ACCOMMODATIONS

Assisting Students
with Disabilities

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Assisting Students with Disabilities

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INTRODUCTION

This document updates *Accommodations: Assisting Students with Disabilities, A Guide for Educators,* published by the Florida Department of Education (FDOE) in 2003.

This document is written to assist school district personnel and parents when making decisions about the use of accommodations by students with disabilities in instructional situations.

The first section includes information about the importance of providing access to the Next Generation Sunshine State Standards for students with disabilities. This section also describes legal requirements and eligibility considerations, along with a framework for making decisions about accommodations.

The second section presents an explanation of four categories of accommodations and related student characteristics. As appropriate, accommodations allowed on the Florida Comprehensive Assessment Test® (FCAT), the Florida Comprehensive Assessment Test® 2.0 (FCAT 2.0,) and the Florida Alternate Assessment (FAA) are noted.

The last section deals with implementing and monitoring the effects of using accommodations.

The Appendix includes a quick reference guide to instructional accommodations.

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SECTION ONE

Accommodations: A Key to Success

The mission of the Florida Department of Education is to increase the proficiency of all students within one seamless, efficient system . . .

The adoption of the Next Generation Sunshine State Standards is one of the major steps Florida is taking toward accomplishing its mission of increasing the proficiency of all students. The standards establish the core content of curricula in Florida. Students in grades K–12 are expected to acquire the knowledge and skills specified in the standards.

In Florida, all students with disabilities have the opportunity to work toward grade-level academic standards. Students with disabilities may use accommodations during instruction and assessment. Accommodations meet the individual student needs and ensure equal access to the academic content standards (Bureau of Exceptional Education and Student Services [BEESS], 2006, September).

> Accommodations are changes that can be made in the way the student accesses information and demonstrates performance (Rule 6A-6.03411(1)(a), Florida Administrative Code [F.A.C.]).

The accommodations make it possible for students to work around the effect of their disabilities. Accommodations are not the same as instructional interventions for academics or behavior. They help

students access information and show what they know and are able to do. Students with disabilities who are unable to achieve grade-level benchmarks due to a significant cognitive disability may learn alternate achievement standards of the Next Generation Sunshine State Standards, known as Access Points.

The FCAT, FCAT 2.0, End-of-Course (EOC) Assessments, and the FAA are important components of Florida's accountability system. These statewide assessments measure how well students have achieved the knowledge and skills required in the academic content standards. In Florida, all students attending public schools must participate in the statewide assessment program. Students with disabilities and students who are English language learners (ELLs) may have accommodations for statewide assessments.

Federal and State Requirements

Florida's educational standards and accountability system support the requirements of federal laws regarding participation of students with disabilities in standards-based instruction and assessment initiatives. The Elementary and Secondary Education Act of 2001 (ESEA), also known as No Child Left Behind (NCLB), holds states accountable for the achievement of all students.

The Individuals with Disabilities Education Act of 2004 (IDEA) governs services provided to students with disabilities. School districts must follow established procedures to identify and evaluate students who are suspected of having a disability. The individual educational plan (IEP) documents the services required to meet the student's needs. Both laws (ESEA and IDEA) require students with disabilities to participate in statewide assessments with accommodations, where necessary.

Section 504 of the Rehabilitation Act of 1973 is a federal law that protects the rights of students with disabilities enrolled in public schools receiving federal funds. Section 504 requires school districts to provide a free appropriate public education (FAPE) to each qualified student with a disability. Students with disabilities may have accommodations for instruction and assessment.

Section 1003.428 of the Florida Statutes (F.S.) establishes the requirements for graduation with a standard diploma. This law also states that exceptional students have the opportunity to meet the graduation requirements for a standard diploma through enrollment in basic courses with accommodations based on individual needs. The law provides for test accommodations and identifies criteria for waiver of FCAT, FCAT 2.0, and EOC Assessment requirements for high school graduation. Students with disabilities who have an IEP may also be eligible for a special exemption from the graduation test requirement in extraordinary circumstances.

A list of relevant Florida Statutes and rules in the Florida Administrative Code follows:

Students with Disabilities

Rule 6A-6.03028, F.A.C.	Provision of Free Appropriate Public Education (FAPE) and Development of Individual Educational Plans for Students with Disabilities
Rule 6A-6.0331, F.A.C.	General Education Intervention Procedures, Identification, Evaluation, Reevaluation and the Initial Provision of Exceptional Education
Rule 6A-19.001, F.A.C.	Scope, Coverage and Definitions

Standards

Section 1003.41, F.S.	Sunshine State Standards
Section 1003.428, F.S.	General requirements for high school graduation; revised
Rule 6A-1.09401, F.A.C.	Student Performance Standards

Assessment and Accommodations

Section 1008.22(3)(c)6, F.S.	Student assessment program for public schools
Rule 6A-1.09422, F.A.C.	Florida Comprehensive Assessment Test and End-of-Course Assessment Requirements
Rule 6A-1.0943, F.A.C.	Statewide Assessment for Students with Disabilities
Rule 6A-1.09431, F.A.C.	Procedures for Special Exemption from Graduation Test Requirements for Students with Disabilities Seeking a Standard High School Diploma
Rule 6A-6.09091, F.A.C.	Accommodations of the Statewide Assessment Program Instruments and Procedures for English Language Learners

Online Resources

The following list provides links to FDOE websites to inform educators, parents, and the general public about the educational standards, statewide testing requirements, accommodations for students with disabilities, and Florida Statutes and State Board of Education Rules.

Next Generation Sunshine State Standards

Website: http://www.floridastandards.org/index.aspx

Florida Comprehensive Assessment Test

Website: http://fcat.fldoe.org/

Florida Alternate Assessment

Website: http://www.fldoe.org/asp/altassessment.asp

Accommodations Information

Website: http://www.fldoe.org/ese/fcatasd.asp

Florida Statutes

> Website: http://www.leg.state.fl.us/Statutes/

State Board of Education Rules (Florida Administrative Code)

> Website: http://www.fldoe.org/rules/

Eligibility for Accommodations

Students are eligible for accommodations after they have been properly evaluated and determined eligible for services. The IEP team or team that determines the student's needs and develops the plan required under Section 504 of the Rehabilitation Act considers the current level of academic achievement and functional performance as well as the effect of the disability. The team determines what accommodations are necessary. The team documents all determinations regarding the need for accommodations in an IEP or Section 504 plan. Evidence must show that the student has been found eligible for services through one of these plans.

Categories of Disabilities

A brief description of the categories of disabilities used in Florida follows on the next four pages. A student who is eligible for exceptional student education (ESE) services is identified by one or more of these categories. These brief descriptions clarify terminology and acronyms.

Specific Learning Disabilities (SLD)
A specific learning disability is a disorder in one or more of the basic learning processes involved in understanding or in using spoken or written language. Students may have significant difficulties affecting their ability to listen, speak, read, write, spell, or do mathematics.
(Rule 6A-6.03018, F.A.C.)

Intellectual Disabilities (InD)
Students with an intellectual disability have significantly below average general intellectual and adaptive functioning that is manifested during the developmental period (birth through 18 years). These students have

significant delays in academic skills.
(Rule 6A-6.03011, F.A.C.)

Emotional/Behavioral Disabilities (E/BD)
Students with persistent and consistent emotional or behavioral
responses that adversely affect performance in the educational
environment that cannot be attributed to age, culture, gender, or
ethnicity.
(Rule 6A-6.03016, F.A.C.)

Deaf or Hard-of-Hearing (DHH)
Students with substantial hearing impairments that affect processing of
linguistic information are classified as deaf or hard-of-hearing. Students
may use sign language or total communication. Individual students
may need assistive technology, such as amplifiers, or use hearing aids.
Students who are deaf or hard-of-hearing often have difficulties with
reading, writing, and communication skills that are related to their hearing
loss.
(Rule 6A-6.03013, F.A.C.)

Visually Impaired (VI)
Students who are blind or visually impaired have a significant loss of use
of vision. Students may use braille for reading and writing or assistive
technology to help them obtain information.
(Rule 6A-6.03014, F.A.C.)

Dual Sensory Impaired (DSI)
Students who have dual sensory impairments affecting both vision and
hearing, or who have a degenerative condition that will lead to such an
impairment, are classified as dual sensory impaired. This combination
causes a serious impairment in the ability to acquire information,
communicate, or function within the environment.
(Rule 6A-6.03022, F.A.C.)

Orthopedic Impairment (OI)

Students with orthopedic impairments have a severe skeletal, muscular, or neuromuscular impairment. Impairments may result from congenital anomalies, such as spina bifida, or other causes, such as cerebral palsy or amputation.
(Rule 6A-6.030151, F.A.C.)

Other Health Impairment (OHI)

Students with other health impairment have limited strength, vitality, or alertness due to chronic or acute health problems, such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, and Tourette syndrome. Other types of health problems include diabetes, epilepsy, heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and acquired brain injury.
(Rule 6A-6.030152, F.A.C.)

Traumatic Brain Injury (TBI)

Students with traumatic brain injury have an acquired injury to the brain caused by an external physical force resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects educational performance. The term applies to mild, moderate, or severe injuries resulting in impairments in areas such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; or speech.
(Rule 6A-6.030153. F.A.C.)

Speech Impairment (SI)

Students with speech impairments have problems articulating sounds and words, using fluent speech, or have significant atypical voice characteristics that adversely affect their performance in the educational environment.
(Rule 6A-6.03012, F.A.C.)

Language Impairment (LI)

Students with language impairments have difficulty with the sound systems of language (phonology), the structure of words (morphology), the meaning of words (semantics), the relationship of words in sentences (syntax), or the functional use of language for communication (pragmatics). The student may have significant difficulties in listening, oral expression, social interactions, reading, writing, or spelling. (Rule 6A-6.030121, F.A.C.)

Autism Spectrum Disorder (ASD)

Autism spectrum disorder includes a range of pervasive developmental disorders that adversely affects a student's functioning. Students with autism spectrum disorder have an uneven developmental profile and a pattern of impairments in social interaction and communication and the presence of restricted, repetitive, and/or stereotyped patterns of behavior, interests, or activities. These characteristics range from mild to severe and may manifest in a variety of combinations. Autism spectrum disorder may include autistic disorder, pervasive developmental disorder not otherwise specified, Asperger disorder, or other related pervasive developmental disorders. (Rule 6A-6.03023, F.A.C.)

Developmentally Delayed, Ages Three through Five Years

A child may be developmentally delayed in one or more areas of development: adaptive or self-help, cognitive, communication, social or emotional, and physical. (Rule 6A.6-03027, F.A.C.)

Disability under Section 504

Under Section 504 of the Rehabilitation Act of 1973, a disabled individual is defined as any person who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment. Major life activities include caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working (Rule 6A-19.001, F.A.C.).

A careful analysis is required to determine if the student has an impairment or condition that is severe enough to limit a major life activity and whether the student is qualified to receive aids, services, or accommodations for instruction and assessment, including the FCAT, FCAT 2.0, EOC Assessments, or FAA. Students with a temporary disability, such as a broken arm, may require accommodations for a limited time. A Section 504 plan may be developed for the student to access accommodations. The student must use the accommodation regularly in the instructional setting. For example, the student with the broken arm will need an accommodation for writing in classroom activities as well as for the FCAT (BEESS, 2005).

