

Keyhole Communique

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The Assistive Technology Educational Network (ATEN) is a specialized center in the Florida Diagnostic and Learning Resources System (FDLRS).

Liberated! Meet Mandy Carver

by Matt Hirn

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Mandy Carver, a 19 year-old senior at Eastside High School in Gainesville, is a "liberated" woman. No, she does not lead protests on campus, nor has she organized a march. Mandy uses an augmentative communication device, the Liberator, to interact with others. In that sense, the term "liberated" accurately describes her.

Like any other student her age, Mandy finds extracurricular activities to be more interesting than school. She enjoys country music, reading, and playing with her dog, Bo. However, finding out from Mandy what she likes, e.g., listening to John Michael Montgomery, reading about horses, and playing with her Australian Cattle Dog, would have been difficult four years ago.

Mandy's speech is dysarthric due to cerebral palsy. Only close friends and family members can understand her when she speaks. That is where the Liberator comes in. By selecting symbols on its keyboard, Mandy creates sentences.

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Mandy Carver

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The device converts the sequence of symbols (known as Minspeak) into synthesized (computer generated) speech.

The Liberator has allowed Mandy to expand her horizons. Since acquiring it, she joined the Excel Club, a group involved in community service. Her accomplishments within the Club have included winning two trophies for outstanding effort and being nominated as vice president of the Club. Mandy's achievements have, in part, been due to her use of the Liberator.

Since Mandy uses her left foot to operate her power wheelchair and to access the Liberator, a problem arose. How could Mandy independently transport the device and have it accessible upon arrival at her destination? With the help of Dr. Jim Leary and the

engineering department at the University of Florida, a special wheelchair mount was designed for the Liberator and donated to her.

Mandy's independence and growth continue as she prepares for life after high school. She works several hours each week in the media center of a local school. Her duties include entering data into the computer to help teachers find books more easily and updating the bar codes on books. Mandy plans to use this experience to pursue a job in a library after graduation.

Mandy is likely to excel in all her vocational pursuits. The reason is not simply that she has been "liberated" by technology. No, Mandy will succeed because she has "liberated" herself with the assistance of technology.

ATEN Welcomes a New Administrator

Dr. Karen Morris recently accepted the position of ATEN's administrator. She has a Ph.D. in special education from the University of Oregon. Karen has a background in both service-oriented and education businesses. Prior to ATEN, she consulted for Prentke Romich Company servicing many states including California, Oregon, Washington and Alaska as well as Louisiana, Mississippi, and Florida. Karen gained experience in the implementation of assistive technology using a variety of models. She also worked for Closing the Gap as a conference planner, coordinator, and national trainer. Karen was a Professor/Technology Specialist in The

Missouri Technology Center at the University of Missouri. She was later employed by the Seattle Public Schools system as a Program Coordinator in exceptional education and as a school principal.

Karen was attracted to ATEN by the types of their trainings and products, as well as the staff members who provide assistive technology services throughout the State of Florida. Because of her combined experience in the field of education and business, Karen brings an interesting and fresh perspective to ATEN.

ATEN Staff

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"If all my possessions were taken from me with one exception, I would choose to keep the power of communication, for by it I would soon regain all the rest."

Daniel Webster

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Spotlight on Sidney Lanier School

by Matt Hirn

At 312 16th Avenue North in the city of Gainesville stands a cluster of buildings known as Sidney Lanier School, a center school serving students in exceptional education. At first glance it appears to be a fairly typical sort of place: the teachers teach, the students learn, the administrators administrate, and the support staff support. So why spotlight such a school? Because within the walls of this campus can be seen a group of people in the midst of discovery.

It all started six years ago when Kandy Penner and Mary Smithers, speech therapists at Sidney Lanier, decided to apply a new concept they learned at a workshop—classroom engineering. They began engineering classrooms and the rest of the school in an effort to improve student communication. Kandy and Mary transformed two classrooms that first year. To date, six classrooms have been engineered. The engineered classrooms rely heavily on teachers to utilize a uniform set of line drawings (known as picture symbols) to label objects and activities. These picture symbols are used in conjunction with augmentative communication devices which enable non-verbal students to have a voice.

