



# Low Incidence Outreach (LIO) E-Mail Newsletter

11-13-06

Volume 1, Number 2

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## Events

Hurry! Hurry! Go to our website and sign-up for the few remaining spots for the *Learning Media Assessment (LMA)* conference in East Lansing on December 1<sup>st</sup> at:

<http://www.cenmi.org/msdb-LIO/EventsView.asp?id=1323>

### Announcement:

Dr. Cay Holbrook, University of British Columbia, is coming to Michigan to present on March 16, 2007! She is the co-author of the *Learning Media Assessment, Project SLATE, Foundations of Education*, etc. Dr. Holbrook is a leader in educating students with a visual impairment. Her many contributions to our field have made a difference for our students. Watch for details and mark your calendars now!

## Improving Outcomes for High School Students who are Deaf/Hard of Hearing and Students with a Visual Impairment

To ensure Michigan's students have the skills and knowledge needed for the jobs of the 21<sup>st</sup> Century global economy, on April 20, 2006, Governor Jennifer M. Granholm signed into law a rigorous set of statewide graduation requirements that are among the best in the nation. (Public Acts 123 & 124)

<http://www.michigan.gov/mde/0,1607,7-140-38924---,00.html>.

November's resource information for educating

## Combining Resources and Expertise in a Central Location.

students who are Deaf/Hard of Hearing and students with a Visual Impairment is listed below.

**Teaching Math and Science to students who are Deaf/Hard of Hearing** - Suggested best practices taken from [www.deafed.net](http://www.deafed.net) to integrating technology with science and math in your classroom for students who are Deaf/Hard of Hearing.

Tips below came from Recommended Practices in Literacy and in Math/Science. The entire document can be located in [www.deafed.net](http://www.deafed.net) under instructional resources.

Teach science and math using “**specialized content vocabulary**” either by signs or fingerspelling to increase content comprehension and promote group discussions and opportunities for self-expression.

**Challenges Students who are Deaf/Hard of Hearing Face in Science Laboratory: Laurent Clerk, National Deaf Education Center, Gallaudet University**  
<http://clerccenter.gallaudet.edu/infotogo/index.html>.

- Instructors often forget to separate demonstrations and explanations. This forces students who are deaf or hard of hearing to try and attend to two competing visual messages. (Viewing of multiple sources of visual information [e.g., watching the interpreter and trying to read the instructor’s PowerPoint slides]).
- Background noise picked up by hearing aides and cochlear implants - large rooms tend to be noisy rooms. Back lighting- occurs when shadows are cast on a speaker’s face due to a light source behind the speaker which makes it difficult to speechread.
- Failure to provide written handouts prior to demonstrations.
- Multiple and/or competing speakers. Students who are Deaf/ Hard of Hearing find it difficult to follow more than one speaker at a time.
- Delays associated with interpreter lag time. There is typically a 1 –3 second delay between what’s said and what’s interpreted. In a fast-paced discussion

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with multiple speakers, it's easy to fall behind. Teachers need to emphasize turn-taking. This facilitates ease of interpretation and speechreading.

### **Teaching Math and Science to Students with a Visual Impairment**

The Texas School for the Blind website has an extensive list of resources for teaching mathematics and science to students with a visual impairment. Listed below are two of the listings. Follow the link for the complete listing. <http://www.tsbvi.edu/math/publications.htm>.

Susan A. Osterhaus, M.Ed. has some great resources that may provide guidance in teaching math. Some of the materials available are Math Education and Nemeth Code, Tactile Math Graphics, etc. For complete information, go to the Texas School for the Blind website at <http://www.tsbvi.edu/math/index.htm>.

Ms. Osterhaus' *Teaching Strategies* web page has an amazing amount of information on teaching upper level math. Included are tips for general education teachers. Follow the link: <http://www.tsbvi.edu/math/teaching.htm>.