Selection of Accommodations

Through the IEP or Section 504 planning process, a team of professionals, family members, and the student makes decisions about which accommodations the student needs for instruction and for state and district testing programs. The teams consider the student's learning and behavior characteristics. The student's disability category alone does not determine whether an accommodation is needed or what type of accommodation should be used (Elliott & Thurlow, 2000; Fletcher et al., 2006). The team uses information from comprehensive evaluation procedures, such as formative assessments, individual diagnostic assessments, observation data, annual assessments, or functional behavioral assessments, to make determinations about accommodations (Zabala, 2005, April 29). Examples of learning and behavior characteristics that may result from a disability include:

- Difficulty attending to complex directions and information

- Difficulty retaining information

- Need for additional time when reading braille materials

- Noncompliant behaviors in large group situations

- Inability to use regular print to obtain information

- Difficulty organizing information when writing

Many teams use a process to gather information in a systematic manner to guide decisions about services and supports for students with disabilities. The SETT Framework is a planning tool that considers the Student, the Environment, the Tasks, and the Tools (SETT). The framework helps the members of the team gather information and explore issues across a comprehensive set of factors. They use this information to determine what accommodations and services may be needed. The SETT Framework was originally developed to support the selection of assistive technology. The Tools component now includes assistive technology devices, services, strategies, accommodations, or modifications (Texas Assistive Technology Network, n.d.; Zabala, 2005, April 29).

The SETT Framework supports the selection of an appropriate system of Tools based on the needs of the Student, the typical Environments in which the student must function, and the student's required Tasks that lead to successful completion of the educational program. The full exploration of these factors leads to better decisions by the team (Zabala, 2005, April 29). The members of the planning team collect information from many sources to understand the strengths, skills, and challenges the student possesses, the nature of the environments, and the necessary tasks. The SETT Framework is not only useful in the initial phases of decision making, but also in guiding ongoing decisions about the effectiveness of the tools and services (Bowser, Korsten, & Zabala, 2004, Dec./2005, Dec.).

The planning team uses questions like the ones on the following two pages to address each of the four key components of the SETT Framework:

- Student

- Environment

- Tasks

- Tools

The SETT Framework

Component One

The Student: Learner Attributes and Abilities

- *What does the student need to be able to do that is now difficult or impossible to do independently?*

- *What are the student's special needs related to the area of concern?*

- *What are the student's strengths and current abilities?*

- *What are the student's desires and expectations?*

Component Two

The Environments: Physical, Technical, and Personal Conditions

- *What materials and equipment are currently available in the environment?*

- *What is the physical arrangement? Are there special concerns?*

- *What is the instructional arrangement? Are changes likely?*

- *What supports and resources are available to the student and staff?*

- *What are the attitudes and expectations of staff, family, and others?*

- *What are the specific issues regarding access to technology, physical environment, and instructional activities?*

The SETT Framework, cont.

Component Three
The Tasks: What the Learner Must Do

- *What naturally occurring activities take place in the instructional environment?*

- *What instruction and assessment activities support the student's curricular goals?*

- *What are the critical elements of the activities?*

- *How might the activities be adapted to accommodate the student's special needs?*

- *How might technology or other strategies be used to support the student's active engagement in those activities?*

Component Four
The Tools: What Helps the Learner to Achieve

- *What no-tech, low-tech, and high-tech tools should be considered when developing an instructional system for this student?*

- *How might these tools be tried out with the student in the typical environments in which they will be used?*

- *What differentiated instructional strategies might be used to increase student performance?*

- *What other accommodations, services, and supports does the student need to be actively involved and make progress in the educational program?*

- *Does the student have a significant cognitive disability and need curriculum modifications (access points)?*

When considering accommodations, it is important to obtain input from everyone involved—including the parents, ESE staff, and teachers who will be responsible for delivering the accommodations. The team should also include the student when making decisions about accommodations. The student can provide important insights into accommodations that are both acceptable and needed. If a student refuses to use a particular accommodation because it makes him or her look different from peers, the team should consider other options (Thompson, 2005).

It is important to measure the effect of the accommodations to verify the student's need. Data collected before and after the implementation of the accommodation can show whether the accommodation improves student performance. The IEP or Section 504 planning team should also base their decision for continuation of the accommodation on student data.

Accommodations for English Language Learners

Some students with disabilities are English Language Learners (ELL). The team should consider the student's current level of English language proficiency and the progress the student has made in attaining proficiency when making decisions about accommodations. Students with disabilities who are ELLs currently receiving services in accordance with an approved district ELL plan may have approved ELL accommodations on the FCAT and FAA. Many of these accommodations are similar to those allowed for students with disabilities. The accommodations for an ELL student also include limited assistance in the student's heritage language (Rule 6A–6.09091, F.A.C.).

Impact of Accommodations

Accommodations do not reduce learning expectations. When a change in the instruction or assessment activity lowers the expectations for student learning, it is considered a modification. The phrase **curriculum modification** is sometimes used to emphasize the impact on learning expectations. For example, an elementary student who learns how to spell five words each week instead of the 25 words assigned to his peers

has modified expectations for learning. The outcomes for learning are substantially reduced. Examples of curriculum modifications include:

- Requiring less content, such as fewer objectives, shorter lessons, or a smaller number of vocabulary words

- Limiting assignments and assessments to the easiest problems

Task adaptations reduce the length or complexity of the practice or test items and make assignments or test items more accessible. In general, teachers should only use task adaptations in the initial stages of instruction and then fade them so that the student has the opportunity to learn the concept or skill at the required level of proficiency. Task adaptations are considered accommodations because they are temporary and they do not reduce learning expectations. Examples of task adaptations include:

- Making assignments or assessments less complex, such as by crossing out one of the options on a multiple-choice question so that a student only has to pick from three options instead of four

- Providing hints or clues to correct responses on assignments and tests, such as the page number in the book where the answer to the question can be found

Changing the learning expectations during instruction or assessments may have the unintended consequence of reducing the student's opportunity to learn critical content. This may put the student at risk for not being able to meet graduation requirements for a diploma. Here are questions to think about when considering going beyond accommodations and modifying a student's learning expectations (Thompson, 2005).

1. What are the academic content standards for students at this particular grade level?

2. Are there grade-level benchmarks that a student will not be expected to learn?

3. How will these modifications in expectations affect a student's performance on the state assessments?

4. How will these modifications affect a student's ability to participate in the general education curriculum in the future? Will the student fall farther and farther behind due to missed opportunities to learn grade-level content?

5. What other instructional strategies and accommodations will help students master grade-level content and achieve proficiency on grade-level assessments?

Decision-Making Guidelines

The team selects the specific accommodations the student needs to access instruction and assessment activities. For example, if the student needs extended time in the classroom to complete assignments and tests, then it is appropriate to provide extended time for the state or district assessment program. Generally, the student needs the same type of accommodations for instruction and assessment. Using an accommodation only on the state test does not allow the student to take advantage of the accommodation as effectively as possible.

The team should make decisions about accommodations for instruction and assessment based on the following guidelines (Beech, 2003; Office of Assessment, 2009a, 2009b):

Accommodations should facilitate an accurate demonstration of what the student knows or can do.

Accommodations should not provide the student with an unfair advantage or interfere with the validity of the test. They must not change the underlying skills the test measures.

Accommodations for the FCAT or Florida Alternate Assessment must be the same or nearly the same as the student uses in classroom instruction and assessment activities.

Accommodations must be necessary for the student to demonstrate knowledge, ability, or skill.

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The student may need certain kinds of accommodations for specific assignments or learning activities. Teachers are encouraged to provide such accommodations on a trial basis as long as they fit within these decision-making guidelines. For example, a student has difficulty with aligning numbers by place value when solving math problems for classroom assignments. On typical assignments, the student gets 65 percent of the problems incorrect because the numbers are not correctly aligned. The teacher gives the student gridded paper to use when writing math problems and shows him how to align them by place value. After a few weeks of practice, the student's scores on similar math assignments improve to 90 percent correct with the use of the gridded paper. If the accommodations are successful, the team should revise the IEP or Section 504 Plan and incorporate the new accommodations.

Summary

The adoption of the Next Generation Sunshine State Standards sets the stage for reaching the goal of all students achieving challenging grade-level academic standards. Students with disabilities must have necessary accommodations during instruction and assessments. To provide equal access to standards for all students, both general and special educators must have in-depth knowledge of the educational expectations and accountability system at the state and district levels.

"The plain truth is that disability can pose a serious challenge to learning and to demonstrating knowledge and abilities fully. Accommodations can help students overcome or minimize the barriers presented by their disabilities . . ." (Luke & Schwartz, 2007, p. 2). Accommodations provide the changes in instruction and assessment that may be necessary for students with disabilities. Accommodations help students participate and make progress in the general curriculum.

SECTION TWO

Types of Accommodations

Accommodations are changes that are made in how the student accesses information and demonstrates performance.
(Rule 6A-6.03411(1)(a), F.A.C.)

Accommodations are an important part of effective educational programs for students with disabilities. Many students with disabilities need only small changes in the way they are instructed and tested to participate successfully in general education classes. Accommodations involve the use of different strategies, assistive technology, changes in the schedule or environment, or support from a person to increase, maintain, or improve the performance of a student with disabilities.

Accommodations described in this document are organized into four categories:

Presentation—how the student will access information

Response—how the student will demonstrate competence

Setting—where the student will be instructed and assessed

Scheduling—when the student will be instructed and assessed

Each category includes a general description of the accommodations related to the student's learning and behavior characteristics that result from the disability. Specific examples of accommodations and assistive technology devices are provided in each category.

The accommodations that are allowed for the FCAT, FCAT 2.0, and the FAA are indicated with the notation: (FCAT, FCAT 2.0, FAA) at the end of the description. More specific information about the use of accommodations for each test is provided in the statewide test administration manuals (BEESS, 2009, July; Office of Assessment, 2009a, 2009b). The FAA administration manual provides information about allowable adjustments to the standard method of administration that are available for all students who take the test. Accommodations are available for students with visual impairments, students with hearing impairments, and students who are English Language Learners. Only adjustments and accommodations specifically mentioned in the manual are noted in this section (BEESS, 2009, July). Students with disabilities may use their assistive technology to take the tests as long as it does not violate the purpose of the test or change what the test measures. Please consult the FCAT, FCAT 2.0, and FAA administration manuals for more detailed guidance.

Presentation Accommodations

Presentation accommodations make it possible for students to gain access to information for instruction and assessments that is presented in text, graphic, or spoken formats. Students with disabilities may require text and graphical information provided in alternate formats if they are unable to use or read standard print. Students with disabilities may need presentation supports that enhance or facilitate their ability to read, observe, and listen in the classroom. Presentation accommodations present the content in forms that students with disabilities can understand (Luke & Schwartz, 2007).

Specialized Presentation Formats

Specialized presentation formats are described as visual, tactile, audio, and multi-sensory formats based on the way information is displayed or presented (Stahl, 2004; Stahl, et al., 2007, May 10; Thompson, Morse, Sharpe, & Hall, 2005, August). For students with visual impairments, a functional vision and learning media assessment is used to determine the specialized format that is right for the student. These assessments evaluate how a student accesses, or may need to learn to access, printed information using objective data on reading skills, preferred format or mode for reading, and identification of other ways the student gathers information, such as by listening (BEESS, 2009, June 8; Ratzlaff, 2007, February 21). The IEP team must determine that a student is unable to read print material in a normal manner based on the results of a learning media assessment, informal reading inventories, review of current levels of performance, or medical diagnosis (BEESS, 2009, June 8; 2010, May 19).

