-19 and other reporting limitations [9, 10].

# VIRTUAL INTERVIEWING FOR STUDENTS WITH DISABILITIES

## OUR STUDENTS (N=804)

### AGE



Averaged 18 years old

### SEX ASSIGNED AT BIRTH



62% Male  
38% Female

### RACE



58% Caucasian/White  
18% Black/African American  
13% Hispanic and/or Latino  
6% Other  
5% More than one race

### GRADE



41% Senior  
36% Adult Transition  
11% Junior  
7% Sophomore  
5% Freshman

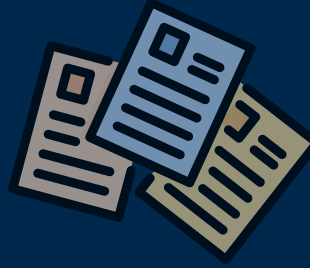
### PRIMARY DIAGNOSIS



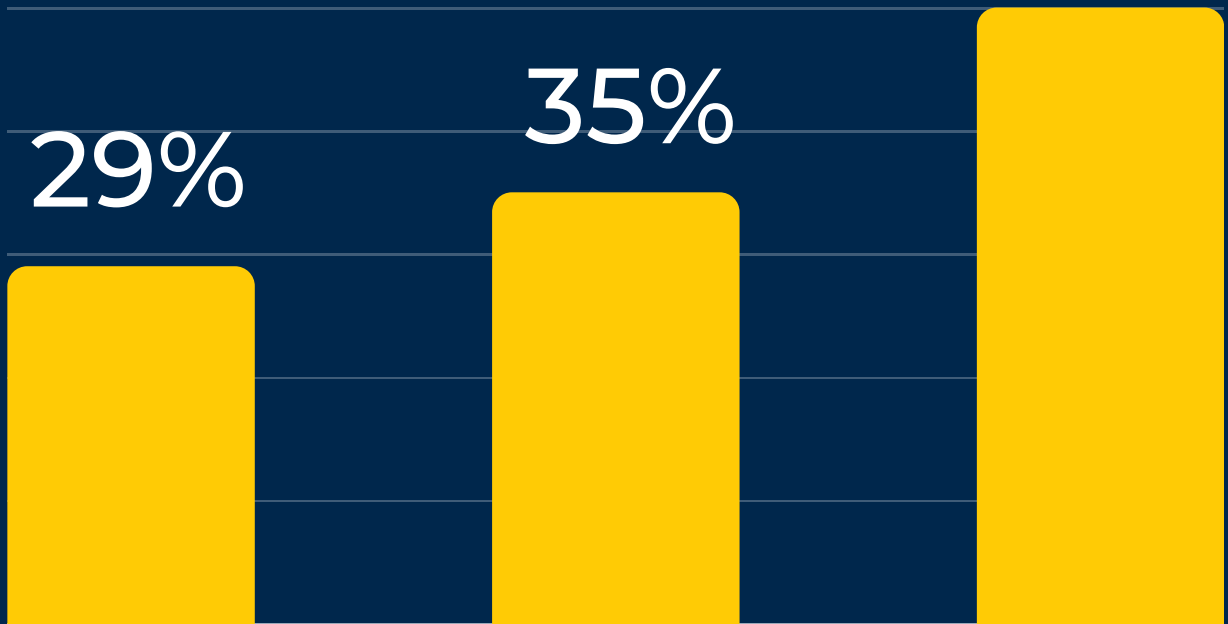
29% Specific Learning Disability  
22% Autism Spectrum Disorder  
16% Intellectual Disability  
12% Emotional Disturbance  
12% Other Health Impairment  
9% Other Disability