By enlisting the aid of teachers in a process often confined to students' speech therapy sessions, a transformation started. Circle time, lunch time, physical education time—virtually every time of the day—became communication time.

It did not happen overnight, and there were obstacles to overcome along the way. But what started out as a modest experiment blossomed into a success. Finding the funding to implement the plan proved to be the most difficult stumbling block to overcome. Initially,

help came in the form of a \$2,000 grant from the Pilot Club, a local women's organization. Exceptional student education funds, mini grants, community resources, and individual contributions have sustained the project. Kandy strongly emphasizes the role of Cathy Costello, the school's principal, in her support for the program. Mrs. Costello effectively advocates for her school within the Gainesville community. She cites teamwork along with the strong desire of individual staff members to meet the needs of students, as being central to the achievements at Sidney Lanier.

Gaining acceptance from the teachers proved to be almost as challenging as obtaining funding. After all, classroom engineering is labor-intensive stuff. Each classroom uses picture symbols throughout the environment to identify everything from toys to daily schedules. The pictures, coupled at times with objects, are everywhere. Furthermore, several voice output augmentative communication devices including the Wolf, Hawk, CheapTalk, and BigMac also play an important role. Devices such as these require programming and set-up time.

These teachers, faced with such great demands on their time and talent, have not simply tolerated the system. They have infused their lesson plans with classroom engineering, fully embracing the concept. "Why such enthusiasm?" you may ask. Because the educators at Sidney Lanier have made a discovery. When a student's communication improves, he achieves a higher level of academic success... and when a student succeeds, everyone's hard work becomes a labor of love.

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Gap Capsules

Making CD-ROM Stories Accessible

By Donna Kazez

I went to Closing the Gap in Minneapolis with a mission this year: to learn as much about transition-related technology and assistive technology for older students as possible. I did get loads of information and opportunities to try new technology that (vendors assure me) will be ready before the year's end. So, I thought I would share some of the valuable information from the Gap. This is the first article in the series. The next **Gap Capsules** will feature "Creating Accessible Quizzes Using IntelliPics."

Mindy Brown, Vicki Lauck, and Isabel Castro presented a session entitled, "Uses of Technology to Encourage Language and Literacy in Blind Children." A totally blind child can independently navigate through a story on CD-ROM (e.g., a Living Book), and direct the mouse to point and click on different pre-set locations on the screen by using an overlay on the IntelliKeys keyboard and ClickIt! Even though this session focused on students with visual impairments, ClickIt! can be used with any student who needs adapted computer access. Make sure the IntelliKeys keyboard is connected to your computer and functioning properly before following these steps:

1. First, preview the story and note three locations per screen (or page) that you want to make accessible: two clickable locations in the story and the arrow pointing to the next page. Quit the story.

2. Start ClickIt! (from the Control Panel) and then launch the CD-ROM story. If using a Living Book, choose the **Let Me Play** option. ClickIt! will be set up to identify a new set of HotSpots each time the next-page button is pressed. This process is accomplished by designating a watch spot (one location that ClickIt! can keep watch on to identify the current screen). For a Living Book, a good watch spot is the page number (at the bottom center of the screen).

3. Begin on page one of the story. Activate ClickIt! by pressing **Control** and the space bar simultaneously. This opens the ClickIt! window. Click on **Sets**, then click **Reposition**. Drag the watch spot to the desired location (page number). Press **Escape** and then click on **Done**.

4. Activate ClickIt! again by pressing **Control** and the space bar simultaneously. Click on **Sets**, then click on **New** and give the set a name (e.g., "page 1"). Press the **Return** key. Look at the watch spot, and if the location is correct, click on **Assign To Set**. The picture covered by the watch spot (the page number) will appear on the line where you typed "page 1." Click on **Done**.

