

Chart that accompanies The Monitor article:

Assistive Technology (AT) as a Complementary or Compensatory Tool for Brain Compatible Instructional Strategies.

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Brain Systems targeted	Effective Teaching Strategies	Teaching Strategies described	Assistive technologies that may support students with Learning disabilities
Recognition system Strategic system Affective system	Setting Goals and providing feedback	Teachers can encourage the active learning by placing students in small groups. Have them discuss and write on a chart what they know and what they need to know and how they will demonstrate that. Provide immediate feedback on their process. Praise their progress. Students require praise till they are in their mid twenties .This ability to be intrinsic about work is not developed in their frontal lobes until after this age.	<ul style="list-style-type: none"> • Inspiration© • Kidspiration© • Rubric maker© • Electronic Portfolios • Videotape • Draft Builder©
Recognition System	Nonlinguistic Representation	Research indicates that information is stored in many areas of the brain. Adding a visual component allows the brain more opportunities to store and retrieve information. Picture support allows students with language disabilities another way to learn and remember information.	<ul style="list-style-type: none"> • Picture supports-charts, models, posters • Writing with Symbols 2000© • Picture It©, Pix Writer© • Inspiration©, Kidspiration© • Kids Works©, Kids Pix© • Intellistudio©, Buildability©, Power • Point©, Hyper studio©, Kids Media Magic©, • The Cruncher© • Clicker 4©, • Some Edmark Laureate, and Soft Touch, software • Blocks in Motion©, Lego Software
Recognition System	Identify similarities and differences	Breaking large concepts into smaller Chucks of information based on relationships. Maybe teacher or student led. Research indicates a stronger learning impact when students identify discuss similarities and differences in small groups.	<ul style="list-style-type: none"> • Kidspiration© • Inspiration© • Word templates with drop down menus • Draft Builder© • Edmark Thinking Things • Intellimathics© • Graph Master©
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Strategic and Affective System	Cooperative Learning	Allows students of various ability levels to work together, each working from their own strengths. Each student has a role. Teachers can facilitate the effectiveness of this model by	<ul style="list-style-type: none"> • Kidspiration© • Inspiration© • Kids Works©, Kids Pi© • Intelli Classroom©, Buildability©, Power • Point©, Hyper studio©, Kids Media Magic© • Lego software©, Blocks in motion©,

		providing cue sheets for each member of the team.	<ul style="list-style-type: none"> • The Cruncher© • SOLO© by Don Johnston • Scholastic Keys ©
Strategic system	Generating and testing hypothesis	Begin a lesson by questioning what may happen if something is changed in the chosen topic. Have them predict. Give them a some information to check their prediction... Revisit their prediction. Then predict, again, what resources or Information they will need to better Answer their original question.	<ul style="list-style-type: none"> • Kidspiration© • Inspiration© • Rubric maker • Hyper studio© • Hollywood High© •
Strategic and recognition system	Cues, Questions and advanced organizers	May use this after the initial question is asked. Then the teacher may foreshadow the lesson topic utilizing a story, bulletin board, picture, movie, song. Then have them use this experience as a basis for the content they will be studying.	<ul style="list-style-type: none"> • Word walls, may be electronic • Specialized vocabulary lists • Color coded systems • Franklin hand- helds • PDAs • Portable word processors • Judy Sweeney's Lottie Kit • Electronic study sheets • WYNN© or Read and Write Gold© • SOLO© by Don Johnston • •
Strategic System	Summarizing and note taking	Note taking can be used affectively if the student has the following skills: <ol style="list-style-type: none"> 1. An awareness off basic writing formats (ex. intro, supporting information summary,). 2. The ability to substitute, delete and recognize key elements of a written selection. 3. The ability to ask questions and predict what information will come next in the written text. 	<ul style="list-style-type: none"> • Writing models • Kidspiration© • Inspiration© • Note taking templates • Colored dots to mark key ideas • Highlighters to mark designated points • Recorded notes with study guides • Provision of consistent study guide templates • Electronic or paper copy of teachers lecture notes • Wynn©-teacher utilizes note pad or voice note feature to ask essential questions. • Read and Write Gold© • Fill in the blank note taker skeleton • Bingo Generator • Draft Builder© • Amazing Writing Machine© •
Strategic System	Home work and Practice	Homework should be an opportunity to extend, or apply classroom knowledge. It should be appropriate to the grade level of the student. The purpose of the homework should be clear to the parent and the student. Parent involvement should be minimal home work is to practice already acquired skills. Not to learn new information.	<ul style="list-style-type: none"> • Word walls, may be electronic • Specialized vocabulary lists • Color coded systems • Franklin hand- helds • PDAs • Portable word processors • Judy Sweeney's Lottie Kit • Electronic study sheets • WYNN©, Read and Write Gold©, Kurtweil© • •

References

Websites:

<http://www.brainconnection.com/> - Brain Connection a website owned by Scientific Learning makers of Fast Forward ®

<http://www.cast.org/> Center for Applied special technologies. Creating universal design for learning that includes all student utilizing technology supports.

Resources:

Marzano, Robert, J., Pickering, Debra, J., Pollock, Jane, E.(2001). *Classroom instruction that works*. Alexandria, VA: ASCD

Shaywitz, B., Pugh, K. R., et al. (2000). "The neurobiology of reading and reading disability (dyslexia)." In M. Kamil, P. Mosenthal, P. Pearson, and R. Barr (eds.), *Handbook of reading research* (vol. III, pp. 229-249). Mahwah, NJ: Lawrence Erlbaum Associates.

Temple, E., Deutsch, G. K., Poldrack, R. A., Miller, S. L., Tallal, P., Merzenich, M. M., & Gabrieli, J. D. (2003). *Neural deficits in children with dyslexia ameliorated by behavioral remediation: Evidence from functional MRI*. Proceedings of the National Academy of Sciences, Vol. 100, No. 5: pp. 2860-2865.

Wolfe, P. (2001). *Brain matters: Translating research into classroom practice*. Alexandria, VA: ASCD