

**Title of Session:** Special Ed Forum - Assistive & Adaptive Technology

**Moderator:** Paul Bohac

**Title of File:** 20051121sped

**Date:** November 21, 2005

Room: Special Education Forum Group

**KristinaLC:** I am also a peer tutor for Eng. 111 students through Lord Fairfax. Since no one showed up tonight I thought this might be interesting.

**AsmarE:** Hi. My name is Asmar, I am a grad student, I am pursuing my master's degree in Educational Technology

**AsmarE:** I am here for my course assignment, we need to attend tapped in meeting

**PaulDB:** This should be interesting activity for you then.

**ElizabetMG:** I'm a Special Education teacher. I teach resource K-5., math and reading

**AsmarE:** I am excited, it is the first time I'm attending meeting like this and the theme is interesting for me

**CathyJW:** I am here because I am interested in anything that has to do with implementing technology in the classroom -- hoping to get some ideas.

**KristinaLC:** me too Cathy

**BJB2:** a reminder if you are new to Tapped In, please go to the actions menu in the top right of the chat window and DETACH

**AsmarE:** I am interested in technology integration in general too

**AsmarE:** too

**RobinP:** I am a special ed teacher also pursuing a specialist's degree. I thought this started at 7:00.

**ElizabetMG:** I am enrolled in Instructional Technology. This will be interesting and informative.

**PaulDB:** It did and does.

**PaulDB:** Tonight's focus is "assistive technology".

**BJB2** . o O ( first question, Paul, is what is the difference between assistive and adaptive? )

**PaulDB:** Assistive is routinely used to define technology that enables a student to acquire information or learn.

**PaulDB:** Adaptive is routinely used to define technology that enables the student to perform or complete tasks associated with learning.

**PaulDB:** Those are just general descriptors as one piece of equipment might serve both purposes.

**BJB2** nods. Thanks, Paul

**KristinaLC:** so Word would be adaptive and perhaps smartboard-assistive?

**ElizabetMG:** That's a good question

**PaulDB:** I have a guest with us tonight who has 18 years as a speech and language pathologist in elementary schools and 5 years as a speech and language pathologist working with adults.

**PaulDB:** Yes Kristina, that would work.

**BJB2:** who is your guest, Paul? Are they logged in?

**PaulDB:** So, if anyone wants to learn something about assistive or adaptive technology working with speech or language impaired, please ask your questions.

**PaulDB:** No, they are with me online here.

**BJB2** nods.

**AsmarE:** These notions are new for me, could you please give more exact examples?

**PaulDB:** Assistive devices are more common in speech/language environments.

**BJB2:** what about speech to text and text to speech programs?

**ElizabetMG:** Please, give an example of how this is implemented.

**BJB2:** are they effective? ...some better than others?

**PaulDB:** augmentative communicative device is used with kids who have no or limited oral communication skills.

**PaulDB:** It is an assistive technology.

**ElizabetMG:** Are the assistive devices added as part of the IEP?

**AsmarE:** what IEP abbr stands for Elizabeth?

**PaulDB:** Canon Communicator is an example of text-speech. It is useful for kids and adults who are aphasic.

**ElizabetMG:** It's an Individualized Education Plan.

**CathyJW:** I think I know a kid that uses one of those, 7th grader.

**PaulDB:** Yes, assistive devices are a part of the IEP. Someone has to be responsible for providing the device.

**BJB2:** a good resource for adaptive tech is <http://seriweb.com/tech.htm>

**PaulDB:** There is also the issue of support personnel that may be needed to facilitate use of the technology.

**KristinaLC:** So far our students have used word to create final drafts of their written work, gone online to find pictures and information for projects, created their own pictures for their interactive notebooks, played SOL games, used software to strengthen math and reading skills, and we have just started using smartboard this year. I am curious as to how others use technology in the classroom. I have found that students with ADHD are better able to concentrate because they are directly interacting with these programs instead of trying to listen to a teacher.

**PaulDB:** Yes. Cognitive ability is essential for the use of both adaptive and assistive devices.

**AsmarE:** Is this the responsibility of the school to provide assistive technology?

**PaulDB:** No always, unless it is written into the IEP.

**ElizabetMG:** I agree with you Kristina, ADHD usually, they are more involved and it seems the attention span is greater.

**AsmarE:** and is the adaptive technology provided by the family of the special ed student?

**PaulDB:** The assistive and/or adaptive technology may be necessary for life outside of school.

**AsmarE:** I am sorry, Kristina and Elizabeth, I am not a native speaker and I am not familiar with abbr-s, could you please write them at least once what they stand for?

**PaulDB:** The extent to which the school is responsible is dependent upon the IEP

**AsmarE:** sorry for inconveniences

**AsmarE:** What is ADHD?

**CathyJW:** Attention Deficit Hyperactivity Disorder

**PaulDB:** Some kids may be able to obtain such technology from other sources such as medical services, possible vocational rehabilitation, or Medicaid.

