Captioning Considerations Guide

For Students Who Are Deaf/Hard of Hearing

RMTC-D/HH

Resource Materials and Technology Center for the Deaf/Hard of Hearing
### Captioning Considerations Guide

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Text version of the graphic organizer:
Purpose and Definitions:

What is the purpose of this guide?

The purpose of this guide is to provide and clarify information regarding the provision of captions for individuals with disabilities.

This guide will help individual educational plan (IEP) teams, discretionary projects, organizations, agencies, and other stakeholders in Florida:

- consider caption options;
- understand federal and state legal requirements related to captions;
- assist students, local education agencies (LEAs), and Florida Department of Education organizations and projects in the selection, acquisition and use of captions; and
- identify resources to support the use of captions to ensure the provision of a free appropriate public education (FAPE) and equitable access to communication.

Abbreviations used throughout this document:

- ADA: Americans with Disabilities Act of 1990
- AEM: Accessible Educational Materials
- AIM: Accessible Instructional Materials
- AT: Assistive Technology
- CART: Communication Access Realtime Translation
- CFR: Code of Federal Regulations
- D/HH: Deaf/Hard of Hearing
- DOE: Department of Education
- DOJ: Department of Justice
- F.A.C. Florida Administrative Code
- FCC: Federal Communications Commission
- F.S.: Florida Statute
- IDEA: Individuals with Disabilities Education Act
- IEP: Individual Education Plan
- NDC: National Deaf Center on Postsecondary Outcomes
- TAP: Technical Assistance Paper
- UDL: Universal Design for Learning
What are captions?

Captioning is a research-based tool in a vast category of accessible educational materials (AEM), shown in educational literature to improve literacy (Captions for Literacy, n.d.). Also a component of universally designed instruction, captions provide users with a text alternative and/or supplement to audio content embedded in various media types. Captions provide information relative to who is speaking, the dialogue taking place, and even the type of sounds presented auditorily, such as music or environmental noises. Captioning can benefit not only individuals who are deaf and hard of hearing, but many others as well, including people in situations where sound may be deliberately turned down or off.

What are the various types of captioning?

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<th>Real-Time Captioning, also known as Speech-to-Text or “Live Captioning” is an umbrella term used to describe an accommodation in which spoken communication and other auditory information is translated into text in real-time. A service provider types what is heard and the text appears on a screen for the consumer to read. The three most common systems are CART, C-Print, and Typewell.</th>
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<td><strong>Types of Real-Time Captioning Systems</strong></td>
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<td><strong>Verbatim Real-Time Captioning</strong> means the captionist captures 100% of the conversation as expressed by the speaker and auditory information in the class. The provider types nearly every word spoken, including false starts, mispronunciations, and filler phrases. Most people do not speak in complete sentences the whole time. The rate of the typing can be 180-225 words per minute resulting in about 25 pages of transcript for one hour of lecture. This is recommended for consumers that read at a speed and linguistic level that would enable the student to receive the teacher’s speech verbatim, using full text captioning.</td>
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<td><strong>Meaning-for-Meaning Text Interpreting</strong> means the captionist condenses the language into fewer words. The captionist may change the dialog to complete sentences or eliminate false starts for the consumer to improve comprehension. <strong>Bold</strong>, <strong>italics</strong>, and/or lists, as well as other visual formatting, can be used to clarify the meaning for the consumer. This can make it easier for the consumer to receive the message. One hour of lecture typically results in about 15 pages of transcript. This service is recommended if the student has reduced language and reading levels or is easily overwhelmed by a large body of information, requiring them to have direct and succinct access to the language. This service is also recommended if the student cannot communicate his/her questions/comments in class, as it allows for two-way communication between the captionist and the client. The consumer can send questions to the captionist in real time for clarification or to participate in real-time class discussions.</td>
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<td><strong>Communication Access Realtime (CART)</strong> is also known as “Live Event Captioning.” The captionist</td>
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<td><strong>C-Print</strong> was developed at the National Technical Institute for the Deaf (NTID), a college of</td>
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<td><strong>Typewell</strong> is an independent company that has developed a specific software and</td>
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uses a stenotype machine paired with sophisticated software to type **verbatim** streaming text for the client.

the Rochester Institute of Technology (RIT), to provide speech-to-text services. Most of the time it is not verbatim but **meaning-for-meaning**.

training for the captionist to learn to provide **meaning-for-meaning** text interpreting.

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<th>Types of Captioning Services</th>
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<td><strong>On-Site Real-Time Captioning Services</strong> means the service is in the same location as the consumer. The provider works in real time and either provides real-time access via a device or on a screen for all to see. Consumers are often able to receive a copy of the transcript afterward, as requested.</td>
</tr>
<tr>
<td><strong>Remote Real-Time Captioning Services</strong> means the captionist and consumer are in different locations and are connected via software on their computers over the internet. The provider accesses the audio via telephone line or video-conferencing.</td>
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<td><strong>Transcription</strong> is the script of audio in text format without time codes. It may or may not contain speaker identification.</td>
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<th>Types of Captioning Styles</th>
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<td><strong>Closed captions</strong> are a text alternative for the audio portion of a video program or during a live presentation. For recorded media, closed captions are added to the video as a separate track that can be shown or hidden as needed for maximum flexibility. During a live meeting, they can be turned on or off. In most but not all settings, the participant can also adjust text size and other properties to meet their viewing preferences.</td>
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<tr>
<td><strong>Open captions</strong> are similar to closed captions in function, but they are always in view and cannot be turned off. The viewer does not have the option of adjusting the text size and other properties.</td>
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<tr>
<td><strong>Subtitles</strong> are intended for translating the content of a video from one language to another one. The viewer may be able to turn them off and on, but text properties are not adjustable.</td>
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**Automatic captions**, also known as auto-captions, auto-generated captions, or voice recognition software, are generated by a computer with Automatic Speech Recognition (ASR) technology. Depending on the software and platform in which they are used, they may allow for user formatting of the viewed text.
General Considerations for the Provision of Captions

