



Webinar Materials

"AT, AIM, NIMAS, UDL and More: Making It All Work for Students with Disabilities"

Wednesday, October 22, 2008 ♦ 2:00-3:30 PM ET



presented by


Kathleen H. McClaskey, M.Ed.
President of [Ed Tech Associates](#)


The Advocate Academy is a project of



*A not-for-profit organization dedicated to services and projects
that work to improve the lives of children, youth and adults with disabilities.*


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**AT, AIM, NIMAS, UDL
and More:
Making It All Work for
Students With
Disabilities**

Presented by
Kathleen H. McClaskey, M.Ed.




Kathleen H. McClaskey, M.Ed.

- an educational and assistive technology consultant with over 25 years experience in using technology in the classroom
- President of [Ed Tech Associates](http://www.edtech-associates.com) (www.edtech-associates.com)
- [Ed Tech Associates](#) offers assistive technology evaluation services, and onsite consultation and professional development services to schools on using technology to improve literacy skills for all learners



Kathleen H. McClaskey, M.Ed.


- board member of the NH Branch of IDA, SETSIG board member of ISTE and a board trustee of the Strong Foundations Charter School in Pembroke, NH.
- frequent national and regional workshop presenter and consultant on topics that include technology for diverse learners, Universal Design for Learning and the role of technology to improve literacy skills for all learners



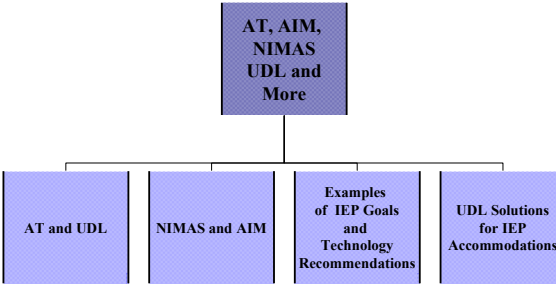
“AT, AIM, NIMAS, UDL and More: Making It All Work for Students With Disabilities ”

presented by
Kathleen H. McClaskey
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Webinar Roadmap



**AT, AIM,
NIMAS
UDL and
More**

AT and UDL **NIMAS and AIM** **Examples
of IEP Goals
and
Technology
Recommendations** **UDL Solutions
for IEP
Accommodations**


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Acronyms Defined

- **UDL:** Universal Design for Learning®
- **AT:** Assistive Technology
- **NIMAS:** National Instructional Material Access Standard
- **AIM:** Accessible Instructional Materials

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Universal Design for Learning

Universal Design for Learning® (UDL) is an educational approach to curriculum and instruction that **uses technology to enable students** with diverse learning needs to be **successful in the classroom.**

Universal Design for Learning is a registered trademark of the Center for Applied Special Technology (CAST)

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Universal Design for Learning

Universal Design for Learning® refers to a process by which a curriculum (i.e., **goals, methods, materials, and assessments**) is intentionally and systematically designed from the beginning to address individual differences.

Resource: UDL Guidelines 1.0
<http://www.cast.org/publications/UDLguidelines/version1.html>


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Universal Design for Learning

- **Design** being a key word in this concept.
- This is a philosophy in which the learning environment is **designed** to promote maximum accessibility and engagement.
- Environmental **Design** includes
 - ✓ Learning Materials
 - ✓ Classroom Design
 - ✓ Teaching Methods

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Universal Design for Learning

CAST has identified three primary brain networks and the roles they play in learning

- ✓ **Recognition or Knowledge**
 - ✓ **Strategic**
 - ✓ **Affective**

CAST: Center for Applied Special Technology

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Recognition or Knowledge Network

How learners gather information

How we identify and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks; the "what" of learning.

- ✓ Attention
- ✓ Organization

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Recognition or Knowledge Learning

UDL Principle 1:
Use Multiple Means of Representation
Support Recognition or Knowledge Learning by giving learners various ways of acquiring information and knowledge

- Provide options for perception
- Provide options for language and symbols
- Provide options for comprehension

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Strategic Learning

How learners plan and perform tasks

How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks; the "how" of learning.