Recent changes in IDEA require publishers to produce text files that meet the National Instructional Materials Accessibility Standard (NIMAS). Such files can be used to prepare materials in specialized formats needed for students with disabilities, including students who are blind or visually impaired, who have physical limitations that prevent them from using standard printed material, or who have reading disabilities resulting from an organic dysfunction. The Florida Instructional Materials Center for the Visually Impaired (FIMC-VI) is responsible for obtaining NIMAS-derived materials for students in Florida. Students with disabilities who are not eligible for NIMAS materials may also require accessible instructional materials. It is the responsibility of the school district to take reasonable steps to provide the materials in a timely manner (BEESS, 2009, June 8; 2010, May 19).

Visual Formats

Students who require visual formats include students who are visually impaired who are able to read large print, as well as students who are deaf or hard-of-hearing and require sign language translation.

Large print text must be clear, with high contrast between the color of the print and the background color. Districts can order large print textbooks for students from the FIMC-VI for use in Florida's schools (FIMC-VI, n.d.). Regular print materials can be enlarged through photocopying. A digitized version of text viewed on a computer screen can be reformatted to change the display of the text based on individual student needs and preferences. The FAA embeds large print format in the design of the test materials. (FCAT, FCAT 2.0)

Sign language interpreters may be required for students who are deaf or hard-of-hearing and need assistance understanding printed material. Some students need sign language interpretation to accompany their reading of print materials when they are learning to read. The interpreter must be able to translate using the same method of sign language as the student, such as American Sign Language, manually coded English, or total communication (Thompson et al., 2005, August); (see "Sign language" on p. 33 for a description of its use for communication). Passages on the FCAT 2.0 Reading tests may not be signed, whereas the FCAT and FCAT 2.0 Mathematics and Science tests may be signed. (FCAT, FCAT 2.0, FAA)

Video recordings and descriptive video present stories or information as movies, giving students a visual and auditory way to access information. Videos may be closed captioned with the dialogue provided visually as text at the bottom of the screen. A decoder is required to activate captions and is available on most television sets. Descriptive video adds a narration of key visual elements, such as actions, gestures, facial expressions, and scene changes. The audio description of important visual details is inserted within pauses in the dialogue and helps viewers follow the story (Thompson et al., 2005, August).

Tactile Formats

Tactile formats provide information in ways that can be accessed through touch. Students who are unable to obtain information through visual channels may use tactile formats.

Braille is a method of representing text using a raised-dot code that is read by touch with the fingertips. Braille versions of books and other instructional materials, as well as the FCAT, FCAT 2.0, and FAA, can be ordered for students in Florida from FIMC-VI (FIMC-VI, n.d.). Students who use braille should also build skills to acquire text information through auditory formats using audiotape, compact discs, and speech synthesis (Thompson et al., 2005, August). (FCAT, FCAT 2.0, FAA)

Refreshable braille displays create temporary print-to-braille transformations. Braille characters are displayed on a flexible membrane using a series of movable pins. Refreshable braille displays read one line of text at a time, which may affect the time needed to read text. Students who are experienced braille readers will require training in using the device (Stahl, 2004; Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Nemeth Braille Code is a system of braille used to convey mathematical and scientific expressions. Nemeth Code uses the same set of braille cells as literary braille; however, most cells have new meanings to express technical symbols used in math and science (Osterhaus, 2005, May 9). (FCAT, FCAT 2.0)

Tactile graphic images are designed to be touched rather than viewed. A set of tactile symbols in raised format represents the content and concepts of the graphic material (e.g., maps, charts, graphs, diagrams, illustrations). A tactile graphic is not a straight reproduction of the print graphic. It does not include symbols expected by visual readers, such as color and artistic embellishment (American Printing House for the Blind [APH], 1997; Thompson et al., 2005, August). (FCAT, FCAT 2.0, FAA)

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Real objects may be used instead of printed images. For example, students may use real coins instead of referring to a printed image. Some students use real objects for communication. (FCAT, FCAT 2.0, FAA)

Auditory Formats

Students who are unable to read standard print may require auditory formats. This may include students who are visually impaired or physically limited, as well as some students who have severe reading disabilities.

A **person reads the text aloud** to the student. Readers should read to the student on an individual basis, not with a group of students. The student can ask the reader to slow down or repeat text. Reading test materials aloud requires certain restrictions. The test items may not be reworded, summarized, or simplified. The reader should use an even inflection so that no auditory cues are provided to the right answer. In mathematics and science, the reader gives the correct name or description of symbols and graphics. Students with visual impairments need graphics in print or tactile (embossed) formats (Thompson et al., 2005, August). Passages and items in FCAT 2.0 Reading and fluency items in the FAA may not be read aloud. (FCAT, FCAT 2.0, FAA)

Recorded books are produced on audiotape, compact discs (CDs), or as electronic files. Students can borrow recorded books from libraries. A tape recorder, CD player, or MP3 player may be required to play the recorded books. Some students may experience difficulty with replaying audiocassette tapes or locating specific information. Audio versions should be accompanied with a print or braille version of the text, particularly if graphic information is included. Classroom materials may be prerecorded on audiotape or CD. Instructions, assignments, and lectures may also be recorded in the classroom (Thompson et al., 2005, August).

Recording for the Blind and Dyslexic (RFB&D) provides digitally recorded audio textbooks on CD and downloadable audio textbooks to persons who are eligible for specialized formats under the same guidelines used for NIMAS. Information about the service and membership is available on the organization's website: http://www.rfbd.org/. In order to play RFB&D digitally recorded textbooks, a specially adapted CD player or software is required that can be purchased from the organization (Recording for the Blind and Dyslexic, Inc., 2009).

A **screen reader** changes digitized text to synthesized speech (text-to-speech). Screen reader software provides an audible version of text displayed on a computer screen. Some software converts text from a scanned image of a page using an optical character recognition (OCR) system. Math formulas and other graphics and images cannot be read by screen reader software unless they are tagged (Thompson et al., 2005, August). A screen reader that converts text to speech will be available for computer-based administrations of select FCAT and FCAT 2.0 Mathematics tests and all EOC Assessments. The screen reader may not be used except as directed by the FDOE and may not be used for reading passages or items that assess reading skills. (FCAT, FCAT 2.0)

Equipment with auditory output includes talking clocks, calculators, scales, thermometers, voltmeters, and timers. Light probes and special adapters are available to transform visual and digital signals into audio outputs (*Presentation Instructional Accommodations*, 2005).

Presentation Supports

Presentation supports are accommodations that facilitate the student's use of the standard print, graphic materials, or spoken language in instruction and assessment. Presentation supports assist students in reading, listening to lectures and discussions, as well as conceptualizing abstract symbols, concepts, or ideas.

Students may still be acquiring basic decoding and word identification skills or learning how to use comprehension strategies. Some written materials are not well organized and present additional challenges to students. Accommodations support students who are learning to read and are unable to meet demands of grade-level text.

Visual Enhancement

Students who have difficulty with visual acuity, visual perception, or attention span may benefit from tools and techniques that focus their attention to print or written material.

Magnification equipment enlarges printed material or objects. Students may use a variety of tools, including eyeglass-mounted magnifiers, free standing or handheld magnifiers, magnifying bars, computers with display enlargement features or screen magnification software, and video magnifiers to display enlarged print material on a screen. (FCAT, FCAT 2.0, FAA)

Reduced glare or direct lighting increases the visibility of print material.

Minimized visual distraction helps students focus on the printed material. Students who have difficulty knowing where to direct their attention need materials with simple backgrounds, predictable visual layout, and separate display of text and graphics.

Colored overlay filters or transparencies enhance contrast and reduce glare to increase the legibility of printed materials. Colored overlays are available in frames or strips of various widths and lengths with grey edges to help the reader focus on the lines of print. (FCAT, FCAT 2.0)

Visual cues, such as color, bold type, or highlighting, call attention to selected features of printed materials.

Blank cards or cards with a cut-out window are used to isolate one or more lines of text at a time and direct visual attention and improve tracking and reading speed. (FCAT, FCAT 2.0)

Positioning tools, such as a special tilt-top desk, book stand, or paper holder, hold reading materials at the proper distance and position for easier reading. (FCAT, FCAT 2.0)

Materials secured to the work area so they don't move around unnecessarily may be needed by students who have difficulty with fine motor control. (FCAT, FCAT 2.0)

Word Recognition

Students who have difficulty with word recognition and decoding may need presentation supports to help them increase fluency and gain information from printed text.

Leveled books use sentences and vocabulary that are less complex than grade-level materials. It is important to make sure that the content is the same as the books typical students use.

Digital text allows flexible output for alternate presentation formats (large print, auditory, or braille).

Portable scanning devices, such as a reading pen, hand-held scanning translator, or electronic dictionary or thesaurus, read individual words aloud with a definition to support students as they increase word recognition proficiency.

Personal word lists help students recognize words they encounter in text.

Repeated reading helps students increase word recognition and fluency. The teacher, peer, or others give help with unknown words and feedback as the student reads passages aloud multiple times. The goal is to promote expressive and fluent oral reading with comprehension (Schumm, 1999).

Comprehension

Students who have difficulty comprehending main ideas and supporting details when reading may need presentation supports. Students with limited vocabulary and background knowledge do not always recognize the meaning of the words when they read or connect ideas with previous experiences. Students who have difficulty with verbal reasoning and abstract concepts also need help to organize and analyze information. Students can use presentation supports to identify, understand, and integrate ideas presented in text.

Previews of important vocabulary or key points in the text help students anticipate the topic and related content.

Advance organizers help students understand and retain information. Advance organizers used in reading may involve a preview of the objectives, topics and subtopics, questions, or the chapter summary (Northwest Regional Education Laboratory [NWREL], 2005).

Highlighting or color coding draws the student's attention to vocabulary and key points. Students learn to identify key points and mark the text with an erasable highlighter or sticky notes. (FCAT, FCAT 2.0)

Digital text that is tagged electronically identifies and displays structural (e.g., header, sidebar) and semantic (e.g., summary, key questions, vocabulary) elements in different ways (Center for Applied Special Technology [CAST], 2009).

Study guides focus the student's attention on important content and encourage active processing of meaning when reading. Examples include structured note-taking forms, outlines, story maps, and graphic organizers.

Hands-on activities, pictures, or diagrams support the student's understanding of abstract concepts or complex information through demonstrations and concrete or graphic representations.

Listening

Students with disabilities may need accommodations for listening to presentations, lectures, or discussions because they have difficulty maintaining attention, following the organization of ideas, and remembering and interpreting information presented orally.

Advance organizers used before presentations or lectures increase student understanding and retention of information. Examples include an overview of the content, a description of activities and expectations, new vocabulary, or explicit connections with previous lessons or background knowledge (NWREL, 2005).

Explicit cues provided during presentations or lectures help students identify the topic, main ideas and supporting details, or the steps or key components in a process. Verbal or visual cues indicate what is important for students to include in their notes. The teacher may write important ideas on the board or chart paper and use different colors for emphasis or coding.

Active student involvement can be facilitated through questions, use of response cards, small group interaction, or discussion. Students may tell or write important information from the lesson before class ends. Cooperative learning techniques, such as think/pair/share or jigsaw, are effective for reviewing key points.

Repetition of important information through paraphrasing and summarizing at the conclusion of the presentation or discussion facilitates student recall and understanding. Students may need to have the information reviewed and clarified more than one time.

Note-taking assistance may involve structured organizers, such as a copy of overheads, outline of lecture, or pre-designed graphic organizer. The student uses the assistance to comprehend and remember information provided in presentations and demonstrations. A two-column note-taking format or concept mapping may be used for notes. Copies of notes from the teacher

or peers may be provided for students who are unable to take notes independently. A student may also use an audio recorder to record class lectures (Levy, 2007).