Are there standards for captions?

The Federal Communication Commission (2014) set forth quality standards for closed captioning on television. The new regulations require the captions to be accurate, synchronous, complete, and properly placed.

In addition, The Described and Captioned Media Program (DCMP) has developed in-depth, research-based guidelines for captions in the educational setting that are consistent with the 2014 FCC guidelines titled DCMP: Captioning Key. (DCMP, n.d.).

DeafTEC. (n.d.) has gathered some additional resources and guidance on making captions accessible:
DeafTEC: Captioning Standards.

Who needs captioned materials and media?

According to IDEA, ADA, Section 504, and section 1006.29 of the Florida Statutes, people (e.g. students, teachers, paraprofessionals, family members, etc.) who have hearing, vision, or speech/communication disabilities may request reasonable accommodations, which may include captioned materials and media. The goal of all three laws, while defined differently in each law, is to ensure equally effective communication for the person with the disability when compared to that of persons who are non-disabled (DOE & DOJ, 2014).

When planning for instruction, professionals should consider Universal Design for Learning (UDL) to make educational materials accessible for all, independent of eligibility for special education programs. For example, when the text is provided on a large screen that is accessible to all users with and without disabilities, it becomes a UDL strategy (CAST, 2018a). Research suggests that captions can benefit all learners including emerging readers, visual learners, nonnative speakers, and many others (Captions for Literacy, n.d.). A study from Ofcom (2006) in the United Kingdom reported 18% (7.5 million) of the population report they use captions when watching television. From those who reported watching television with captions, 80% (6 million) did not have a hearing related disability (Ofcom, 2006).

Who is required to provide compliant captions?

Any organization or project (e.g. school districts, discretionary projects) that receives federal funding is tasked to provide captions, making content accessible for all as required by the

When presenting information, either face-to-face or virtually, it is considered best practice to have captions available and allow participants to make a private choice to use them or not. Asking participants, "do I need to use the microphone (or use captions)?" at a conference or gathering requires them to self-identify and places a spotlight on the person’s disability. Some individuals may not be comfortable requesting this accommodation.

When is captioning required?

The provision of captions outside of the classroom setting is supported by both the ADA (DOJ, 2014) as well as Sections 508 and 504 of the Rehabilitation Act of 1973. Any organization or project receiving federal funding is tasked to provide “auxiliary aids and services” (DOJ, 2014) “to ensure that communication with people with these disabilities is equally effective as communication with people without disabilities” (DOJ, 2014). These auxiliary aids and services include a range of options, including captions, qualified sign language interpreters, and other services or devices as needed to meet the law’s goal. What is important to remember is the aids and services selected should meet the needs of those who are using them. This means that at events, the use of captions and or qualified sign language interpreters can be situational, whereas captions are expected for recorded and broadcast media such as videos, movies, and television. In some circumstances, such as emergency announcements via television, such as evacuations, hurricanes, etc., the expectation would be for both captioning and qualified sign language interpreters due to the nature of the announcement and intended audience.

In terms of captions, the FCC (2014) has developed captioning regulations to guide content developers in creating appropriate captions. Captions are also considered an accessible
instructional material (AIM). Providing AIM is supported under IDEA. The technical assistance paper, *Accessible Instructional Materials Questions and Answers* (FDOE, 2017) provides further guidance:

The IEP team is responsible for determining if a student needs assistive technology, including AIM, the format of such materials, and the necessary related accommodations the student may need to access standards-based instruction. (p. 1)

… the SEA [State Educational Agency] must ensure that all public agencies take all reasonable steps to provide instructional materials in accessible formats to children with disabilities who need those instructional materials at the same time [emphasis added] as other children receive instructional materials. (p. 3)

Additionally, *34 CFR § 300.117* (Individuals with Disabilities Education Act, 2004) requires accessibility to all components of the educational process, including all school-sponsored activities (e.g., related services, assemblies, field trips, extracurricular activities, athletics, etc.). Examples of captioning that may be required include, but are not limited to:

- media (videos, audio, virtual reality, etc.) played in all courses offered to student,
- classes/meetings/webinars/presentations (including virtual and face-to-face),
- ceremonies,
- related services,
- assemblies,
- field trips,
- extracurricular activities such as club activities and art performances/shows, and
- school-sponsored athletic activities.
Text version of the graphic organizer “Decision Tree: Does a student need caption services?”:

Does the student have a 504 or IEP that address one of the following disabilities: D/HH, VI, or a communication-related disability?

