Today I’d like to focus on assistive technology in higher education. Augmentative and Alternative Communication devices are included in the broader category of assistive technology so today we will look at the bigger picture of providing assistive technology devices and reasonable accommodations to university students. There are different rules and laws that apply to institutions of higher education as compared to elementary and secondary schools so we will explore those differences also. This presentation will provide an overview and summary of the issues involved and the website listed at the end of the presentation will include details for future reference.
First, I’d like to show you a video of a student in the UK. It’s important for us to remember that many of these experiences are universal. In the video, it can be a little hard to understand what Nikki is saying at times so I wrote up a transcript of some of the video. (Pass out transcripts or see partial transcript below.)

Nikki was a student at Hereward College in the UK, and this video is from her university experience after Hereward. Hereward is a school that specializes in helping students with disabilities, but that also enrolls non-disabled students. “Colleges” in the UK are for students aged 16-18, but older students are typically allowed to study at colleges also. The compulsory schooling system in the UK ends at age 16, but most students continue with advanced study. Advanced study can be a higher level of secondary school, “sixth form college” or “further education college”. After this time of advanced study, students can take their A level (or advanced level) exams. If they pass their A levels, they can then go on to “university”. So, “college” in the UK is not always equivalent to what we might refer to as college in the US.

Partial Transcript for “Nikki” video:

Narrator........
Nikki:
Hereward College helped me to evaluate (?) where I was going to live; also my parents, because obviously I lived with my parents when I was at Hereward and they knew what I needed. But I think Hereward helped me to be independent, to be aware of what I needed. And my, em, alternative room, it’s basically a disable room. It’s supposed to be equipped for disabled people, but I find this room particularly very very small and I’ve not enough room to move. Em, and it’s the simple things that they haven’t put in place before when they already knew what my support needs were. And I’m still waiting for automatic doors. And they said they were going to put it in place this year but it looks like they are going to do it for September now.

Narrator....

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Additional Information:
One of the most important things to consider regarding assistive technology and students with disabilities in higher education is the issue of transition. When students with disabilities are in elementary or secondary school, they have a tremendous amount of support from teachers, aides, parents, counselors and peers. In fact, elementary students also receive support from federal legislation. Federal legislation requires that K-12 schools provide assistance and assistive devices to students with disabilities. Throughout their whole elementary and secondary education, students do not have to speak up or stand up for themselves in order to receive assistance from the school. Students have also not had to self-identify (formally disclose their disability) prior to arriving in a university setting. In the K-12 setting, the school is required to test, assess, and assist students so students have never really had to seek out assistance prior to arriving on a college campus. Proper support and preparation for students before, during and after the transition from secondary school to a higher education setting can eliminate potential problems with university accommodations and the emotional and physical well-being of the student.

Reading the regulations was really quite enlightening for me and I was surprised to learn about all the requirements for K-12 schools. I understand the regulations and am grateful for them, but a little surprised about how extensive the responsibilities are for the schools. I wonder about the balance of parental responsibilities versus school responsibilities. Now I can more easily understand criticisms from the public about how parents expect schools to raise their children. If the school is responsible for even checking things like batteries in a hearing aid, then I can see how some less-involved parents might tend to rely on the schools more than they should. And I can further see how these same parents might find it easy to lash out at and blame the school for failures on the part of the student. I can see them turning to the legislation and saying that the school did not make sure that the student was keeping up. From my own upbringing and from my years of being a single parent, I learned and became a very responsible parent and did not rely on schools to do the work. On the other hand, I was incredibly grateful and did lean on the support provided by the schools when my daughters faced challenges during their K-12 years. Even though there is legislation that mandates K-12 schools to provide assistance and support to children with disabilities, it is critical that parents do not neglect their own responsibilities during this time period.

Resources:
http://www.britishcouncil.org/usa-education-uk-system-k-12-education.htm
http://www.youtube.com/watch?v=nFfW8BFoR6o
Postsecondary School Provision of Auxiliary Aids

“The Section 504 regulation contains the following requirement relating to a postsecondary school's obligation to provide auxiliary aids to qualified students who have disabilities:

A recipient . . . shall take such steps as are necessary to ensure that no handicapped student is denied the benefits of, excluded from participation in, or otherwise subjected to discrimination under the education program or activity operated by the recipient because of the absence of educational auxiliary aids for students with impaired sensory, manual, or speaking skills.