- ✓ Organization
- ✓ Brainstorm
- ✓ Contextualize Information

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Strategic Learning

**UDL Principle 2:
Use Multiple Means of Expression**

Support Strategic Learning by providing learners alternatives for demonstrating what they know

- Provide options for physical action
- Provide options for expressive skills and fluency
- Provide options for executive functions

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Affective Learning

How learners are engaged and motivated

How they are challenged, excited, or interested. These are affective dimensions; the "why" of learning.

- ✓ Anchored in "real world"
- ✓ Leverage natural abilities, aptitudes and talents

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Affective Learning

**UDL Principle 3:
Use Multiple Means of Engagement**

Support Affective Learning by tapping into learners' interest and natural abilities; offer appropriate challenges and increase motivation


- Provide options for recruiting interest
- Provide options for sustaining effort and persistence
- Provide options for self regulation

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Universal Design for Learning Guidelines

I. Representation	II. Expression	III. Engagement
<p>Use multiple means of representation</p> <ol style="list-style-type: none">Provide options for perception<ul style="list-style-type: none">Options that customize the display of informationOptions that provide alternatives for auditory informationOptions that provide alternatives for visual informationProvide options for language and symbols<ul style="list-style-type: none">Options that define vocabulary and symbolsOptions that clarify context and structureOptions for decoding text or mathematical notationOptions that promote cross-linguistic understandingOptions that illustrate key concepts non-linguisticallyProvide options for comprehension<ul style="list-style-type: none">Options that provide or activate background knowledgeOptions that highlight critical features, big ideas, and relationshipsOptions that guide information processingOptions that support memory and transfer	<p>Use multiple means of expression</p> <ol style="list-style-type: none">Provide options for physical action<ul style="list-style-type: none">Options in the mode of physical responseOptions in the means of navigationOptions for accessing tools and assistive technologyProvide options for expressive skills and fluency<ul style="list-style-type: none">Options in the media for communicationOptions in the tools for composition and problem solvingOptions in the scaffolds for practice and performanceProvide options for executive functions<ul style="list-style-type: none">Options that guide effective goal settingOptions that support planning and strategy developmentOptions that facilitate managing information and resourcesOptions that enhance capacity for monitoring progress	<p>Use multiple means of engagement</p> <ol style="list-style-type: none">Provide options for recruiting interest<ul style="list-style-type: none">Options that increase individual choice and autonomyOptions that enhance relevance, value, and authenticityOptions that reduce threats and distractionsProvide options for sustaining effort and persistence<ul style="list-style-type: none">Options that heighten salience of goals and objectivesOptions that vary levels of challenge and supportOptions that foster elaboration and communicationOptions that increase mastery-oriented feedbackProvide options for self-regulation<ul style="list-style-type: none">Options that guide personal goal setting and expectationsOptions that scaffold coping skills and strategiesOptions that develop self-assessment and reflection


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What is Assistive Technology?

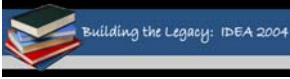
- **Assistive Technology** is also called “AT”
- **Assistive Technology** is a legal term to classify tools that are used for a specific purpose.
- Many tools that are classified as “AT” can be used to promote UDL.

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Assistive Technology Defined

- Legal Definition
“any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of children with disabilities” (P.L. 100-407, 29 U.S.C. 2201, §3(1))



<http://idea.ed.gov/>

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Functionally Speaking...

Assistive Technology

is a tool that allows a person to do a task such that, without the tool, the person could not do the task at the expected performance level.




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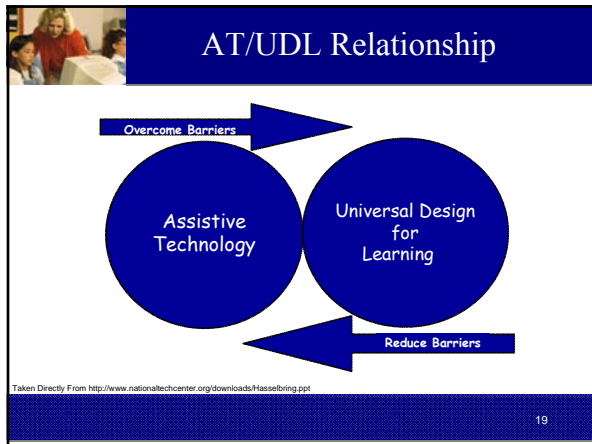


Furthermore...

