



Massachusetts Department of
**ELEMENTARY & SECONDARY
EDUCATION**

Guidelines for the Preparation of Teachers of Moderate and Severe Disabilities: Instruction on the appropriate use of augmentative and alternative communication and other assistive technologies.

December 2011

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I. Context and Purpose:

As recognized in the Massachusetts Curriculum Frameworks, communication is an essential component of every child's education. For some children however, typical modes of communication are nearly impossible. Through the use of augmentative and alternative communication (AAC) and other assistive technologies (AT), these children can learn ways to express themselves and engage in academic and non-academic school activities appropriate for achieving their potential. Research demonstrates that the use of AAC/AT in general and special education settings for students who are nonverbal or have limited speech can lead to measureable gains in academic, communication, social, and functional skills.

The purpose of these guidelines is to strengthen the preparation of teachers of students with severe and moderate disabilities to enable them to teach students who are nonverbal, have limited speech, and may or may not already use AAC/AT. Acknowledging the critical role of special educators in educating students who use AAC/AT or in identifying students who might benefit from such systems, the Massachusetts legislature enacted a law, Senate, No. 2579, *An Act Relative to Augmentative and Alternative Communication Opportunities for Children* to ensure that special education teachers acquired the specific knowledge and skills in this area.

The Law

AN ACT TO IMPROVE AUGMENTATIVE AND ALTERNATIVE COMMUNICATION OPPORTUNITIES FOR CHILDREN

[Senate, July 30, 2010 Substituted by amendment by the Senate (Ways and Means) for Senate, No. 2293.]: <http://www.malegislature.gov/Laws/SessionLaws/Acts/2010/Chapter299>

***Be it enacted by the Senate and House of Representatives in General Court assembled,
And by the authority of the same, as follows:***

SECTION 1. Notwithstanding any general or special law, rule or regulation to the contrary, the board of elementary and secondary education shall update 603 CMR 7.06(25)(d) to require an approved program for teachers of students with moderate disabilities to include instruction on the appropriate use of augmentative and alternative communication and other assistive technologies.

SECTION 2. Notwithstanding any general or special law, rule or regulation to the contrary, the board of elementary and secondary education shall update 603 CMR 7.06(26)(b)(12) to require an approved program for teachers of students with severe disabilities to also include instruction on the appropriate use of augmentative and alternative communication and other assistive technologies

Approved August 10, 2010

In response to this new legislation and after an initial approval and a period of public comment from December 21, 2010 through March 25, 2011, the Board of Elementary and Secondary Education voted to amend the Educator Licensure regulations to:

- provide definitions of “AAC” and “assistive technology”;
- require approved teacher preparation programs leading to the licensure for teachers of students with moderate or severe disabilities to add “instruction on the appropriate use of AAC and other assistive technologies”;
- and address effective dates of the program and licensure requirements.

The Board also requested the Department to issue Guidelines for the scope and depth of instruction on the use of AAC and other assistive technologies.

The following section outlines the changes to the current regulatory language in 603 CMR 7.00.

Regulatory Changes to Educator Licensure Regulations-- 603 CMR 7.00

7.02 Definitions:

As used in 603 CMR 7.00, the following terms shall have the following meanings:

Augmentative and alternative communication: Methods of communication other than oral speech that enhance or replace conventional forms of expressive and receptive communication to facilitate interaction by and with persons with disabilities who are nonverbal or have limited speech, including, but not limited to: specialized gestures and signs; communication aids such as charts, symbol systems, visual supports, and language boards; mouth sticks; and electronic communication devices such as switches, head pointers, eye tracking, dynamic displays, auditory scanning, and voice output devices.

Assistive Technology: Assistive technology devices and services as defined under the Individual with Disabilities Education Act, 20 USC §§1401(1), 1401(2); 34 CFR §§300.5, 300.6.

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7.03 Educator Preparation Program Approval

(7) Implementation

...

(d) Approved Programs leading to the following licenses must address the requirements set forth in 7.06(25) (d) (4) and 7.06(26) (b)12 by August 31, 2011: Teachers of Students with Moderate and Teachers of Students with Severe Disabilities.

7.06 Subject Matter Knowledge Requirements for Teachers

(25) Teachers of Students with Moderate Disabilities (Levels: Pre-K to 8; 5-12)

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*DESE does not endorse any of the vendors or websites listed and acknowledges this is not an exhaustive list. The vendors are included as possible sources of information and potential resources to provide demonstrations of many different types of AAC devices for teacher training programs.