The Title II regulation states:

A public entity shall furnish appropriate auxiliary aids and services where necessary to afford an individual with a disability an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity conducted by a public entity.

It is, therefore, the school's responsibility to provide these auxiliary aids and services in a timely manner to ensure effective participation by students with disabilities. If students are being evaluated to determine their eligibility under Section 504 or the ADA, the recipient must provide auxiliary aids in the interim.”
In order to make sure that students with disabilities receive the same opportunities as those without disabilities, we have to put together all the pieces of the puzzle so that we can see and understand the whole picture. First, we need to understand some definitions so that we all start out on the same page. We’ll look at the definitions of Assistive Technologies, Augmentative and Alternate Communication, and reasonable accommodations. Next, we’ll look at who the key players are: university students will be receiving the services, but we must also include the faculty and staff who facilitate the process, and the individuals approving and providing the services. And finally, we must understand how the services are actually provided to students with disabilities. It is critical to understand laws like the Americans with Disabilities Act, the Individuals with Disabilities Education Act, and the Assistive Technologies Act of 2004 in order to understand how best to help students.
The first step in putting together all the pieces of the puzzle is to define the key elements involved. We need to define assistive technology and some of the other critical ingredients. According to the US government, Assistive technology is “any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities”. This definition is from the Assistive Technology Act of 1998, as amended in 2004. So, I’m sure that you can think of some examples of assistive technology. Any ideas?


Additional Information:

There are many different definitions and interpretations of what could define assistive technology. The most important definition is the one listed above from the Assistive Technology Act of 1998/2004. However, it is important to have an idea of how other individuals might define assistive
technology so that one can have a better context and background when discussing AT and accommodations. Listed below are some additional definitions.

http://712educators.about.com/od/specialeducationglossary/g/at.htm

“Definition: Assistive Technology includes devices that assist individuals who have disabilities to perform tasks that are difficult for them to complete. AT can also include rehabilitative and adaptive items. Examples of AT include a Telephone Device for the Deaf and speech recognition software.”

http://www.nsnet.org/atc/tools/atech.html

Quote with definitions: “Assistive technology can have numerous definitions, depending upon the population, the desired outcomes, the type of technology used, and the experience and orientation of the consumers and professionals involved.

- Assistive Technology (AT) is "any item, piece of equipment, or product system whether acquired commercially of the shelf, modified or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.“ (Individuals with Disabilities Education ACT (IDEA) 20, USC, Chapter 33, Section 1401 (25) US)
- Any item, piece of equipment or system that helps bypass, work around or compensate for learning difficulties.
- A definition of assistive technology may be a system of no-tech, low-tech, and high-tech tools and strategies that match a person's needs, abilities, and tasks.
- A tool to assist in the accomplishment of tasks that would be difficult or impossible to complete.

These definitions are flexible and open many possibilities for what assistive technology can be. A definition does not imply that assistive technology must include computers, or that it must be expensive, or that it can only be prescribed. The "definition" of assistive technology is only restricted by our own creativity and imagination.”

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I really appreciate the quote from this last web site “The "definition" of assistive technology is only restricted by our own creativity and imagination.” Really, this is how we need to think of AT. We, as SLP’s and educational technology professionals, need to keep our minds open to any possible solution. The essence of our role is to solve problems. Solving problems takes much creativity, as well as knowledge and openness to new ideas. Without these ingredients, we will be ineffective professionals.
Assistive Technology devices can be no-tech, low-tech or high-tech. The Writing Bird is a patented product manufactured by North Coast Medical. This device runs for about $20 and allows individuals with limited dexterity or strength to be able to use a pen. The device requires only upper arm strength and minimal downward pressure in order for the individual to write. The individual does not have to try to grip the pen with the thumb and forefinger – a movement that can be quite difficult for a whole range of individuals.

The Writing Bird is great because it allows a person to use a pen and to actually write legibly. When computers are not available, or a word board is not handy, how does a non-speaking person with cerebral palsy communicate? For an individual who might be in a hospital, something as simple as a writing bird could make it possible for the person to communicate, and communication in a hospital could clearly be a true life saver.