Personal audio amplification devices may be needed by students with hearing impairments, often in addition to their hearing aids, to amplify sounds in the educational setting. (FCAT, FCAT 2.0)

Amplification systems, such as FM systems, enhance the teacher's voice output when working with groups of students in educational situations. The teacher's voice is transmitted from a lavaliere or hand-held microphone to classroom speakers. (FCAT, FCAT 2.0)

Following Directions

Teachers give directions in a variety of ways, including orally, in writing, or by demonstrating and modeling what is expected. Students with disabilities who have difficulty understanding or remembering the steps may need supports to be able to follow the teacher's instructions.

Signals or prompts gain the student's attention before the teacher gives directions. Students who have difficulty hearing and attending should have preferential seating facing the teacher. Students who have difficulty visually attending may need an auditory cue, such as a change in tone of voice, to alert them to pay attention. (FCAT, FCAT 2.0)

Self-instruction and self-questions help students focus on positive attributions for success and task progress. ("Read the directions first. Take my time. I can solve these problems. Did I check my answer?")

Directions with pictures or diagrams are used by students who cannot follow verbal or written instructions.

Simplified directions are provided for students who can follow a limited number of steps.

Copies of directions from the textbook, assessment, or other instructional materials are given to the student to follow as the directions are read aloud. (FCAT, FCAT 2.0)

Directions are repeated, summarized, or clarified for students. Students may paraphrase instructions or work a sample problem to show that they understand what is expected. (FCAT, FCAT 2.0)

Sample problems or tasks show students what to do. Explicit explanations and descriptions of the critical components of the model or expected behavior help students understand what they are to do.

Monitoring is provided by the teacher to see if students need assistance in getting started or they are following directions. (FCAT, FCAT 2.0, FAA)

Uncluttered and clearly organized materials have problems or items that are arranged in ways that make it easy for students to know where to start and how to proceed.

Visual cues, such as color coding, icons, or numbering each step of directions, help students identify tasks, meanings, or expectations.

Response Accommodations

Students typically respond to classroom tasks by speaking, writing, drawing, or other types of expression. Response accommodations allow students to use different ways to complete assignments, tests, and activities.

Alternate Response Modes

Students with disabilities who are unable to respond in standard ways to instructional tasks may need an alternate response mode. Students who

have difficulty with expressive communication due to sensory or language impairments, as well as students who are unable to use handwriting due to motor impairments, may need assistive technology devices.

Scribes record student responses expressed through speech, sign language, pointing, or using a communication device. The scribe writes down what the student dictates (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

A **word processor or computer** may be used by students who are unable to effectively use their own handwriting. Assistive technology devices, such as touch screens, trackballs, mouth- or headsticks, and other pointing devices, as well as alternative keyboards, can be used for typing (Thompson et al., 2005, August). In testing situations, like the FCAT, the spelling and grammar checking feature must be turned off. (FCAT, FCAT 2.0).

Word prediction software prompts the writer with word choices based on words previously typed. The predictions are based on spelling, syntax, and frequent/recent use. This allows students to use proper spelling, grammar, and word choices with fewer keystrokes (Alliance for Students with Disabilities in Science, Technology, Engineering and Mathematics, 2009; Florida Diagnostic and Learning Resource System/Technology [FDLRS/TECH], n.d.).

A **brailler** is a braille keyboard for typing text that can be printed in standard print or braille. It is similar to a typewriter or computer keyboard. When paired with a screen-reading program, a brailler can also act as a speech synthesizer that reads aloud the text displayed on the screen (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Portable note-taking devices are small, lightweight devices equipped with a braille or standard keyboard for input and synthetic voice. Students use electronic note-takers to record notes at school, home, or work. Some devices have additional features,

such as a calculator and a calendar, and can be connected to the Internet or personal computer to exchange files or print (Lighthouse International, 2010).

Voice recorders record the student's class work or test responses electronically rather than writing on paper. Voice recorders are often included in digital or cassette tape recorders, MP3 players, and in software that works on laptop or desktop computers. (FCAT, FCAT 2.0, FAA)

Voice recognition software converts speech to text, allowing students to use voice as an input device. The student uses speech recognition software to dictate text or give commands to the computer, such as opening applications and saving work. (FCAT, FCAT 2.0)

Sign language is used for communication by some students with disabilities, such as those who are deaf or hard-of-hearing. American Sign Language, manually coded English, and finger spelling are different types of sign language. Some students combine sign language with voice (total communication). Students need an interpreter when they communicate with a person who does not know sign language. (FCAT, FCAT 2.0, FAA)

Augmentative and alternative communication (AAC) includes all forms of communication (except oral speech) used to express thoughts and ideas. This includes facial expressions, gestures, symbols, pictures, and writing. Students with disabilities who have severe speech or language problems rely on AAC to supplement or replace their own speech. Aided communication methods can range from paper and pencil to communication boards. Electronic devices produce voice output and/or written output. The student uses electronic aids to send messages with picture symbols, letters, and/or words and phrases (American Speech-Language-Hearing Association [ASHA], 2010). (FCAT, FCAT 2.0, FAA)

Response Supports

Students use response supports to facilitate the use of standard methods for responding. Many students with disabilities experience problems responding to assignments and assessments because of difficulties with the motor aspects of spoken or written expression or inadequate foundational skills.

Handwriting

Students with disabilities who write illegibly may have problems with letter formation, letter size, letter and word spacing, or writing on or between the lines. Problems may relate to the lack of postural control, fine motor impairments, visual impairments, visual perception issues, or attention difficulties. Teachers are encouraged to consult with the local assistive technology specialist (LATS) for guidance on selecting the appropriate tools or equipment. An occupational therapist can help with determining a student's need for specialized furniture or adapted tools.

Pencils, markers, or crayons of different diameters, pencils with softer lead, and softer crayons make writing easier for students who have difficulty controlling writing implements. High-contrast writing tools, such as markers, felt-tipped pens, or soft lead pencils, make it easier for students with visual problems to read their own writing. Mechanical pencils and nonabrasive erasers may also help students who use excessive pressure when writing (Rein, 1997/2001).

Pencil or pen grips enlarge or change the shape of standard writing tools to correct improper pencil grasps and position fingers and hand correctly. Many types of grips are available, including triangular or pear-shaped grips and grips with indentations for fingers. Grips can also be made by wrapping a pen or pencil with rubber or foam tubing (Rein, 1997/2001). (FCAT, FCAT 2.0)

Finger spacers help students to maintain spacing between letters and words. Spacers can be purchased or made out of cardboard

or plastic. Some spacers feature an arrow for directionality and a window for tracking when reading (Rein, 1997/2001). (FCAT, FCAT 2.0)

Handwriting guides or templates help students stay within a defined writing space. The student lays the guide on top of a regular sheet of paper with cut-out areas to expose the space between the lines. Students write within the given space for each line of writing (Rein, 1997/2001). (FCAT, FCAT 2.0, FAA)

Alphabet strips provide a model students can match for letter formation in manuscript or cursive style.

Specialized writing paper provides prompts or visual cues to guide handwriting. This includes paper with wider lines, colored or shaded areas between the lines to indicate where lower case letters should be placed, colored lines to provide cues to begin and end letters, and raised lines to provide tactile cues. Students may simply write on every other line on a regular sheet of lined paper. Gridded paper helps students organize numbers for mathematics computation, allowing one block per number (Rein, 1997/2001). (FCAT, FCAT 2.0)

Visual cues can be added to standard writing paper, such as highlighting the left margin or drawing light lines as guides for margins. Sections on the paper can be blocked for each response by drawing lines, folding, or covering parts of the text or worksheet with a blank card or card with a cut-out window to mask the rest of the content.

Paper stabilizers position the writing paper or worksheet at the appropriate place on the desk and prevent the paper from moving. Removable tape or glue also holds paper in place. Nonslip mats or rubberized netting will stabilize a binder or clipboard. (Rein, 1997/2001). (FCAT, FCAT 2.0)

Slant boards hold paper at an optimum angle for writing. A slant board can be made with a three-ring binder. (FCAT, FCAT 2.0)

Physical support or positioning steadies students with motor impairments when seated. Students with limited physical ability or mobility may also need assistance with the manipulation of instructional materials, objects, generic counters, or rulers. (FAA)

Test responses can be monitored by a proctor to be sure the student marks the items on the answer sheet that correspond to the test (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

The student may respond directly on the worksheet or in the test booklet. The student writes answers directly on a copy of nonconsumable materials. As an alternative, the student uses transparency markers on clear sheets of acetate overlaying the text. The student may also have two copies of a worksheet—one to work on as a draft and one for the final copy. (FCAT, FCAT 2.0)

Task adaptations may reduce amount of writing and copying. Care must be taken to ensure that reduced demands do not result in lowered learning expectations for the student. It is important to make sure that students have sufficient opportunities for instruction and practice to become proficient in the targeted skills.

Written Expression

Students with disabilities may have difficulty planning, organizing, and drafting writing due to insufficient understanding of text structure, topics about which to write, or awareness of the needs of their audience. Some students have difficulty with content and linguistic knowledge, including phonemic awareness (spelling), vocabulary, sentence structure, or the mechanics of expressive language (grammar, punctuation, and capitalization) *(An Introduction to Writing,* 2005).

Dictionaries and thesauruses facilitate word choice when writing. Some electronic or talking dictionaries in hand-held devices check spelling and grammar usage as well as word meaning.

Strategies, templates, checklists, and grammar rules can be printed on personal cue cards or posted in the classroom as quick reference guides.

Individualized spelling lists or a personal dictionary of frequently used vocabulary assist students with making word choices.

Spelling and grammar check features in word processing software may be used by students who have difficulty with the mechanics of writing. However, these features may not be used on the FCAT for any assessment involving writing extended responses.

Graphic organizers and outlining can be used to organize information into patterns or diagrams and help students focus the topics and related content. Students use graphic organizers for planning reports and essays and software to create content maps. To promote growth in writing competence, students should make a deliberate transition from simple to more elaborate graphic organizers (Thompson et al., 2005, August).

Task adaptations incorporate alternate ways of presenting a written assignment, such as through dramatizing or oral presentation. Care must be taken to ensure that the student will have sufficient instruction and practice to become proficient in the targeted skills.

Oral Expression

Students with disabilities who have difficulty understanding and using spoken language may need accommodations. Students may have difficulty expressing ideas in ways that are easily understood by others. Some students are hesitant to give presentations or contribute to class discussions.

Increased wait time allows students time to think about what they want to say and how they will say it. Teachers and peers should be careful not to interrupt or speak for students.

Use of visuals helps students convey the spoken message through pictures, drawings, or other graphics.

Task adaptations allow the use of alternate ways of presenting an oral report or presentation, such as by substituting a written paper or allowing a one-to-one presentation. Care must be taken to ensure that the student is expected to accomplish the same learning outcomes as other students.

Mathematics

Some students have difficulty responding to mathematical tasks due to difficulty understanding abstract mathematical concepts or using procedural skills. Poor memory may contribute to a student's lack of fluency with basic facts. Some students have difficulty using mathematical symbols, following procedures for problem solving, or applying abstract concepts used in mathematics. Teachers may use an instructional sequence that includes concrete, representation, and abstract (CRA) stages to provide a graduated and conceptually supported framework for students to create a meaningful connection among concrete, representational, and abstract levels of understanding (The Access Center, u.d.). Some students with disabilities may require concrete materials or visual representations as accommodations if they are not included in the standard methods of instruction in the core curriculum. Students with visual impairments may need tactile materials or software to represent mathematical concepts and problem solving.

Calculation devices may be used by students whose disabilities affect mathematics calculation, but not mathematics reasoning. Devices, such as a calculator, abacus, geoboard, or special software, such as Math Windows®, may be used.