# VIRTUAL INTERVIEWING FOR STUDENTS WITH DISABILITIES

## 37% EMPLOYMENT OVERALL



50%



5 Interviews or Less

6-14 Interviews

15 Interviews or More



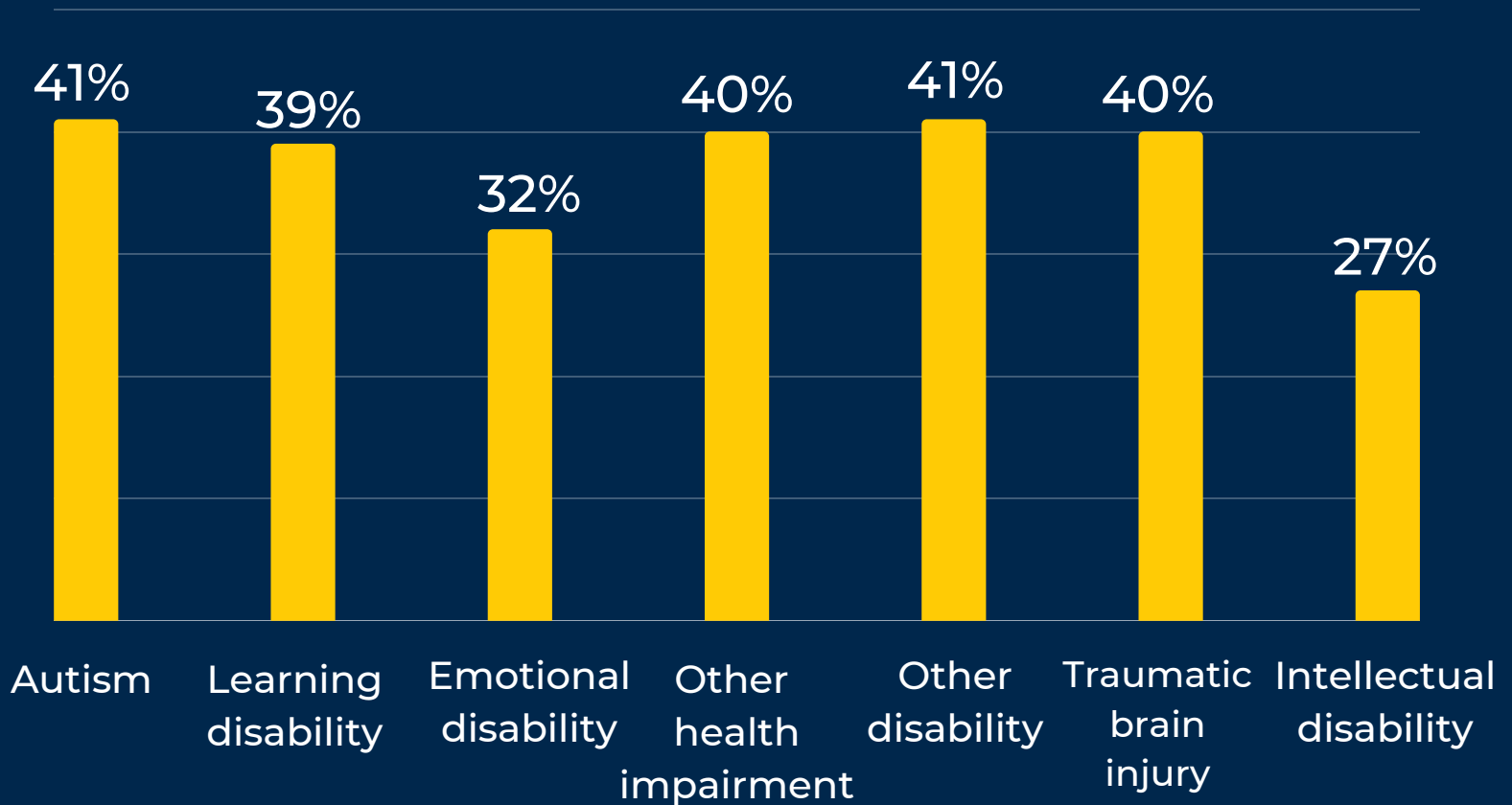
**277 JOBS!**



The more virtual interviews completed,  
the higher the employment!

