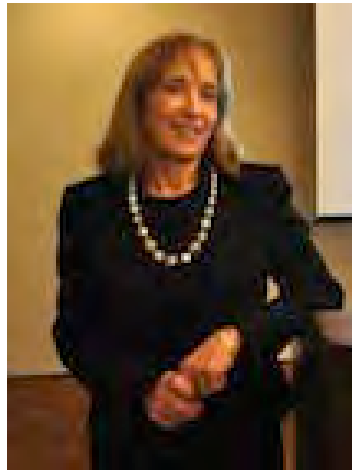


Dr. Judy's Jan/Feb 2014 Newsletter

Only Brain that Thinks, Grows Dendrites

Greetings Fellow Educators,

For students to truly learn and reap the benefits of education, they need to construct understanding. Understanding is not something we can formally teach. We can teach facts and procedures, but we must guide students to construct their own understanding. In the brain, the mental manipulation required to construct understanding fuels the neuroplasticity that yields durable, long-term memory.



As Understanding is Student-Constructed, Concept Memory is Brain-Constructed

Under your guidance and through the opportunities you provide for students to use and transfer learning, their neural circuits expand the range of interconnections. As understanding builds, students' brains construct concept knowledge networks they will be able to apply to solve problems, adapt to new information, and collaborate successfully beyond the classroom and school itself.

Your support will be needed along the way. Just as learning how to walk, speak, and read does not emerge fully proficient, the construction of understanding and concept networks is not a smooth pathway to perfection. Going from the unknown to the known involves detours through uncertainty and mistakes. Help students understand that setbacks provide opportunities for them to revise their brains' erroneous circuits and working through periods of confusion strengthens the accurate networks their brains ultimately construct.

This newsletter suggests ways to help students build their *flexibility* as a powerful support system for their emerging cognitive, emotional, and social mindsets and their tolerance for the growing pains they'll experience along the path to adulthood.

First Response – Limited Perspective

Take a look at following examples and see if you can find a mistake in either.



There are mistakes in both! Perhaps you did see them, but most people do not see either the second “the” or the incorrect color of the 4 of hearts until they are pointed out. These are examples of *inattentional blindness*. Although the errors are clearly evident once they are pointed out, they are not initially perceived. Inattentional blindness regarding these examples is well within normal limits. However, the focus on single correct responses and specific “right” ways to solve problems has narrowed the perspectives of a generation of students.

When the brain repeatedly uses mental processing geared to rapid efficiency and single responses, it grows increasingly “successful” at this response to information and experiences. Students build the cognitive habits of accepting the first retrieved response as correct and the only accurate response.

Learning experiences need to go beyond single answers and applications to push students to resist their first response as correct or as the only correct response. Brains that have become habituated to unthinkingly following direct instructions and memorizing single right answers may be restricted beyond *inattentional blindness*. Students without more expanded experiences interpreting data and developing solutions will not have adequate preparation for the rapidly expanding information pool in the globalized, technological world awaiting them when they leave school.

With accelerating quantities of information today’s students face higher education and career challenges of interpreting, reasoning, communicating, and transfer of knowledge to novel applications. The repetition of facts is no longer adequate for being “smart”. After years of passivity and limited responsibility for evaluating ideas, considering multiple options, or supporting their opinions, students must build the skills of constructing understanding, formulating ideas and clearly supporting their opinions or solutions with reasons.

Building Cognitive Flexibility

Cognitive flexibility is one of the executive functions developing in the prefrontal cortex, especially during the school years. It is the capacity to be open and receptive to considering all aspects of an experience, sources of information, a variety of interpretations, or approaches to problems. With well-developed cognitive flexibility students will have greater capacities to consider alternative points of view, predict a variety of outcomes, and assess changing data or new information from multiple perspectives. Cognitive flexibility could increase the likelihood of being open to multiple interpretations, even when asked to respond with only one – such as finding the two errors in the sample diagrams.

Students can be paired with classmate(s) who have the same opinion on comfortable, interest-related topics that do not require formal evidence. They share reasons for their opinions and select one or two that they feel are most convincing.