### **From the Field: By Amanda English, Kalamazoo RESA**

*The new ViewPlus Audio Graphing Calculator (AGC)* has been one of the most beneficial pieces of software I have worked with, and it is relatively easy to use! AGC allows a student to plot coordinate points, plot line graphs, locate intersecting points and get auditory feedback, plus so much more! The program is a scientific calculator and a graphing calculator for the computer. AGC is self-voicing, and it has built in zoom features. This software works hand-in-hand with the Tiger embossers so a student can get tactile feedback or create a print copy of the graph. Our student's algebra teacher has been amazed at the software's abilities and he has learned how to use it too! Hours of creating tactile graphs by hand have become minutes of creating the

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**MICHIGAN DEPARTMENT  
OF EDUCATION  
STATEMENT OF  
ASSURANCE OF  
COMPLIANCE WITH  
FEDERAL LAW**

The Michigan Department of Education (MDE) complies with all Federal laws and regulations prohibiting discrimination and with all requirements and regulations of the U.S. Department of Education. It is the policy of the Michigan Department of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, or handicap shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity for which it is responsible or for which it received financial assistance from the U.S. Department of Education.

graphs on the computer. What a time saver for the student and the Teacher Consultant!

ViewPlus offers a free 30 day download on their website, [www.viewplus.com](http://www.viewplus.com). If Internet accessibility or firewalls interfere, HumanWare can send you a demo disk. To run the AGC software, one needs Windows 2000 or XP, a 200 MHz processor, 20 MB of hard drive space, a sound card and 32 MB of RAM. At just under \$300, the software is well worth the price to allow our students to produce professional, age appropriate graphs.

Respectfully Submitted by Collette Bauman, Special Education Consultant, [baumanc@michigan.gov](mailto:baumanc@michigan.gov), and Diana McKittrick, SCPI Coordinator, [mckittrickd@michigan.gov](mailto:mckittrickd@michigan.gov), Michigan Schools for the Deaf and Blind-Low Incidence Outreach

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**Notice!**  
**Looking for Field Testing  
Participants!**

Gaylen Kapperman and Jodi Sticken from Northern Illinois University are working with HumanWare to develop a Nemeth Code tutorial to operate on the MPower of the Braille Note Classic. They have a federally funded grant and need participants to do field testing for them during the 2007/2008 school year. Students who are blind and users of the MPower or Braille Note (fifth-tenth grade) will be eligible to participate in the project. The students and their teachers will be compensated for their time. For complete details or if you are interested in participating in the project you may contact Gaylen Kapperman at [gkapperman@niu.edu](mailto:gkapperman@niu.edu) or by phone at (815) 895-3078.

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**Psychologist Services**

MSDB – Low Incidence Outreach (MSDB-LIO) now offers the expertise of a highly qualified and experienced, certified school psychologist for

## Contact Us

MSDB Low Incidence Outreach

Michigan Schools for the Deaf and Blind

1667 Miller Road

Flint, Michigan 48503-4720

(800) 622-6730

(dial 1, then 1420)

(810) 257-1403 (fax)

email: msdb-  
outreach@michigan.gov

<http://www.cenmi.org/msdb-lio>

consultation purposes.

MSDB-LIO's school psychologist, Jim Somers, has extensive experience in assessing students with visual impairments, including those with multiple impairments. For a list of services related to supporting local school psychologists, teacher consultants (TCVI's), and parents in their endeavor to conduct and/or understand psychological assessments of students with a visual impairment go to MSDB-LIO's website: <http://www.cenmi.org/msdb-lio> and click on the "student's with VI" link. Then click "MSDB-LIO services", to get to the psychologist consultation services link.

If you have questions, please email or call Pat Love-Sypho; Email: [lovep@michigan.gov](mailto:lovep@michigan.gov) Phone: 1-800- 622-6730 ext. 11489.

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## ILS Tip

*Does your child/student know what they are wearing?* It is important at any early age to discuss the type of clothing they are wearing. It should be explained what clothes match and go together. They should be aware they have on a "Detroit Tigers" t-shirt and that it is gray with navy blue and orange lettering. Their sighted peers are aware and they should have the same opportunities. (MSDB-LIO ILS Guide & Checklist) Download at our website at <http://www.cenmi.org/msdb-LIO/ILS.asp>.

Articles in this newsletter are respectfully submitted by Collette Bauman, Special Education Consultant, Michigan Schools for the Deaf and Blind-Low Incidence Outreach, [baumanc@michigan.gov](mailto:baumanc@michigan.gov).

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Learning is not attained by chance, it must be sought for with ardor and attended to with diligence.

**Abigail Adams, 1780**

*US wife of John Adams 1764 (1744 - 1818)*