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E. Horrocks

Robert L. Morgan
Utah State University

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A Forgotten

Assessment and Instructional Training for Teachers of Students with Profound Multiple Disabilities

Erin L. Horrocks & Robert L. Morgan, Utah State Univeristy



Special education classrooms are often composed of students with a wide variety of disabilities and functioning levels, and teachers typically receive training on topics that are applicable to most students in their classrooms. These topics may include behavior management, reading instruction, math instruction, and communication. However, there is a population of students for which this type of training may not be useful. This population requires different and specific assessment and instructional strategies that are typically not provided in training for teachers. Does this cause our students with profound multiple disabilities to be left behind because teachers are not equipped with the skills to assess and teach these students?

Who are these students?

One difficulty in discussing assessment and teaching procedures for students who have profound mental and physical developmental disabilities is uncertainty about who is included in this population. Some recent terms used to describe this population include multiple disabilities, significant cognitive disabilities, and severe developmental disabilities. These, and other similar terms identify a very diverse group of individuals with a wide range of skills and disabilities. The students being referred to are a subpopulation of individuals with developmental disabilities who fall at the extreme left side of the frequency distribution for intelligence and adaptive behavior, and will be referred to as individuals with profound multiple disabilities. See Table 1 for characteristics of students with profound multiple disabilities. Characteristics were gathered from the existing research literature.

Table 1

Characteristics of Students with Profound Multiple Disabilities

Often considered un-testable on intelligence tests

Exhibit signs of neuromuscular dysfunction

- Severe spasticity
- Muscle rigidity
- Skeletal deformities
- Frequently non-ambulatory
- Little or no control over motor movements

Medical Complications

Seizure Disorders

Difficulties with food ingestion

Varying levels of alertness

- Often drowsy due to side effects of medication or seizures

How do I assess these students?

Students with profound multiple disabilities may not be able to participate in assessments that other students with less significant disabilities participate in, or the assessments may not provide meaningful information for teachers, schools, districts, or state offices. However, three distinct assessments can be used for students in this population to

Population?

provide teachers with meaningful assessment outcomes that can be used to guide instruction. First, teachers should assess items a student prefers, to use as subsequent reinforcers during instruction. This can be accomplished by presenting items one at a time to students and observing their approach behavior to each specific item. Items approached more frequently are considered to be more preferred than items approached less frequently. Second, teachers must determine which body movements a student can reliably and consistently use as a response form. For example, does the student use an eye gaze, a left hand movement, or a right leg movement consistently to respond? A controlled body movement assessment provides teachers with information to know when the student is making a response that is controlled compared to an involuntary muscle movement. Last, teachers assess basic “access skills” or prerequisite skills such as demonstrating cause and effect, responding to auditory, visual, and tactile stimuli, grasping objects, and manipulating objects. Once the access skill assessment is complete, teachers have a list of mastered and non-mastered access skills. The non-mastered access skills should serve as the target of instruction.

What instructional strategies can I use to teach these students?

Using the results from the three assessments, teachers develop an instructional series, in which they incorporate the items that were identified as preferred in the preference assessment into instructional sessions. That is, teachers use the preferred items as reinforcers for correct and independent student responding. Next, teachers look for the body movement that was identified as controlled from the body movement assessment as the response form, so teachers know when a response was purposeful versus involuntary. And last, basic prompting strategies including time delay, least-to-most prompting, most-to-least prompting, and graduated guidance are used to teach non-mastered access skills.

What training procedures are used to train teachers to implement these assessment and instructional procedures?

A multi-component training package is used to train teachers who work with students with profound multiple disabilities (Horrocks & Morgan, in preparation). This includes teachers participating in live presentations related to the three assessments and training on instructional strategies to teach non-mastered access skills, viewing video models of teachers conducting these assessments and implementing instructional strategies, and role playing. After teachers received this training, they were asked to implement the assessments and instructional strategies with a student in their classrooms, and received feedback based on their performance.

Results of a recent research study

Teachers of students with profound multiple disabilities participated in a research study where they received the multi-component training package. Results of the study indicated that the training was effective in increasing teachers’ skills in assessing and instructing students with profound multiple disabilities. Mean baseline and post-intervention data for assessments and instructional strategies are presented in Table 2. Mean baseline and post-intervention scores are reported as the percentage of correctly implemented assessment and instructional steps before and after training. That is, mean baseline scores represent the percentage of correctly implemented assessment and instructional steps before teachers received training, and mean post-intervention scores represent the percentage of correctly implemented assessment and instructional steps after the teachers received training. See Table 3 for mean baseline and post-intervention scores for students. Again, data are reported as the percentage of correct and independent student responses before and after training. As the teachers’ skills improved, so did the students’ correct and independent responding on basic access skills. Data from the study indicated that training was beneficial for teachers and student alike.

Table 2
Mean Baseline and Post-Intervention Scores for Assessments and Instructional Strategies for Teacher Participants

| | Mean Baseline Percentages | Mean Post-Intervention Percentages |
|---|---------------------------|------------------------------------|
| Correctly Implemented Preference Assessment Steps | 2.19% | 88.92% |
| Correctly Implemented Body Movement Assessment | 6.21% | 89.60% |
| Correctly Implemented Access Skill Assessment Steps | 16.08% | 75.36% |
| Correctly Implemented Instructional Steps | 8.02% | 84.80% |

Table 3
Mean Baseline and Post-Intervention Scores for Student’s Correct and Independent Responding

| | Mean Baseline Percentages | Mean Post-Intervention Percentages |
|---|---------------------------|------------------------------------|
| Independent and Correct Student Responses | 12.42% | 65.26% |

For more information related to the assessments, instructional strategies, and/or training package, please contact Erin Horrocks at erin.horrocks@aggiemail.usu.edu.