**AsmarE:** ok, Paul.

**KristinaLC:** no inconveniences, you are seeking information--Attention Deficit Hyperactive Disorder

**AsmarE:** thanks Cathy

**ElizabetMG:** Attention Deficient Hyeractive Disorder. No problem!

**KristinaLC:** sorry, meant hyperactivity

**PaulDB:** Key to the use of both adaptive and assistive devices is to ensure that they do not become a crutch. They should meet a need but should not replace or substitute for learning.

**AsmarE:** thanks a lot everybody!

**CathyJW:** True with any technology application

**KristinaLC:** a supplement to expand knowledge and create motivation for learning

**PaulDB:** Kids who have communication problems are like physically impaired students.

**ElizabetMG:** It is very easy for students and parents to become dependent on such devices, because it may seem convenient.

**PaulDB:** The technology must be consistent with the need, it must be fitted to the kid, the device must be manageable by the kid and it should not limit the development of communication capabilities.

**KristinaLC:** Our kids with speech difficulties work with a speech therapist. She usually gives us advice on how to coach children with what she is working on but we don't have any students that use devices for communication problems.

**BJB2:** what about using a tape recorder to have kids read stories? Would that be a good way to practice speech?

**KristinaLC:** recording students reading?

**PaulDB:** A language master would be better because it provides more immediate feedback.

**BJB2:** there is an online software program called Audacity that lets you make digital recordings

**BJB2:** <http://audacity.sourceforge.net/>

**PaulDB:** Not recording student except as follow-up to adult reader so as to teach appropriate sounds, inflection, production.

**ElizabetMG:** Are language masters employed in the regular school systems?

**BJB2** is not familiar with language masters

**PaulDB:** Typically yes, though an "older" technology still quite effective.

**ElizabetMG:** I understand, it's a program

**KristinaLC:** language masters?

**PaulDB:** No it is a machine, you buy and record the information on the card and then run the card through the machine.

**KristinaLC:** oh

**AsmarE:** woow

**ElizabetMG:** I get it

**AsmarE:** that must be really practical

**BJB2** . o O ( sounds like dinosaur tech! )

**AsmarE:** are they expensive or every school can afford them?

**PaulDB:** It is, for math. language arts, foreign languages, etc.

**PaulDB:** More expensive than tape recorder, but don't know actual price.

**AsmarE:** they just called in one way? Language masters?

**PaulDB:** Moving on, what other assistive or adaptive technology questions are out there?

**KristinaLC:** I think I have seen the math-can't remember what it was called but the students had cards they ran through a machine and the machine would keep track of each student's progress and generate work, quizzes, and tests. It is pretty much for students to go at their own pace. They can't progress unless they pass certain objectives.

**ElizabetMG:** When, testing can the students use the assistive or adaptive technology?

**PaulDB:** They are called Language Master and the most common one is produced by Bell and Howell.

**PaulDB:** Elizabeth, if it is recorded in the IEP, yes.

**PaulDB:** It has to be listed as an accommodation in the IEP.

**PaulDB:** Kristina, I think you are describing a particular math program that has a proprietary machine to function with the card system.

**KristinaLC:** could be, this was about five years ago when I worked in Prince William County

**KristinaLC:** I want to say it is called accelerated math, but I can't be sure

**CathyJW:** Sounds like it works like the accelerated reader program we use, computer quizzes, etc.

**PaulDB:** For visually impaired students there are several adaptive devices from simple magnifiers that fit on a computer screen or over a page of text to dedicated machines that are assigned to the student.

**KristinaLC:** yes, it is a lot like AR but has a larger database and more than just one test-- it contains work pages, quizzes and tests and monitors a student's progress and either allows them to progress or repeats objectives they are having trouble with.

**PaulDB:** I would like to learn more about that device. It has application as an adaptive technology as well as an instructional system for non-handicapped youth.

**PaulDB:** Central to a device being considered "adaptive" is the use of the technology. A computer according to how it is used can be "adaptive".

**PaulDB:** LD students who have difficulties in processing written information could use a computer equipped with headphones.

**PaulDB:** LD Students who have oral language processing difficulties could also use a computer equipped with headphones.

**DavidWe . o O** ( Kurzweil reading software is pretty cool )

**PaulDB:** Yes, although I have not used it, I have seen it demonstrated.

**DavidWe** nods

**ElizabetMG:** Most programs used in my parish include headphones. It works well.

**PaulDB:** It is a form of multi-modality instruction.

**KristinaLC:** most of my students are ADHD, Aspergers, LD, and one Munchausen by proxy ( sorry, I know this is spelled wrong)--each computer has headphones to lessen distraction and allow the student to concentrate.

**PaulDB:** Do they also have microphones attached to allow for oral responses?

**KristinaLC:** no

**ElizabetMG:** No

**PaulDB:** Maybe microphones are not needed, but maybe they would be useful.

**KristinaLC:** we are not that advanced

**PaulDB:** Okay.

**PaulDB:** Just kidding.

**ElizabetMG:** Sure wouldn't hurt

**KristinaLC:** even more direct interaction would be great

**PaulDB:** You would be surprised how much it helps youth who are reluctant to speak up in class!!

**BJB2** agrees.

**ElizabetMG:** True

**PaulDB:** They are interacting with a machine and that is a little easier to do. Especially since the response from the machine is not heard by everyone else in the class.