AT Tools must be **UNIQUELY** matched to an individual student.

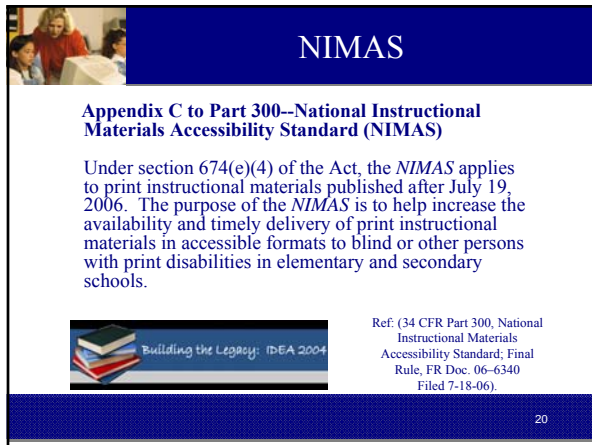


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The diagram, titled "AT/UDL Relationship", features two overlapping blue circles. The left circle is labeled "Assistive Technology" and the right circle is labeled "Universal Design for Learning". A blue arrow points from the left circle to the right circle, labeled "Overcome Barriers". A blue arrow points from the right circle to the left circle, labeled "Reduce Barriers".


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NIMAS

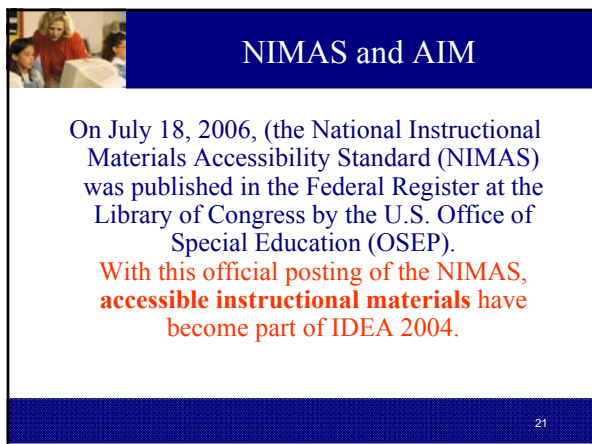
Appendix C to Part 300--National Instructional Materials Accessibility Standard (NIMAS)

Under section 674(e)(4) of the Act, the *NIMAS* applies to print instructional materials published after July 19, 2006. The purpose of the *NIMAS* is to help increase the availability and timely delivery of print instructional materials in accessible formats to blind or other persons with print disabilities in elementary and secondary schools.



Ref: (34 CFR Part 300, National Instructional Materials Accessibility Standard; Final Rule, FR Doc. 06-6340 Filed 7-18-06).

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NIMAS and AIM


On July 18, 2006, (the National Instructional Materials Accessibility Standard (NIMAS) was published in the Federal Register at the Library of Congress by the U.S. Office of Special Education (OSEP).

With this official posting of the NIMAS, accessible instructional materials have become part of IDEA 2004.

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NIMAC




For NIMAC FAQ's go to
<http://www.nimac.us/index.html>

The **NIMAC** is a central repository that will contain the NIMAS (National Instructional Materials Access Standard) files of the elementary and secondary core instructional and related materials. The **NIMAC** will serve as a conduit through which the files will be made available to authorized users to convert the files into fully accessible textbooks for students.

Reference: IDEA 2004; Sec. 300.172 Access to instructional materials

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AIM and the IEP

Include language relating to a student's need for accessible, alternate-format versions of print instructional materials in the IEP in order to ensure—

Access to General Curriculum (34 CFR 300.138(a) and 300.347 (a)(3)): Students with disabilities are to be provided access to the general curriculum with modifications, accommodations, supplementary aids, and supports in order to make satisfactory educational progress.