I. Yes - Has the IEP conducted an AT evaluation to determine if the student requires captioning services in order to access their educational environment?
   A. Yes – What type of captions were indicated on the evaluation?
      1. The student has automatic caption services written in the 504/IEP.
         a) Captions will be provided using captions as a supplementary aid or service as described in the 504/IEP.
         b) Captions are required for settings described in the 504/IEP plan.
      2. The student has real-time captioning services as described in the 504/IEP.
   B. No - When planning for instruction, professionals should consider UDL to make educational materials accessible for all (e.g. consider automatic captions).
a) A captionist will need to be provided as a related service as described in the 504/IEP.

b) Captions are required for settings described in the 504/IEP plan.

B. No - Does the student demonstrate difficulty following along in class lessons and discussions?
   1. Yes - Complete an AT Evaluation.
      a) Did it indicate the student needs captions?
         (1) Yes - Update the IEP/504 and provide captions for appropriate settings as indicated by the AT evaluation. (See the questions, “What type of captions were indicated on the evaluation?”)
         (2) No - When planning for instruction, professionals should consider UDL to make educational materials accessible for all (e.g. consider automatic captions).

   2. No - When planning for instruction, professionals should consider UDL to make educational materials accessible for all (e.g. consider automatic captions).

II. No – When planning for instruction, professionals should consider UDL to make educational materials accessible for all (e.g. consider automatic captions).

IEP Considerations

Where should captions be addressed in the IEP?

If the IEP team determines they are necessary for access, captions should be considered for both academic and non-academic settings (i.e. school-sponsored activities) as seen in 34 CFR § 300.117 (Individuals with Disabilities Education Act, 2014). In the Florida Communication Plan, as laid out by Rule 6A-6.03028, F.A.C., captions should be addressed as a support and a determination made that they are either required or not required for visual access to the auditory information. This includes direct communication with peers who are deaf/hard of hearing and peers who are not when providing access to communication. Refer to Florida’s Communication Plan for Students Who Are Deaf or Hard of Hearing Training and Technical Assistance Module (RMTC-D/HH, 2016) for further guidance. As an accessible instructional material (AIM), the IEP team must determine when and where the student should have access to the AIM as seen in the technical assistance paper, Accessible Instructional Materials Questions and Answers (FDOE, 2017).

When the need for caption services and/or support has been determined, it should then be justified in the present level of performance (PLOP) and/or the effects of disability. It may also need to be addressed as an IEP goal if the student requires specially designed instruction in order to utilize captions for accessibility. How and where captions are provided should be
explained in the related services and/or supplementary aids and services sections of the IEP. For example, if a student requires CART, the service would be listed under related services. However, if they need a device to see the captions, it would then be listed under supplementary aids and services. If the student prefers and is able to access automatic captions, it would be listed under supplementary aids and services. Anyone with whom the student may use the device or anyone expected to utilize automatic captions should receive training on using the device and/or software. This includes parents, general education teachers, special education teachers, paraprofessionals, bus staff, lunchroom staff, relevant peers, and others. Training in the appropriate use of assistive technology (AT) is a responsibility of the district that can be listed on the IEP under “Supports for School Staff.”

The Matrix of Services Handbook (BEESS, 2017, p.22) in the section for Domain B: Social or Emotional Behavior lists, “Specialized instruction or activities in self-advocacy and understanding of exceptionality” as a service that can be included in the IEP. In the social or emotional behavior domain of the IEP, the team can write goals based upon the Expanded Skills standards for students who are D/HH related to utilizing captions or transcripts, advocating for their use, etc. The team would need to identify the frequency and duration as well as who would deliver this specially designed instruction.

How do I determine if the student needs captioned media and/or real-time captions as an accommodation?

Captions are a form of AT to provide access to auditory information in media. An IEP team’s selection of accommodations and assistive technology should be data driven. One of the first pieces of data to collect would be to ask the student (as appropriate) about his/her own accommodation preferences. The technical assistance papers Assistive Technology for Students with Disabilities (FDOE, 2013) and Selecting Accommodations: Guidance for Individual Educational Plan Teams (BEESS, 2013) provide further guidance on how to make a data-driven decision. Some suggested assessments to use for data collection are the Functional Listening Evaluation (FLE) by Johnson (2013), Screening Instruments for Targeting Educational Risk (SIFTER) by Anderson (2017), and MAZE silent reading fluency. The University of Minnesota (2019) states, “Research indicates that the MAZE procedure is a reliable and valid measure of reading competence and is sensitive to growth in reading performance across short periods of time for students who are deaf or hard of hearing.” Data from a MAZE assessment can give insight to a student’s readiness for reading captioned media.

RMTC-D/HH has created a Real-Time Captions Service Assistive Technology (AT) Consideration Guide (Appendix A) to determine if real-time captions are an appropriate accommodation. Both the technical assistance paper, Assistive Technology for Students with Disabilities (FDOE, 2013) and the Real-Time Captions Service Assistive Technology (AT) Consideration Guide (Appendix A) can support a district in determining the need(s) of the
individual student and if captioning would be an effective accommodation for accessing the environment.

If the student has limited to no literacy skills or does not read on grade-level, are real-time captions required or appropriate for accessibility?