(d) The following topics shall be included in an approved program but will not be addressed on a written test of subject matter knowledge:

1. Educational terminology for students with mild to moderate disabilities.
2. Preparation, implementation, and evaluation of Individualized Education Programs (IEPs).
3. Design or modification of curriculum, instructional materials, and general education classroom environments for students with moderate disabilities.
- 4. Instruction on the appropriate use of augmentative and alternative communication and other assistive technologies.**
5. Ways to prepare and maintain students with disabilities for general education classrooms; for example, use of behavioral management principles.
6. Knowledge of services provided by other agencies.
7. Federal and state laws and regulations pertaining to special education.
8. Science laboratory work.
9. Child development.
 - a. Basic theories of cognitive, social, emotional, language, and physical development from childhood through adolescence.
 - b. Characteristics and instructional implications of moderately and severely disabling conditions.

(current subparagraphs 4-8, renumbered 5-9)

(26) Teachers of Students with Severe Disabilities (Levels: All)

...

(b) The following topics shall be included in an approved program but will not be addressed on a test of subject matter knowledge:

1. Definitions, etiologies, and characteristics of severely disabling conditions.
2. Theories, concepts, and methods of assessing physical, emotional, intellectual, and social development in children and adolescents.
3. Theories of language development and the effects of disabilities on learning.
4. Reading.
 - a. Reading theory, research, and practice.
 - i. Knowledge of the significant theories, practices, and programs for developing reading skills and reading comprehension.
 - ii. Phonemic awareness and phonics: principles, knowledge, and instructional practices.
 - iii. Diagnosis and assessment of reading skills using standardized, criterion-referenced, and informal assessment instruments.
 - b. Development of a listening, speaking, and reading vocabulary.
 - c. Theories on the relationships between beginning writing and reading.
 - d. Theories of first and second language acquisition and development.
5. Preparation, implementation, and evaluation of Individualized Education Programs (IEPs).

6. How to design or modify curriculum, instructional materials, and classroom environments for students with severe disabilities.
7. Ways to prepare and maintain students with severe disabilities for general education classrooms; for example, use of behavioral management principles.
8. Knowledge of services provided by other agencies.
9. Knowledge of appropriate vocational or alternative school programs, or work-study and community-based opportunities and alternative high school programs and how to refer students to them.
10. Federal and state laws pertaining to special education.
11. Techniques for developing skills designed to facilitate placement in least restrictive environments.
- 12. Instruction on the appropriate use of augmentative and alternative communication and other assistive technologies.**
13. Source and operation of orthotic devices, medical technologies, and computer-moderated prosthetic devices.

...

7.14 General Provisions

(14) Implementation

...

(h) Individuals who apply and complete all requirements for initial or preliminary licensure as a Teacher of Students with Moderate Disabilities prior to August 31, 2012, may qualify for an initial or preliminary license by meeting the requirements under 603 CMR 7.06 (25) in effect prior to July 1, 2011.

(i) Individuals who apply and complete all requirements for initial or preliminary licensure as a Teacher of Students with Severe Disabilities prior to August 31, 2012, may qualify for an initial or preliminary license by meeting the requirements under 603 CMR 7.06 (26) in effect prior to July 1, 2011.

II. Program and Course Design

In accordance with the new regulations, approved programs for licensure of teachers of students with moderate or severe disabilities will prepare teachers with a comprehensive understanding of the various augmentative and alternative communication (AAC) methodologies, including the appropriate use of aids and devices, and other assistive technologies (AT).

Recommended Components of Course and Program Design For Approved Programs

Approved programs should ensure that teachers of students with moderate or severe disabilities:

1. understand educational, communication and professional terminology and concepts related to augmentative and alternative communication and assistive technologies;