Listed below is some additional detailed information directly from the manufacturer’s website:
http://www.ncmedical.com/item_158.html

“Ideal writing device for persons with limited hand control. The Writing-Bird™ is a unique writing device for persons with limited hand coordination, dexterity or a weak grasp. Ideal for persons with arthritis or neurological disorders. Perfect for individuals who lack thumb to fingertip pinch. The Writing-Bird™ slides easily along writing surface using upper arm strength. Only slight downward pressure is needed to write. Made of durable, frosted acrylic. May be used with either the right or left hand. Pen is included. U.S. Patent 4,917,517.”
Many of you probably already know about JAWS screen reading software. JAWS has been around for a long time and is most useful for individuals with vision impairment. However, JAWS can be used for individuals with learning disabilities and reading challenges also. JAWS, like other screen reading software, just reads the words that are on the computer screen. This can include web pages, email, spreadsheets, and many other software programs. Even if a person does have full vision, JAWS can still be incredibly useful. Individuals with dyslexia, learning disabilities, comprehension problems or any other reading problem can use screen reading software to help them better understand the information being presented. Our world is increasingly dependent upon technology. It is nearly impossible to function, let alone be productive, in this world without being able to use technology. Information is sent electronically and in many areas, it can be extremely difficult to even obtain documents on paper. With today’s environmental concerns and technological advancements, we all need to have access and be able to use computers in an efficient and competent manner. JAWS and other screen reading software programs are a vital piece of the puzzle as they enable all individuals access to electronic information.

http://www.freedomscientific.com/jaws-hq.asp
At the website listed above, JAWS software is available for a free demo download so that potential users can try the software before they buy it. JAWS is also compatible with most of the major software programs being used today in business, colleges and for personal use. To make it even
more versatile, JAWS can also take the information that is on the screen and translate it into braille. That way, the computer can provide output by speaking the text and/or by translating it into braille. The software is installed on university computers and allows individuals with vision impairments to hear what is being shown on the screen, or to read it themselves with braille. Because this software is added to already existing computers, it would be considered a reasonable accommodation and would be required by the Americans with Disabilities Act. Universities do not have to provide special computers or speech synthesis devices, but they do have to adapt current facilities to make them accessible to individuals with disabilities. JAWS, or other similar software, is one of those reasonable accommodations that universities are required to put in place.

And here is a description of JAWS from their website:
http://www.freedomscientific.com/jaws-hq.asp

“What is JAWS?
JAWS for Windows is a powerful accessibility solution that reads information on your screen using synthesized speech. JAWS provides many useful commands that make it easier to use programs, edit documents, and read Web pages. With a refreshable braille display, JAWS can also provide braille output in addition to, or instead of, speech. An array of versatile features and customizable options lets you tailor JAWS for your individual needs and preferences.”
And here is another higher tech assistive technology device but in a more portable format. Many of the high-tech devices tend to be computers but it’s important to know that high-tech (or medium tech, if you prefer to categorize this device that way) can be small, portable and convenient also. The Reading Pen can actually read aloud the scanned text and can be used with or without headphones. This pen is great for individuals with learning disabilities, but can be used for other individuals without disabilities as well. Students with dyslexia benefit greatly from the Pen because it can help them get past words that they get stuck on. The Pen also has a dictionary, thesaurus and a translator built-in so it can be used to improve vocabulary and pronunciation, help challenge students with their reading levels and to improve comprehension. The Reading Pen sells for about $200 for one pen or $1800 for a classroom kit (10 pens plus cd’s and a teacher guide).

The Reading Pen was actually designed to help university students and adults improve their English skills. However, the Reading Pen is really perfect for individuals with learning, reading, and comprehension difficulties. The Wizcom website details some wonderful Reading Pen case studies and research studies that explain different ways in which the pen can be used and how beneficial it has been in various scenarios, including students with and without disabilities or special needs.