5. ClickIt! opens a dialog box (depending on the version used) asking if you want to enter HotSpot creation mode.

- Answer **yes**. (If a dialog box does not appear, activate ClickIt! and click on **HotSpots**. The ClickIt! window should disappear.)
- Press **Shift** and the space bar simultaneously. (The HotSpot A window will appear.)
- Press **Return**.
- Repeat this procedure twice to get HotSpots B and C.
- Drag HotSpots A and B to the selected clickable items, and drag HotSpot C to the right-pointing page-advance arrow at the bottom right-hand corner of the screen.
- Press **Escape** to exit this mode.

6. Advance to page two of the story. Activate ClickIt! and click on **Sets**, then click on **New**. Type in a name (e.g., "page 2"). Hit **Return** and click on **Assign To Set**, then click on **Done**. A window should appear asking if you want to enter HotSpots mode. Answer **yes**.

7. Use the **Shift+space** and **Return** sequence in step five to make three HotSpots. Drag the HotSpots to appropriate locations (A and B on the clickable items, C on the advance-page arrow).

8. Repeat steps six and seven, advancing to the next pages and naming the Sets appropriately (e.g., "page 3," "page 4," etc.).

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[ClickIt! automatically created a file with the same name as the program you were using (e.g., Grandma and Me.It). The file was placed in the ClickIt! folder inside the Preferences folder inside the System folder.]

9. Close the CD-ROM story and launch OverlayMaker.

10. Make three buttons to activate the three HotSpots you created with ClickIt!. If desired, make a **Quit** button to send the **Command+q** keyboard combination to exit the story.

11. Use the square tool to create buttons on the overlay (the tools are located on the left-hand side of the window). Click on this button, move the cursor to the desired location on the overlay, and click and drag to make a button of an appropriate size.

12. Click on the text tool (button with an A on it) and then click inside the button and type an appropriate name (e.g., "HotSpot1").

13. Double-click inside the button to open the **Key Content** window. By default, the button action is *same as text label*, which is highlighted. Hit **Delete** to erase. Leave the insertion point in this box.

14. The keyboard shortcut for activating the HotSpots on each page is **Control+Shift+[HotSpot letter]**. (If the **Special Characters** window is not present, click the **Show Special** button and make sure the **Keyboard** radio button is selected.) Using the scroll menu, double-click on **Control** and then double-click on **Shift**. Type an "a" to complete the sequence.

15. Click on the **Other** radio button in the **Special Characters** window. Using the scroll menu, double-click on **Non-repeating**. The key content assignment is now complete. Select **OK**. Double-click on the button again to check that the content window shows **Control Shift a Non-repeating**. Select **Cancel** to close the window.

16. Click once on the button to select it and copy and paste it two (or three if using a quit button) times in the overlay. All buttons will have the same label and key content. Using the text tool, change the new buttons' labels to "HotSpot2," "Next Page," and "Quit" (if applicable). Double-click on each button and change their key contents to "Control Shift b Non-repeating," "Control Shift c Non-repeating," and "Command q Non-repeating," respectively (as described above).

17. From the **File** pull-down menu, select **Save**. Save the file where it will be easily located and name it appropriately (e.g., "Grandma ClickIt Overlay"). Print the overlay. Place tactile drawings or figures on the overlay to make it accessible.

18. Quit OverlayMaker and launch the CD story. Place the overlay on the IntelliKeys.

19. Choose **Let Me Play** and go to page one. From page one, the student should be able to take control of the keyboard and direct the story.

20. To make the IntelliKeys overlay active, activate ClickIt! (**Control+space bar**) and click on **Overlays**.

21. Next click on **Attach**, which opens a file scroll menu. Locate the OverlayMaker file you just created and select it. Click on the **Send** button to send the

The MaxSpeakers

The MaxSpeakers are individuals who use a variety of augmentative and alternative communication devices. They are named the MaxSpeakers to reflect a shared desire to communicate to the **maximum**. The MaxSpeakers began as a network of individuals who knew each other through work, school, and community experiences. The MaxSpeakers meet to socialize, attend community activities, and share information informally. The primary purpose of the group is to have fun.