Groups then expand to four to bring together student pairs with their different opinions and reasons to discuss with each other.

Topics, depending on student age, could include might include opinions about the best: bedtime story, breed of dog for a house pet, time to do homework, or Internet search engine.

Active listening would be appropriate to include if students are not experienced in supportive and productive ways to exchange different opinions. (Active listening involves listening silently without interrupting, and then repeating back what one thinks the speaker said and inviting corrections of any misinterpretations.) As students build their opinion sharing flexibility, they can extend the discussions by each listener selecting one of the speaker's support reasons that seemed most convincing or reasonable.

Cognitive flexibility can be expanded in regard to media in a number of ways. In literature, students can reflect on reasons that an "evil" character in a story might not be fully to blame or deserves sympathy. Students can develop several different interpretations of art, music, a historical event, or an author's choice of literary devices. Even cartoons can provide opportunities for students to build cognitive flexibility when they are asked to think of several possibilities for, "Why do you think this cartoonist selected cows to be the talking animals with all the other animals silent?"

Beyond having students develop multiple interpretations, they can be challenged to find more than one solution to a problem. The goal would be for them to build the habit of not stopping at the first "answer" that comes to mind. The problems could include historical disputes, ways to divide odd amounts of supplies equitably, several different endings for a story, improvements in rules for playing or scoring a sport, multiple ways to solve a math problem, or several ways to test a scientific hypothesis.

Teachable moments will become evident when you have cognitive flexibility in mind. When a student, novel character, politician, economist, critic, or analyst acknowledges a change of mind or opinion in response to considering alternative points of view or assessing new information, that can be an opportunity to acknowledge that person's flexibility, open-mindedness, fairness, or even courage.

Added Bonus

Basketball legend, Michael Jordan said, "I've missed more than 9000 shots in my career. I've lost almost 300 games. 26 times, I've been trusted to take the game winning shot and missed. I've failed over and over and over again in my life. And that is why I succeed." As students develop cognitive flexibility watch for additional expansions in their habits of mind. Making mistakes will be recognized as an opportunity to increase understanding and not an indication of failure. You'll see them build

increased perseverance figuring out problems, improved skills of collaboration, and greater responsiveness to corrective feedback and making revisions.

Best of all, consider the impact your efforts will have on your students' tolerance, ethics, and citizenship far beyond your classroom.

Keep igniting,

Judy

Judy Willis, M.D., M.Ed.

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www.RADTeach.com

In the attached pages are links to my recent and most popular articles, webinars, videos, and Edutopia staff blogs. These include education-related insights suggested by neuroscience research and teaching strategies correlated with interpretations of the research. Updated links to additional articles, blogs, videos, and webinars as well as frequent updates about where I'll be doing presentations and workshops can be found through my website: www.RADTeach.com

Dr. Judy Willis' Recent & Most Popular Links

Recent Articles, Blogs, Video Links

Good Praise, Bad Praise for *NBC News Education Nation*: Jan 2014

<http://www.parenttoolkit.com/index.cfm?objectid=0A598840-7722-11E3-A4E20050569A5318#>

Beyond the Comfort Zone: 6 Ways to Build Independent Thinking.

Edutopia Jan 10, 2014. <http://edut.to/1gqKy6X>

Building Brain Literacy in Elementary Students in Edutopia.org November 19, 2013. <http://www.edutopia.org/blog/building-brain-literacy-elementary-students-judy-willis>

The Simple Things I Do To Promote Brain-Based Learning In My Classroom in *TeachThought* Oct 2013 <http://www.teachthought.com/learning/the-simple-things-i-do-to-promote-brain-based-learning-in-my-classroom/>

Keep Students From Turning Off Their Brains in *TeachThought* 10/16/2013, http://www.teachthought.com/learning/5-teaching-strategies-keep-students-turning-brains/?utm_content=bufferc742b&utm_source=buffer&utm_medium=twitter&utm_campaign=Buffer