Research and case studies link:
The research studies with special needs children show that students retained more vocabulary and improved their reading skills by using the Reading Pen. In addition, by using the Pen, teachers (or parents) can give their student or child an independent way to improve their reading and vocabulary. With the Pen, students don’t have to rely on having a teacher, parent or aide to help them through a reading or homework assignment. Instead, they can use the Pen themselves and improve their skills all on their own while also keeping up with their school work without additional assistance. Imagine the confidence boost that this will give students when they can work on their own and move along through assignments just as easily as their peers. And, finally, imagine what a great gift this would be to send along with a student who is newly entering a university setting. The student could start off college with independence and assistance for a fairly small financial investment.
Next, we can differentiate a more specific type of assistive technology aid used specifically to communicate. Because assistive devices are not just limited to communication aids, we are going to talk more generally about assistive technology. The same rules and laws that apply to accommodations for the purpose of communication aids also apply to all assistive technology devices. In addition, many individuals with need for an AAC device also have need for additional accommodations so it is very important to understand what other technology is out there for your clients, students or patients.

So first, we need to define AAC itself. AAC stands for Augmentative and Alternative Communication and includes any kind of communication other than oral speech. So, that includes facial expressions, gestures, writing, sign language, pictures, symbols or any other form of communication that does not involve oral speech. That definition is from ASHA. And our book defines AAC devices as follows: “Augmentative and alternative communication aids are devices, either electronic or non-electronic that are used to transmit or receive messages”.

http://www.asha.org/public/speech/disorders/AAC.htm
Here is the direct quote from the ASHA website:
“Augmentative and alternative communication (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.”

Just like assistive technology in general, AAC devices can be high-tech or low-tech or anywhere in between the two.
Here is an example of one of the highest tech AAC devices. The EyeMax by DynaVox allows the user to select options on the computer screen simply by looking at them. When individuals are not able to use their arms or legs or when they don’t have enough fine motor control to use other AAC devices, it is imperative to find some way for the individual to communicate. If the individual has control over his or her eyes, then they can communicate. With the EyeMax and other infrared-based systems, the user can control the computer or AAC device by using a blink of the eye or by using “dwell”, which means to focus your gaze on the item for a pre-determined amount of time. The computer can be adapted to the user’s needs and abilities in many different ways. If the individual still has some ability to speak, but might be losing it, then they can record their own voice for future use with the Eye Max. The Eye Max can also be adapted to include specific words or phrases or to control certain devices. Once the individual makes a selection on the Eye Max, they can then make the computer speak the words or phrases selected simply by using a blink or eye gaze. It’s easy to see how this type of communication device can reconnect an individual to the world around them.

The picture above is Augie Nieto, from the DynaVox video we watched in class. Augie has ALS (Amyolateral Sclerosis) and is unable to speak. Augie really has an amazing story. He used to be a fitness expert and entrepreneur. When he was diagnosed with ALS, he became depressed and had to fight his way through the debilitating physical and emotional effects of the disease. Now, Augie has taken his business knowledge and used it to raise money to help find a cure for ALS. “Augie’s Quest” is his research and fund-raising initiative to help find a cure for ALS. Augie’s Quest has
already raised almost 23 million to go towards ALS and MD (Muscular Dystrophy) research and is going strong. I’ve posted the link to Augie’s fundraising page below, which also includes information on Augie’s new book.

http://www.dynavoxtech.com/products/eyemax/

http://www.augiesquest.org/
This is actually a device that works with any AAC technology or can be used alone. Voice Switch runs for about $300 per unit and allows the individual to use speech in order to control his or her environment. The voice switch would allow someone to turn the lights on or off, play a game, or control just about any other kind of technology simply by speaking or vocalizing. This is actually a little similar to our Frug-All Horn switches. The activation is different but both the Voice Switch and the Frug-All Horn are based on a simple switch design. If a person can make a sound such as a click or a hum, the voice switch could use that sound to activate a piece of technology such as an AAC device. Voice Switch could also be used to help in rehabilitation after an injury. In this application, the therapist would set the activation threshold on the Voice Switch a little bit higher and higher as the individual progresses through recovery or through the therapeutic exercises. The therapist could increase the volume required to activate the switch or the therapist could increase the duration of the sound needed to activate the switch. In this way, the user would be working to improve the strength and/or duration of their vocalization.