# IMPACT ACROSS BOTH STUDIES

## 6 MONTH EMPLOYMENT RATES BY IDEA CATEGORIES

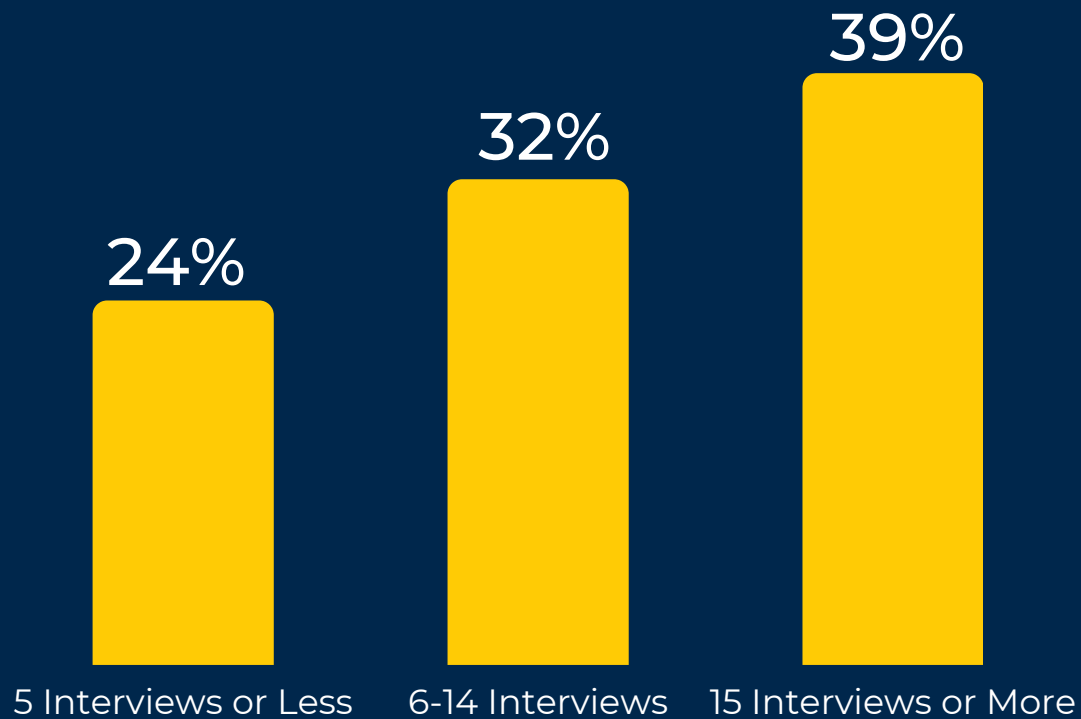


# IMPACT ACROSS BOTH STUDIES

## 6 MONTH EMPLOYMENT RATE:

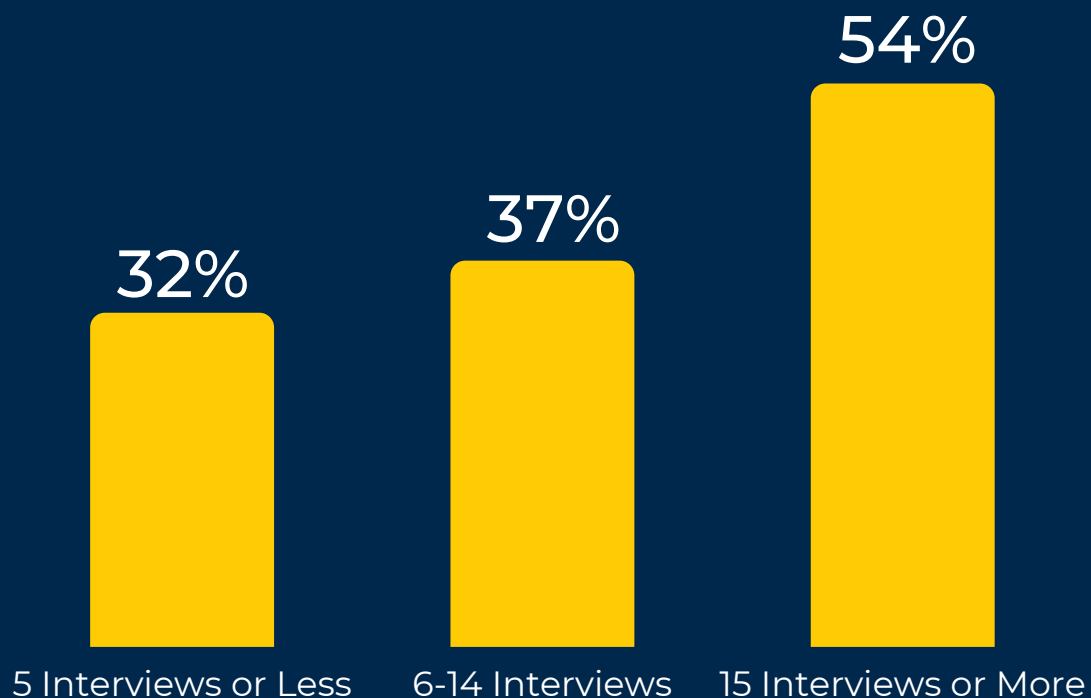
After Interviewing  
With Molly

91 jobs!



After Interviewing  
With Rita/Travis

205 jobs!



# WHAT STUDENTS THINK

78%

FOUND VIRTUAL  
INTERVIEWING  
ENJOYABLE

90%

FOUND VIRTUAL  
INTERVIEWING  
EASY TO DO

83%

FOUND VIRTUAL  
INTERVIEWING  
IMPROVED THEIR  
CONFIDENCE TO  
INTERVIEW FOR  
A JOB

91%

FOUND VIRTUAL  
INTERVIEWING  
HELPED PREPARE  
THEM TO  
INTERVIEW FOR  
A JOB



“The experience of the whole program **was amazing** and it seriously **boosted my confidence** for a 'real deal' interview and I absolutely **LOVED it**. I think it's a great program for everyone.

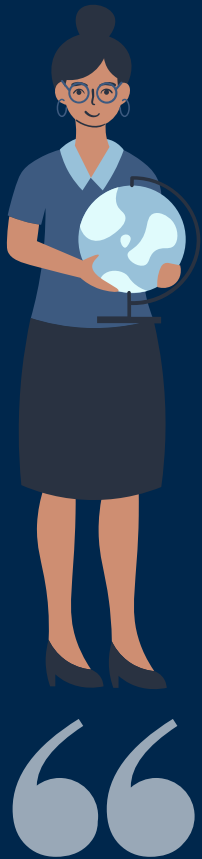
It was nice to see how an interview works and **to get better**.

I liked how it **taught me what and what not to say** during an interview and it also **helped me learn what I needed to improve on** for an interview.





# WHAT TEACHERS THINK



90%

ARE SATISFIED WITH THE VIRTUAL INTERVIEW TOOLS AND TECHNICAL SUPPORT

98%

BELIEVE THE VIRTUAL INTERVIEW TOOLS FIT WITHIN PRE-EMPLOYMENT TRANSITION SERVICES



90%

REPORT THE VIRTUAL INTERVIEW TOOLS ARE HELPING STUDENTS IMPROVE SKILLS

83%

ARE MOTIVATED AND PREPARED TO CONTINUE IMPLEMENTING THE VIRTUAL INTERVIEW TOOLS

We have one student that has a lot of anxiety. So, practicing interviews in a roleplaying, real life situation was not something we've been able to get him to do but he **was able to interact with the Rita & Travis tool and have learned a lot more** from that.

The videos are, they sort of **broke down what you need to be looking for** as far as the learning targets and things like that. So I think KENDRA **[the job coach]** was a **very helpful feature** of the tool.

It **took that fear out** of "when I do have to go interview," which for my kids that's the biggest thing, you know, that fear and anxiety.



# STRATEGIES USED

Molly + Rita & Travis were designed to be an internet-delivered, scalable, individualized learning experience that students can use independently with minimal orientation and supervision [10].

