Reading

Many students with disabilities do not read well. Some may still struggle with word identification or reading comprehension. Others may be able to understand information when they listen to it but cannot read materials required for class assignments. Some students have difficulty deciding what is important to remember in passages or textbooks they are reading. Students with sensory impairments have special needs related to reading.

*Students who have reading disabilities may need*

- books-on-tape or someone to make a recording or read the text aloud
- a card or frame to focus on the words and block out parts of the text
- assistive devices that translate text to speech—reading pen, Kurzwiel reader, scanner with character recognition software
- videotapes or movies that present the same information
- interactive CDs or computer-assisted training with auditory and visual cues rather than written descriptions

*Students who have difficulties understanding important ideas may need*

- sticky notes or highlighter to mark key points in the textbook or manual
- a list of important vocabulary with definitions
- a demonstration of steps and procedures
- a study guide to follow for independent reading
- complex information divided into chunks or sections
- hands-on activities, visual aids, pictures, or diagrams to provide alternate ways of learning abstract concepts or complex information

*Students who are blind or visually impaired may need*

- books-on-tape or large-print versions of text
- speaking computers with books on disk
- books and instructional materials in Braille
- class handouts and materials in an embossed format
- a special tilt-top desk or book stand to hold materials for easier reading
- specialized equipment—optical enhancer, magnifier, tape recorder
Accommodations and Modifications for Marty Beech, Ph.D.
Students with Disabilities in Career Education and Learning Systems Institute
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Listening

In many classrooms, teachers present instruction by lecturing or by facilitating discussion among students. Some students with disabilities may need accommodations due to difficulties with maintaining attention, following ideas, and interpreting information presented orally.

*Students who have difficulty listening may need*
- new vocabulary introduced prior to a lesson, a glossary of terms
- overview of lessons or advance organizers
- material presented in a logical manner and with explicit cues to shift from one aspect to the next
- information broken down into steps or key components
- important ideas written on the board or overhead transparencies with different colors for emphasis or coding
- active involvement with the content through discussion, small group interaction, or problem solving activities
- repetition and summarization of important points, particularly at the conclusion of the lecture or discussion
- structured organizers for notetaking, such as a copy of overheads, outline of lecture, or graphic organizer
- copies of notes taken by other students in the class
- to record class lectures and discussions using a tape recorder
- time to meet with the instructor after class for clarification

*Students who are blind or visually impaired may need*
- descriptions of demonstrations
- real-life examples and concrete materials
- to record the class lectures and discussions using a tape recorder
- copies of class notes taken by other students in the class

*Students who are deaf or hard of hearing may need*
- messages conveyed through natural speech and nonverbal communications
- visual information (words, charts, graphics) and repetition
- a sign language interpreter or notetaker
- amplification or FM system
Writing

Some students lack small muscle coordination and control needed for handwriting. Others need accommodations in finding words, forming sentences, organizing thoughts, and using the standard conventions of grammar and spelling because they have expressive language disorders. When making decisions about accommodations for problems with writing, it is important to consider the causes of the problem.

_Students with handwriting difficulties may need_
- adaptive devices—pencil grips or special pen or pencil holders, erasable pens, or special paper with raised or color-coded line indicators
- worksheets and tests with ample space for writing answers
- two copies of a worksheet or test—one to work on as a draft and one to use as a final copy
- graph paper for writing to help align the numbers in computation problems or organize information
- access to word-processor or typewriter to prepare written assignments
- an assistant or classmate to write down what the student dictates

_Students with expressive language difficulties may need_
- a thesaurus to find words to write or say
- special word processing software that anticipates what the student is trying to write
- a structured outline or graphic organizer to plan written assignments or presentations
- to use demonstrations or video-recorded responses for classroom assignments

_Students with grammar and spelling difficulties may need_
- a spelling dictionary or electronic spelling aid with speech capabilities
- peer editing or teacher assistance in the revision process
- content and mechanics graded separately in written assignments
- a chance to correct identified, spelling and grammar errors
Mathematics

Some students with disabilities have problems with mathematical concepts and processes. They may use poor procedural skills and continue to rely on immature strategies, like counting on their fingers. Poor memory capabilities may result in problems retrieving basic facts. Many students with math disabilities also have reading disabilities and have trouble with instruction or problems presented in written form.

Students with difficulties in mathematics may need
- concrete materials and manipulatives or computer-based models to understand abstract math concepts
- a calculator for computation tasks
- a talking calculator or on-screen computer calculator V flowcharts to plan strategies for problem solving
- assistance with specialized vocabulary and mathematical symbols
- additional examples and explanations
- use of graph paper or color coding to organize answers to math problems
- review within a day or two of the initial learning of difficult skills and supervised practice to prevent misconceptions
- practice of subskills explicitly related to the performance of the whole task and what the student has already learned
- additional independent practice until fluent responses are possible

Students who are blind or visually impaired may need
- special media, assistive technology, and materials
  The American Printing House for the Blind Inc. (website: [http://suntaph.org](http://suntaph.org)) provides the following at a nominal cost:
  - Geometry Tactile Graphics Kit—raised-line drawings which depict concepts, figures, and relationships in geometry
  - Graph Sheets—bold-line and embossed-line graph sheets
  - Abacuses
  - Measurement Aids—Braille rulers, glue-down rulers, flexible rulers, etc.
  - Tactile Graphics Starter Kit
Completing Assignments

Completing assignments requires an array of skills and capabilities. Individuals must be able to follow directions, obtain resources, sustain effort, and monitor effectiveness. Individuals with disabilities may have difficulty following instructions because they do not understand the directions or cannot read fast enough. Some students cannot identify the critical behaviors when viewing a model or demonstration. Some individuals with disabilities have trouble sustaining the physical and mental effort needed to complete assignments. This may be because they work very slowly and run out of time. They may not be able to anticipate needed resources and materials. Students sometimes are reluctant to ask for help or they may lose interest and refuse to continue.

Students who have difficulty following directions may need
- an agenda or outline of the assignments for each day
- oral directions combined with pictures, words, or diagrams
- a description of critical features when watching a demonstration
- directions that are repeated or simplified
- step-by-step instructions with the steps outlined in writing or shown in picture sequences
- assistance from another student
- a description of expected behaviors or the criteria (rubric) to be used for evaluation

Students who have difficulty initiating and sustaining effort may need
- assignments divided into parts with corresponding due dates
- an individual responsibility checklist with checkpoints along the way
- a reward system to motivate assignment completion—let the student engage in an activity of choice following the completion of a required assignment
- access to learning resources and instructional materials outside of class
- flexible scheduling practices
- additional time for assignments and assessments
- assignments given ahead of time so the student can get started

Accommodations

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