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2. are familiar with the range of AAC devices and methodologies as defined in 603 CMR 7.02, and facilitated communication, that can be used to effectively teach students. Some examples of ACC devices and methodologies include:
 - a) **Communication Aids--Picture Exchange Communication System (PECS).** PECS is an interactive system of communication based upon the exchange of cards with pictures of real or symbolic items. It is used to communicate an idea, wish, need, to answer a question, to make a comment and for all other reasons for communication between two or more people. For more and specific information access: www.pecs.com.
 - b) **Dynamic displays.** Dynamic Display equipment provides an array of categories of pictures for the communication of messages, ideas, wishes, comments, needs, etc. from which the user may select. Most of this equipment also has voice output available that can be pre-programmed by the teacher and is useful in classrooms and conversations. DynaVox systems (www.dynavoxtech.com), Vantage (www.prentrom.com), and Tango (www.blink-twice.com) are all examples of devices of dynamic display.
 - c) **Auditory Scanning.** Auditory scanning is a form of dynamic display that provides an oral menu of choices from which the communicator can select a topic. It can be used by individuals who cannot access tangible symbols, pictures, or a voice output communication device. <http://www.dynavoxtech.com/conditions/cerebral-palsy/solutions/speech-devices/> (see: <http://www.dynavoxtech.com/conditions/cerebral-palsy/solutions/speech-devices/>)
 - d) **Facilitated communication.** Facilitated Communication (FC) or Supported Typing uses pointing (e.g. at pictures, letters, or objects) and, more commonly, typing (e.g. on a keyboard), for people with disabilities to express themselves. The method involves a communication partner or facilitator who may provide emotional encouragement, behavior support, or a variety of physical supports (e.g. to slow and stabilize the person's movement, to inhibit impulsive pointing, or to spur the person to initiate pointing). The facilitator should never move or lead the person. FC is also called Facilitated Communication Training because the goal is independent typing, nearly independent typing (e.g., a facilitator's hand on the communicator's shoulder or intermittent touch) or a combination of speaking with typing. Some individuals have developed the ability to read text aloud and/or to speak before and as they are typing. Typing to communicate promotes access to social interaction, academics and participation in inclusive schools and communities. http://soe.syr.edu/centers_institutes/institute_communication_inclusion/what_is_supported_typing/default.aspx
3. understand the definitions of assistive technology and assistive technology service as described in the Individuals with Disabilities Education Act (IDEA), 34 C.F.R. § 300.5 Assistive technology device and 34 C.F.R. § 300.6 Assistive technology service, respectively;

As defined by the US Department of Education, IDEA 2004:

34 C.F.R. § 300.5 Assistive technology device

<http://idea.ed.gov/explore/view/p/%2Croot%2Cregs%2C300%2CA%2C300%252E5%2C>

Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device.

(Authority 20 U.S.C. 1401(1))

34 C.F.R. § 300.6 Assistive technology service

<http://idea.ed.gov/explore/view/p/%2Croot%2Cregs%2C300%2CA%2C300%252E6%2C>

Assistive technology service means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes:

- (a) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
- (b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
- (c) Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing assistive technology devices;
- (d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- (e) Training or technical assistance for a child with a disability or, if appropriate, that child's family; and
- (f) Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of that child.

(Authority: 20 U.S.C. 1401(2))

4. are able to identify students who may require referral for an evaluation to determine the need for AAC devices and assistive technology services to improve access to communication, literacy instruction, socialization, transition activities, or the general curriculum across settings or to reduce challenging behaviors;
5. learn strategies to collaborate with specialists including speech and language pathologists, occupational therapists, classroom teachers, and others knowledgeable about augmentative and alternative communication and assistive technology to effectively implement their recommendations and the IEP .

Program design should include interactions with and/or observations of individuals who use AAC/AT to communicate, through field experience, guest lectures, videos, etc.

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III. Options for the Implementation of this new requirement within educator preparation programs:

1. Integrate coverage of the new subject matter knowledge content standard into a currently existing course or workshop/seminar.
2. Design a new course or workshop/seminar to address the new subject matter knowledge content standard.

Example of the content for a 10-Hour Competency Workshop

The focus of this workshop is to provide participants a greater understanding of how augmentative and alternative communication (AAC) can enable students with no or limited speech greater access to the curriculum and to support their progress within the least restrictive environment. The workshop will offer an overview of AAC systems and assistive technologies (AT) including their appropriate use in the classroom and all school settings; the team process for the identification and evaluation for ACC and AT services; the roles of team members in the design and implementation of ACC systems and AT.

Background and Purpose

“AAC includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. We all use AAC when we make facial expressions or gestures, use symbols or pictures, or write. People with severe speech or language problems rely on AAC to supplement existing speech or replace speech that is not functional. Special augmentative aids, such as picture and symbol communication boards and electronic devices, are available to help people express themselves. This may increase social interaction, school performance, and feelings of self-worth.” (ASHA, 2011)

AAC includes:

1. **Unaided communication systems** [that] rely on the user's body to convey messages. Examples include gestures, body language, and/or sign language.
2. **Aided communication systems** require the use of tools or equipment in addition to the user's body. Aided communication methods can range from a pencil to communication books or boards to devices that produce voice output (speech generating devices or SGD's) and/or written output. Electronic communication aids allow the user to use picture symbols, letters, and/or words and phrases to create messages. Some devices can be programmed to produce different spoken languages” (ASHA, 2011).