Reports from 44 teachers indicated classroom-level implementation primarily occurred in:

60.7%

**GROUP SETTING**

**WHERE STUDENTS  
INDIVIDUALLY USED  
DEVICES**

34.7%

**PRIVATE OR SEMI-  
PRIVATE SETTING**

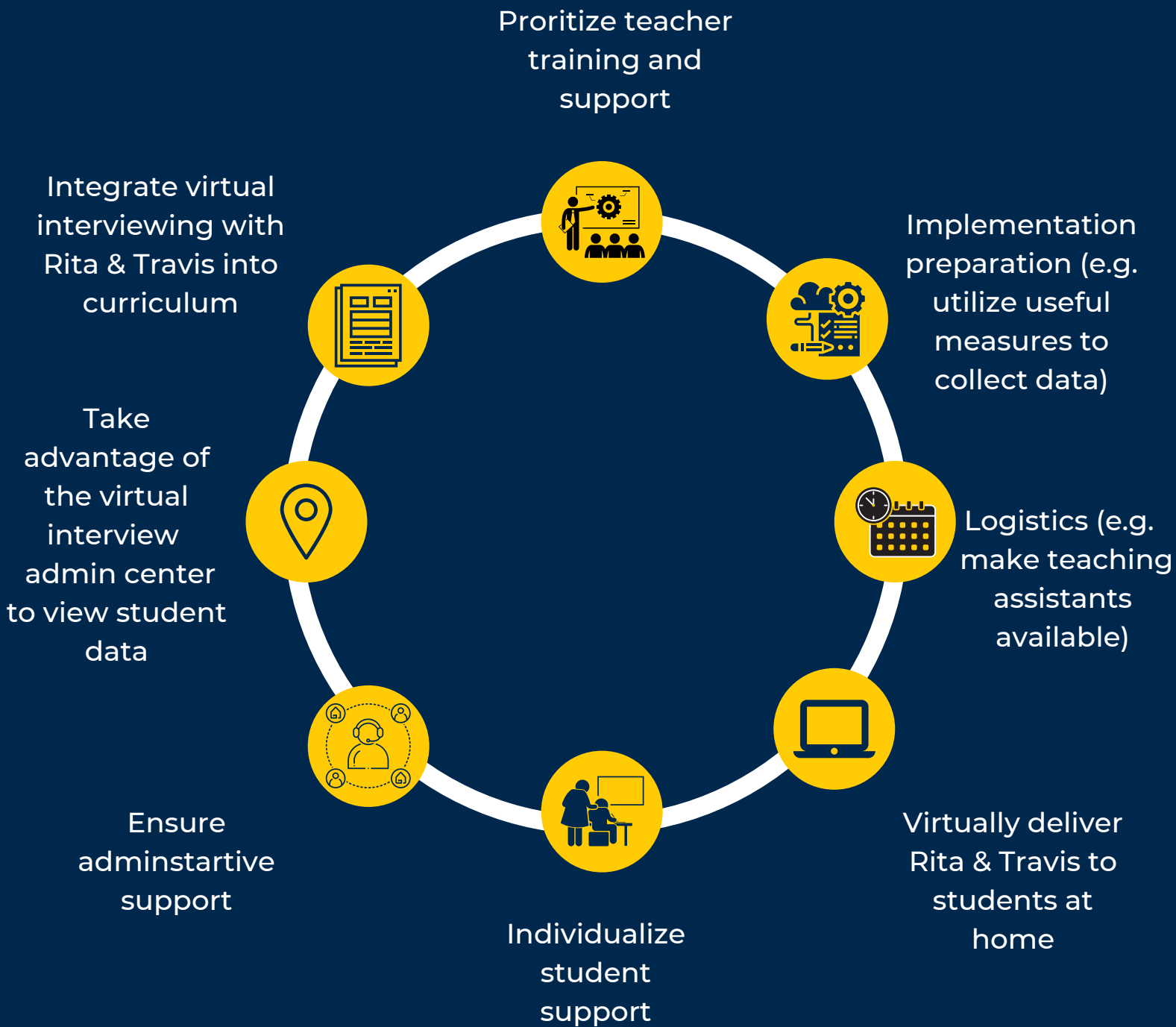
**WHERE STUDENTS  
INDIVIDUALLY USED  
DEVICES**

6.9%

**GROUP SETTING**

**WHERE STUDENTS  
SHARED  
SEVICES**

# BEST PRACTICES LEARNED



**NOTE:** For further details on the above best practices [1], please email us at [leveluplab@umich.edu](mailto:leveluplab@umich.edu) or message us on twitter @leveluplab!

