Self-monitoring Among Secondary and Post-secondary Students With Intellectual and Developmental Disabilities: Current Summary and Future Directions

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SELF-MONITORING AMONG SECONDARY AND POST-SECONDARY STUDENTS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES: CURRENT SUMMARY AND FUTURE DIRECTIONS

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INTRODUCTION

- Self-monitoring
  - a component of self-management (Clemons, Mason, Garrison-Kane, & Wills, 2016).
  - can improve self-reliance and quality of life
  - decrease dependency on others
  - improve academic skills
  - Improve general on-task behavior (Faul, Stepensky, & Simonsen, 2012).

- Gap in self monitoring literature with high school/college students with IDD

- Purpose: review the findings in previous literature relating to self-monitoring techniques with young adults with IDD

RESEARCH QUESTIONS

1. What systems (personnel, technology, software, etc.) are being used to support self-monitoring skill development for adolescents or young adults with intellectual and/or developmental disabilities?

2. What skills were being targeted in these self-monitoring interventions?

3. How successful was the system/intervention?

4. What level of evidence is provided by the reviewed studies?

LITERATURE SEARCH

- Search on 97 peer-reviewed academic journal databases combinations of keywords were used: intellectual disability, developmental disability, IDD, self-monitoring, technology, secondary, post-secondary, adult, grooming, hygiene, work tasks, employment tasks, peer or caregiver, goal setting.
  - Published in English
  - Published in past 7 years

- 35,856 articles went to further screening

- Inclusion criteria
  - Person with disabilities
  - At least one person in target age range (14-26)
  - Self monitoring intervention

RESULTS

- 28 studies

- Analyzed through Quality Indicators from National Technical Assistance Center on Transition (2016).

- 15 met the criteria for acceptable or high-quality studies - All were single case designs

CHARACTERISTICS

- Primary aims: improve skills

- Supports
  - Most common person was researcher (6 studies) or teacher (5 studies)
  - Most common supports were verbal prompting (4 studies), video monitoring (3 studies), video prompting (4 studies)
  - Most common technology: iPad (37% of students)

- Designs – mostly multiple probe or multiple baseline

CHARACTERISTICS

- Location
  - Country: USA (13), Australia (1), Korea (1)

- Setting
  - Public School Classroom (7), IPSE (3), Community Living (1), Juvenile Justice (1), Non-profit (1), Rehabilitation Facility to teach skills (1), Transition Academy (1)

- Participants – 47 subjects
  - Age = 18.3 (avg). Range (13 to 28) with one outside age range
  - Sex – 8 F, 39 M
  - Most common IDD = ASD (50%) w/ or w/o ID
    - Other disabilities included Downs Syndrome, ADHD, ID, Traumatic Brain injury, Prader Willi
    - One did not have IDD but was in a study with others with IDD

OVERALL CONCLUSIONS

- 28 studies were analyzed with 13 meeting acceptable standards and 2 meeting high quality standards for research

- 15 methodologically rigorous studies including 47 participants with demonstrated positive functional relationships over 21 different professional affiliations suggest the results meet the level of evidence consistent with what the National Technical Assistance Center on Transition (2018) considers "evidence-based practice."

- all 47 participants improved their baseline performance

- Many maintained performance over time after intervention withdrawn
  - Not all tested for maintenance

- Some generalized to other tasks (all 5 from Yakubova and Taber-Doughty (2017))

CHALLENGES WITH THE RESEARCH

- Few studies on the self-monitoring of post-secondary students with disabilities.
- Single case designs = small numbers of participants
- Quasi-experimental
- Quality issues

FUTURE DIRECTIONS

- use of classmates or peers to help with self-monitoring

- consider other self-monitoring technologies, not video dependent

- Improve power by increasing replication with different
  - Settings
  - Locations
  - Participants
  - Technologies
  - Researchers

- Higher quality studies that meet criteria
  - Replication in more settings
  - Controlling for threats to external validity

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Questions?

APPENDIX (JUST IN CASE)

Criteria for Inclusion and Quality Assessment for Each Study
Overall Characteristics
• The dependent variable skill is related to postsecondary transition
• Includes youth with disabilities between 11 and 26
• Rigorous research design. For Single Case research, this would include reversal, multiple baseline, multiple probe, changing criterion, or alternating treatment
Numbered Characteristics (each must be operationally described in such a way as other research teams could easily replicate)
1. Participant characteristics
2. Participant selection process
3. Setting features critical to the physical environment
4. Dependent variable (DV)
5. Quantifiable index measure procedure for each DV
6. Measurement process
7. Repeated measures of DV over time
8. Inter-observer agreement (IOA) and or reliability data were collected and met minimal standards (e.g, IOA = 80%)
9. Independent variable (IV)
10. Systematic manipulation of IV and demonstration of control of the experimenter
11. Fidelity of implementation was directly measured and reported
12. Baseline measures included repeated measurement of the DV, demonstrated a stable and predictable pattern (5 or more data points recommended)
13. Baseline procedures and conditions
14. A minimum of three demonstrations of experimental effect at different point in time
15. Common threats to internal validity were controlled in the design
16. External validity is established through the replication of the experimental effects across participants, settings, or materials.
17. Socially important DV
18. The size of the change from intervention is deemed socially important
19. The author states that the IV implementation is practical and cost effective
20. The social validity of the intervention is enhanced by extended implementation time periods, supported by typical intervention agents, and completed in typical physical and/or social contexts.

High quality (Study meets all 20 indicators)	2
Acceptable quality (Study meets indicators 1-16 and at least one of 17-20)	13
Did not meet quality standards	13

Quality Indicator Checklists for Group Experimental and Single Case Research Designs from the National Technical Assistance Center on Transition (2016)