Menu of Academic Interventions for Students with Disabilities

School Literacy Interventions

- Design instruction according to Universal Design principles: multiple means of engagement, multiple means of response, multiple means of access to content material
- Use of assistive technology to provide access to content material - text to speech, e-readers
- Ongoing embedded professional development in how to:
  - Use evidence-based content enhancement strategies like those proposed by Donald Deschler and Jean Schumaker,
  - Embed scaffolds and supports to increase literacy independence,
  - Match readers to text
  - Implement metacognitive teaching and cooperative learning strategies like Cooperative Integrated Reading and Composition (CIRC), Peer Assisted Learning Strategies (PALS) and Direct Instruction/Corrective Reading
  - Diagnose reading difficulty (s) and identify evidence based appropriate interventions
  - Implement interventions with fidelity
  - Collection and analysis of data to make instructional decisions
  - Use questions to improve student comprehension and question-answer relationships
  - Build background knowledge and vocabulary
  - Locate accessible instructional materials - Bookshare, NIMAC and North Dakota Vision Services/School for the Blind
  - Evaluating instructional materials for accessibility
- Direct vocabulary instruction and word learning strategies
- Direct explicit instruction regarding content text features, adjusting reading rate according to text demands, extracting meaning from complex texts, and content literacy processes
- Direct explicit instruction on the application and use of newly acquired reading skills
- Daily exposure to a fluent adult reader reading aloud
- Provide multiple opportunities to read and discuss text

School Mathematics Interventions

- Design instruction according to Universal Design principles: multiple means of engagement, multiple means of response, multiple means of access to content material
- Use of assistive technology to provide access to mathematics texts - text to speech, e-readers
- Systematic and explicit instruction in the use and application of mathematical processes and problem solving strategies
- Direct instruction in how to read and work within the language of mathematics, especially vocabulary, symbols and diagrams
- Direct instruction in the structure and semantic clues of word problems
- Ongoing professional development on:
Developing prompts and solution-oriented questions to promote self-instruction

Implementing an effective peer tutoring program for mathematics with students with disabilities: Classwide Peer Tutoring (CWPT), Peer Assisted Learning Strategies (PALS) or Reciprocal Peer Tutoring (RPT)

Designing highly structured activities or teaching routines for peer tutoring sessions

Using the Concrete-Representational-Abstract techniques incorporating manipulatives and other visual representations

Collection and analysis of data to make instructional decisions

Understanding the components of instructional episodes: pacing, feedback, responses, listening and monitoring

Using mnemonics and other scaffolds to promote self-monitoring of learning and self-instruction

Understanding the influence reading difficulties have on success in mathematics and identifying strategies to mitigate this influence

Developing systematic instructional strategies for teaching the language of mathematics, especially its vocabulary

Developing a common pedagogy and progression of mathematics instruction within the school and grade level

Developing a common process for students to justify or explain their work and multiple opportunities to do so

References

General References


Literacy


Marzano, R.J. (2004). Building Background Knowledge for Academic Achievement Alexandria, VA: ASCD


Wei, X., Blackorby, J., & Schiller, E. (2011, Fall). Growth in Reading Achievement of Students with Disabilities Ages 7 to 17. Exceptional Children, 89-106.


www.fcrr.org - the Florida Center for Reading Research

http://www.specialconnections.ku.edu/~kucrl/cgi-bin/drupal/?q=instruction - University of Kansas


http://aim.cast.org/learn/historyarchive/backgroundpapers/technologies_supporting

https://www.bookshare.org/

Mathematics

www.bestevidence.org/math/math_summary.htm


National Institute for Direct Instruction: http://www.nifdi.org/

The Access Center:
http://www.k8accesscenter.org/training_resources/DirectExplicitInstruction_Mathematics.asp or
http://www.k8accesscenter.org/training_resources/Strategy_ImplicitInstructionandMath.asp

http://www.k8accesscenter.org/training_resources/mathprimaryproblemsolving.asp

http://www.k8accesscenter.org/training_resources/MathPrblSlving_upperelem.asp

Special Connections’ Direct Instruction: Math:
http://www.specialconnections.ku.edu/?q=instruction/mathematics

University of Nebraska-Lincoln’s Cognitive Strategy Instruction: Math:
http://cehs.unl.edu/csi/math.shtml

Vanderbilt’s Peer-Assisted Learning Strategies (PALS): http://kc.vanderbilt.edu/pals/math.html

The Center for Effective Collaboration and Practice’s Classwide Peer Tutoring: Information for Families:
http://cecp.air.org/Peer_Tutoring.pdf

Special Connection’s Concrete-Representational-Abstract (C-R-A) Instruction:
http://www.specialconnections.ku.edu/?q=instruction/mathematics/teacher_tools/concrete_to_representational_to_abstract_instruction


http://www.ixl.com/math/standards

http://commoncoretools.me/

http://iris.peabody.vanderbilt.edu/resources.html