Raising Kids Who Want to Read-even during school vacations *Psychology Today Online*. Dec 10, 2013 <http://www.psychologytoday.com/blog/radical-teaching/201312/raising-kids-who-want-read-even-during-school-vacations>

Wall Street Journal article (in the online and print June 12 editions), by "Work & Family" columnist, Sue Shellenbarger includes my interview responses. about how parents can best respond to children's complaints of boredom. http://online.wsj.com/article/SB10001424127887323949904578539361337041442.html#mod=todays_us_personal_journal

USA Today Quoted in article July 3, 2013 ***Brain stimulation at any age can slow memory decline*** <http://www.usatoday.com/story/news/nation/2013/07/03/brain-aging-activities/2461655/>

Cover story **Southwest Airlines Spirit Magazine**: Flipped Out: *How the digital revolution is turning learning upside down (including my interview comments)* **Southwest Airlines Spirit Magazine / Flipped Out** <http://bit.ly/146gTM6>

Video Links

25 Parenting Videos by Dr. Judy Willis

<http://www.kidsinthehouse.com/expert/parenting-advice-from-judy-willis-md-med#page=/video/meet-judy-willis-md-med>
or <http://www.kidsinthehouse.com/search/site/willis#>

Video Link [International Conference on Thinking](#), Wellington, New Zealand. January 2013. Dr Judy Willis speaking about, *What we can learn from the Video Game Model* <http://bit.ly/15czG6s>

edutopia Videos

"Dr. Judy Willis *Edutopia's* '[Big Thinker on Education](#)'"
<http://www.edutopia.org/big-thinkers>

Big Thinkers: Dr. Judy Willis on the Science of Learning
<http://www.youtube.com/watch?v=J6FqAiAbUFs>

View 7 Video Chapters of Dr. Judy Willis' "[Big Thinker in Education](#)" Interview:
<http://www.edutopia.org/big-thinkers-judy-willis-neuroscience-learning-video>

The Big Thinker video interview is divided into 7 1-2 minute segments by topic. From "Big Thinker" Judy Willis page <http://www.edutopia.org/big-thinkers>, scroll down the bar to the right of the video/photo and you can open each section by name, such as [Judy Willis on the Science of Learning](#) (video).

- Meet Judy Willis, Neurologist Turned Educator (1 min 24 sec)
- The Science of Boredom (1 min 36 sec)
- Creating Curiosity in the Classroom (0 min 52 sec)
- Focusing Students' Attention in the Classroom (1 min 22 sec)
- The Importance of Creating a Safe Environment (1 min 32 sec)
- Lessons Learned from Video Games (2 min 52 sec)
- Preparing Students for the 21st Century (1 min 53 sec)

[Video Series](#): my brief responses to "**Learning & Students' Brains**" questions from interview at St Michaels University School April 2013. <http://bit.ly/13Ncewr>

Individual Videos in the "Learning & Students' Brains" series by title

What do Teachers Need to Know About the Brain? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/11D6JPq>

What are Some Myths about the Brain? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/16pBKfi>

What Happens to Our Brains When We Multitask? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/ZnA4f4>

Does Technology Change the Brain? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/130T0ER>

What Would be the Ideal Learning Environment? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/160vQS9>

How Does the Brain Change During Adolescence? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/13Ncewr>

How Can Parents Best Support Learning? Video of Dr Judy Willis by St Michaels University School <http://bit.ly/18r2s3P>

Popular Articles/Interviews

TEDx Video Dr. Judy Willis Jan 2013 ASB Mumbai, India. Topic “*Dr. Judy Willis: Video Game Model for Motivated Learning*” - <http://www.youtube.com/watch?v=i8TPRec6OCY>

Edutopia Staff Blog (most recent) [Game Based Learning: An Unprecedented Opportunity for Educational Equity](http://www.edutopia.org/blog/unprecedented-opportunity-for-educational-equity-judy-willis-md) Part 1 or 2. March 11, 2013
<http://www.edutopia.org/blog/unprecedented-opportunity-for-educational-equity-judy-willis-md>