Captioning may help students build literacy skills regardless of hearing levels or grade-level academic performance. Research suggests that captions can benefit all learners: emerging readers, visual learners, nonnative speakers, and many others (Captions for Literacy, n.d.). Providing a visual representation of the spoken language occurring in an environment boosts literacy development for the student who is deaf/hard of hearing, but also for the other peers in the classroom (Clerc Center, 2014), providing an alternative means of representation, a facet of Universal Design for Learning (UDL) (CAST, 2018b). However, IEP teams must carefully consider whether or not the accommodation is required to provide the student with access comparable to that received by nondisabled peers. As 28 CFR § 36.303(c)(1)(ii) (American with Disabilities Act, 1990) states, auxiliary aids and services are to be provided in “in accessible formats, in a timely manner, and in such a way as to protect the privacy and independence of the individual with a disability.” For a student who is building their literacy skills, using captions may be a catalyst for literacy development and therefore, may be a necessary accommodation (Anderson, n.d).

The IEP team should make a data-driven decision as to whether the student needs the accommodation. Both the technical assistance paper, Assistive Technology for Students with Disabilities (FDOE, 2013) and the Real-Time Captions Service Assistive Technology (AT) Consideration Guide (Appendix A) can support an IEP team in determining the need(s) of the individual student and if captioning would be an effective accommodation for accessing the environment.

Are publishers of instructional materials required to create captioned media?

Accessible Instructional Materials must be provided at the same time all children receive comparable instructional materials. This includes the provision of captioned media to students with disabilities at the same time it is provided to students without disabilities. The technical assistance paper, Accessible Instructional Materials (FDOE, 2017) states, “All instructional materials provided by schools to enable students to achieve grade-level standards [emphasis added] in the core courses should be available in the formats needed by students with disabilities [emphasis added].” Further, section 1006.29(3)(b) of the Florida Statutes requires
that all adopted instructional materials be provided in an electronic digital format (e.g. video clips, animations, virtual reality). If materials are being provided in a digital format they have to be accessible by all students and provided at the same time, therefore a student may require captions in order to access the content being presented.

There are several available resources for standards and guidelines related to quality captions:
- FCC's (2014) Closed Captioning on Television,
- DCMP: Captioning Key (DCMP, n.d.), and
- DeafTEC's (n.d.) Captioning Standards.

Are teachers required to provide captioned media?

If a student’s IEP lists captioned media as an accommodation, related service, or supplementary aid/service, the district is responsible for providing that accommodation. If the teacher creates the video, it must also be accessible. Captioning new content can be a time-consuming part of production. “A captioning ‘rule of thumb’ is that 30 minutes of video equals 7 to 10 hours of work” (NDC, 2019c). A school district may consider creating a procedure for the teacher to have it professionally captioned, especially when a significant amount of content has to be developed, which may be the case in highly-technical courses.

When planning for instruction, captions are an integral component in universally designing an environment or activity, providing an alternate means of representation of course content. The Assistive Technology for Students with Disabilities technical assistance paper (FDOE, 2017) states:

ESSA requires the use of UDL in the design and improvement of all state assessments, including alternate assessments (section 1201), comprehensive literacy instruction (section 2221) and when using technology [emphasis added] to support the learning needs of all students [emphasis added], including students with disabilities and English language learners (section 4104).

Additionally, if teachers are using materials from the internet (e.g. YouTube), they should preview the videos before instruction to ensure they include quality captions that follow the DCMP Captioning Key (DCMP, n.d.) guidelines. If the video and/or media is not captioned, or has poor quality captions (e.g. automatic captions or no punctuation), then alternative, comparable media can be utilized. Media users should be aware of copyright laws including those pertaining to captioning media owned by other producers. If the publisher of the media owns the rights to the media, the teacher cannot edit the captions without permission.
The National Center on Accessible Educational Materials (AEM Center, 2018) has an online module “How to Locate Captioned Videos and Create Your Own” to help guide those looking for captioned media and creating their own.

Selecting Captions

Where can I find captioned media?

When searching for captioned media, always make sure the captions follow quality standards (DCMP, n.d.; FCC, 2014; DeafTEC, n.d.). Automatic captions should only be used if the student specifically requests and can access the media in this manner (NDC, 2020b). To find media with quality captions consider these options:

- The Described and Captioned Media Program has a free library of over 8000 captioned educational videos geared for K-12 audiences. Registration is required to access DCMP, but is free for educators, persons with a sensory loss, and family members.
- RMTC-D/HH Media and Materials Loan Library has many captioned videos that can be borrowed for free. Florida educators can register for a free account.
- The National Center on Accessible Educational Materials (AEM Center, 2018) has an online module “How to Locate Captioned Videos and Create Your Own” that can assist in creating and finding quality captions.
- Check to see if a captioned version is available online through networks (e.g. CBS, NBC, Fox, etc.) or streaming service providers (e.g. Netflix, Hulu, Amazon Prime, etc.).
- Check with another local school or the public library to see if they have a copy of the video already captioned and available to borrow.
- Use alternative and comparable media on the same topic that is already captioned.
- Contact publishers to see if they have copies of captioned media to lend or purchase.
- Ask colleagues on educational, technical, or disability-related listservs if they have copies of the media you are looking for.

Is providing a transcript before or after the event enough to meet accessibility laws?