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AIM and the IEP

It is recommended that the IEP include a query such as the following:

Does the student require accessible, alternate-format versions of printed textbooks and printed core materials that are written and published primarily for use in elementary and secondary school instruction and are required by an SEA or LEA for use by students in the classroom?

Reference: http://nimas.cast.org/about/resources/accessible_iep

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AIM and the IEP

If a student with a print disability does need a specialized format, the IEP should specify the following:

- the specific format(s) to be provided (Braille, audio, e-text, large print, etc.)
- the Assistive Technology and the AT Services the student needs to use the specialized format
- the individual or individuals responsible for providing the specialized format, and
- whether or not the format is required to be used in the student's home or in another setting in order for the student to receive a free appropriate public education.

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AIM Consortium



The goals of the 15 State AIM Consortium are to:

- Help States develop systems for identifying, acquiring, and using accessible instructional materials;
- Ensure that these systems employ high quality procedures and practices; and
- Produce related products and services that can be made available to all States, Outlying Areas, and Freely Associated States.

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Questions and Answers

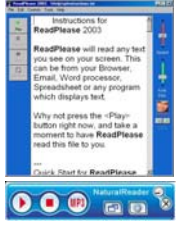
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Tools to Support Reading Goals

No Cost Tools

Text-to-speech Tools to read digital text

- ReadPlease® 2003 (PC)
- Natural Reader (PC)
- Mac Speech Tool



www.readplease.com
www.naturalreaders.com

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Tools to Support Reading Goals

- Examples of Assistive Technology Tools with reading comprehension and study skill features



http://www.donjohnston.com/products/read_outloud/index.html

<http://www.freedomscientific.com/LSG/products/wyn.asp>






Kurzweil 3000: www.kurzweiledu.com

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Tools to Support Reading Goals

Free Access to electronic book repository and Read:Outloud




Major Great News about Bookshare.org


We're happy to share incredible news, which will transform Bookshare.org. On Friday, the Office of Special Education Programs of the U.S. Federal Department of Education made a major five-year award of \$32 million to Bookshare.org. This will further the objectives of the Individuals with Disabilities Education Act (IDEA), by supplying high quality textbooks and educational materials to students with special needs.

This funding is to fully support all schools and students 26 years old and under with qualifying print disabilities in the United States, K-12 and post-secondary. We will provide these students with access to the entire

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Tools to Support Reading Goals





- Bookshare.org is an online library of accessible books for readers with **identified** print or visual disabilities.
- Over 41,000 K-12 books and textbooks
- **FREE** assistive technology software downloads (Victor Reader Soft and Read:OutLoud)
- Organizational and individual membership

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Tools to Support Reading Goals

Bookshare.org and NIMAC




- Currently the NIMAC houses over 2,000 textbooks and 6,000 supplementary reading materials.
- You can search the NIMAC and see what textbooks are available. It's easy!
- Go to www.nimac.us and click on NIMAC repository and look up book by title, author, publisher or ISBN number.

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How to Get Books out of the NIMAC



- If the book is not available, make sure your request to publisher includes language specifying a digital NIMAS file be sent to NIMAC repository. Sample contract language can be found at www.cast.nimac.org
- Book requests go directly to Authorized User (AU) who then makes request to Bookshare.org as an Accessible Media Producer (AMP)
- Contact your state NIMAC coordinator to make a book request and to get a listing of your state Authorized User/s.
- Give Bookshare two weeks to have the textbook ready in DAISY and BRF formats

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Links to Electronic Books




Links to 40 e-book sites and text-to-speech software for PC and Mac

Go to www.edtech-associates.com.
Click on link to eBooks, eTexts & Readers

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Tool to Support IEP Goals

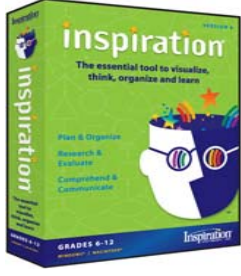
- Kidspiration® software - visual graphic organizer, Grades K-5
- Helps students:
 - Develop strong thinking skills
 - Strengthen reading and writing skills
 - Build conceptual understanding in math