**ElizabetMG:** Would prevent the fear of being incorrect.

**PaulDB:** Maybe, but more possibly it reduces the likelihood of public humiliation.

**ElizabetMG:** Exactly

**AsmarE:** then the special ed students can participate as regular students in the groups that they study with other students that do not have any deficiencies?

**PaulDB:** That is one of the values of using computers with ADHD kids, they can make a mistake but no one else knows except the computer and it won't tell.

**PaulDB:** Yes, anything that can be done to improve the self-confidence of the youth tends to increase both the willingness and the capacity to participate in a large group setting.

**AsmarE:** I just checked the language master website and the price differs from 230-350 pounds (UK money unit which is almost twice as much as US dollar)

**AsmarE:** I don't think every school, and every student can afford it, may be school boards can provide them

**CathyJW:** Asmar, the school I work in is 'full inclusion' so kids that are ld, adhd, etc, never leave the classroom. Interesting, right?

**PaulDB:** Cathy, you are one of those who could really benefit from learning as much as possible about adaptive devices so as to include more of your youth in the large group activities.

**PaulDB:** By large groups I mean anything over three students.

**CathyJW:** Right, especially since we have full inclusion. what about grants to help pay for some of this stuff?

**ElizabetMG:** I do inclusion with the regular classes two hours daily. The Special Education Department is usually good at providing products for the students. It may depend on the school district and how the financial status is?

**PaulDB:** There are resources available from USDOE, through IDEA, through Perkins grants for vocational training programs, through Vocational Rehabilitation for youth 16 or over, through the state Children's Medical Services or its equivalent, or the state's Developmental Disabilities agency or its equivalent.

**ElizabetMG:** Great news

**CathyJW:** I think I saw on the TI calendar something about Great Grants, but I would need info about what tech I needed and what was available first.

**PaulDB:** Also, if there is a school or system-wide technology plan, such devices or technology can and should be included as a component piece.

**BJB2:** Cathy, once you find out that information there are some tutorials on helping you write grants in the grrreat grants room

**CathyJW:** nods

**KristinaLC:** I just talked to our ESL teacher today and she mentioned a scientist or a professor who has created these solar run computers. This was on some tv show like Dateline or something. Anyway, the cost is 100\$ and he has pledged to donate a computer for every child in the state of Massachusetts. She has written him requesting free computers to all of her ESL students who do not have a computer at home. Just thought that was very interesting. Has anyone else heard of this?

**AsmarE:** that would be great to have more advanced assistive and adaptive technology and have only full inclusion classes instead of separate

**CathyJW:** I heard that rumor recently as well, anybody know anything?

**PaulDB:** I know nothing nor have I heard anything about that story.

**BJB2:** I think the \$100 computer is a rumor at this point.

**KristinaLC:** most of our kids are in inclusion classes except for language arts because their reading skills are where they need the slower pace and extra assistance

**ElizabetMG:** Inclusion may be used as a front runner, for your thought, Asmar

**BJB2:** . o O ( but it's being developed for 3rd world countries )

**SusanR:** <http://laptop.media.mit.edu/>

**PaulDB:** I would encourage each of you to look at every student in your class and think about what s/he needs to be successful as a student in your class.

**PaulDB:** If there is a piece of equipment that would help, put it on your list. Create the list and update it periodically.

**PaulDB:** As the list is developed, you will begin to see a commonality develop.

**AsmarE:** definitely, I guess these students need personal approach and needs, even [if] it doesn't depend that much on the technology

**CathyJW:** Sort of make a shopping list and see what is the most common factor -- right?

**PaulDB:** Those "common" items then become the basis for your request to the principal or local resource teacher for inclusion into the local or system budget.

**KristinaLC:** good idea

**ElizabetMG:** I like that suggestion.

**PaulDB:** It will also help you identify which are "adaptive" as opposed to which are "nice to have".

**BJB2:** Our time is about up. Did you have a topic for next month, Paul?

**BJB2:** . o O ( or do you want to continue this topic? )

**AsmarE:** it was very interesting and informative for me

**BJB2:** I'd like to thank the mystery guest for joining us tonight

**PaulDB:** Maybe we ought to look for information about possible grant resources or other supplemental funding?

**ElizabetMG:** I received good information. thanks

**BJB2:** good idea, Paul

**KristinaLC:** yes, thank you

**CathyJW:** If you continue next month, I might think about my shopping list and see what you think....

**BJB2:** the next Special Ed Forum is December 19

**AsmarE:** that is important Paul, esp. for schools and countries in general that are not so highly developed

**BJB2:** thanks, Paul, for leading the discussion.

**CathyJW:** Great, see y'all then.

**PaulDB:** Thank you, she will be appreciative. She was not able to stay throughout, but I will convey the message.

**AsmarE:** Thanks a lot Paul, and it was nice to talk to everybody

**ElizabetMG:** Goodbye

**AsmarE:** Bye everybody!

**DavidWe** waves

**SusanR:** Thanks, Paul

**BJB2** waves goodnight