It is important to determine whether the use of a calculation device is a matter of convenience or a necessary accommodation. It is important to know the goal of instruction and assessment before making decisions about the use of calculation devices. For

example, if students are learning subtraction with regrouping, using a calculator would not give a student an opportunity to show regrouping. On the other hand, if students are learning problem-solving skills that include subtraction (e.g., bargain shopping for items with a better value), the use of a calculation device may be a valid accommodation. Calculators may be adapted with large keys or voice output (talking calculators). (Thompson et al., 2005, August, p. 33).

Students with disabilities may not use calculators as an accommodation for FCAT 2.0 Mathematics, grades 3–6. However, calculators are provided for all students for FCAT and FCAT 2.0 Mathematics for grades 7, 8, and 10. Students with disabilities may use adapted calculators at these grade levels. (FCAT, FCAT 2.0, FAA)

Tactile tools and materials include raised line or braille-embossed number line, tactile graphic forms, geoboard, manipulatives for counting and number systems, tactile and braille rulers and protractors, and clocks with braille numerals (APH, 1997; Texas School for the Blind and Visually Impaired, 2002, July 30). Students sometimes use a light box to assist with the identification of objects. The FCAT and FCAT 2.0 do not allow the use of manipulatives for counting. (FCAT, FCAT 2.0, FAA)

A chart of math facts may be used by students who are unable to achieve fluency with basic math facts after they have learned computation concepts and calculation skills.

Concrete materials and manipulatives are used to represent mathematical concepts and procedures.

Visual representations display simple and complex mathematical concepts and procedures using visuals, such as diagrams, flow-charts, or computer animations.

Planning guides for solving mathematical problems, such as a flow chart or a list of steps, help students remember the critical steps of the procedures.

Special paper, such as gridded or graph paper, helps students line up numbers for computation. (FCAT, FCAT 2.0)

Note: Accommodations for organization of space and materials are described in Setting Accommodations on page 43. Accommodations for time management are included in Schedule Accommodations, page 45.

Setting Accommodations

Setting accommodations involve changes in the location or conditions of the educational setting or environment. Students may need setting accommodations to address accessibility issues, behavior management, and problems with organization of space and materials. Students who receive certain kinds of accommodations that might distract other students, such as a reader, scribe, or frequent breaks, may also need setting accommodations.

Accessibility

Students with sensory or physical impairments may need an accessible location, specific room conditions, or special equipment.

Physical access to the educational setting requires a barrier-free environment. Many buildings are well-equipped with nonslip surfaces, guide rails, ramps, elevators, and automatic doors for students who have difficulty getting around. Accessibility standards included in the Americans with Disabilities Act (ADA) specify requirements for facilities, such as exterior routes, entries into buildings and rooms, alarms, drinking fountains, and restrooms. Students should be able to use all parts of the building, including classrooms, restrooms, cafeteria, and media center and access rooms or spaces on the school grounds.

Accessible workstations include desks and tables that are adjustable for students who use mobility aids, such as a wheelchair. These workstations provide needed support or allow the student to change positions. Adaptive furniture and equipment also includes seating systems, standers, gait trainers, walkers, positioning devices, and other types of supports, special surfaces and matting, and ergonomic equipment (Job Accommodations Network [JAN], n.d.a). (FCAT, FCAT 2.0, FAA)

Preferential seating involves locating the student's desk in a place where he or she is best able to see or hear the teacher and complete assignments. The specific location will depend on the needs of the student and the typical activities used in the classroom, such as sitting near the front of the classroom so the student can see materials displayed for the class or using a study carrel to screen out distractions.

Specialized lighting or light filters may be needed by a student who experiences unusual eyestrain or fatigue. The student may need a natural light source or alternative lighting (JAN, n.d.b). (FCAT, FCAT 2.0)

Acoustical treatments provide a quiet background that diminishes external noise and distractions within the classroom. Window treatments, rugs or carpets, and soft materials on the walls reduce noise in the classroom (ASHA, 2009). (FCAT, FCAT 2.0)

Alternate learning environments may be self-contained or off-campus. Alternate settings include specialized schools, a home or hospital setting, or a residential facility. When an off-campus site is selected, it is important that students with disabilities still be provided the opportunity for activities with people who are not disabled.

Behavior Management

Students with disabilities who have difficulty maintaining attention and effort may need setting accommodations to reduce sources of distraction. Students with disabilities who are unable to manage their own behavior may require positive behavioral supports or a specialized behavior management system with daily or weekly monitoring of behavior in school and regular reports to the parents. Accommodations can assist with the implementation of the behavior plan or support.

Class rules and expectations that are clearly defined and articulated to the student may be integrated with the individual behavior plan. A clear hierarchy of consequences for rule infractions should be established so that the student knows what is expected. The rules and consequences must be enforced consistently and systematically.

Regular procedures for beginning and ending classes may be established employing a system of prompts and routines. This helps the student behave appropriately in the classroom. Some students benefit from a preview of what is going to happen during class.

Alternative activities are available for the student to use during unstructured time. The student should know how to initiate and complete the activities.

Reduced sources of distractions allow more concentration by students. The student should be seated away from distractions, such as windows, heating or cooling vents, doors, resource areas, or disruptive students. An enclosed study carrel or sound absorption panel blocks out distractions that would prevent the student from completing independent work (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Preferential seating locates the student's desk away from busy parts of the classroom or places it near the teacher's desk.

Noise buffers, such as headphones, earphones, or earplugs, or the use of environmental sound machines, reduce auditory distractions and help students maintain concentration and focus. (FCAT, FCAT 2.0)

Small group or other special grouping arrangements may be needed for a student who requires increased personal attention and support from school personnel. A student may require additional assistance on tasks, small group instruction, or tutoring. An aide or proctor can help the student maintain attention to complete tasks when the teacher is unavailable. (FCAT, FCAT 2.0)

Individual settings may be needed for students who are unable to work in groups, who perform better when they can read and think out loud, or who are unable to control behaviors that distract other students. (FCAT, FCAT 2.0)

Organization of Space and Materials

Students with disabilities may have trouble managing their own space and materials in the instructional setting. As a result, they may be unable to complete the requirements of specific tasks because they can't find the resources they need.

Compartmentalized containers help students keep personal materials organized in their desk or locker. Bookends, plastic containers for supplies, and bags or folders for work materials may be used.

Diagrams that depict the way books and materials should be stored can be posted inside the locker for reference.

Checklists of materials needed for each class can be kept in the student's locker or binder.

Binders with color-coded dividers or folders to separate materials for different subjects may be used by students.

A **limited amount of materials** is available to the student at one time. Students have access to only the materials and equipment they need for a particular task.

Access to learning resources and instructional materials outside of class may be needed. The student may keep one copy of school materials at home and another copy at school.

Scheduling Accommodations

Scheduling accommodations involve changes in time allocation, scheduling, and time management. Students may need scheduling accommodations to address issues related to effort, rate of performance, attention, and the ability to monitor and manage time.

Time Allocation

Scheduling accommodations involve changes in the length of time allowed or changes in the way the time is organized for activities. Students with disabilities who work or learn at a slower pace than their peers may need schedule accommodations. Some students do better when they are not under the pressure of a strict schedule. Other students need extended time because they read and process information slowly. Students may need extra time to use accommodations, such as assistive technology, braille, or dictation.

The performance of students with health-related impairments may vary during the day due to the effects of medications or diminishing energy levels. For example, students who need to maintain blood sugar levels may need to eat several times a day. These students could be accommodated by scheduling tests and activities around the eating schedule or by allowing food to be taken to the classroom or testing site.

Extended time is allowed for assignments and assessments. The amount of additional time should be determined on a case-by-case basis. Unlimited time is not recommended because it is not feasible. A timer can help the student monitor how much longer he or she has to work on specific tasks. At the secondary level, the extension

of time may require that the student receive an incomplete as a grade for a course or project and then be allowed to complete the course or assignment within a specified time frame (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Breaks may be allowed during tasks that take a long period of time. A student may need legitimate opportunities to get up and move in the classroom. Breaks may be given at predetermined intervals or after completion of assignments, tests, or activities. A timer can be used to signal the end of the break (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Schedule adjustments allow the instruction or assessment to occur at a particular time of day, day of the week, or for a certain number of days. Schedule adjustments may also be needed for students on medications that impact the ability to stay alert or be productive (Thompson et al., 2005, August). (FCAT, FCAT 2.0)

Time Management

Complex tasks present problems to students who have trouble attending to more than one thing at a time. Students who are easily distracted forget the instructions and get tasks confused. They give up easily and do not think to go back and check their work.

Predictable routines and procedures provide structure to the school day and help the student know what to expect.

Separating tasks into parts gives students a manageable way to complete lengthy assignments.

Timelines are established to help the student keep track of his or her progress toward completing the required tasks.

Checklists of individual responsibilities help the student to understand and remember what is expected.

Assignment planners or visual schedules kept inside the binder or posted on the student's desk help the student identify work periods and requirements. The student may keep a journal or homework log that includes the instructions and timelines or use a calendar.

Electronic devices have alarms or signals to remind the student of important dates and meetings. A separate timer can be used to define work periods.

Unique and Non-allowed Accommodations for FCAT and FCAT 2.0

Some students with disabilities may require unique or unusual accommodations for the FCAT. Unique accommodations generally involve alterations to existing test materials, such as fewer items per page or increased space between items. The student must regularly use the unique accommodation for classroom instruction. The accommodation must not alter the concepts or skills being assessed. Unique accommodations require prior approval from the Commissioner of Education or designee.

Some accommodations that students may receive in instruction may not be used on the FCAT and FCAT 2.0 because they change what the test is intended to measure and affect the test's reliability and validity. Examples of such non-allowed accommodations include:

- The use of a calculator for basic computation in grades 3–6

- The use of spelling or grammar check when using a word processor

- Having someone read aloud items that test reading skills

If accommodations are recommended for instruction that are not permitted on the FCAT and FCAT 2.0, parents must be notified and give signed consent for the use of those accommodations in the classroom. Parents must acknowledge in writing that they understand the possible

impact or future consequences of using non-allowed accommodations in the classroom. Providing a student with a non-allowed accommodation during the FCAT and FCAT 2.0 constitutes a test irregularity and may result in invalidation of the test results for that student (Office of Assessment, 2010a, 2010b).

Summary

The detailed information about accommodations described in this section is intended to provide educators and parents ways to support achievement of all students with disabilities. The section does not cover every accommodation available or every situation in which accommodations may be used. Accommodations not described in this section may be used as long as the IEP or Section 504 plan team determines the student with a disability needs them, and they meet the four decision-making guidelines identified on page 17 in Section One. The value of any accommodation is measured in terms of its impact on the performance of the student with a disability in the classroom.

A Quick Reference Chart with a list of the accommodations matched to the effect of the disability or learning difficulty is included in the Appendix of this document.

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SECTION THREE

Integrating Accommodations with Instruction

A new student with a disability has transferred to the school and will be enrolled in Mr. Webster's science class. The assistant principal invites Mr. Webster to attend an individual educational plan meeting to discuss the accommodations the student needs. They will base their decisions on data provided from the student's previous school and input from the parents and the student.

How can Mr. Webster help this student with disability?

Every day, teachers strive to provide an effective educational program for all students in their classes. When students with disabilities are part of the class, teachers must identify the special needs of each student and if accommodations are required. Accommodations involve changes that are made in how the student accesses information and demonstrates performance. Teachers must consider how the accommodations will be implemented when they are planning instruction and assessment activities. In addition, teachers will need to monitor whether the students use the accommodations and evaluate their impact.