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Tool to Support Writing, Reading & Organizational Goals

- Inspiration® 8.0 – visual graphic organizer, Grades 6-12
- Helps students:
 - Plan and organize writing
 - Research and evaluate
 - Comprehend and communicate




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Tool to Support Reading and Writing Goals

No Cost Tool

WordWeb (PC) – Desktop Dictionary Thesaurus;
150,000 definitions and
120,000 synonym sets
wordweb.info/free



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Examples of Case Studies

IEP Goals and Recommendations in

- ✓ Reading
- ✓ Writing
- ✓ Organization

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Case Study - Reading

Robert has difficulty in decoding both reading and content area textbooks. (9th grade student; decoding: 5th grade; comprehension level: 8th grade)

- IEP Reading Goal:
Robert will read grade-level appropriate material by June 2009
- Recommendation
 - Electronic books and textbooks
 - AT Tool: Kurzweil® 3000
 - Inspiration® 8.0
 - WordWeb

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Case Study - Writing

In writing composition, Daniel has difficulty in getting started on a sentence or story, generating ideas and adding information to a topic. (6th grade student)

- **IEP Writing Goal:**
Given a choice of topics, Daniel will brainstorm/research ideas with assistance and then organize those thoughts into a 5-7 paragraph writing sample or composition using transition words/phrases, and word choices that enhance meaning
- **Recommendation**
 - AT Tool: Kurzweil® 3000 or equivalent
 - Inspiration® 8.0
 - MSWord®
 - WordWeb

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Case Study - Organization

In organizational and study skills, Carol has difficulty in all aspects of learning new material and studying. She has significant difficulty managing her materials, time and learning which impacts her affect. (8th grade)

- **IEP Organizational Goal:**
Carol will learn to understand and apply transitional study strategies, monitor the organization of her materials, learn and apply meta-cognitive study at a guided practice level by 06/09
- **Recommendation**
 - Digital file and folder management
 - MSWord® – tables

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UDL Solutions in the IEP

**Technology Recommendations
As They Relate to
Instructional Strategies and
Accommodations**

(All Support Independent Learning Skills)


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UDL Solutions in the IEP

IEP Accommodation or Strategy	Software/feature
Allow audio notes as an alternative method of testing to reduce frustration level.	MSWord® /audio notes


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UDL Solutions in the IEP

IEP Accommodation	Software/feature
Daniel should have the option to take tests or quizzes by responding orally, as needed.	MSWord® /audio notes


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UDL Solutions in the IEP

IEP Accommodation or Strategy	Software/feature
Encourage brainstorming and use of graphic organizers to assist Carol with the organization and composition of her writing assignments	<ul style="list-style-type: none">• Inspiration® 8.0/diagram and outline modes• MSWord®


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UDL Solutions in the IEP

IEP Accommodation or Strategy	Software/feature
Long term projects need to be broken down to smaller segments with intermediate check-ins or due dates for each segment	MSWord/table feature


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UDL Solutions in the IEP

IEP Accommodation or Strategy	Software/feature
For tests requiring fill in the blanks, provide a word bank or multiple choice tests.	MSWord®/forms


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UDL Solutions in the IEP

IEP Accommodation	Software/feature
All vocabulary will be pre-taught to assist in his understanding and vocabulary development.	<ul style="list-style-type: none">• MSWord®/table and audio note features• Use of images for vocabulary


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UDL Solutions in the IEP

IEP Accommodation	Software/feature
Daniel should be provided with a study guide for all test and quizzes.	Inspiration 8.0®/outline view/hide and show notes


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UDL Solutions in the IEP

IEP Accommodation	Software/feature
Provide Daniel with books on tape for content areas when reading to him is not possible	<ul style="list-style-type: none">• Bookshare.org book repository• Read:OutLoud®• NIMAC books