A transcript does not provide real-time access to the content being presented and may not be appropriate for those requiring an equivalent experience as their peers. Leduc (2020) states:

The Americans with Disabilities Act (ADA) requires that an equivalent experience must be made for d/Deaf and hard of hearing people. Transcription is not time-coded, therefore it does not allow [viewers who are deaf or hard of hearing] to follow along in
real-time with the content. Captions must be included in order to provide that crucial element of an **equivalent experience** [emphasis added].

**Are automatic captions ADA or Section 508 compliant?**

**28 CFR § 35.130(b)(1)(iii)** (Americans with Disabilities Act, 1990) states:

A public entity, in providing any aid, benefit, or service, may not, directly or through contractual, licensing, or other arrangements, on the basis of disability:

(iii) Provide a qualified individual with a disability with an aid, benefit, or service that is not **as effective** in affording **equal opportunity** to obtain the **same result**, to gain the **same benefit**, or to reach the **same level of achievement** as that provided to others. [emphasis added]

Research that suggests that automatic captions only provide 60-70% accuracy ([Enamorado, 2020](#)). Therefore, automatic captions are not ADA and Section 508 compliant and do not provide **equal** opportunity for the individuals who require them for access.

**Can I just use automatic captions since they are free?**

Automatic captions are a source of captioning that promote accessibility and are free to use. Many of these automatic captioning services are embedded in virtual platforms that can be incorporated in instruction or used during a virtual meeting. Due to the captions being created by speech recognition software, the accuracy and reliability of the captions are inferior to those created by a real-time captioning service with very few exceptions. Automatic captions only provide 60-70% accuracy ([Enamorado, 2020](#)). "Accuracy of auto-captions also relies on the speaker’s use of a high-quality microphone and enunciation of words (i.e., speaking clearly and at a normal pace without an accent). This will also be problematic when multiple individuals are speaking without the use of microphones," ([NDC, 2020a](#)).

Some people who are D/HH prefer automatic captions. The user’s preference should be considered when making the decision in addition to considering the nature, length, complexity, purpose, and context of the communication and the person’s primary method of communication. See the decision trees for further guidance.

Captioning company, Access Innovation (AI) Media, discusses five major considerations for determining if automatic captions or human-generated captions are appropriate for an event or media source in their article, “**Should You Use Computer-Generated or Human-Generated Captions?**” ([Access Innovation Media, 2019](#)). They discuss accuracy, cost, turn-around time, audio quality, and speech variations as considerations that may impact a decision to use a captioning format.
When might automatic captions be appropriate to use?

During meetings, when all the participants are known in advance and there is not a request for captions as an accommodation, automatic captions may be considered.

Some individuals who are hard of hearing prefer automatic captions because they process faster than CART. Users with residual hearing, depending on the automatic captions to fill in gaps in auditory access, may prefer the rapid pace with which they process. However, some individuals who are D/HH may require real-time captions. A person who is profoundly deaf might not benefit from the timing advantages of automatic captions because he/she cannot fill in the translation errors in the captions due to lack of auditory access resulting from little to no residual hearing. If there is more than one participant who is D/HH, both automatic and real-time captions can be provided if necessary.

“Automatic Captions in the Classroom” is a document developed by RMTC-D/HH (2019). This tool gives step-by-step directions for turning on the automatic captions on both Microsoft PowerPoint and Google Slides. It also outlines an online tool teachers can use for captions as a UDL strategy in the classroom.

How do I know if an individual needs captions for a public event (open house, assembly, webinar, school play, parent training, etc.)?

When advertising or providing notice of a public event, it is best practice for agencies to include a statement for participants to request accommodations with a reasonable timeline before the start time.

Example:
If you require accommodation(s) to access or participate in this [activity] please direct your inquiries to [include name and/or department, telephone, and e-mail address].

When receiving requests for a sign language interpreter and real-time captions, is it required to provide both?

The answer to this kind of request is situational. The National Deaf Center on Postsecondary Outcomes (NDC, 2019a) has provided some guidance regarding this topic with a tip sheet titled Dual Accommodations: Interpreters and Speech-to-Text Services.
The Americans with Disabilities Act of 1990 (ADA) drives these captions/sign language interpreter decisions when students have a 504 Plan or when the accommodation is requested outside of K-12 environments (i.e. for adults with disabilities). In some circumstances it may be necessary to provide both. For instance, both captioning and sign language interpreting may be necessary during a large event like a conference, or when complex or highly-technical information is being presented, or when multiple people who are deaf or hard of hearing may be in attendance (NDC, 2017a). In other situations, it may be acceptable to provide one mode of communication or the other. However, decisions should be based on ADA’s mandate for equally effective communication. “The key to communicating effectively is to consider the nature, length, complexity, and context of the communication and the person’s normal method(s) of communication,”(Department of Justice [DOJ], 2014).

For students, accommodations considerations, including the use of captions and interpreters, are guided by both the ADA requirements and the IDEA requirements. If the accommodation or service is listed in the IEP, then it is important to document how and where the accommodation(s) should be provided and in conjunction with what other accommodations. The use of captions at all times also provides an alternative means of representation, one of the UDL guidelines, for all students, and as such, should be considered a best practice.