Identifying Accommodations

Identifying needed accommodations for students with disabilities is not a complicated process. The place to begin is with the student's records. For students with disabilities who have an IEP, a summary of the present level of academic achievement and functional performance, a description

of how the student's disability affects progress in the general curriculum, and measurable annual goals are included. The IEP also describes the student's special education and related services, including classroom accommodations, test accommodations, modifications, and supports for school personnel. Forms used for IEPs vary in the way the information is documented. The accommodations may be listed separately for the classroom and state assessment, or they may be included in other parts of the IEP form. Teachers who have responsibility for educating students with disabilities may have a copy of the students' IEPs. A sample adapted from the Classroom Accommodations section of the IEP included in the Portal to Exceptional Education Resources (PEER) is provided below. PEER is Florida's electronic resource for teachers to develop and track ESE processes required by federal law and state statutes (BEESS, 2007).

Excerpt from an Individual Educational Plan

Classroom Accommodations	Initiation Date	Duration Date	Frequency	Location
__ Highlight key words or phrases in text	_____	_____	_____	_____
__ Positioning tool (page holder, slant board)	_____	_____	_____	_____
__ Accept verbal responses	_____	_____	_____	_____
__ Specialized paper	_____	_____	_____	_____
__ Special or adaptive furniture	_____	_____	_____	_____

From PEER (BEESS, 2007)

Students with disabilities eligible for accommodations under the Rehabilitation Act of 1973 may have a Section 504 plan that documents their classroom and assessment accommodations. An excerpt from the

form in the *District Guide for Meeting the Needs of Students, Section 504 of the Rehabilitation Act of 1973* (BEESS, 2005) is provided below.

Excerpt from a Sample Section 504 Plan

Accommodation Plan

Name: DOB:

Physical/Mental Condition That Is a Disability:

The school-based committee has reviewed all relevant information about the student and determined that the student is protected under Section 504 and is in need of accommodations . . . The following accommodations will be provided:

_____

_____

After reading the IEP or Section 504 plan, teachers are urged to confer with teachers who previously worked with the student and may be able to provide more guidance about specific learning needs. If the student is new to the school, the student and his or her parents may be able to describe accommodations or assistance provided in the past. As students gain self-advocacy skills, they will be able to take more responsibility and tell the teachers of their need for accommodations.

Planning for the Use of Accommodations

When teachers plan individual lessons and units of instruction, they think about what students are expected to learn and the kinds of activities they will use. Many teachers find that it is a good idea to keep a simple list with the names of the students and their specific accommodations in the lesson plan books. This becomes an easy reference as they develop their lesson plans each week.

Accommodations List

Mikal Use calendar to record assignments; behavior system—verbal reinforcement for targeted behaviors, weekly assessment

Alicia All textbooks and class materials digitized for screen reader; use of talking calculator, digital recorder for class notes, and word processor for written assignments and tests; biweekly collaborative planning with teacher and ESE specialist

Juan Copies of class notes from designated peer; extra time (generally 25 percent more) to complete assignments and assessments

As decisions are made about learning activities and assessments, teachers should check the accommodations list to see what they will need to provide for individual students with disabilities. Teachers can make a notation in their plans about specific accommodations so they have sufficient time to prepare any special materials or gather equipment. They may need to locate specialized materials or equipment or prepare study guides or cue cards. Many accommodations only require teachers to remember to provide the prompts or assistance the student needs. The accommodations help make it possible for students with disabilities to engage in the activities and master the objectives of the lesson.

Universal Design for Learning

The Universal Design for Learning (National Center on Universal Design for Learning, 2009) is based on three principles for the design of curriculum, instruction, and assessment:

1) Provide multiple means of representation

2) Provide multiple means of action and expression

3) Provide multiple means of engagement

The principles of Universal Design for Learning align with the purpose and intent of accommodations. Teachers who employ the principles of Universal Design for Learning when planning have many options for instructional materials, techniques, and strategies that will meet the instructional needs of students, including those who require accommodations.

When planning instruction, teachers think about the objectives and activities for each lesson. They may ask:

- What are my students expected to learn in this lesson?

- What materials and tools are students expected to use?

- What kinds of learning activities will be used?

- What kinds of practice will students have?

- How will I assess the students?

- What kind of learning environment will be needed?

- What specific accommodations will be needed for the instruction and assessment tasks?

The teacher who has Mikal, Alicia, and Juan in class could use the Accommodations List shown on the previous page when planning instruction. The teacher will need to provide an assignment calendar for Mark, obtain the digitized materials and equipment for Alicia, and make sure that Juan receives a copy of a classmate's notes. The ESE department may be able to order a calendar and obtain the electronic files, screen reader, talking calculator, digital recorder, and word processor. Special carbonless copy paper could be used for note taking. Providing verbal reinforcement and monitoring Mark's behavior system, engaging in collaborative planning, and providing extended time for Juan's tests do not require as much advance preparation.

Implementing Accommodations

Although planning and preparation is a necessary part of providing accommodations, teachers find that they must take additional steps to ensure that students with disabilities use the accommodations. If the accommodation is new to the student, orientation and instruction will be needed to teach the student how and when to use the accommodation. At first students may require a prompt to remember to use the accommodation. Students will use the accommodation more independently as they become more proficient and comfortable. Students may also need help with generalizing or transferring the use of the accommodation to new situations.

Differentiated Instruction

Many teachers find that the accommodations they provide for students with disabilities help other students. For example, a teacher may prepare a study guide for a student with disabilities who needs the support for reading comprehension. The teacher can make the same study guide available to other students. Teachers who follow the principles of differentiated instruction design their instruction based on the understanding that learners differ in important ways (Tomlinson, 1999). The following guidelines for teachers using differentiated instruction emphasize the expectation for high achievement of all learners (Hall, Strangman, & Meyer, 2002/2009):

Guidelines that make differentiation possible:

- **Clarify key concepts and generalizations.** Ensure that all learners gain powerful understandings that serve as the foundation for future learning. Teachers are encouraged to identify essential concepts and instructional foci to ensure that all learners comprehend.

- **Use assessment as a teaching tool to extend rather than merely measure instruction.** Assessment should occur before, during, and following the instructional episode, and it should be used to help to pose questions regarding student needs and optimal learning.

- **Emphasize critical and creative thinking as a goal in lesson design.** The tasks, activities, and procedures for students should require that they understand and apply meaning. Instruction may require supports, additional motivation, varied tasks, materials, or equipment for different students in the classroom.

- **Engaging all learners is essential.** Teachers are encouraged to strive for development of lessons that are engaging and motivating for a diverse class of students. Vary tasks within instruction as well as across students. In other words, an entire session for students should not consist of all drill and practice, or any single structure or activity.

- **Provide a balance between teacher-assigned and student-selected tasks.** A balanced working structure is optimal in a differentiated classroom. Based on pre-assessment information, the balance will vary from class-to-class as well as lesson-to-lesson. Teachers should assure that students have choices in their learning (Hall, Strangman, & Meyer, 2002/2009, "Additional Guidelines," para. 14–18).

Both differentiated instruction and the principles of Universal Design for Learning support the purpose and intent of accommodations. Teachers who apply these principles will be better able to meet the diverse needs of students, including those who need accommodations (Rose, Hasselbring, Stahl, & Zabala, 2005).

Modifying Expected Outcomes

In many instances, accommodations are all that is needed for students with disabilities to be successful in the classroom. However, teachers may find that some students with disabilities are unable to meet the grade-level expectations of the Next Generation Sunshine State Standards even with supplemental or intensive interventions. Such students may require changes to what they are expected to learn. For some students, task adaptations may be needed in the initial stages of skill acquisition.

If the adaptations are not faded, the student will not be able to master the targeted skill. Students who are not expected to complete all of the required learning tasks for the grade-level benchmarks will lag behind their peers.

The IEP team may decide that students with significant cognitive disabilities who are unable to achieve the grade-level benchmarks with accommodations and who require intensive, direct instruction for learning may need to be instructed on the access points of the Next Generation Sunshine State Standards. The access points are alternate standards that reflect modified learning expectations. The access points align with the core intent of the grade-level benchmarks at reduced levels of complexity. The Florida Alternate Assessment measures student achievement of the access points. Students with disabilities who have a Section 504 plan are not eligible to work on the access points or participate in the Florida Alternate Assessment.

Requirements for academic courses (Basic and Adult Education) may not be modified for students with disabilities (Rule 6A-6.0312, F.A.C.). Students with disabilities are expected to meet course requirements, with accommodations as necessary. In physical education, however, requirements may be modified in courses that are titled "Adaptive Physical Education, IEP or 504 Plan." The team determines which requirements are appropriate for the student and records it on the student's IEP or Section 504 plan. In career and technical education programs, Modified Occupational Completion Points (MOCPs) are allowed for students with disabilities.

If a teacher thinks that a student with a disability needs modified learning expectations, the following steps are suggested.

1. Check the student's IEP to see if curriculum modifications are allowed. The plan may indicate that the student is working on the access points.

2. Consult with the student's ESE teacher or other personnel in the school to find out if curriculum modifications are appropriate for this student. The IEP team may need to meet. Modifications to the learning expectations and curriculum can have a significant impact on the student's ability to earn a standard diploma.

3. If the student needs curriculum modifications, teachers are encouraged to engage in systematic problem solving with the school-based team to intensify the instruction/intervention to match student needs. The teacher should use differentiated instruction techniques to keep the student integrated in the regular activities and experiences in the classroom.

Monitoring and Evaluating Accommodations

The value of any accommodation should be measured in terms of its impact on the performance and attitude of the student with a disability. Some questions to consider when reflecting on the impact of an accommodation include:

- Did the student regularly use the accommodation?

- Was the student able to participate fully in the activity with the accommodation?

- Was the student able to master the objectives of the lesson or course with the accommodation?

- Did the accommodation help the student feel a part of the class?

If the answer to all questions is **Yes,** then the accommodation is doing what was intended. If the answer to any question is **No,** then troubleshooting is needed to find out why the accommodation is not working as planned. A different type of accommodation may be needed.

The use of certain kinds of accommodations, particularly assistive technology, may require that the student use them on a trial basis to determine what effect the accommodation will have on student performance. Students may need instruction and practice, or they may

need to try other devices or strategies. Teachers may be asked to assist with collecting data on the student's use of the accommodation and whether the student participated more fully in activities or achieved the lesson objectives. If the use of the accommodation results in a positive outcome, the student's IEP or 504 plan can be revised to add the accommodation. If a positive outcome does not result, other types of accommodations may be tried.

In some cases, teachers are reluctant to provide accommodations because they believe that the accommodations require too much extra work. If a particular accommodation requires the teacher to make an extraordinary amount of effort or causes a disturbance to the rest of the class, the accommodation may not be provided on a regular basis. The impact of the accommodation will be diminished. If the accommodation is not working for any reason, other options must be tried.

For some students, certain accommodations will always be necessary for them to be able to perform required tasks, such as using braille materials for reading. However, accommodations are sometimes a step toward independence when students with disabilities continue to learn and develop. The student's need for certain accommodations may diminish with continued instruction on essential skills for learning, such as reading and writing. The student may become less dependent on the accommodations and more reliant on his or her own abilities. Teachers must continually monitor the student's skill development as well as the use and impact of the accommodations.

Collaboration and Support

Collaboration is essential when providing accommodations for students with disabilities. Many individuals share responsibility for the students' educational program. The general educator knows the expectations of the Next Generation Sunshine State Standards and has expertise in academic or career and technical educational programs. Special education personnel are knowledgeable about specific instructional techniques and strategies that are effective with students with disabilities.