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Questions and Answers


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References

- **Reading and Technology** (2004) Northeast and the Islands Regional Technology in Education Consortium (NEIRTEC) project, a collaboration of Education Development Center, Inc. (EDC), TERC, Education Alliance at Brown University and Learning Innovations at WestEd. http://www.neirtec.org/reading_report/
- **Learning for the 21st Century** (2003). The Partnership for 21st Century Skills. http://www.21stcenturyskills.org/downloads/P21_Report.pdf
- **Graphic Organizers: A Review of Scientifically Based Research** (2003) IARE. <http://www.inspiration.com/learn/research/index.cfm>
- **Graphic Organizers and Implications for Universal Design for Learning: Curriculum Enhancement Report** (2003). National Center on Accessing the General Curriculum, CAST. http://www.k8accesscenter.org/training_resources/udl/graphicorg.asp
- Marzano, Robert, Pickering, Debra J. and Pollack, Jane E. (2001) **Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement**. ASCD.
- Beck, I and McKeown, M. (1991) **Handbook of Reading Research**, National Research Council.
- National Reading Panel. (2000). **Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction**. Washington, DC: National Institute of Child Health and Human Development.
- Rose, D., & Meyer, A. (2000). **The Future is in the Margins: The Role of Technology and Disability in Educational Reform**. <http://udl.cast.org/udl/index.cfm?i=542>

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Resources

www.edtech-associates.com: EdTech Associates offers Consultation and Professional Development Services for schools and school districts to improve academic outcomes and literacy for ALL learners.

www.iste.org: International Society for Technology in Education – Site for the National Educational Technology Standards for Students, Teachers and Administrators

jset.unlv.edu/: Journal for Special Education Technology

www.k8accesscenter.org/default.asp: The Access Center - Improving Outcomes for All Students K-8.

www.21stcenturyskills.org: Partnership for 21st Century Skills

www.nationaltechcenter.org/matrix/default.asp: NCTI Reading Matrix

www.cited.org/: Center for Implementing Technology in Education

www.wested.org/cs/tddl/: Using Technology to Support Diverse Learners

www.ncrel.org/sdrs/areas/issues/content/entareas/reading/li300.htm: Critical Issue: Using Technology to Enhance Literacy Instruction

www.childrenofthecode.org: Children of the Code

www.cast.org: Center for Applied Special Technology

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Websites

www.inspiration.com: Inspiration and Kidspiration Software

www.readplease.com: Readplease 2003

www.naturalreaders.com: Natural Reader

wordweb.info/free/: Word Web

www.kurzweil3000.com: Kurzweil 3000

http://www.donjohnston.com/products/read_outloud/index.html: Read:Outloud

<http://www.freedomscientific.com/LSG/products/wynn.asp>: WYNN

<http://www.nimac.us/index.html>: NIMAC FAQ's

<http://nimas.cast.org/about/faq>: NIMAS FAQ's

<http://www.cast.org/publications/UDLguidelines/version1.html>: UDL Guidelines



http://nimas.cast.org/about/resources/accessible_textbooks: An Educator's Guide to the Acquisition of Alternate Format Core Learning Materials for Pre-K-12 Students with Print Disabilities

<http://nimas.cast.org/about/idea2004>: NIMAS in IDEA 2004

http://nimas.cast.org/about/resources/nimas_nimac_contacts: NIMAS State Coordinators

<http://aimconsortium.cast.org/>: AIM Consortium

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- ☞ “Tools for Early Literacy”, Pre-K to Grade 2
- ☞ “Math Tools for Learning”, Grades K-5, or 6-12
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the UDL Model that meet the needs of all learners.

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- Inspiration and Kidspiration are registered trademarks of Inspiration, Inc.
- Kurzweil 3000 is a trademark of Kurzweil Educational Systems, Inc.
- WYNN is a trademark of Freedom Scientific, Inc.
- Read:Outloud is a registered trademark of Don Johnston, Inc.
- ReadPlease is a registered trademark of ReadPlease Corporation
- Natural Reader is a trademark of NaturalSoft Limited

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