

Designing and Delivering **COMPREHENSIVE SUPPORT** for Students with HFASD

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Academic Support for Students with HFASD

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The Need for Academic Support

Even though students with HFASD have average to superior intelligence, many need individualized support to be successful in school.



A General Academic Profile of Students with HFASD

General Academic Profile of Students with HFASD

- Emerging area of research
 - Driven by educational policy
 - Raised expectations for all students
 Increased emphasis on academic achievement of students with disabilities
- Implications for educators
 - Promising for research-to-practice gap
 - Foundation for understanding needs of population and developing of effective interventions

Weaknesses in Reading, Writing, and Math

- Writing
- Attention
- Complex processing across domains
- Problem solving
- Numerical operations
- Listening comprehension
- Reading comprehension

- IQ appears to increase to age 8
 - Weaker verbal skills below age 8
 - Non-verbal and verbal intelligence gap closed between age 9-10
- Deficits in academics become more apparent as learning moves from rote tasks to abstract conceptual learning

Reading

- 37% of students with HFASD may meet criteria for reading learning disability
- Basic reading and decoding in tact
- May perform at or above peers before age 8
- Comprehension deficits after age 8

- Reasons for reading comprehension deficits after age 8
 - Changes in focus of reading instruction

 Abstract concepts such as main idea, inference, and cause/effect
 - Reading material becomes less explicit

 Requires critical thinking and verbal reasoning
 - Requires adoption of perspective of others

- Writing
 - 60% of students with HFASD may present with writing learning disability
 - Written expression deficits
 - Affected by organization and attention deficits
 - Graphomotor deficits
 - Caused by combination of motor difficulties and information-processing deficits

Mathematics

- 23% of students with HFASD may present with a mathematics learning disability
- Performance similar to neurotypical peers in early years
- Computational skills intact
- Problem solving deficits affect applied math ability



Curricular Accommodations Accommodations for Individual Learning Needs Differentiated Instruction Universal Design for Learning



Instruction for Diverse Learners

- Accommodations and modifications in IEP for students with disabilities (IDEA)
- Differentiated Instruction (Tomlinson, 1999)
 - Existing curriculum altered to meet diverse learning styles
- Universal Design for Learning (McGuire, Scott, & Shaw, 2006)
 - Multiple means of presentation, engagement, and expression of learning built into curriculum design for all students

Accommodations in IEP

- Federal entitlement for students with disabilities (IDEA 2004)
- Curricular and environmental adaptations
 - Ensure access to general education curriculum
 - Ensure benefit from instruction in general education setting
 - Do not alter curriculum standards or academic expectations
- Refer to handouts for examples of accommodations

Accommodations for Nick

What accommodations will support Nick's learning in the general education setting?

Use the case study to identify accommodations to match Nick's areas of need.



Incorporating Visual Supports Into Academic Instruction

Visual Supports

- Benefits of visual supports
 - Allow for longer processing time than auditory processing
 - Make abstract concepts more concrete
 - Aid in retrieval of stored information
 - May aid inattention and distractibility
 - Provide opportunities for participation
 - Adaptable to general education setting

Instructional Visual Supports

- Advance organizer
 - Outline of chapter or unit of study
- Graphic organizer
 - Visual representation of concept
- Task cards
 - Step-by-step instruction for multi-step procedures
- Study guides
 - Key concepts and/or skills

(Handouts with examples and resources)



Cognitive Strategy Instruction and Students with HFASD

Cognitive Strategy Instruction

- Cognitive strategies
 - Thinking skills good problem solvers use to achieve an outcome
- Metacognitive skills
 - When and where to use strategies
- Purpose of instruction
 - Knowledge of procedures

 Rules, steps, processes applied systematically
 - Systematic use of strategies

 Across settings and situations

Cognitive Strategy Instruction

- Rationale for using strategy instruction with students with HFASD
 - Increased emphasis on academic achievement
 - Increased time spent in general education setting
 - Evidence-based effective practice for students with learning disabilities

 Many students with HFASD have characteristics of learning disabilities

Promising results with students with HFASD

Strategy Use and HFASD (Bebko & Ricciuti, 2008)

- Executive functioning impairments directly related to lack of strategy use
 - EF deficits associated with HFASD
 - Result in performance deficits
- Spontaneous rehearsal strategy
 - Basic memory strategy acquired and used effectively by age 6 in typically developing children
 - Delay in use by children with HFASD (1-2 years)
- External support increased performance

Strategy Use and HFASD (Bebko & Ricciuti, 2008)

- Conclusions related to strategy instruction and students with HFASD
 - Benefit from cognitive instruction
 - Teaching strategies reduces cognitive load
 - Skills must be taught in explicit format
 - External supports may be necessary
 - Instruction must be tailored to individual cognitive profile

Self-Regulated Strategy Development (Graham & Harris, 1994)

- Comprehensive approach to strategy instruction
- Uses critical components of effective instruction (model, guided practice, independent practice)
- Considers motivational, cognitive, and academic characteristics
- Serves as step-by-step guide for teaching any learning strategy

Six Stages in SRSD Model

- 1. Developing background knowledge
- 2. Discussing the strategy
- 3. Modeling the strategy
- 4. Memorizing the strategy
- 5. Supporting the strategy
- 6. Independent performance of strategy use

SRSD in Writing (Mason, Harris, & Graham, 2004)

Group Activity

Use the POW+WWW, What=2, How=2 writing strategy to plan a story.

How can you use this strategy with students?

(Handouts provided)

Academic Support

- Students with HFASD may need a combination of accommodations and supplemental instruction to experience academic success.
 - Accommodations, such as visual supports, can be embedded in general education curriculum.
 - Cognitive strategy instruction is a promising instructional practice for students with HFASD that can be used across content.

References

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