The Americans with Disabilities Act (1990) 28 CFR § 35.130 and 28 CFR § 36.303(c) requires that entities communicate effectively with people who are deaf/hard of hearing or have a visual or speech/communication disability. The goal is to ensure that communication with people with these disabilities is equally effective as communication with people without disabilities. Decisions should be made based on the nature, length, complexity, purpose, and context of the communication and the person’s primary method(s) of communication.

Consideration must be given to the needs of the participant(s).

In the following situations, it might be appropriate to provide both captions and interpreting accommodations at the same time to ensure equitable access is provided.

- **Large events such as conferences, public meetings, graduations.** These events often draw a diverse audience, which may include those with disabilities. Captions or interpreting alone may not be sufficient to provide equitable access to all potential attendees. It is much more efficient to plan for these accommodations during the initial planning stage, as they may be difficult to procure at the last minute, which may be when event organizers receive a request for accommodations, if at all.

- **Multiple attendees who are D/HH:** If multiple attendees who are D/HH use different methods of communicating, then the needs of each of those attendees must be considered. In such a situation, both real-time captioning and a sign language interpreter may be required. For example, at a conference where discussions are expected, a person who is D/HH who uses spoken language may be able to fully access the event through real-time captioning, but a person who is D/HH and uses sign language for
communication may require the interpreter because without the interpreter to voice for the attendee, they cannot fully access or participate in the discussions.

- **Primary but not complete reliance on real-time captions**: Sometimes a person relies on real-time captions for receptive communication but needs a voice interpreter for expressive communication.

- **Highly technical and complex content**: The person relies on the interpreter for the rapidly-moving conversations and nuances of communication, but may need the real-time captions for the highly-specialized vocabulary that may be presented in areas like STEAM related fields, or legal or medical vocabularies, where word specificity may be essential to understanding.

In some situations, the agency or other entity may need to choose one mode.

- **Multiple attendees who are D/HH and use the same communication modality**: When multiple participants who are D/HH are using the same communication modality, then there may not be a need to provide both real-time captioning and an interpreter to provide equitable access.

- **When costs create an “undue burden” on the hosting organization as seen in 28 CFR § 36.104** (Americans with Disabilities Act, 1990). The ADA does make concessions for cost-prohibitive activities, but in very specific cases. Justification for cost-prohibitive denial must demonstrate that provision of the accommodation requested creates an undue burden on the organization, business, or facility. Where an undue burden is present, entities can reach out to civic or advocacy organizations to seek assistance for the provision of the accommodation. When no such support is available, the entity can work with the requester to find a suitable work-around for improved access.

As these examples show, decision-making related to providing access to an event is situational and is impacted by the kind of event and the communication modalities used by the participant(s) who are D/HH.

**Funding**

**How do you address the need for real-time captions with limited funds?**

Guidance regarding funding for AT, which includes captions, can be found in the technical assistance paper, *Assistive Technology for Students with Disabilities* (FDOE, 2013, p. 9):
If a student with a disability who is eligible under IDEA requires assistive technology in order to receive FAPE, the school must provide the appropriate assistive technology devices and services at no cost to the parents (34 CFR §300.154 and Rule 6A-6.03028(3)(q), F.A.C.). School districts should be proactive in coordinating efforts to secure supplemental funding.

Districts may use any of the following funds to purchase assistive technology devices and services:

- State education funds
- District education funds
- Federal funds provided under IDEA for eligible students with disabilities
- Other available sources, such as donations, private insurance and Medicaid

When equipment is purchased with state education funds, district education funds, state special education funds, or IDEA funds, the equipment becomes the property of the school and the school is responsible for maintenance, repair and insurance.

Implementing Captions

How do I caption my own media?

The National Center on Accessible Educational Materials (AEM, 2018) has an online module “How to Locate Captioned Videos and Create Your Own.” This module helps participants learn how to find videos with captions, identify quality features, and create your own captions on a practice video. Additionally, RMTC-D/HH (2018) has a web page titled Captioning: The How and Why of Making Media Accessible that provides a plethora of information regarding captions and gives tools to use to caption your own media.

It should be noted, “a captioning ‘rule of thumb’ is that 30 minutes of video equals 7 to 10 hours of work” (NDC, 2019c). Therefore, districts/schools may want to consider a protocol for having media professionally captioned post-production by an outside source.

Where do I find a qualified/certified real-time captionist?

Qualified speech-to-text captionists are available throughout the United States to provide captioning services both in a remote setting as well as on-site. Most providers will have a certification in one of the following areas: CART, C-Print, or TypeWell. Within each of the following organizations listed below there are systems in place for schools and districts to locate a speech-to-text captionist available to provide services.
The National Association for Court Reporters and Captioners (NCRA) CART Sourcebook supports schools and districts in finding a qualified speech-to-text provider within your area. Service providers connected to NCRA provide a variety of different services based on the individual needs of the district.

C-Print, developed by the Rochester Institute of Technology, offers a job posting board to support schools and districts in locating service providers that offer speech-to-text services.

Association of Transcribers & Speech-to-text Providers (ATSP) offers a job posting board where schools and districts can post a service inquiry for available captionist to accept positions based on location, time, services required.

The NDC (2019b) has created several tools to support agencies in hiring real-time captioning providers. The first is a document titled Developing Contracts and Requesting Bids: Interpreters and Speech-to-Text Providers. In addition they have a document titled, Hiring Qualified Speech-to-Text Providers (NDC, 2019d).