One way to think of Voice Switch is that it is a bit similar to the new home remote control systems. The purpose is still the same: to control one’s environment. Green Switch is one of many new home remote control devices that allows a user to turn devices on and off remotely. Green Switch does not work on voice or sound command but it gives you the same idea of an individual being able to control the environment with one single electronic device. Green Switch and Voice Switch are also a little like a universal remote. Both pieces of technology create a single system to control
multiple devices. The novel characteristic about the Voice Switch is, of course, that it is voice activated and that it can be used for therapeutic purposes and as an AAC device.
And remember that low tech devices can be just as useful and critical as a high tech device. This is just one side of a word board that was created for use in a hospital. What does happen when a non-vocal individual ends up in the hospital? It’s not always possible for the person to have their personal device with them, but if hospitals are equipped with word boards then the patient’s care could be greatly improved – just like the example that Joel Allchin from DynaVox gave us of the individual who was in a respite care facility for the weekend. (He wanted the nurses to wait until his wife got there to put in the feeding tube. The nurses and aides had come in and were busily preparing to insert the feeding tube, but the individual was able to communicate with his DynaVox that he wanted them to wait until his wife got there to insert the tube.) Communication is critical and lack of communication can potentially be life-threatening.

With the amended ADA regulations, hospitals are now required to do the following: “Under the Americans with Disabilities Act (ADA), hospitals must provide effective means of communication for patients, family members, and hospital visitors who are deaf or hard of hearing.” “The ADA applies to all hospital programs and services, such as emergency room care, inpatient and outpatient services, surgery, clinics, educational classes, and cafeteria and gift shop services. Wherever patients, their family members, companions, or members of the public are interacting with hospital staff, the hospital is obligated to provide effective communication.”

http://www.ada.gov/hospcombr.htm
These changes in the ADA regulations are life changing for individuals with disabilities and for their families. Sometimes, it’s amazing to think that these regulations have only been around for a relatively short amount of time. Today, many of us take this regulations for granted and assume that the services will be there and that places like hospitals are required to provide this kind of assistance. Something as simple as proving effective communication was not a standard provision in many hospitals and it is sad to think that it took an act of Congress to require effective communication for disable individuals in hospitals.
There is one more definition that will help us start to connect the pieces a little more. We’re just going to define reasonable accommodations at this point, but I want you to keep it in mind as we continue and for when we talk about the laws surrounding AAC and assistive technology. The ADA regulations say that “the term "reasonable accommodation" may include making existing facilities readily accessible to and usable by individuals with disabilities.” Making facilities accessible is just one possible “reasonable accommodation” for employers and for schools and other entities receiving federal funds. The ADA was really intended to prevent discrimination by employers, but the regulations also cover schools and any entity that receives federal funds. Reasonable accommodations can include many different possibilities and the ADA website lists some examples as follows: “Appropriate auxiliary aids and services may include services and devices such as qualified interpreters, assistive listening devices, notetakers, and written materials for individuals with hearing impairments; and qualified readers, taped texts, and Brailled or large print materials for individuals with vision impairments.”

http://www.ada.gov/q%26aeng02.htm#State11481

The Americans with Disabilities Act was actually modeled, in part, from Title V of the Rehabilitation Act of 1973 which prohibits discrimination in services and employment on the basis of handicap. The link posted below actually has some very helpful questions and answers.

http://www.ada.gov/q%26aeng02.htm
Title II of Section 504 (section 504 is the Rehab Act of 1973) describes the term “qualified individual” as follows: “The term "qualified individual with a disability" means an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity.”

For additional information: http://www.ada.gov/t2hlt95.htm

The website listed below is actually from the General Counsel site of a US university. The site lists the regulations and more specifically, how they apply directly to universities. Of course, the information is specific to this particular university but it gives wonderful insight into the interpretation of the regulations.

http://counsel.cua.edu/fedlaw/rehabs.cfm

Approximately 2% of MSU students have self-identified as having one or more disabilities. This has remained pretty constant over the years and is what we would actually expect at most universities. In the general population, the percentage of individuals with a disability is about 10%. So, when you remember that the student has to meet all the other qualifications for entrance into the university and the fact that not all qualified individuals choose to go to a university, you can see how the percentage drops from 10% in the general population to 2% in universities or higher education. It’s interesting to note that 4% of the students registered with MSU’s RCPD (Resource Center for Persons with Disabilities) are also in MSU’s Honors College. It’s important for us all to not stereotype or allow preconceived notions to remain in our perceptions or control our actions or thoughts. Students with disabilities can achieve as much, if not more, than students without disabilities.