The MaxSpeakers meet once a month in various locations in the Central Florida area. There is no cost to join the group. For more information about MaxSpeakers contact:

Gail VanTatenhove
8322 Tangelo Tree Drive
Orlando, FL 32836-5437
E-mail: GailVT@aol.com

Balancing Technology and Literacy

by Dianne Mathews

At the October 1997 Closing the Gap Conference, I attended a workshop called "It's A Balancing Act!! Integrating Technology and Literacy in Elementary Schools." The workshop was conducted by Dr. Karen Erickson from the Center for Literacy and Disability Studies, Duke University and Dr. Caroline Ramsey Musselwhite from Special Communications. Dr. David Koppenhaver also with the Center for Literacy was listed as an author on the handout. This session provided excellent materials about literacy instruction and the integration of technology in schools. They are known for their work in developing skills in literacy for special needs students. Their presentation focused on the traditional view of literacy (which incorporates the reading readiness perspective), and the current view of literacy (which incorporates the emergent literacy perspective). The following is a summary of information from the presentation.

Many current educational settings are "stuck" in the reading readiness perspective which states that students must master prerequisite skills before they are ready for real reading and writing. The current view of literacy is that children learn about literacy through active engagement with their world. The process of learning to read and write is a continuum that begins at birth, and perhaps before. Reading, writing, speaking, and listening develop concurrently and interrelatedly, not sequentially.

Here are some facts that Dr. Erickson and Dr. Musselwhite gave regarding how children learn to read words:

- Children from literate homes have over 1,000 hours of informal reading and writing experiences before coming to school.
- Phonemic awareness is critical to success in beginning reading.
- Children who can decode learn sight words better.
- Lots of successful reading is essential for readers to develop automaticity and rapid decoding.
- Children who write become better readers.
- Children become better decoders when encouraged to write using invented spelling.

When good readers read words, they:

- look at virtually all of the words and almost all of the letters in the words.
- recode the printed words into sounds.
- recognize most words immediately and

automatically without using content.

- accurately and quickly pronounce infrequent, phonetically regular words.
- use spelling patterns and analogy to decode words.
- divide big words as they see them based on letters that are frequently grouped within a word.

When good readers encounter unknown words, they:

- recognize that the word is unfamiliar and look at all of the letters.
- search mental bank for similar letter patterns and words associated with them.
- produce a pronunciation that matches that of a real word already known.
- reread sentences to cross check possible pronunciation with meaning.
- try again if it doesn't "sound right."
- chunk the word by putting together letters that usually go together in known words.

Because students come to school with different skills, abilities, background experiences, and learning styles, it is critical to look at providing a variety of instructional strategies and experiences to build literacy. With the Balanced Instruction and The Four-Block Model (Musselwhite, Erickson, & Koppenhaver, 1997), students receive instruction in all of the components that are required for successful silent reading comprehension and written composition. The framework of this approach reinforces and adds strategies to the good things that are already being done successfully by teachers.

The basics of the Four Block Model are: guided reading, writing, self-selected reading, and working with words. In a whole group setting each area receives an equal portion of instructional time. The order in which the blocks are completed during a given day is unimportant. Children are actively engaged in teacher-supported learning throughout the day.

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Defining the Four Block Model:

1. In guided reading, students must understand that reading requires thinking and meaning-making; learn to use strategies and comprehend printed text; and use a variety of types of books and other print materials.

2. In writing, students must write to become better readers; learn to write when given daily opportunities to see others write; have frequent opportunities to write without standards to make progress in the process of composition.

3. In self-selected reading, students must have daily opportunities to read easy books that they select to become better readers. They enjoy reading more when they can talk about and share books they read.