Will captions distract participants who do not require them?

Captions may, at first, distract participants who have never used them before, but the brain quickly gets used to them and ignores them if not needed. If a captionist is being used to provide closed captions in a webinar or web-based activity, the participants may have the option of turning the captions on and off.

When captions are visible to all members and a participant requests they be turned off, one can respond that the captions are being used to make the information accessible to everyone in the room. Identifying those who require them for access should not occur, whether this be for a student or a professional. This is supported by the Americans with Disabilities Act, 28 CFR § 36.303(c)(1)(ii) (1990), which states that auxiliary aids and services are to be provided in “in such a way as to protect the privacy and independence [emphasis added] of the individual with a disability”.

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Appendix A

Real-Time Captions Service Assistive Technology (AT)
Consideration Guide

Determine if Real-Time Captions are Appropriate for a Student

To determine if a student requires real-time captions for accessibility, the IEP team must consider the student’s
- academic ability including reading and language knowledge base as well as fluency rate,
- communication strengths/preferences,
- ability to use captioning/text interpreting services,
- social development, and
- attention abilities.

In addition, the team should consider specifically when (e.g. core classes, electives, athletics, large group instruction, small group instruction, group work, school events, etc.) to provide the real-time captions based on the nature, length, complexity, purpose, and context of the communication, and the person’s primary method(s) of communication.

A proper Assistive Technology (AT) assessment considers necessary supporting services, such as training for students and/or staff, integration of AT into school and home life, and technical support issues. It also provides a plan for implementation and progress monitoring with the tool(s) being considered. An AT assessment should always include consideration of the perspective and input of the student.

Assessments to be Conducted Before Considering Trials

Reading Level

Review the student’s reading data to determine independent and instructional reading level. If the team does not have an effective reading assessment, then RMTC-D/HH can help suggest an appropriate assessment.

According to Rochester Institute of Technology (n.d.), a student may be ready for real-time captions “when reading level allows for reading the text of the lesson (at least a 4th grade reading level is a general rule of thumb).”

Silent Reading Fluency

The rate that a student is able to read is a key skill for using real-time captions. Using a MAZE passage helps determine a student’s silent reading fluency rate. Maze assessments are one of
the most accurate measures of reading fluency for students who are D/HH. Below are two free resources to assess and progress monitor a student’s silent reading fluency rate.

- **Intervention Central**
- **Avenue PM MAZE**

**Criteria:**
A student may have the ability to access spoken content from real-time captions accommodations if it is paired with listening with the following reading speeds *(Supporting Success for Children with Hearing Loss, n.d.):

End-of-year oral reading fluency goals (DIBELS) of

- grade 3 = >110 wpm
- grade 4 = >118 wpm
- grade 5 = >124
- grade 6 = >125

A student who does not have access to auditory information (i.e., little to no residual hearing) may need to read at a grade five or higher to use for accessibility purposes.

**Functional Listening Evaluation (FLE)**
The Functional Listening Evaluation (FLE) can be used to identify listening comprehension under typical classroom listening conditions. Evaluators can use ten minutes of a lecture, presented with and without captions, to conduct an FLE. The student’s team can use this data to determine which condition provides the student with access to the auditory information presented.

- “For a student with hearing loss to "compete" with typically-hearing peers, he or she would need to be able to have functional listening scores in the 90+% range,” *(Anderson, 2015).*

**Criteria:**
>90% comprehension of spoken language in any condition

**Screening Instruments for Targeting Educational Risk (SIFTER)**
The SIFTER is completed by the student’s teachers to determine the student’s access to instruction via spoken language in the classroom as observed by the teacher.

For information on the SIFTER levels and how they impact listening and learning visit 3 Levels of SIFTER and translations.
Criteria:
If any areas are noted as “Marginal” or “Fail,” especially in the area of Attention, Communication, and Class Participation, the team may want to consider real-time captions.

Pre-Screening Protocol - Before Hiring a Service Provider for Trials
To determine a student’s ability to access auditory information, comparative data can be collected. The students will watch two grade-level-appropriate, high-quality captioned educational videos (i.e., Described and Captioned Media Program) for 10-15 minutes - the first video without captions and the second video including captions. The student then answers ten comprehension questions for each video. A teacher or staff member can then compare the scores to see if the utilization of captions creates improved outcomes.

Real-time Captions Readiness Checklist - Guiding Documents for Discussions
Readiness checklists can be used by the team to determine skills a student may need to be taught prior to starting trials to utilize a speech-to-text accommodation. These checklists can also be used to monitor the student through the trials so that they can maximize the benefit of the resource:

- The PARC: Placement and Readiness Checklists for Students who are Deaf and Hard of Hearing (Johnson, 2011) has a Captioning/Transcribing Readiness Checklist (see pages 6-8)


Student Trials
The optimal way to determine if any accommodation or service is appropriate and necessary for communication access is to conduct trials with the service. The IEP team needs sufficient time to gather data to conclude if the student demonstrates improved access. A real-time captions readiness checklist is recommended during the observations. The student’s class performance should also be monitored using the SIFTER to see if it improves. Data from the SIFTER will also help the student better answer questions during the student interview portion of the assistive technology evaluation.