Willis, J. A. (2013). Success on Standardized Tests without Sacrificing Authentic Learning. *STEM Magazine*. Jan - Feb 2013
http://issuu.com/carleygroup/docs/stem_magazine_final_jan.2013_web/12

The Neuroscience of Joyful Education by Judy Willis, M.D. ASCD Express Jan 3.
<http://bit.ly/Wyr3O5>

Interview with Dr. Judy Willis ABC Radio National 'All in the Mind' program hosted by Lynne Malcolm <http://www.abc.net.au/radionational/programs/allinthemind/how-children-learn-best/4297754>

How The Memory Works In Learning (Dec 2012)
<http://www.teachthought.com/learning/how-the-memory-works-in-learning/>

Why Teacher Education Should Include Neuroscience (Jan 2013)
<http://www.teachthought.com/learning/why-teacher-education-should-include-neuroscience/>

Bilingual Brains – Faster & Smarter: Psychology Today
<http://www.psychologytoday.com/blog/radical-teaching/201211/bilingual-brains-smarter-faster>

Televised Interviews and TEDx

Australia ABC TV show Lateline Judy Willis, MD interview Apr 20, 2012 “Neuroscientist explains how to stimulate young brains”. Link with video & transcript <http://bit.ly/IeW5H1>

Additional ABC interviews online:

Neuroscientist explains how to stimulate young brains : <http://www.abc.net.au/news/2012-04-20/neuroscientist-explains-how-to-stimulate-young/3964092>

Neural development and early intervention: Q&A
www.abc.net.au/news/2012-04-17/science-fuels-push-for-education-re-think/3952496

TEDx Video Dr. Judy Willis Feb 1, 2012. Topic “From Neuroscience Lab to the Classroom”
TEDxEnola <http://www.youtube.com/watch?v=WHRyPbcLKis>

TEDx Video Dr. Judy Willis Jan 2013 ASB Mumbai, India. Topic “Dr. Judy Willis: Video Game Model for Motivated Learning” - <http://www.youtube.com/watch?v=i8TPRec6OCY>

edutopia Staff Blogs

“Meet Dr Judy Willis, EDUTOPIA Staff Blogger” View All Posts
<http://www.edutopia.org/user/19536>

Strategies to Prevent the Neurotoxic Impact of School Stress
<http://www.edutopia.org/blog/neurotoxic-impact-of-school-stress-judy-willis>

Game Based Learning: An Unprecedented Opportunity for Educational Equity Part 1 or 2.
March 11, 2013
<http://www.edutopia.org/blog/unprecedented-opportunity-for-educational-equity-judy-willis-md>

Experienced Teachers Reflect on Their First Year: What they know now that they wish they knew sooner

PART 1 Sept 2012 <http://www.edutopia.org/blog/teachers-reflect-on-first-year-judy-willis>

PART 2 Jan 2013 <http://www.edutopia.org/blog/teachers-reflect-first-year-part-2-judy-willis>

How to Rewire Your Burned-Out Brain: Tips from a Neurologist Sept 2012
<http://www.edutopia.org/blog/teacher-burnout-neurology-judy-willis-md>

A Neurologist Makes the Case for Teaching Teachers About the Brain
JULY 27, 2012 <http://www.edutopia.org/blog/neuroscience-higher-ed-judy-willis>

Bad for the Brain: Goodbye to Unsustainable Education Models: <http://bit.ly/R4ObmA>
My Prediction: In the near future students will have access to the Internet when they take standardized tests

What Would a School Designed By Your Brain Look Like? Have you ever imagined your ideal school? For me, it is one where brain research truly informs learning structures.
bit.ly/N8DodG

Neuroscience and the Bilingual Brain: *Bilingual Kids Get a Powerful Cognitive Boost*
<http://bit.ly/GGjCgi> March 2012

A Neurologist Makes the Case for the Video Game Model as a Learning Tool April 14, 2011
<http://www.edutopia.org/blog/video-games-learning-student-engagement-judy-willis>