Some schools hire special education teachers as support facilitators or resource teachers to provide consultation services in the school. Other schools schedule common planning periods so ESE and general education teachers can work together. Staff in guidance, school health, speech and language, and occupational or physical therapy can also provide support.

Support for school personnel may also be indicated on the student's IEP. Support for school personnel involves services that are provided directly to the general education teacher, special education teacher, or other school personnel. Support may include training or professional development activities to ensure that school personnel have the knowledge and skills needed to help the student. Support may also include consultant services, collaborative teaching, or assistance from a paraprofessional or teacher aide.

Collaboration or consultation of professional staff and parents is sometimes identified on a student's IEP as an accommodation. The purpose is to ensure that professionals and parents confer on a regular basis and keep informed about the progress and needs of the student. The collaboration addresses problem solving, identifying needed resources, and monitoring the effectiveness and impact of the instructional program and accommodations. Documentation of the process and outcomes of collaboration must be maintained.

Teachers who are open for input and ideas will find success when working with others on behalf of students with disabilities. When problems arise, they are not afraid to ask other teachers or the student's parents for assistance. They often find that others have had similar problems and are eager to develop and share successful solutions.

Conclusion

Accommodations play an important role in meeting the needs of students with disabilities. Teachers are responsible for providing the accommodations to students with disabilities, and students are responsible for using the accommodations and making their best effort

in instruction and assessment activities. To have the greatest impact, the student's use of accommodations must be continually monitored and supported through data analysis, intentional planning, implementation, and evaluation of effectiveness.

APPENDIX

Accommodations:

Quick Reference Guide

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Presentation Accommodations

Effect of Disability	Accommodations
Specialized Presentation Formats	
Visual Formats	
Unable to see standard print, needs enlargement	Large print materials
Difficulty understanding language in printed text	Sign language presentation to accompany text for beginning readers
Unable to hear and understand oral language	Video recording with closed captioning and descriptive video
Tactile Formats	
Unable to see print, uses tactile formats	Braille Refreshable braille display Nemeth Braille Code Tactile graphic image Real objects
Auditory Formats	
Unable to see print, uses auditory format Unable to recognize or decode printed words, uses auditory format	Read aloud by person Recorded books Screen-reader software—text-to-speech Equipment with auditory output

Effect of Disability	Accommodations
Presentation Supports	
Visual Enhancement	

Difficulty seeing standard print, needs enlargement	Magnification equipment
	  - Magnifier
	  - Computer screen magnification
	  - Video magnifier

Difficulty seeing print	Reduced glare or direct lighting Minimized visual distraction Colored overlay filter Visual cues—colors, highlighting
Loses place while reading	Blank card to mark place Card with cut-out window Ruler or guide to isolate line of text

Unable to hold print materials open
Difficulty reading on flat surface
	Positioning tools
	  - Tilt-top desk
	  - Book stand
	  - Page holder
	Materials secured to work area

Word Recognition	
Difficulty with phonological awareness and phonetic decoding Difficulty with high-frequency sight words Difficulty with structural analysis (affixes, root words) Inability to read fluently	Leveled books Digital text (tagged electronically) that provides audio feedback or word meanings Portable scanning device Personal word list Repeated reading

Effect of Disability	Accommodation
Presentation Supports, cont.	
Comprehension	
Limited knowledge of vocabulary meaning Insufficient background knowledge or experience	Preview of vocabulary or key points Advance organizer Highlighting or color coding Digital text (tagged electronically) that provides word meanings Hands-on activity, picture, or diagram
Difficulty identifying main idea and supporting details Difficulty understanding text structure Difficulty making inferences and drawing conclusions	Advance organizer Highlighting or color coding main ideas and supporting details Digital text (tagged electronically) that provides structural clues (header, sidebar), and summary, outline, or key questions Study guide Hands-on activity, picture, or diagram
Listening	
Difficulty understanding information presented orally Difficulty maintaining attention	Advance organizer Explicit verbal or visual cues
Difficulty remembering information presented orally	Active involvement Repetition and clarification of important information Note-taking assistance
Unable to hear spoken language	Assistive listening devices

Effect of Disability	Accommodation
Presentation Supports, cont.	
Following Directions	
Difficulty remembering steps and procedures Difficulty understanding what is expected Lack of attention to detail Impulsive, easily distracted	Signal or prompt Self-instruction and self-questions Directions with pictures or diagrams Simplified directions Copy of directions Directions repeated, summarized, or clarified Opportunity to paraphrase Sample problem or task Monitoring Uncluttered and clearly organized material Visual cue

Response Accommodations

Effect of Disability	Accommodation
Alternate Response Modes	
Unable to use handwriting or keyboarding Speed of writing is too slow to keep pace with language/expression Difficulty with expressive language	Scribe to record dictated responses Word processor/computer Word prediction software Brailler Portable note-taking device Voice recorder Voice recognition software—speech-to-text Sign language Augmentative and alternative communication, such as communication board or other assistive device
Response Supports	
Handwriting	
Lack of coordination, weakness, no hand dominance Inadequate pencil grasp Use of excessive pressure when writing Lack of endurance for writing Illegible handwriting	Pencil, marker, or crayon of different diameters High contrast writing tool Mechanical pencil Nonabrasive eraser Pencil or pen grip—triangular, pear-shaped, or grip with finger indentations
Inadequate eye-hand coordination Errors in letter and word formation or spacing Visual perceptual or spatial-orientation difficulties Illegible handwriting	Finger spacer Handwriting guide Alphabet strip Specialized writing paper—colored or raised lines, gridded paper Visual cues on paper (stop, start, margins)

Effect of Disability	Accommodation
Response Supports, cont.	
Handwriting, cont.	
Weak postural control Lying on desk, slouching	Paper stabilizer Slant board Physical support or positioning
Illegible handwriting Difficulty copying work Slow production Low productivity	Test responses monitored to ensure answers correspond with questions Responses recorded directly on worksheet or in test booklet Word prediction software Task adaptations—reduced demands
Written Expression	
Weak expressive language skills Expresses ideas orally but cannot convert into written language Limited vocabulary Difficulties with syntax	Thesaurus or dictionary Word prediction software Task adaptations—respond in alternate ways
Weak mechanics or skills Inconsistent use of capitalization and punctuation Missing or inappropriate grammar	Word processor with grammar check Checklist, cue card, or reference card for editing Strategy or procedure for editing
Inconsistent spelling, phonetic spelling Insufficient memory for frequently used words Insufficient knowledge of common spelling words	Word processor with spell check Individualized spelling list Electronic dictionary with spell check

Effect of Disability	Accommodation
Response Supports, cont.	
Difficulty organizing information Difficulty identifying ideas for writing	Outlining techniques Strategies, templates, and graphic organizers
Oral Expression	
Poor oral expression Difficulty articulating speech Difficulty finding words Difficulty with syntax Difficulty with pragmatics	Increased wait time Use of visuals Task adaptations—alternate ways of giving oral presentations
Mathematics	

Difficulty with computation fluency	Calculation devices
	  - Math Windows®
	  - Abacus
	  - Adapted calculator
	Tactile tools and materials
	Chart of math facts
	Concrete materials and manipulatives

Difficulty with procedural skills or problem solving	Planning guides
	  - Graphic organizer
	  - Flow chart
	  - T-chart
	Special paper—gridded paper for computation

Difficulty with conceptual knowledge or application	Concrete models and manipulatives Visual representations

Setting Accommodations

Effect of Disability	Accommodation
Accessibility	
Lacks mobility Unable to open doors	Physical access—ramps, nonslip surfaces, guide rails, automatic doors, elevators
Has motor impairments	Accessible workstation
Has sensory limitations	Specialized lighting Acoustical treatment Preferential seating
Has needs that can only be met in a specialized setting	Alternate learning environment
Behavior Management	
Lacks self-control	Class rules and expectations Regular procedures Alternative activities Individual setting—one-on-one Small group setting
Unable to concentrate Difficulty maintaining attention	Reduced sources of distraction Preferential seating Noise buffer Individual setting Small group setting
Organization of Space and Materials	
Difficulty organizing work space, personal space, textbooks, and materials Insufficient attention to details	Compartmentalized storage container Diagram for storage of materials Checklist of required materials and tools Binders and folders—color coded Limited amount of materials available to student Access to materials outside of class
Time Allocation	

Scheduling Accommodations

Effect of Disability	Accommodation

Works slowly
 	
Use of accommodation, such as assistive technology, that requires more time
 	
Medical condition affects effort
	Extended time
	
	Breaks
	
	Schedule adjustments
	  - Preferred time of day
	  - Preferred day of week

Time Management	
Short attention span Difficulty staying on task until completion Easily distracted Completes assignments quickly but inaccurately	Predictable routines and procedures Assignments separated into parts Time limits for assignments
Difficulty remembering what to do	Visual schedule Checklist of individual responsibilities Assignment planner Electronic device with alarms/cues

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REFERENCES

Alliance for Students with Disabilities in Science, Technology, Engineering and Mathematics. (2009). *What does word prediction software do?* Retrieved August 13, 2009, from http://www.washington.edu/doit/Stem/articles?96

American Printing House for the Blind (APH). (1997). *APH Educational Research: Guidelines for design of tactile graphics.* Retrieved July 28, 2009, from http://www.aph.org/edresearch/guides.htm

American Speech-Language-Hearing Association (ASHA). (2009). *Classroom acoustics.* Retrieved July 28, 2009, from http://www.asha.org/public/hearing/classroom.htm

ASHA. (2010). *Augmentative and alternative communication.* Retrieved July 30, 2010, from http://www.asha.org/slp/clinical/aac.htm

An introduction to writing. (2005). Retrieved August 13, 2009, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=instruction&section=main&subsection=writing/main

Beech, M. (2003). *The IEP team's guide to FCAT accommodations.* Tallahassee, FL: Bureau of Instructional Support and Community Services, Florida Department of Education.

Bowser, G., Korsten, J., & Zabala, J. (2004, December/2005, January). *SETT and Re-SETT: Concepts for AT implementation.* Retrieved August 10, 2010, from http://www.closingthegap.com/solutions/articles/2004-12-01?-session=ctg:42F947960766628299ohp219C326

Bureau of Exceptional Education and Student Services (BEESS). (2005). *District guide for meeting the needs of students: Section 504 of the Rehabilitation Act of 1973.* Tallahassee, FL: Florida Department of Education.

BEESS. (2006, September). *Accommodations for students with disabilities taking the Florida Comprehensive Assessment Test®* (FCAT) [Technical Assistance Paper No. DPS FY 2007-04]. Tallahassee, FL: Florida Department of Education.

BEESS. (2007). *Portal to exceptional education resources.* Tallahassee, FL: Florida Department of Education.

BEESS. (2009, June 8). *Questions and answers: National Instructional Materials Accessibility Standards (NIMAS)* [Technical Assistance Paper No. DPS FY 2009-084]. Tallahassee, FL: Florida Department of Education.

BEESS. (2009, July). *Florida Alternate Assessment administration manual 2009–2010.* Tallahassee, FL: Florida Department of Education.

BEESS. (2010, May 19). *Accessible instructional materials: Questions and answers* [Technical Assistance Paper DPS 2010: 70]. Tallahassee, FL: Florida Department of Education.

Center for Applied Special Technology (CAST). (2009). *Digital text in the classroom: Information and ideas.* Retrieved August 20, 2009, from http://www.cast.org/teachingeverystudent/ideas/presentations/digitaltext.cfm

Elliott, J. L., & Thurlow, M. L. (2000). *Improving test performance of students with disabilities—On district and state assessments.* Thousand Oaks, CA: Corwin Press.