One of the most important issues, as we saw in the video earlier, is the need to prepare students for the transition to university life. Of course, this issue is important for any student but especially important for students with disabilities. Students with disabilities in the US have had tremendous support all throughout their K-12 schooling years. Because elementary and secondary schools are required by law to provide services, assistance and devices to students with disabilities, the first time that these students have had to speak up and ask for the assistance they need. It is critically important to prepare students for what they will be faced with at the university. Because this is such a critical piece of the puzzle, there are actually disability specialists whose sole task is to help students with this transition. One of our own disability specialists as MSU was actually a transition
specialist prior to coming to MSU. Virginia Martz is currently a disability specialist at MSU’s RCPD focusing on the areas of deafness, blindness, visual impairment, hard of hearing, mobility impairments and other disabilities such as loss of limb.
I’d like to have you watch another video now. This video talks a little bit more about the transition that students undergo when they enter University. Again, this is set in the UK, but it just emphasizes how universal these student experiences are. One of the students is preparing to go to university and the other student actually left the university after failing the first year. He was not at all prepared for the experience of failing because at his prior schools, students were not allowed to fail. They were given assistance in every form possible in order to prevent failure. Clearly, this student was not prepared well-enough for university life and it basically cost him his university career.

http://www.youtube.com/watch?v=nFfW8BFoR6o
Many times, a student with a disability does not want to be singled out, as was discussed in the video. So, the student might go to the classroom thinking “I’ll see what it’s like and then decide if I need or want accommodations”. In these cases, the student would typically first talk to the faculty member to ask about accommodations. The faculty member would then refer the student to the RCPD or its equivalent. The faculty member must be knowledgeable and understand their role in providing accommodations. At MSU, the RCPD usually asks the professor to help with accommodations as far as an alternate testing location or extended time for exams. If a location and accommodations can be worked out by the professor and student, then that is ideal. Remember, though, that the RCPD MUST still be involved in this process because they are the ones that approve the accommodations.

Because the faculty and staff play such a critical role in referrals and possibly arranging accommodations, it is important that these individuals are properly informed and trained. RCPD offices should be prepared to provide written training materials, workshops and consultation opportunities in order to ensure that all students are being served completely and in compliance with the ADA. RCPD offices will also have to follow up with faculty and staff in order to ensure that the students’ needs are being met.
We’ve already talked a little bit about one of our RCPD Specialists at MSU, but you should know that there are approximately 20 employees at MSU’s RCPD office. There are specialists to cover every area of disability for the students and for the employees of MSU. MSU is one of the top schools in the nation for providing services to students with disabilities and has a long history of providing services to disabled students. Prior to the creation of the RCPD, MSU’s Tower Guard Honor Society started providing services to students with disabilities in the 1930’s by reading textbooks and classroom materials to the blind. The RCPD was originally called the Office for Handicapped Students and was created during the 1971-1972 academic year at MSU. The name of the office was changed in 1999 shortly after the office started providing services for employees with disabilities.
http://www.rcpd.msu.edu/About/History

Students at universities are required to self-disclose their disability ONLY if they are seeking accommodations by the university. As we mentioned previously, students often go to class first to decide if they can handle it without any accommodations. If they decide that they would like assistance, then it is the student’s responsibility to go to the RCPD and request the services. It is at that point that the RCPD specialist will assess the student’s request and needs. Documentation of the disability is required and is extremely helpful because the documentation will include information about the student’s diagnosis, prognosis and potential limitations. It is only with this documentation, and at the request of the student, that an individual can be assessed for accommodations.
There are three main regulations put in place by the US Congress in order to protect individuals with disabilities from discrimination. They are:

1. The Americans with Disabilities Act or ADA, originally called the Rehabilitation Act of 1973 (Rehab Act), then recreated as the ADA of 1990, and then amended in 2008
2. The Individuals with Disabilities Education Act or IDEA – originally enacted in 1975, then amended in 1997 and 2004
3. The Assistive Technology Act or ATA – originally enacted in 1998, and then amended in 2004

These laws come together to protect individuals all throughout their life in these United States.
Basicall, the ADA contains regulations governing nondiscrimination on the basis of disability in local and state government services, as well as in places of employment. The key part of the legislation for us deals with the fact that many universities receive federal funds, and part of the ADA specifies that entities receiving federal funds are subject to the ADA legislation. The ADA legislation requires “reasonable accommodations” for employees and for students in higher education (based on the accessibility requirement for organizations receiving federal funds). It is important to note that the ADA specifies that the individual receiving the accommodations be considered a “qualified individual”. This means that they must be qualified for the job or the school in every category. That is, they must meet the entrance requirements to the university. This term “qualified individual” prevents the situation where an individual could claim discrimination merely because they were denied admission or turned down for the job. The employer or school must justify or explain how the individual was not considered a “qualified individual”.