How to Plan Instruction Using the Video Game Model May 2011
<http://www.edutopia.org/blog/how-to-plan-instruction-video-game-model-judy-willis-md>

Understanding How the Brain Thinks: *Edutopia Staff 6-PART Blog Series* about Building Executive Functions

[Understanding How the Brain Thinks \(Part 1\)](#)

[The Brain-Based Benefits of Writing for Math and Science Learning \(Part 2\)](#)

[Improving Executive Function: Teaching Challenges and Opportunities.](#) (Part 3) <http://bit.ly/p1oTbO>

[Three Brain-based Teaching Strategies to Build Executive Function in Students \(Part 4\)](#) <http://bit.ly/nCy5Id>

[Three Strategies for Using the Arts to Build Student Executive Functions \(Part 5\)](#) <http://bit.ly/xFnJO8>

[Executive Function, Arts Integration and Joyful Learning \(Part 6\)](#) <http://bit.ly/yI2NLa>

Edutopia Guide About Brain Based Learning (free pdf download)

[Edutopia's Classroom Guide: Six Strategies for Brain-Based Learning](#) free pdf Winter 2011
<http://bit.ly/rvR3ZH> By understanding how the brain works, educators are better equipped to help K-12 students with everything from focusing attention to increasing retention.

Edutopia Webinar about multisensory memory acquisition and storage:
<http://www.edutopia.org/webinar-discussion-april-2009>

Interviews

Scholastic Administrator includes Dr. Judy Willis interview in article “Brain Storm” As neuroscientists begin to figure out how the brain learns, educators are using the research to change the way they teach. <http://bit.ly/S1FxZ5>

Ed Week includes Dr. Judy Willis interview. More Evidence that Links Students' Boredom to the physiological consequences of a Stressed Brain. <http://is.gd/cdHdpE>

Parenting Magazine. June 2013. Technology in School

Interview Series about Collaborative Group Learning

What New Brain Research Tells Us About How Children Learn: An Interview with Dr. Judy Willis, Part 1 May 30, 2012
<http://blog.learningafterschool.org/2012/05/what-new-brain-research-tells-us-about.html>

What New Brain Research Tells Us About How Children Learn: An Interview with Dr. Judy Willis, Part 2 <http://blog.learninginafterschool.org/2012/07/what-new-brain-research-tells-us-about.html>

What New Brain Research Tells Us About How Children Learn: An Interview with Dr. Judy Willis, Part 3 July 25, 2012 http://blog.learninginafterschool.org/2012/07/what-new-brain-research-tells-us-about_25.html

ASCD Author Page, Staff Blogs, Webinars, Articles

ASCD author Page <http://www.ascd.org/Publications/Authors/Judy-Willis.aspx?id=31085086001>

ASCD Edge Page for Judy Willis <http://bit.ly/aqDjQp>

ASCD “How the Brain Learns” Webpage/blog Group managed by Judy Willis: Open Membership. <http://groups.ascd.org/groups/detail/110564/how-the-brain-learns/>

“ASK Dr. Judy” Free ASCD Archived Brain-Based Learning Strategies Webinars. Video and pdf multiple ed topics <http://bit.ly/PDwSK1> & scroll down

- *Increasing Students' Reading Motivation* June 6, 2013 <http://bcove.me/cwdyeva9>
- *Patterning for Concept Memory* Feb 26, 2013
- *The Essential Neuroscience of Learning* Dec 11, 2012
- *Long-Term Goal Development in Students.* Aug 14, 2012
- *What Makes the Adolescent and Teen Brain So Different and What Should Educators Do About these Differences?* Apr 5, 2012
- *What Neuro-logical Emotional Interventions Promote Growth Mindset, Academic, Social, and Emotional Success?* 2/8/12
- *How can students remember next year what I teach this year? Long-term Memory Strategies.* 12/7/11
- *How Can I help my students remember what I teach?”* 8/10/2011.
- *Strengthening the Brain’s Executive Functions: The Real Higher Order Processing* April 13, 2011
- *How to Promote a Learning-Receptive Emotional State* 2/2/2011
- *Maximizing Student Memory by Learning from Mistakes* 10/14/2010
- *How Can I Motivate My Students?* Fall 2010
- *Why Don't Students Pay Attention?* May 11, 2010 (The first 10 minutes have a voice repeat/delay, but that goes away and the rest is clear.)