Variables to Consider for the Trials
- Verbatim or meaning-for-meaning
- On-site or remote captionist
- Viewing: Student computer, tablet, or screen; live on a screen next to the speaker

Student Interview
Suggested Student Interview Questions:
Can you use the real-time captions easily?
How do real-time captions help you understand what is happening in class?
Do you understand the teacher better with real-time captions?
Do you understand the other students better with real-time captions?
Are you less tired from paying attention in class when you have access to real-time captions services than without the service?
What do you do to manage the transcripts from the lectures?
How would you explain real-time captions to a new teacher or substitute teacher?
What do you like or dislike about using real-time captions?
How often do you use the real-time captions during the day? If the student indicates they use captions only for classes, which ones? Does the student depend on captions for time with friends/social times?
How do you feel about managing the real-time captions devices?

IEP/504 Planning Considerations

Legal Documents
- Section 504 of the Rehabilitation Act of 1973
- Titles II & III of the ADA on Effective Communication
- Individuals with Disabilities Education Improvement ACT (IDEA)
  - Florida Communication Plan
  - Individual Education Plan (IEP)
- FDOE Assistive Technology Technical Assistance Paper

Documenting Real-time Captions on the IEP/504 Plan

The IEP/504 Checklist: Accommodations and Modifications for Students who are Deaf and Hard of Hearing (Johnson, 2014) can be used as a tool for documenting IEP/504 accommodations and/or goals regarding commonly selected accommodations, including real-time captions.

Communication Plan
The IEP Team should start considering the use of real-time captions as an accommodation when writing the Florida Department of Education’s Communication Plan.

Individual Education Plan
Present Level of Performance
- Describe strengths and barriers based on the data collected. The team may want to include strengths associated with accessibility.
- In the effects of disability, describe how the student will use the real-time captions service in class and for extracurricular activities (if appropriate) to improve access and why it is necessary for accessibility.
Annual Goal/Objectives or Benchmarks

- The team can consider writing a goal for the student to use the real-time captions service (i.e. request the service, ask for clarification from the service provider, explain the accommodation to others, etc.).
- As appropriate, make sure to include strategies in the social emotional behavior domain regarding the student's ability to self-advocate for the use of real-time captions such as:
  - sending an email to a teacher requesting real-time captions,
  - completing a task sheet at the beginning of each class to appropriately use supplementary aids to access the captions, or
  - having a digital calendar entry to remind the student to request real-time caption services for an upcoming event.

Related Services

- A captionist to provide the real-time captions services.

Supplementary Aids and Services

- Utilization of a device to access the real-time captions with a description of how it will be delivered.
- Training for the student and/or staff on procedures related to implementing real-time captions services.

Special Considerations

- IEP teams can refer to the Communication Plan regarding special considerations for utilization of real-time captions services.

Supports for School Personnel (describe)

- Describe how the student, teachers, and staff will be trained in the use of real-time captions service.

Additional Factors to Consider

- Hiring Qualified Real-Time Caption Providers (NDC, 2019d)
- Create a Real-Time Captions Handbook for your district using the NDC (2017b) Speech-to-Text Handbook template
- Checklist that can be used when meeting with the captionist to ensure that appropriate services are provided: “Support Services: Live Captioning - Checklist for Instructors Using Live Captioning in the Classroom” (Class Act, n.d.)
Appendix B

Providing Accommodations for a Meeting

Was an accommodation requested for the meeting?

Yes

Provide the requested accommodation.

What if more than one accommodation is requested by multiple participants?

Were the requests for automatic and real-time captions?

Provide real-time captions.
Real-time caption options: CART, C-Print, and Typewell.

No

Best practice is to use automatic captions for Universal Design for Learning (UDL).

Will this be recorded and posted on a website or used in a course?

Yes

Consider providing post-production captions. See the RMTC-D/HH website for options.

No

No further action is required.

Were the requests for an interpreter and captions?

In some situations, it may be necessary to provide both types of accommodations or to have discussions with the participants.
Please see the RMTC-D/HH Captioning Considerations Guide for additional guidance.

*Some people who are D/HH may prefer automatic captions. The user's preference should be considered when making the decision in addition to considering the nature, length, complexity, purpose, and context of the communication and the person's primary method of communication.
Text version of the graphic organizer:

Was an accommodation requested for the meeting?

I. Yes. Provide the requested accommodation.
   A. What if more than one accommodation is requested by multiple participants?
      1. Were the requests for automatic and real-time captions?
         a) Provide real-time captions. Real-time caption options: CART, C-Print, and Typewell.
   B. Were the requests for an interpreter and captions?
      1. In some situations, it may be necessary to provide both types of accommodations or to have discussions with the participants. Please see the RMTC-D/HH Captioning Considerations Guide for additional guidance. (See III.)

II. No. Best practice is to use automatic captions for universal design for learning (UDL).
   A. Will this be recorded and posted on a website or used in a course?
      1. Yes. Consider providing post-production captions. See the RMTC-D/HH website for options.
      2. No. No further action is required.

III. Some people who are D/HH may prefer automatic captions. The user’s preference should be considered when making the decision in addition to considering the nature, length, complexity, purpose, and the context of the communication and the person’s primary method of communication.