As we listed earlier in the presentation, the ADA describes as qualified individual as follows:
“Qualified individual with a disability:
The term "qualified individual with a disability" means an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity.”
And here in the Delaware Employment Blog, the authors discuss the newly enacted Amendment Act and what employers are and are not required to comply with regarding reasonable accommodations:

http://www.delawareemploymentlawblog.com/discrimination_1/americans_with_disabilities_ac/
There are several important points to remember about the IDEA or Individuals with Disabilities Education Act. First of all, it covers K-12 education in the US. Most importantly, IDEA requires that schools provide access to a “Free and Appropriate Public Education”. This is commonly referred to as FAPE, and is the portion of the regulation that mandates schools to provide accommodations in order to make sure that ALL students receive an education that is appropriate and free. IDEA also includes mandates to provide assistive technology and services to students with disabilities, including down to the level of making sure that a student’s hearing aids have good batteries and are working properly. As you can see, this is drastically different than what the ADA requires for universities to provide. The IDEA was originally enacted in 1975, then was amended in 1997 and again in 2004.

For additional information on IDEA
http://www.nichcy.org/Laws/IDEA/Pages/Default.aspx
http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ446.108
http://idea.ed.gov/

And this website has a great summary of the differences between what is required of K-12 schools and what is required of universities:
http://lwtchost.ctc.edu/dept/disabilitysvcs/DisabilityAwarenessWeek/DSSsummaryforAcademy.doc
The Assistive Technology Act is a little bit different than the ADA or the IDEA. Rather than providing mandates, the ATA is more about providing funding and grants to states so that they can provide technology to individuals with disabilities. The ATA recognizes the advancements in technology and the impact that it has had on society and how much it can help individuals with disabilities. The Tech Act is intended to promote people's awareness of, and access to, assistive technology (AT) devices and services. The Act seeks to provide Assistive Technology to persons with disabilities, so they can more fully participate in education, employment, and daily activities on a level playing field with other members of their communities. The Act covers people with disabilities of all ages, all disabilities, in all environments (early intervention, K-12, post-secondary, vocational rehabilitation, community living, aging services, etc.). For additional information, please see the legislation itself at the link below:

http://www.ataporg.org/atap/atact_law.pdf

Finally, when all the pieces of the puzzle come together properly, we have success and graduation.

Picture credit: www.stemmidwest.org/
Which of the following would be considered a personal device and which would be something that the university would be required to provide? (circle the appropriate categorization)

Writing Bird: personal device? university required to provide?
TTD/TTY: personal device? university required to provide?
DynaVox: personal device? university required to provide?
JAWS: personal device? university required to provide?
Which of the following are laws that apply to students with disabilities in a higher education setting? (circle all that apply)

- IDEA
- ADA
- ATA
- AAC
3. Are students in a higher education setting required to self-identify as disabled students AND provide documentation of their disability?
   a. Yes, so that statistics can be kept regarding enrollment of disabled students.
   b. No, this information is protected by HIPPA laws.
   c. Yes, but only if they are requesting accommodations.
   d. No, they have to self-identify but they don’t have to provide documentation.

What percentage of students at MSU are listed as having disabilities?
10%
2%
15%
7%
4. What percentage of students at MSU are listed as having one or more disabilities?
   a. 10%
   b. 2%
   c. 13%
   d. 7%

What percentage of individuals in the general populations are considered to have disabilities?
   10%
   2%
   15%
   7%
What percentage of individuals in the general populations are considered to have disabilities?

- a. 10%
- b. 2%
- c. 13%
- d. 7%
For additional information and resources on Assistive Technology in Higher Education, please see: 

Assistive Technology Presentation and Resources

(https://www.msu.edu/~mary/more_here.html)

Please see the web site listed below for a copy of this presentation and additional resources.
https://www.msu.edu/~mary/more_here.html
THANK YOU!

GOOD LUCK ON FINALS AND WITH YOUR PROJECTS!