Workshop Topics

1. Using student information and data to assess when an AAC system or AT are educationally, socially and therapeutically appropriate
2. AAC/AT in the team process
3. Collaboration strategies to effectively implement team recommendations regarding AAC/AT
4. Understanding of the basic functions of AAC devices (such as SGD's)
5. Educational and professional terminology related to AAC and AT
6. AAC and AT as they apply to IDEA 2004 and to recent changes in Massachusetts Educator Licensure Regulations
7. Use of AAC/AT to improve access to the general curriculum

8. Use of AAC/AT to facilitate access to and participation in non-academic activities
9. AAC/AT as they relate to transition planning
10. AAC resources –information sources and local agencies (see appendix)
11. Understand the role of AAC/AT in supporting communication and academic access (including AAC/AT does not inhibit and can encourage the development of speech)
12. Understand basic functions and use of low tech (i.e. white boards, simple switches, picture symbols systems, PECS) and high tech AAC/AT (dynamic displays, auditory scanning systems, iPads, text to speech)
13. Understand the history, use and research on facilitated communication as a form of communication access (candidacy, appropriate supports and work towards independent typing; research including controversy over authorship)
14. Appropriately integrating AAC/AT users into the classroom and all school settings and activities
15. Understanding potential social barriers created by AAC/AT and how to help overcome them

Example of integrating AAC/AT Competency into an existing 3 Credit Course

The focus of this course is to prepare participants to become knowledgeable of (1) the team assessment process including educational assessments; (2) the preparation, implementation and evaluation of individual educational programs, services and settings; (3) the design and/or modifications of curriculum, instructional materials, and general education classrooms; (4) the use of augmentative and alternative communication and other assistive technologies.

In this example, the content described in the 10-hour workshop example, including background and purpose, definitions and the list of specific topics, would be included as part of the content of the course. In addition, because this option is designed as a three-credit course, the format of the course description follows that of a college course with student learning expectations and measurable outcomes as follows:

Participants will demonstrate:

1. Comprehension of the evaluation process and the use of assessments for making eligibility, program and placement decisions, and monitoring progress for students with disabilities including those from culturally and/or linguistically diverse backgrounds:
2. Knowledge of specially designed instruction including modifications of content, methodology or delivery of instruction;
3. Understanding of the appropriate use of augmentative and alternative communication and other assistive technologies including referral for AAC evaluation, collaboration, and integration strategies.

Content and Learning Outcomes:

1. Key Concepts Covered:
 - Purpose of standardized cognitive, communication, sensory, motor, achievement and other assessments appropriate to the special education evaluation process;

- Considerations of the use of standardized assessments in the evaluation of students from culturally and/or linguistically diverse backgrounds;
 - Implication of assessment results for making determinations of eligibility, program and placements for special education;
 - Use of assessments for progress monitoring;
 - Differentiated instructional strategies for general education classrooms;
 - Evidence-based, modifications of curriculum, teaching strategies and classroom environments to meet the needs of students with identified disabilities
 - Augmentative and alternative communication programs, aids and devices, including picture/symbol communication systems, and other assistive technologies
 - Strategies for identification, for referral and integration of AAC users
 - Reflection and self-evaluation strategies and procedures
2. Learning Outcomes – Participants will:
- Administer and interpret educational achievement tests;
 - Participate in the development of an IEP;
 - Select and or modify curriculum including literacy development, classroom environments , instructional materials and learning expectations;
 - Design teaching and learning strategies to meet the educational needs identified in the educational assessment;
 - Select and or modify aids, devices and other assistive technologies including those especially designed for augmentative and alternative communication.
 - Understand collaboration strategies to include other professionals and regular education teachers in implementing goals of AAC users.
3. Assessment of Learning Outcomes - consider:
- How participants will apply their knowledge of the evaluation process and the use of assessments for making eligibility, program and placement decisions, and for monitoring progress for students with disabilities including those from culturally and/or linguistically diverse backgrounds;
 - How participants will apply their knowledge of modifications of curriculum, literacy instruction, instructional materials and devices, and general education classroom environments;
 - How participants will demonstrate their knowledge of appropriate augmentative and alternative communication and assistive technologies.
 - How participants will collaborate with other professionals and regular education teachers to evaluate for and implement use of AAC.

IV. Resources

Please see the Massachusetts Advocates for Children’s website, <http://www.massadvocates.org>, for a **RESOURCE DOCUMENT** that may be used to support your efforts to address coverage of the new Subject Matter Knowledge requirements. ***If you have difficulties opening the embedded hyperlink, please copy and paste the following link directly into your web browser:***
<http://www.massadvocates.org/documents/AACResources.pdf>