# COMMUNITY PARTNERS



1. Washtenaw County Community Mental Health, Ypsilanti, MI
2. Jewish Vocational Services, Detroit, MI
3. Jonesville First Presbyterian Church, Jonesville, MI
4. Hillsdale Trinity Lutheran, Hillsdale, MI
5. Community Action Agency, Adrian, MI
6. Detroit Area Agencies on Aging, Detroit, MI
7. Senior Alliance, Wayne, MI
8. Region 2 Area Agency on Aging, Brooklyn, MI
9. Senior Services, Inc, South Haven, MI
10. Region IV Area Agency on Aging, St. Joseph, MI
11. Valley Area Agency on Aging, Flint, MI
12. Region VII Area Agency on Aging, Bay City, MI
13. A&D Home Health Care, Inc, Saginaw, MI
14. Reliance Community Care Partners, Grand Rapids, MI
15. Northeast Michigan Community Service Agency, Alpena, MI
16. Northern Health Care Management, Traverse City, MI
17. Area Agency on Aging of Northwest Michigan, Traverse City, MI
18. Upper Peninsula Area Agency on Aging, Escanaba, MI
19. Senior Resource, Muskegon, MI
20. AIM High School, Farmington Hills, MI
21. Kalamazoo Project SEARCH, Kalamazoo, MI
22. West Bloomfield Project SEARCH, West Bloomfield, MI
23. Walled Lake Adult Transition Program, Walled Lake, MI
24. Michigan Career & Technical Institute, Plainwell, MI
25. Saline High School, Saline, MI
26. Michigan Virtual Charter Academy, Hazel Park, MI
27. Van Buren Intermediate School District, Lawrence, MI
28. South Haven Public Schools, South Haven, MI
29. Hartford High School, Hartford, MI
30. Michigan Department of Corrections, Jackson & Ionia, MI
31. Ann Arbor Academy, Pittsfield, MI
32. Lincoln Park ASD Program, Mixer Institute for Transition, Lincoln Park, MI
33. Southfield Public Schools, Kennedy Learning Center, Southfield, MI
34. Troy High School, Beaumont Project SEARCH, Troy, MI

# COMMUNITY PARTNERS

## ILLINOIS:

- Chicago Public Schools, [Chicago](#)
- Civic Memorial High School, [Bethalto](#)
- Bradley-Bourbonnais Community High School District, [Bradley](#)
- Community High School District 99, [Downers Grove](#)
- Eastern Illinois Area Special Education District, [Bloomington](#)
- Granite City High School, [Granite City](#)
- Northern Suburban Special Education District, [Highland Park](#)
- Plano High School, [Plano](#)
- Bridgeway, Inc., [Galesburg](#)
- Thresholds, [Chicago](#)
- Cunningham Children's Home, [Urbana](#)
- Niles School District 219, [Niles](#)
- Maine Township High School District 207, [Park Ridge](#)
- Huntley High School, [Huntley](#)
- Valley View School District, [Bolingbrook](#)
- West Aurora School District, [Aurora](#)
- Rural Champaign County Special Education Cooperative, [Champaign](#)
- LaGrange Area Department of Special Education, [LaGrange](#)
- Community Unit School District, [Oswego](#)

## OHIO:

- Autism Model School, [Toledo](#)

## FLORIDA:

- Flagler County Schools Project SEARCH, [Flagler County](#)
- Volusia County Project SEARCH, [Volusia County](#)
- Halifax Hospital Project SEARCH, [Daytona Beach](#)
- Stetson University Project SEARCH, [DeLand](#)
- Johns Hopkins Project SEARCH, [St. Petersburg,](#)
- Martin County School District, [Martin County](#)
- HR Medical Project SEARCH, [Brevard County](#)
- Pinellas County Schools, [Pinellas County](#)
- Nassau County School District, [Nassau County](#)
- Cape Canaveral Hospital Project SEARCH, [Cape Canaveral](#)

THANK  
YOU!

THANK  
YOU!

# ACKNOWLEDGEMENTS

The preparation of this report would have not been possible without our partnership with the autism community, school partners, staff and student participants, and guidance from our community advisory board and scientific advisory board.