4. In working with words, analogic phonics are critical to the processes of reading and writing. Students must be taught what to do when they find a word they don't know. Traditional phonics instruction focuses on rules that describe how the letter sound system works, not how to use it.

References for the Four Block Model, related activities, and adaptations

- Anderson, R., et al. (1985). *Becoming a Nation of Readers: The Report of the Commission on Reading*. Washington, D.C.: U.S. Department of Education, Nat'l Inst. of Education.
- Cunningham, P. (1995). *Phonics They Use: Words for Reading and Writing* (2nd Edition). New York, HarperCollins. ISBN 0-673-99087-7.
- Cunningham, P., & Allington, R. (1994). *Classrooms That Work: They Can All Read and Write*. New York: HarperCollins. ISBN 0-673-46961-1.
- Cunningham, P., & Hall, D. (1994). *Making Words*. Carthage, IL: Good Apple. ISBN 0-86653-806-9.
- Cunningham, P., & Hall, D. (1994). *Making Bigwords*. Carthage, IL: Good Apple. ISBN 0-86653-807-2.
- Musselwhite, C., & King-DeBaun, P. (1997). *Emergent Literacy Success: Merging Technology and Whole Language*. Park City, UT: Creative Communicating.

Don't Miss out on the Upcoming Literacy Symposium

The 7th Symposium on Literacy and Disabilities January 29-31, 1998

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Duke University Medical Center
Box 3108
Durham, NC 27710

Contact Karen Erickson (919-684-3740) at the Center for Literacy and Disability Studies if you will need accommodations for participation in or access to the conference.

Free Report Lists: Computer Sources

Helen Hecker, writer and founder of the Disability Bookshop Catalog, has compiled a list of sources that people with disabilities can use to acquire computers. For a free copy, send your name, address, and the words "Free Computer Report," along with a stamped, self-addressed long envelope to Twin Peaks Press, P.O. Box 129, Vancouver, WA 98666.

Teaching from the Heart

by Roger Kroth

Editor's note: Roger Kroth is a professor at the University of New Mexico.

It is so easy to leave the human reality of education unrecognized, let the fact that people are the key to education go unacknowledged, and ignore the truth that education is a living thing which requires constant attention to detail, upkeep, time, effort, nurturing, nourishing, and caring. It's not enough to say "I care." We must be caring. I think we should think less and feel more. We should hear less intellectual talk and more compassion talk. We have to exercise our feelings. We have to teach from the heart and with the heart, not just the brain. Each day we have to enter class with love and leave it with love.

Yet, so many of us academics are embarrassed by introducing emotion into the learning process? So many are repelled by anything other than being brainy. We wince at it thinking that it is so out of place in the intellectual and rational world, and do our darndest to banish it. Why? Is it because we equate emotions with a sentimentality and vulnerability that attacks our protecting rationality? Is it because we equate tenderness with immaturity and dependence which erodes our sense of adulthood? Is it because we equate love with diminishment and weakness that questions our strength? Is it because we equate passion with a naivete that questions the depth of our knowledge. Is it because we equate caring with the loss of our independence? Is it because some of us are too lazy? Is it that many of us are afraid to examine our relationship to students and explore that that we feel and how what we feel affects that relationship? Is it that many of us are locked into safe, familiar, predictable routines, that shadow life of sameness, that we like to control that serve us. I can understand, for to teach from the heart as well as the head is far more difficult than merely transmitting

information, giving exams, and computing grades. I once described teaching as requiring the delicate skill and knowledge and awareness of a surgeon, gourmet cook, physician, counselor, master architect, master dancer, master artist, or a weaving spider. I am convinced that teaching from the heart rather than from lecture notes and/or a textbook matters, that our ability to relate with one another directly correlate to increases in both my performance and that of the students. And, the absence of caring is largely responsible for the classroom anxieties and stress that inhibit achievement. I'll go far as to say that the absence of heart is the greatest ailment of education. I think it is heart which brings human reality into education, which acknowledges the humanness of both teacher and students, and which makes teaching the creative challenge that is. I think it is caring which demands we have great enthusiasm, seemingly endless energy, and take bold risks if we are to meet that challenge of helping each student help him/herself to change, grow, and develop.