Why Teacher Education Should Include Neuroscience: A Primer for Use in Teacher Education about the Neuroscience of Learning http://edge.ascd.org/_A-Primer-Neuroscience-and-Teaching-Strategies/blog/6102809/127586.html

Video Series: Adolescent Brains: Challenges and Opportunities

Six Part Video Series from Lower Canada College 2011: One on One With Dr Judy Willis One on One with Dr. Judy Willis, MD, M.Ed.: Helping Students Develop Their Highest Cognitive Potentials

Part 1: Combining Neurology and Teaching http://www.lcc.ca/cf_media2/index.cfm?g=262

Part 2: How Brain Development in Adolescents Influences Learning <http://bit.ly/rKaUGU>

Part 3: Why teach students about their brains <http://bit.ly/uIPen8>

Part 4: How to teach students about their brains <http://bit.ly/y2U3Mp>

Part 5: Building the Brain's Executive Functions for 21 Cent Success <http://bit.ly/y0cWdZ>

Part 6: Parenting to build executive functions in children <http://bit.ly/xekaCK>.

ASCD Video: Dr. Judy Willis on the Challenge of Engaging Students

<http://www.youtube.com/watch?v=JaGgZnyhO7w>

***Psychology Today* Online Staff Writer**

Dr. Judy Willis' RAD Teaching Connections from Neuroscience Research to the Classroom
<http://www.psychologytoday.com/blog/radical-teaching/200904/dr-judy-willis-rad-teaching-connections-neuroscience-research-the-class>

Here is a sample:

What to Do About Your Teenager's "Eye-roll" by Dr. Judy Willis in *Psychology Today*
Online <http://bit.ly/11i0deK>

No More Flashcards With Memorization through Game Playing

<http://www.psychologytoday.com/blog/radical-teaching/201309/no-more-flashcards-memorization-through-game-playing-0>

ASCD Videos & Interviews Free Links

ASCD EDge Discussion Group: *How The Brain Learns*

<http://groups.ascd.org/groups/detail/110564/how-the-brain-learns/>

ASCD videos The Challenge of Engaging Students: Use the Video Game Model

<http://www.youtube.com/watch?v=JaGgZnyhO7w>

Video interview about *Learning to Love Math: Teaching Strategies that Change Student Attitudes and Get Results*, ASCD 2010 [ASCD author interviews](#)

http://www.ascd.org/publications/books/browse_by_author.aspx

What neuroscience means for the classroom: audio interview

<http://ascd.typepad.com/blog/files/Willis.mp3>

Online Articles for Educators and Parents

Understanding by Design Meets Neuroscience: Teaching to the Test and Rote Memory Tests as Measurement of Achievement are Not Neuro-logical for Successful, Joyful, Learning.
Download full 3-parts: [Download "Judy Willis Complete Series of 3 posts Understanding by Design Meets Neuroscience"](#)

Articles about *How to Teach Students About Their Brains*

How to Teach Students About the Brain link:
<http://www.radteach.com/page1/page8/page44/page44.html>

What You Should Know About Your Brain link:
<http://www.radteach.com/page1/page8/page45/page45.html>

NEW HORIZONS FOR LEARNING JOURNAL. Free Online Journal from Johns Hopkins School of Ed Teaching Students A “Brain Owner’s Manual”.
<http://education.jhu.edu/newhorizons/Journals/spring2010/willis-2/index.html>