We also acknowledge the hard work of the Level Up Lab team in collecting and processing study data, and finalizing this report.

## Conflict of Interest Statement

The University of Michigan will receive royalties from SIMmersion LLC on the sales of the virtual interview training tool that was the focus of this randomized controlled trial. These royalties will be shared with Dr. Matthew Smith and the University of Michigan School of Social Work. Dr. Smith adhered to the University of Michigan's Conflict Management Plan that was reviewed and approved by a University of Michigan Conflict of Interest Committee. This manuscript includes authorship by Mr. Elkins, Ms. Humm, and Dr. Steacy who are paid employees of SIMmersion and own stock in the company. However, Mr. Elkins, Ms. Humm, and Dr. Steacy were not involved in the study's design or administration. Moreover, there were not involved in the collection, management, or analysis of study data. Their authorship contributions were focused on the description of the intervention.

# REFERENCES

1. Bell, M.D., & Smith, M. J. (2020). Virtual reality training in job interviewing for people with mental health disorders or disabilities In: Potenza, Faust & Faust (Eds) *The Oxford Handbook of Digital Technologies and Mental Health*. NYC, NY: Oxford University Press.
2. Workforce Innovation Technical Assistance Center. (2020). Workforce Innovation Technical Assistance Center. <http://www.wintac.org/>
3. Smith, M. J., Sherwood, K., Blajeski, S., Ross, B., Smith, J. D., Jordan, N., Dawalt, L., Bishop, L., & Atkins, M. S. (2021). Job Interview and Vocational Outcomes Among Transition-Age Youth Receiving Special Education Pre-Employment Transition Services. *Intellectual and Developmental Disabilities*, 59 (5), 405-421.
4. United States Department of Education. (2017). A transition guide to postsecondary education and employment for students and youth with disabilities. Office of Special Education and Rehabilitation Services.
5. National Technical Assistance Center on Transition. (2020). National Technical Assistance Center on Transition: Effective practices. <https://transitionta.org/>
6. Smith, M. J., Pinto, R. M., Dawalt, L., Smith, J. D., Sherwood, K., Miles, R., Taylor, J., Hume, K., Dawkins, T., Baker-Ericzen, M., Frazier, T., Humm, L., & Steacy, C. (2020). Using community-engaged methods to adapt virtual reality job interview training for transition-age youth on the autism spectrum. *Research in Autism Spectrum Disorder*, 71, 101498.

## REFERENCES CONTINUED

7. Smith, M. J., Sherwood, K., Ross, B., Smith, J.D., Dewalt, L., Bishop, L., Humm, L., Elkins, J., & Steacy, C. (2021). Virtual interview training for autistic transition age youth: A randomized controlled feasibility and effectiveness trial. *Autism*, 25(6), 1536-1552.
8. Bureau of Labor Statistics. (2020). Persons with a disability: Labor force characteristics 2019. (USDLE-20-0339). <https://www.bls.gov/news.release/pdf/disabl.pdf>
9. Smith, M. J., Smith, J. D., Jordan, N., Sherwood, K., McRobert, E., Ross, B., Oulvey, E. A., Atkins, M. S. (2020). Virtual reality job interview training in transition services: Results of a single-arm non-controlled effectiveness-implementation Hybrid Trial. *Journal of Special Education Technology*, 36(1), 3–17.
10. Smith, M. J., Sherwood, K., Ross, B., Oulvey, E. A., Atkins, M., Danielson, E., Jordan, E., & Smith, J. D. (in revision). Scaling out virtual interview training for transition age youth: A quasi-experimental hybrid effectiveness-implementation study. *Career Development and Transition for Exceptional Individuals*.
11. Sherwood, K., Smith, M.J., Johnson, J., Ross, B., Trautwein, A., Landau, M., & Hume, K. (In preparation). Implementation strategies in transition services: Practical lessons from virtual and classroom delivery of virtual interview training for transition-age youth.





SCHOOL OF SOCIAL WORK  
**LEVEL UP LAB**  
UNIVERSITY OF MICHIGAN