My Wordly Friends

Over the summer I have been spending time with friends that I've met from all over the world on the Internet. Let me tell you about a few of them.

There is a young family living near the Arctic Circle that e-mailed me and said they liked my web page. They have a seven year old with cerebral palsy (CP) and asked my opinion on several CP problems, schooling, and technologies available here. I learned all about living way up in the northern Alberta Province in Canada. It is much too cold for outside activities, so imagine a bicycle marathon inside a gym on stationary bikes. Oil is their life up there. It doesn't come from deep wells but is squeezed out of the dirt. I envisioned a small town with few people, but what a surprise to learn that there is a city of 35,000 people living so far north. They have excellent schools, with computers in every class. Children with handicaps are given the latest in communication technology and the newest electric wheelchairs—all free of charge. They have a short, warm summer with lots of mosquitoes.



Seth Taylor

Then there was a freaky guy from Spain who e-mailed me once. I tried to reply but the message was refused by the server. A year later he writes me again asking if I remembered him. Couldn't answer again because his address was invalid. Says he travels a lot and when he gets back to Spain he'll settle in and write again! I'm not holding my breath!!!

The latest has been from a 19 year old girl with CP from Australia who, well lets just say she's a Marilyn Manson fan, and leave it at that!

I've told all of them about Florida, and I feel like I've travelled all over the globe by e-mail. I meet different people every week. I guess I could write a book about all the people I've gotten to know.

Parents With Disabilities on Line

Do you know a parent or a parent-to-be with a disability? If you had cerebral palsy and were pregnant or already had a child and you wanted to talk to someone, where might you look? Trish Day, who has cerebral palsy and uses a wheelchair for mobility, searched the web looking for answers; however, none existed. Now that Trish is a parent, she wants to share her experience and knowledge with others who have disabilities and are searching for information. She hopes to help ease their

transition into parenthood. She and her husband have developed a Web site listing many resources and products that have helped them. Trish offers advice and help to parents with all types of disabilities, primarily those with mobility difficulties. She has some information for parents with vision or hearing impairments. Access her web page at:

http://ourworld.compuserve.com/homepages/Trish_and_John

Book Reviews

by Kathleen Bastedo

The Answer Book on Special Education Law

by: Susan Gorn

Horsham, PA: LRP Publications, 1996

Price: \$37.75

ISBN: n/a

This book is designed to answer the most commonly asked questions regarding special education law and how it relates to school districts' policies and practices. Sample questions answered are based on statutes, and regulations, court decisions, and administrative interpretations regarding the Individuals with Disabilities Act (IDEA), Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Categories addressed include: eligibility; evaluations; free appropriate public education; individualized education programs; placement; related services; procedural safeguards; due process hearings and appeals; financial responsibility; private school students; discipline; judicial actions and remedies; and attorney's fees.

Curriculum Based Activities in Occupational Therapy An Inclusion Resource

by: Lisa Loiselle & Susan Shea

Framingham, MA: Therapro

Price: \$32.50

ISBN: n/a

The activities in this book are based on experiences of occupational therapists who have worked in school systems for years. Most of the material was developed for use with mildly to moderately impaired students who are in early childhood, preschool, kindergarten and first grade. Many of these activities can be modified for use with students who have more severe impairments as well as with students with no impairment at all. The activities are organized according to curriculum levels with ideas and sample goals designed so that therapists can implement them within the educational environment.

Occupational Therapy Services for Children and Youth under the Individuals with Disabilities Education Act

by: AOTA

Bethesda, MD: AOTA, 1997

Price: \$40.00

ISBN: n/a

This book is designed to provide guidance to occupational therapists and certified occupational therapy assistants who work with children receiving services under the Individuals with Disabilities Education Act (IDEA). The five major elements of occupational therapy service delivery under IDEA are described in separate chapters and include: a continuum of services; service delivery; a child's interaction within various environments; collaboration and partnerships; and outcomes.