Articles about Art and Writing Across the Curriculum

ASCD Whole Child 4-part Series about *Creativity, the Arts, and the Brain* October 2010
Part 1 The Brain Learns Creatively When Arts Are in the Picture.
<http://whatworks.wholechildeducation.org/blog/the-brain-learns-creatively-when-arts-are-in-the-picture/>
Part 2 **Art for Joyful Learning** Oct. 20,
<http://whatworks.wholechildeducation.org/blog/2010/10/>
Part 3 **Art for Attention** <http://whatworks.wholechildeducation.org/blog/2010/10/>
Part 4 **The Arts Inoculate Against Boredom and Its Consequences: Dropping Out, Physically or Virtually (Oct 28)** <http://whatworks.wholechildeducation.org/blog/2010/10/>

Writing and the Brain: Neuroscience Shows the Pathways to Learning: Interview with Judy Willis. *National Writing Project*. Mar 3, 2011.
<http://www.nwp.org/cs/public/print/resource/3555>

Willis, J. A. (2011). **The Importance of Writing: The Sprouts of Conceptual Brain Networks.** *S.T.E.M. Magazine* online and print. Go to drop down menu “Articles” and you’ll see a drop down menu that says “Fall Magazine 2011” Click that and you’ll see the magazine for Fall 2011. Once you open to the page, the pages can be enlarged to full size. Pages 8-16 or 10-19 depending on which link you get. <http://stemmagazine.com/articles.php>

Why Writing Is Crucial for Math and Science: http://EDge.ascd.org/_Why-Writing-Is-Crucial-to-STEM/blog/4000687/127586.html
Why Writing Is Crucial to STEM

Writing across the Curriculum http://EDge.ascd.org/_Its-About-Me-Not-Just-Someone-elses-Science-and-Math/blog/4276886/127586.html?b=

Other Popular Article Links

The Neuroscience of Joyful Learning <http://www.ascd.org/publications/educational-leadership/summer07/vol64/num09/The-Neuroscience-of-Joyful-Education.aspx>

**Want Children to “Pay Attention”? Make Their Brains Curious!
Force-feeding won’t work even on a hungry brain** <http://bit.ly/rtoI3a>

Edutopia’s Six Tips for Brain-Based Learning free pdf Winter 2011
<http://bit.ly/rvR3ZH>

Top 10 Memory Tips (PDF) at <http://bit.ly/7ZpBz2> Then go to "download as media" at the top

How Your Child Learns Best (PDF) at <http://bit.ly/8GKfW5> and click "download this media" at the top.

PARENTS: Video Developing Critical Skillsets for 21st Century Success:
<http://www.gotocoffeebreak.com/portfolio/march-2013/>
Laguna Beach PTA Parent Education. March 2013

[What Brain Research Suggests for Teaching Reading Strategies](#)

The Educational Forum Volume 73, Issue 4, 2009

<http://simpleviewofreading.wikispaces.com/file/view/Reading+strategies+for+exec+func.pdf>

Creativity, the Arts, and the Brain 4-Part Series

ASCD Whole Child 4-part Series

Part 1: The Brain Learns Creatively When Arts Are in the Picture

<http://www.wholechildeducation.org/blog/the-brain-learns-creatively-when-arts-are-in-the-picture/>

Part 2: Art for Joyful Learning — Whole Child Education

<http://www.wholechildeducation.org/blog/art-for-joyful-learning>

Part 3: Art for Attention — Whole Child Education <http://www.wholechildeducation.org/blog/art-for-attention/>

Part 4: The Arts Inoculate Against Boredom and Its Consequences

<http://www.wholechildeducation.org/blog/the-arts-inoculate-against-boredom-and-its-consequences-dropping-out-physic>

Understanding by Design Meets Neuroscience: Teaching to the Test and Rote Memory Tests as Measurement of Achievement are Not Neuro-logical for Successful, Joyful Learning. 3-part series *ASCD EDge* Download "Judy Willis Complete Series of 3 posts Understanding by Design Meets Neuroscience"

Rubrics as a Doorway to Achievable Challenge *New Horizons for Learning, Journal of Graduate School of Education, Johns Hopkins University.* Fall 2010
<http://education.jhu.edu/newhorizons/Journals/Fall2010/Willis>