Fletcher, J. M., Francis, D. J., Boudousquie, A., Copeland, K., Young, V., Kalinowski, S., & Vaughn, S. (2006). Effects of accommodations on high-stakes testing for students with reading disabilities. *Exceptional Children, 72*(2), 136–150.

Florida Diagnostic and Learning Systems/Technology (FDLRS/TECH). (n.d.). *Writing.* Retrieved October 9, 2009, from http://www.paec.org/fdlrstech/writing.html

Florida Instructional Materials Center for the Visually Impaired (FIMC-VI). (n.d.). *About us.* Retrieved November 20, 2009, from http://www.fimcvi.org/

Hall, T., Strangman, N., & Meyer, A. (2009, November 2). *Differentiated instruction and implications for UDL implementation*. Retrieved March 17, 2010, from http://www.cast.org/publications/ncac/ncac_diffinstruc.html (Original work published 2002)

Job Accommodation Network. (n.d.a). *Accessible workstations for office settings*. Retrieved August 10, 2010, from http://askjan.org/cgi-win/OrgQuery.exe?Sol364

Job Accommodation Network. (n.d.b). *Full spectrum or natural lighting products*. Retrieved August 10, 2010, from http://askjan.org/cgi-win/OrgQuery.exe?Sol400

Levy, E.. (2007). *Teaching students to take class notes*. Retrieved October 9, 2009, from http://www.ldonline.org/article/Teaching_Students_to_Take_Class_Notes

Lighthouse International. (2010). *Braille solutions*. Retrieved March 17, 2010, from http://www.lighthouse.org/services-and-assistance/computers-and-technology/help/braille/

Luke, S. D., & Schwartz, A. (2007). Assessment and accommodations. *Evidence for Education, 11*(1), 1–11. Retrieved March 17, 2010, from http://www.nichcy.org/InformationResources/Pages?NICHCYPublications.aspx

National Center on Universal Design for Learning. (2009). *UDL guidelines, version 1.0: Introduction*. Retrieved November 9, 2009, from http://www.udlcenter.org/aboutudl/udlguidelines/introduction

Northwest Regional Educational Laboratory (NWREL). (2005). *Cues, questions, and advanced organizers*. Retrieved November 20, 2009, from http://www.netc.org/focus/strategies/cues.php

Office of Assessment. (2010a). *2010 FCAT reading, mathematics, and science Sunshine State Standards test administration manual*. Tallahassee, FL: Florida Department of Education.

Office of Assessment. (2010b). *2010 FCAT writing Sunshine State Standards test administration manual.* Tallahassee, FL: Florida Department of Education.

Osterhaus, S. A. (2005, May 9). *The Nemeth code: How to learn it, teach it, and produce it.* Retrieved August 13, 2009, from http://www.tsbvi.edu/math/alberta-022505.htm

Presentation instructional accommodations. (2005). Retrieved August 13, 2009, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=instruction&section=main&subsection=ia/presentation

Ratzlaff, K. (2007, February 21). *Functional vision learning media assessments (FVLMA). [PowerPoint Slides].* Retrieved August 10, 2010, from http://www.fimcvi.org/articlepdfs/Functional%20Vision%20Learning%20Media%20-VI%20Contact.ppt

Recording for the Blind & Dyslexic, Inc. (2009). *Frequently asked questions: Membership.* Retrieved September 30, 2009, from http://www.rfbd.org/faq/membership.htm#disability_certification

Rein. J. (2001). *Adapted pencils to computers: Strategies for improving writing.* Columbia, MD: Center for Technology in Education, Johns Hopkins University and the Maryland State Department of Education. Retrieved August 13, 2009 from http://cte.jhu.edu/ensuring_resources.html (Original work published 1997)

Rose, D., Hasselbring, T. S., Stahl, S., & Zabala, J. (2005). Assistive technology and universal design for learning: Two sides of the same coin. In D. Edyburn, K. Higgins, & R. Boone (Eds.), *Handbook of special education technology research and practice* (pp. 507–518). Whitefish Bay, WI: Knowledge by Design Inc.

Schumm, J. S. (1999). *Adapting reading and math materials for the inclusive classroom.* Reston, VA: Council for Exceptional Children.

Stahl, S. (2004). *The promise of accessible textbooks: Increased achievement for all students.* Retrieved August 13, 2009, from http://www.cast.org/publications/ncac/ncac_accessible.html
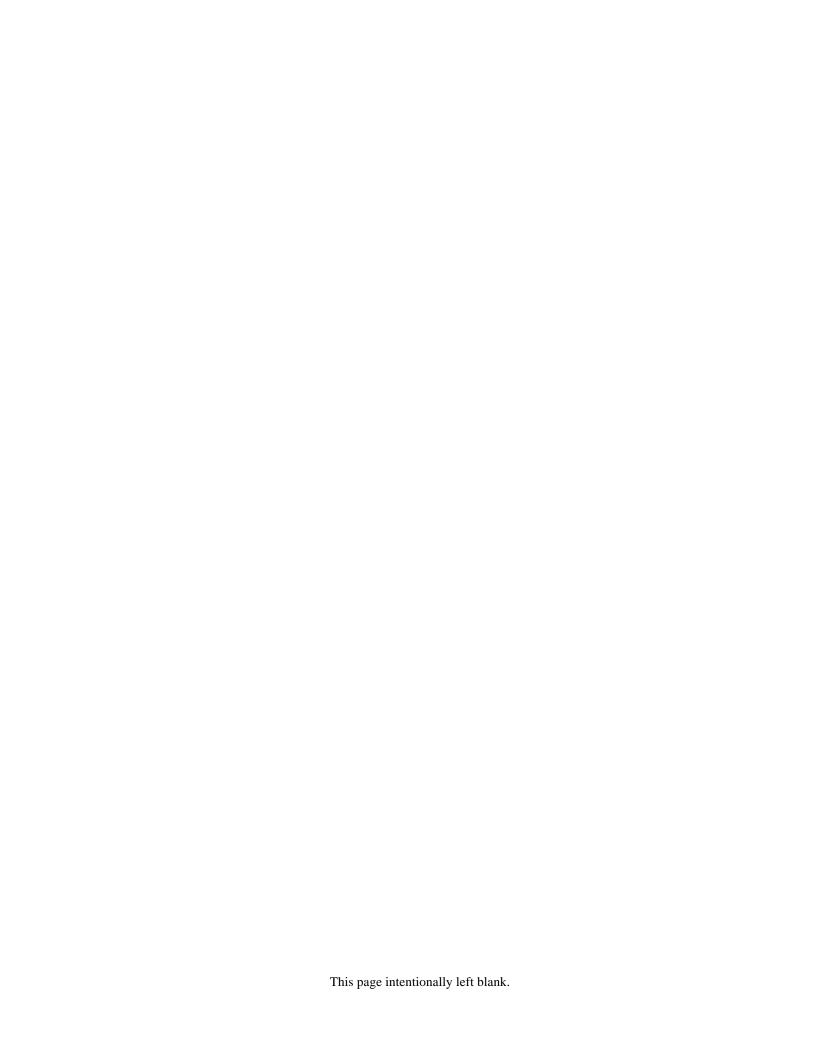
Stahl, S., Hitchcock, C., Hendricks, V., Johnson, M., Christensen, S., & Siller, M. A. (2010). *Accessible textbooks in the classroom: An educator's guide to the acquisition of alternate format core learning materials for pre-K–12 students with print disabilities.* Retrieved August 10, 2010 from http://aim.cast.org/learn/aim4families/school/accessible_textbooks

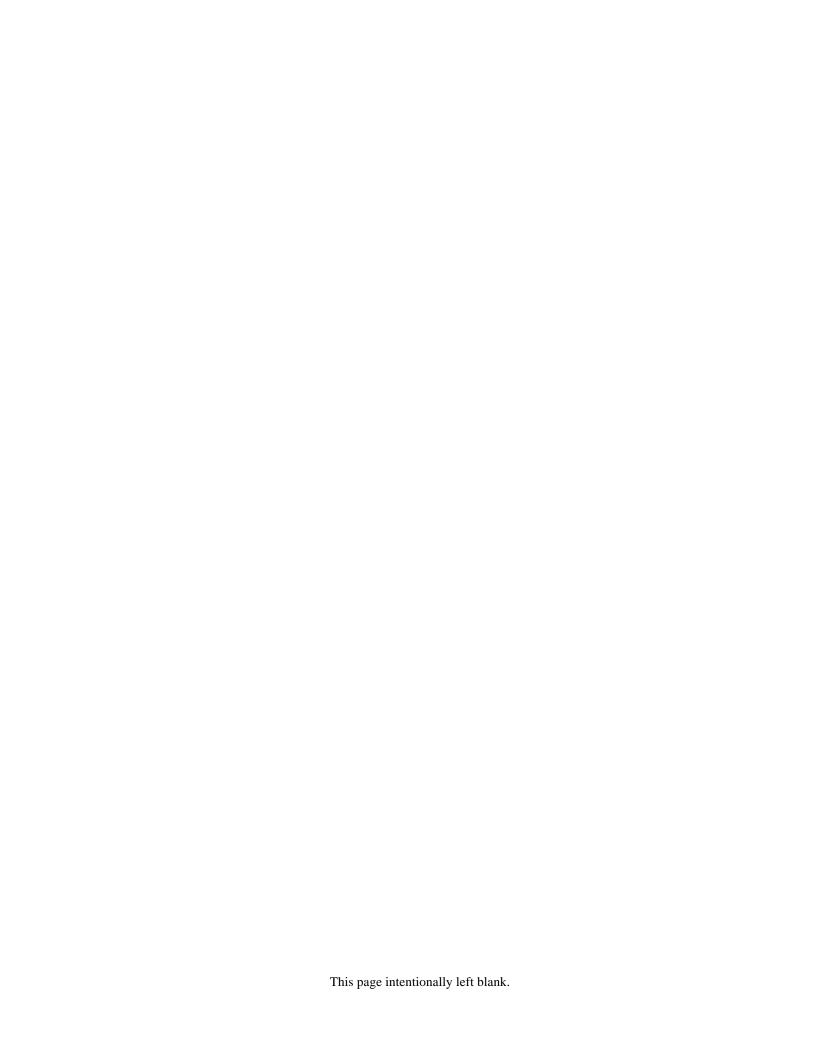Texas Assistive Technology Network. (n.d.). *Assistive technology implementation: Working together to make a measurable difference.* Retrieved August 10, 2009, from http://www.texasat.net/default.aspx?name=trainmod.implem

Texas School for the Blind and Visually Impaired. (2002, July 30). *Tactile math graphics.* Retrieved August 13, 2009, from http://www.tsbvi.edu/math/tactile.htm

The Access Center. (u.d.) *Concrete–representational–abstract instructional approach.* Retrieved July 2, 2010, from http://www.k8accesscenter.org/training_resources/CRA_Instructional_Approach.asp

Thompson, S. J. (2005). *An introduction to instructional accommodations.* Retrieved August 13, 2009, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=instruction&section=main&subsection=ia/main

Thompson, S. J., Morse, A. B., Sharpe, M., & Hall, S. (2005, August). *Accommodations manual: How to select, administer, and evaluate the use of accommodations for instruction and assessment of students with disabilities* (2nd ed.). Washington, DC: Council of Chief State School Officers.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association for Supervision and Curriculum Development.

Zabala, J. S. (2005, April 29) *Using the SETT framework to level the learning field for students with disabilities.* Retrieved August 10, 2010, from http://www.ode.state.or.us/initiatives/elearning/nasdse/settintrogeneric2005.pdf

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Florida Department of Education

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