LINK

The Link is a small, portable keyboard with the addition of DECTalk speech. The keyboard has 80 characters which can be configured to QWERTY, Dvorak, and right or left one-handed layouts. The Sticky keys feature provides one-handed access to functions requiring two keystrokes (function keys). An optional key click allows the user to hear when a key is pressed. The LCD panel has 4 lines of 80 characters each. Eight separate files hold up to 64 pages of text. Abbreviation expansion is available to decrease keystrokes. Editing keyboard shortcuts help the user edit a document quickly. Files can be easily transferred directly into a Macintosh or PC-based word processing file. Speech output options include nine different voices with the ability to change pitch, rate, and volume. Readback of text can be letter by letter, word by word, sentence by sentence, or paragraph by paragraph. Instant phrases can be stored and then sent to the LCD panel or the speech synthesizer. A pronunciation exceptions dictionary allows the user to phonetically spell a word so that it is spoken correctly. A set of earphones is included and allows the user to hear the speech output without disturbing others. Weighing only 2.2 pounds, the Link is easily transported. It is powered by either alkaline or rechargeable batteries and comes with extra batteries and a recharging unit. Optional accessories include a keyguard, moisture guard, carrying case, and wheelchair mounting kit. The cost is \$1395 and it is available from:

Assistive Technology, Inc.

850 Boylston Street

Chestnut Hill, MA 02167

800-793-9227

<http://www.assistivetech.com>.



eMate 300

The eMate 300 is a small, portable computer with built-in word processor, graphing calculator, spreadsheet, address book, calendar functions, and telecommunication capabilities. It is designed to be used by students as a mobile computer. The exterior is made of rugged plastic with a built-in handle. The keyboard is a QWERTY layout with labeled function keys. Input is through the keyboard but a touch pen is included for moving text and designing graphics. The LCD panel is a 5.5" x 4" gray-scale screen with optional backlighting for easier viewing. Information can be transferred from the eMate 300 using an infrared port. A PC card slot is available for increasing the memory or adding a modem. Files can be downloaded to either a Macintosh or PC computer through the serial port or printed directly to a serial printer. The eMate 300 is powered by rechargeable batteries and comes with a pocket-sized charger. The cost is \$749 and it is available from:

Apple Computer, Inc.

One Infinite Loop, MS38DS

Cupertino, CA, 95014

800-600-7808

<http://education.apple.com>



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Mark Your Calendar

Communication Aid Manufacturers Association
(CAMA) Workshop Schedule:
January 12, 1998, Panama City, FL
January 13, 1998, Jacksonville, FL
January 14, 1998, Orlando, FL
January 15, 1998, Tampa, FL
January 16, 1998, Ft. Lauderdale, FL
Contact: CAMA, PO Box 1039, Evanston, IL
60204-1039, 800-441-2262

January 17-18, 1998, **CARD 5th Annual Conference**,
“Enhancing Community Through Partnerships,”
Tampa, FL
Contact: Center for Autism and Related Disabilities,
Louis de la Parte Florida Mental Health Institute-
MHC 2113A, 13301 Bruce B. Downs Blvd., Tampa, FL
33612-3899

January 21-22,
1998, **VOCA XII**,
Wayne, MI
Contact: RESA-
ADAMLAB,
33500 Van Born
Road, PO Box
807, Wayne, MI 48184-2497
<http://www.cresa.k12.mi.us/adamlab>



March 17-21, 1998, **CSUN 13th Annual Conference**,
“Technology and Persons with Disabilities,”
Northridge, CA
Contact: CSUN, Center on Disabilities, California
State University, Northridge, 1811 Hordhoff Street,
Northridge, CA 91330-8340
<http://www.csun.edu/cod/>