Harvard Educational Letter Spring 2010: Interview about collaborative learning benefits.
<http://bit.ly/9UcFia>

“**Dr Judy Willis and Goldie Hawn are Building Better Brains** by Bringing Neuroscience into Classrooms”. *Neurology Now*: Publication of the **American Academy of Neurology** March/April 2010 - Volume 6 - Issue 2 - p 14–17.
http://journals.lww.com/neurologynow/Fulltext/2010/06020/Golden_Opportunity.17.aspx

Education Week: 'Math Anxiety' Explored in Studies: Researchers Probe Causes of Math Anxiety. Published Online: May 16, 2011.
http://www.edweek.org/ew/articles/2011/05/18/31math_ep.h30.html?qs=math+anxiety

What New Brain Research Tells Us About How Children Learn: An Interview with Dr. Judy Willis, Part 1 May 30, 2012
<http://blog.learninginafterschool.org/2012/05/what-new-brain-research-tells-us-about.html>

What New Brain Research Tells Us About How Children Learn: An Interview with Dr. Judy Willis, Part 2 July 18, 2012
<http://blog.learninginafterschool.org/2012/07/what-new-brain-research-tells-us-about.html>

Media Experts Program American Academy of Neurology

American Academy of Neurology (AAN) Media can contact Dr. Willis for topics including cognition, neuroplasticity, executive function, memory, learning disorders, learning and the brain through the Media Experts Program AAN Media and Public Relations Program. Website: www.aan.com or contact Angela Babb ababb@aan.com

Useful Websites

Animoto: <http://animoto.com/education> Free EDUCATOR “Plus” Account

Connect, Collaborate, and Create: <http://hccweb2.org/web2/>

Sample R.A.D. Lesson: Fractions Grade 2: http://EDge.ascd.org/_Comparing-Fractions-A-RAD-Lesson-for-Second-Grade-Math-By-Malana-Willis/blog/2554993/127586.html

Neuroscienceforkids: lots of brain information, suggestions for students, activities, interactive. <http://www.Neuroscienceforkids.com/>

Brain illustrations: <http://www.fotosearch.com/photos-images/brain.html>

Research, Educational Theory/Products, Claims Evaluated
EDUCATIONAL CLEARINGHOUSE www.whatworks.ed.gov/

British Education Index for Resource Accuracy
http://www.leeds.ac.uk/bei/COLN/COLN_default.html

The Dana Foundation: Information for parents, students, and teachers about neurological research and has links to other resources www.dana.org

BOOKS by Judy Willis, M.D., M.Ed.

Learning to Love Math: Teaching Strategies that Change Student Attitudes and Get Results, ASCD 2010 (multiple foreign translations)

How Your Child Learns Best: Brain-Based Ways to Ignite Learning and Increase School Success. Foreword by Goldie Hawn. Sourcebooks: 2008. (Translated into Russia and China)

Teaching the Brain to Read: Strategies for Improving Fluency, Vocabulary, and Comprehension ASCD August 2008. (available as an audiobook -**Free Link** to a chapter on audiobook version http://www.theaudiobookstore.com/judy-willis/teaching-brain-read-strategies_b009k8r61o.aspx)

Brain-Friendly Strategies for the Inclusion Classroom, ASCD 2007

Research-Based Strategies To Ignite Student Learning: Insights from a Neurologist/Classroom Teacher, ASCD 2006 (multiple foreign translations)

Inspiring Middle School Minds: Gifted, Creative, And Challenging. Great Potentials Press, 2008.

Chapters in Books

Cooperative Learning: Accessing Our Highest Human Potential. A chapter in, *The Power of the Social Brain* Editors: Art Costa & Wilson O'Leary. New York: Teachers College Press. 2013.

Current Impact of Neuroscience in Teaching and Learning. A chapter in, *Mind, Brain, and Education* Ed. D. Sousa. Solution Tree Press, 2010.

Contributing consultant *Hawn Foundation MindUp! Curriculum*. New York: Scholastic. Feb. 2011